



**REPORT**

# 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report

*Georgia Power Company - Plant McDonough-Atkinson  
Ash Pond 2, Ash Pond 3, and Ash Pond 4*

Submitted to:



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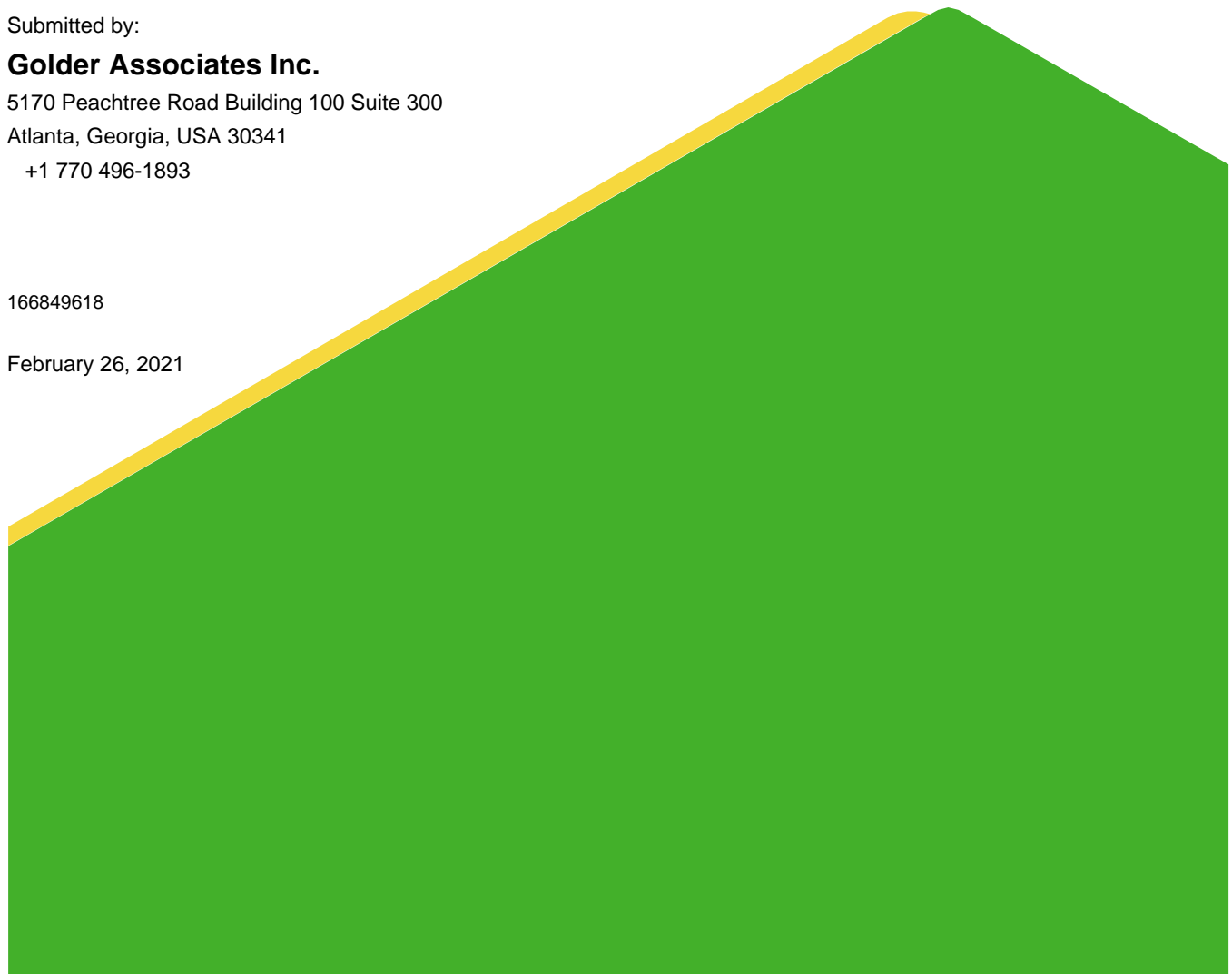
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## Summary

This summary of the 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report provides the status of groundwater monitoring and corrective action program through December 2020 at Georgia Power Company's (Georgia Power) Plant McDonough-Atkinson Ash Pond 2 and Ash Pond 3/4 (AP-2 and 3/4). This summary was prepared by Golder Associates (Golder) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6<sup>1</sup> of the U.S. Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [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, and presents projected key activities for the upcoming year for AP-2 and 3/4. Other CCR units (AP-1) on-site at Plant McDonough are reported separately.

Plant McDonough-Atkinson (Plant McDonough), formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. Located approximately 7 miles northwest of Atlanta in southeast Cobb County (5551 South Cobb Dr SE, Atlanta, GA 30339), the property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River.

Groundwater at the Site is monitored using a monitoring system comprised of upgradient and downgradient wells for each CCR Unit. AP-2 and 3/4 network consists of three (3) upgradient and twenty (20) downgradient wells installed to meet federal and state monitoring requirements. Routine sampling and reporting for AP-2 and 3/4 began after the background groundwater conditions were established between 2016 and 2018.

Based on groundwater quality, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019 and June 9, 2020, respectively. During the 2020 annual reporting period, the Site remained in assessment monitoring as corrective measures are evaluated.

Groundwater elevation measurements were recorded from the site monitoring wells 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.



**Figure 1: Plant McDonough**

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



## 2020 Semi-Annual Groundwater Monitoring Activities

There is no change to the AP-2 and 3/4 certified detection monitoring network in 2020. Groundwater monitoring sampling events for AP-2 and 3/4 were conducted in August (annual) and September 2020 (semi-annual). Groundwater samples were collected from 23 detection monitoring wells and 7 assessment monitoring wells and analyzed for Appendix III<sup>2</sup> and Appendix IV<sup>3</sup> required monitoring parameters.

Analytical data from the September 2020 monitoring event has been statistically analyzed in accordance with the site's certified statistical analysis method. For the September 2020 semi-annual monitoring event, statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents above the statistical limits and statistically significant levels (SSLs) of Appendix IV constituents above the groundwater protection standards as summarized below.

Appendix III Constituent	September 2020
Boron	DGWC-2, DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-47, DGWC-48
Calcium	DGWC-2, DGWC-4, DGWC-5, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-48
Chloride	DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-48
Fluoride	DGWC-9, DGWC-10
pH	DGWC-5, DGWC-9, DGWC-10, DGWC-17, DGWC-19, DGWC-20, DGWC-47, DGWC-48
Sulfate	DGWC-2, DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-47, DGWC-48
TDS	DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-11, DGWC-12, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-48
Appendix IV Constituent	September 2020
Arsenic	DGWC-9
Beryllium	DGWC-5, DGWC-9, DGWC-10, DGWC-47, DGWC-48
Cobalt	DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47, DGWC-48
Lithium	DGWC-47, DGWC-48
Selenium	DGWC-9

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

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

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

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## Certification

This 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant McDonough-Atkinson – Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4) 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 or engineer with Golder Associates Inc.

### **GOLDER ASSOCIATES INC.**



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## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, this *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* was prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power) Plant McDonough Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4) (aka AP-2 and 3/4) and satisfies the requirements of § 257.90(e). To specify groundwater monitoring requirements, GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the USEPA CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D). For ease of reference, the US EPA CCR rules are cited within this report.

This semi-annual report documents activities conducted during the second half of 2020 at AP-2 and AP-3/4. This report includes results of both the annual monitoring for Appendix IV of 40 CFR 257 conducted in August 2020 and the semi-annual monitoring event conducted in September 2020 for AP-2 and AP-3/4.

### 1.1 Site Description and Background

Plant McDonough-Atkinson (Plant McDonough), formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. Located approximately 7 miles northwest of Atlanta in southeast Cobb County (5551 South Cobb Dr SE, Atlanta, GA 30339), the property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River. A site location map is included as Figure 1.

Four CCR surface impoundments are located on-site: Ash Pond 1 (AP-1), Ash Pond 2 (AP-2), Ash Pond 3 (AP-3) and Ash Pond 4 (AP-4). AP-3 and AP-4 have historically operated together and are being closed as a Combined Unit AP-2 and 3/4. AP-1 is reported separately. A notification of intent to initiate closure of the inactive CCR surface impoundment was certified on December 7, 2015 for AP-2 and December 8, 2015 for AP-3 and AP-4 and posted to Georgia Power's website. A permit application was submitted to EPD in November 2018 and is currently pending approval.

Groundwater monitoring and reporting for AP-2 and AP-3/4 are being performed in order to meet the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016) as a combined multi-unit AP-2 and AP-3/4. CCR impoundments AP-2 and AP-3/4 are located adjacent to each other and there is semi-radial flow away from these CCR units. For these reasons, a combined multi-unit monitoring network for AP-2 and AP-3/4 is established as allowed in the CCR Rule § 257.91.

### 1.2 Regional Geology and Hydrogeologic Setting

The following section and subsections include a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the site as presented in the *Hydrogeologic Assessment Report* (Golder, 2020a).

The site is located in the Piedmont/Blue Ridge geologic province, which contains some of the oldest rock formations in the southeastern United States. These late Precambrian to late Paleozoic rocks have undergone repeated cycles of igneous intrusions and extrusions, metamorphism, folding, faulting, shearing, and silicification. Rock outcrops near the site consist of biotite gneiss, porphyritic gneiss, mica schist, and quartzite.



Residual soils, primarily clayey/sandy silt, sandy silt with clay, and silty sand, occur as a variably-thick blanket overlying bedrock across most of the site. These residual saprolitic soils along with saprolitic transitionally or partially weathered rock, collectively the overburden, range between approximately 9 to 61 feet in thickness across the site, with an average thickness of approximately 38 feet. Saprolitic rock is considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR). Where TWR is a qualitative description, PWR is defined by Standard Penetration Test (SPT) blow counts that exceed 50 blows/six inches.

A regional, unconfined surficial aquifer system is present at the site, existing within the overburden and weathered and fractured upper bedrock (e.g., approximately the first 30 feet), depending on topographic location. Recharge primarily occurs through precipitation and subsequent infiltration. Generally, groundwater flow occurs through intergranular pore spaces in the overburden and is controlled by topography and top of rock variations. However, a relatively higher transmissive zone is interpreted to occur at the base of the overburden, at the interface of weathered bedrock and competent bedrock and is believed to be the primary groundwater flow path. Groundwater in the overburden has an average horizontal hydraulic conductivity of  $10^{-4}$  centimeters per second (cm/s) and is interpreted to flow south-southeast.

A limited and localized bedrock aquifer system also occurs beneath the site. The upper bedrock is fractured and weathered, connected hydraulically with the overburden groundwater, and is considered part of the uppermost aquifer. The overlying silt/clay-rich overburden may act to retard recharge into the bedrock aquifer system. However, deeper bedrock (i.e., approximately greater than 30 feet into the bedrock) is unweathered with few discontinuities (e.g., fractures) available to store groundwater.

### 1.3 Groundwater Monitoring Network

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at AP-2 and AP-3/4 to monitor groundwater passing the waste boundary. Wells were located to monitor upgradient and downgradient groundwater conditions based on groundwater flow direction. The monitoring well network was certified by a Professional Engineer in Georgia on April 17, 2019, and the certification is maintained in the Operating Record pursuant to § 257.90(f).

The certified monitoring well network for AP-2, and AP-3/4 consists of three (3) upgradient monitoring wells and twenty (20) downgradient monitoring wells. Table 1A includes well construction details for the multi-unit AP-2 and AP-3/4 monitoring well network. Additionally, a series of piezometers were installed at AP-2 and AP-3/4 to measure groundwater elevations. Table 1B includes construction details for these piezometers. AP-2 and 3/4 monitoring well and piezometer locations are shown on Figure 2.

## 2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes monitoring-related activities performed at the Site during the second half of 2020. Routine groundwater sampling was performed in August 2020 and September 2020 in accordance with 40 CFR § 257.93.

### 2.1 Monitoring Well Installation and Maintenance

There was no change to the certified groundwater monitoring system for the reporting period. Monitoring well related activities were limited to visual inspection of well conditions prior to sampling, recording conditions around the well, and performing exterior maintenance to provide safe access for sampling. The well inspection logs are included in Appendix A.

Seven piezometers (B-94 through B-100) were installed at the site to further define groundwater gradient and flow direction and to characterize and horizontally delineate the nature and extent of select constituents in groundwater at the Site. These additional piezometers were installed through August 2020 and documented in a report, *Piezometer Installation Report* (Golder, 2020b), a copy of which is included as Appendix B.

During October and November 2020, 11 additional piezometers (B-101D through B-111D) were installed to characterize and vertically delineate the nature and extent of select constituents in groundwater at the Site. Well development and slug testing of these vertical delineation piezometers were completed in January 2021. The installation of the vertical delineation piezometers is documented in a report, *Well Installation Report* (Golder, 2021), a copy of which is included as Appendix B.

The AP-2 and 3/4 well network was re-surveyed by Metro Engineering and Surveying Company of McDonough, Georgia during July and August 2020. The top of the well casing and the survey pin installed at each well pad were surveyed to within 0.5-foot horizontal accuracy and to 0.01-foot vertical accuracy. The horizontal location (i.e., northings and eastings) was recorded in feet relative to the North American Datum of 1983 (NAD) with the vertical elevation recorded in feet relative to North American Vertical Datum of 1988 (NAVD). The *Well Installation Report - Addendum* presents a summary of the monitoring well and piezometer network for the site and presents the certified survey data and construction logs for each well and piezometer (Golder, 2020c). The new survey data are incorporated into this report's applicable tables. A copy of the survey report has been included in Appendix C.

## 2.2 Assessment Monitoring

Pursuant to § 257.94(e), an assessment monitoring program has been established for AP-2 and 3/4 at Plant McDonough based on the 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.

Groundwater sampling events were conducted for AP-2 and AP-3/4 in August 2020 and September 2020. Samples were collected from each well in the certified monitoring network (Figure 2). The monitoring wells sampled included AP-2 and AP-3/4 monitoring wells presented in Table 1A as well as assessment monitoring wells B-3, B-56, B-77, B-82, B-83, B-88, and B-93. Table 2 presents a summary of groundwater sampling events completed for AP-2 and AP-3/4 and the status of the monitoring network.

During the August 2020 sampling event, groundwater samples were collected and analyzed for Appendix IV constituents to meet the requirement §257.95(b). During the September 2020 semi-annual sampling event, groundwater samples were collected for Appendix III parameters and those Appendix IV constituents detected in the August 2020 event. Results of sampling activities conducted in August and September 2020 are presented in Appendix A.

## 2.3 Additional Sampling

Additional sampling was conducted during the reporting period in support of the assessment of corrective measures and in continuing to define the nature and extent of impacts resulting from AP-2 and 3/4. This additional sampling is further discussed in Section 4.3.

### 3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed for AP-2 and AP-3/4 represent both the annual Appendix IV monitoring event as well as the semi-annual assessment monitoring event for AP-2 and AP-3/4 at Plant McDonough. 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 each scheduled sampling event in August and September 2020, groundwater elevations were recorded at each monitoring well and piezometer. An additional set of measurements were recorded on November 3 in conjunction with field investigation activities at the site. Groundwater elevation data are summarized in Table 3. Calculated water level data were used to develop Figures 3A and Figure 3B. Site potentiometric maps show that groundwater generally flows west/southwest across the site and is consistent with historical observations.

Localized groundwater flow directions within this aquifer are influenced by topographic and top of rock variations on site. AP-3/4 is on a topographic high, creating radial flow around the ponds, with the exception of the one upland high upgradient of AP-3/4. Dewatering at AP-4 is creating an upgradient area northeast of AP-3/4, that is expected to resemble pre-impoundment groundwater conditions corresponding to the higher topographic elevations in that area. Currently, AP-2 is over excavated into subgrade soils, creating a topographic low point and low hydraulic gradient. Regionally groundwater is interpreted to flow south-southeast from the topographic high northwest of AP-3/4 towards AP-2.

#### 3.2 Groundwater Gradient and Flow Velocity

Hydraulic gradient is calculated as the difference in groundwater elevation (in feet) divided by the distance between two piezometers or wells (in feet). Groundwater elevation data recorded in August and September 2020 from three piezometer and/or well pairings; DGWA-53/DGWC-13, DGWA-71/DGWC-5, and B-26/DGWC-48, located along the groundwater flow path and perpendicular to the potentiometric contours were used to calculate hydraulic gradients for AP-2 and AP-3/4.

Average groundwater flow velocities at the site were calculated using hydraulic gradient data, hydraulic conductivity data generated from slug testing results, and an estimated effective porosity of the screened portion of the uppermost aquifer. Based on slug test data, the average hydraulic conductivity for the overburden is  $8.4 \times 10^{-4}$  centimeters/second (cm/s). An effective porosity of 0.20 (20%) for was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996). The hydraulic gradient calculated between well pairs is shown on Table 4A and Table 4B, respectively, for August and September 2020.

The horizontal flow velocities were calculated using the commonly used derivative of Darcy's Law:

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

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, groundwater flow velocities were calculated for AP-2 and 3/4 using August and September 2020 groundwater elevation data. Tables 4A and 4B presents the velocities calculated using groundwater elevation data from these sampling events.

Calculated (horizontal) flow velocities range from approximately 114 feet per year (ft/yr) to 157 ft/yr during the August and September 2020 events. These estimated flow velocities are consistent with past results and are also generally consistent with other published velocities for regolith-upper bedrock aquifers of the Piedmont (Heath, R.C., 1982).

### 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. Non-dedicated, low-flow pneumatic bladder pumps and peristaltic pumps were used to purge and sample the wells. Field equipment was decontaminated prior to use and between wells using USEPA Science and Ecosystem Support Division (SESD) Operating Procedure for Field Equipment Cleaning and Decontamination as a guide (USEPA, 2015). An In-Situ SmarTroll was used to monitor and record field water quality parameters (temperature, specific conductance, dissolved oxygen [DO], pH, and oxidation-reduction potential [ORP]) during purging. Turbidity was monitored using a LaMotte 2020we turbidimeter. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

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

Following well stabilization, unfiltered 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 SmarTroll®, 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 contains a description of the sampling equipment, sampling method, purge rate, field observations, and depth to water measurements at each monitoring location. These field data sheets are also included in Appendix A.

### 3.4 Surface Water Sampling

Due to the proximity of the Chattahoochee River in the downgradient direction of wells showing SSLs of cobalt, installation of additional wells to horizontally characterize this area is infeasible. In response, Georgia Power collected surface water samples from the Chattahoochee River on November 10, 2020 and February 2, 2021. Surface water sampling locations are shown on Figure 2.

### 3.5 Laboratory Analysis

Groundwater samples were collected during two groundwater monitoring events in the second half of 2020. During the August 2020 sampling event, wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR §257.95(b). The September 2020 sampling event represents a semi-annual sampling event in 2020 for AP-2 and AP-3/4. Because AP-2 and AP-3/4 is currently in assessment monitoring, groundwater samples from wells in the assessment monitoring program were analyzed for Appendix III and detected Appendix IV monitoring parameters per 40 CFR § 257 and § 261. Tables 5A through Table 5D present a tabulated summary of the August and September 2020 detection and assessment sample results. Results of surface water samples collected in November 2020 and February 2021 are presented on Tables 5E and 5F, respectively. Analytical methods used for monitoring parameters can be found in the analytical data reports in Appendix A.

Laboratory analyses for all events were performed by Pace Analytical Services, LLC (Pace) in Norcross, Georgia. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains NELAP certification for all parameters analyzed for this project. Analytical data, chain-of-custody records, and NELAP certifications for the monitoring events are presented in Appendix A.

### 3.6 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one sample per every 20 samples. QA/QC samples included equipment blanks (where non-dedicated sampling equipment is used), field blanks, and duplicate samples. QA/QC sample data was evaluated during data validation (as described below) and is included in Appendix A.

Groundwater quality data in this report were independently validated in accordance with US EPA Region IV Data Validation Standard Operating Procedures (USEPA, 2011), National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017) 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, relative percent differences (RPDs), laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data per USEPA procedures and guidance. Data validation summaries are provided in Appendix A. Data have been deemed valid and appropriate for use in statistical analyses.

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 ANALYSIS

Statistical analysis of Appendix III and Appendix IV groundwater monitoring data was performed pursuant to §257.93-95 following the established statistical method for AP-2 and AP-3/4.

### 4.1 Statistical Method

The selected statistical method for AP-2 and AP-3/4 was developed in accordance with 40 CFR § 257.93(f), using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance (USEPA, 2009). The Sanitas groundwater statistical software was used to perform statistical analyses. Sanitas is a decision-support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA (2009) document.

The following table provides a summary of the statistical methodology used at AP-2 and AP-3/4 for the September 2020 monitoring event.

PLANT MCDONOUGH AP-2 and AP-3/4 STATISTICAL METHOD SUMMARY		
Monitoring Well Network	Upgradient Wells	DGWA-53, DGWA-70A, DGWA-71
	Downgradient Wells	DGWC-2, DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-47, DGWC-48
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium, Radium (226 + 228)
Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available.
	Statistical Limits	Interwell statistical limits will be applied on a constituent basis, depending on the appropriateness of the method as determined by the Analysis of Variance.
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable; nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters with 100% non-detects.
	Verification Resample Plan (Optional)	1-of-3 with minimum of 8 samples per well for interwell testing. <ul style="list-style-type: none"> <li>▪ Initial statistical exceedance warrants independent resampling within 90 days.</li> <li>▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI).</li> <li>▪ If resample exceeds, well/parameter has a confirmed SSI.</li> <li>▪ If no resample is collected, the original result is deemed verified.</li> </ul>

The following guidance are also applicable to the statistical analytical method:

- Statistical analyses are not performed on analytes containing 100% non-detects (USPEA Unified Guidance, 2009, Chapter 6).
- When data contain less than or equal to 15% no-detects in background, simple substitution of one-half the RL is utilized in the statistical analysis. The RL utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric prediction limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

#### 4.1.1 Appendix III Detection Monitoring Statistical Methods

Appendix III statistical analyses groundwater monitoring data was statistically evaluated through the use of interwell prediction limits. The Sen's Slope/Mann Kendall trend test was also performed to evaluate concentrations over time and determine whether concentrations are statistically increasing, decreasing or stabilizing.

#### 4.1.2 Appendix IV Assessment Monitoring Statistical Methods

Statistical analyses while in assessment monitoring is performed through the use of confidence intervals compared to the groundwater protection standard (GWPS). 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 40 CFR § 257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR § 257.95(h)(1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title.
- Where an MCL has not been established, Rule Specified Limits (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), or molybdenum (0.100 mg/L). These criteria are not currently adopted by Georgia EPD.
- The respective background level for a constituent when the background level is higher than the MCL or rule identified GWPS.

USEPA revised the CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR § 257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, under EPD rules, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing 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, GWPSs were established for statistical comparison of Appendix IV constituents. Table 4.1.2, Summary of Background Levels and GWPSs, presented below, summarizes the background limit established at each monitoring well and the GWPS established under State and Federal 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 both the State and Federal 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.

**TABLE 4.1.2 Summary of Background Levels and GWPSs**

Analyte	Units	Maximum Contaminant Level (MCL)	Rule Specified Limit	Site Specific Background September 2020 <sup>[1]</sup>	Federal GWPS <sup>[2]</sup>	State GWPS <sup>[3]</sup>
Antimony	mg/L	0.006	--	0.003 <sup>[4]</sup>	0.006	0.006
Arsenic	mg/L	0.01	--	0.005 <sup>[4]</sup>	0.01	0.01
Barium	mg/L	2	--	0.19	2	2
Beryllium	mg/L	0.004	--	0.003 <sup>[4]</sup>	0.004	0.004
Cadmium	mg/L	0.005	--	0.0025 <sup>[4]</sup>	0.005	0.005
Chromium	mg/L	0.1	--	0.01 <sup>[4]</sup>	0.1	0.1
Cobalt	mg/L	NA	0.006	0.032	0.032	0.032
Fluoride	mg/L	4	--	0.42	4	4
Lead	mg/L	NA	0.015	0.005 <sup>[4]</sup>	0.015	0.005
Lithium	mg/L	NA	0.04	0.03 <sup>[4]</sup>	0.04	0.03
Mercury	mg/L	0.002	--	0.0005 <sup>[4]</sup>	0.002	0.002
Molybdenum	mg/L	NA	0.1	0.041	0.1	0.041
Radium (226 + 228)	pCi/L	5	--	5.92	5.92	5.92
Selenium	mg/L	0.05	--	0.01 <sup>[4]</sup>	0.05	0.05
Thallium	mg/L	0.002	--	0.001 <sup>[4]</sup>	0.002	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 Federal CCR rules, the GWPS is: (i) the MCL or RSL, (ii) where the MCL or RSL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL or RSL.
- [3] 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.
- [4] The background tolerance limit (TL) used to evaluate GWPS for this analyte equals the laboratory specified reporting limit (RL). Per the Statistical Analysis Plan, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. We also note that the values reported herein have been updated from the previously established GWPS which was determined based on estimated data. The modified GWPS also reflects additional outlier identification.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix D. The background period for statistical analyses included data through September 2020. 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 September 2020 at AP-2 and AP-3/4 have been statistically analyzed in accordance with the site’s certified Statistical Analysis Plan. Verification resampling to confirm initial SSIs was not performed; therefore, initial SSIs are considered verified. The statistical results are included in Appendix D.

### 4.2.1 September 2020 Appendix III Statistical Results

Based on the statistical results (Appendix D), SSIs of boron, calcium, chloride, fluoride, pH, sulfate and total dissolved solids were identified following the September 2020 assessment monitoring event. A detailed list of the noted exceedances is presented in Appendix D.

Based on review of the Appendix III statistical analysis (Appendix D), Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR 257.95(f).

### 4.2.2 September 2020 Appendix IV Statistical Results

Analytical data from the September 2020 monitoring event at AP-2 and AP-3/4 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 both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified:

AP-2, 3/4 Confidence Interval Statistically Significant Level Exceedances	
Appendix IV Parameter	AP-2 and AP-3/4 Monitoring Well
Arsenic	DGWC-9
Beryllium	DGWC-5, DGWC-9, DGWC-10, DGWC-47, DGWC-48
Cobalt	DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47, DGWC-48
Lithium	DGWC-47, DGWC-48
Selenium	DGWC-9

## 5.0 ASSESSMENT MONITORING AND DELINEATION STATUS

Specific details regarding the delineation status at AP-2 and 3/4 is discussed in the *Semi-Annual Remedy Selection and Design Progress Report* (Appendix E). Limited groundwater analytical data are available for assessment monitoring wells. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data is the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. At the time of this report, the data set for delineation wells, is limited to less than four independent datums and therefore not subject to the statistical analyses.

As a conservative approach, Georgia Power elected to collect surface water samples from the Chattahoochee River to supplement horizontal delineation. Due to the proximity of the Chattahoochee River in the downgradient direction of the wells showing SSLs of cobalt (DGWC-19, DGWC-20, DGWC-47 and DGWC-48), installation of additional wells to horizontally characterize this area is infeasible. As such, surface water samples were collected from Chattahoochee River downgradient of AP-2 and 3/4 in November 2020 and again in February 2021. The cobalt SSL identified is horizontally delineated by surface water samples collected at CR-0.1 location and downstream locations (CR+0.2 and CR+0.4). The results from surface water samples as presented in Tables 5E and 5F, indicate that cobalt is not detected in the Chattahoochee River. Based on data collected to date, there are no impacts to surface water by constituents with SSLs at AP-2 and 3/4 at Plant McDonough. Vertical delineation for SSLs at AP-2 and 3/4 is ongoing.

## 6.0 ASSESSMENT OF CORRECTIVE MEASURES

Following the requirements of 40 CFR § 257.96, Plant McDonough has initiated an Assessment of Corrective Measures (ACM). Notification of this action was placed in the CCR operating record on July 9, 2020. The ACM (Golder, 2020d) has been amended to evaluate selenium SSL in February 2021.

In accordance with 40 CFR § 257.97(a) a remedy selection report will be prepared and submitted concurrent with semi-annual groundwater monitoring reports to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy. A copy of the report is included as Appendix E. At least 30 days prior to the selection of remedy or remedies, a public meeting to discuss the results of the corrective measures assessment will be held pursuant to 40 CFR 257.96(e).

The Semi-Annual Remedy Selection Report that is included as Appendix E includes the following information:

- i) An amendment to the ACM to include evaluation of selenium in addition to arsenic, beryllium, cobalt and lithium.
- ii) A summary of the closure status for AP-2 and 3/4 as it relates to source control.
- iii) Summary of work completed to date to achieve delineation of constituents exceeding groundwater protection standards and a summary of data collected to date towards remedy selection.

## 7.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-2 and AP-3/4 confirms SSLs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring parameter above the established GWPS. Based on results from the September 2020 sampling event, AP-2 and AP-3/4 will remain in assessment monitoring. An assessment of corrective measures has been initiated following the provisions of 40 CFR § 257.96. Pursuant to 40 CFR 257.195(g)(1)(iv), the additional delineation wells may continue to be sampled as part of the ongoing semi-annual assessment monitoring program.

## 8.0 CONCLUSIONS AND FUTURE ACTIONS

This 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant McDonough-Atkinson – Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4) was prepared to fulfill the requirements of USEPA CCR rule 40 CFR 257 Subpart D and Georgia EPD rule 391-3-4-.10.



The groundwater flow direction interpreted during the August and September 2020 events is consistent with historical evaluations and the monitoring well network continues to effectively monitor the uppermost aquifer beneath AP-2 and AP-3/4.

Review of analytical results and statistical analyses developed for the site indicates confirmed SSIs of Appendix III above background and SSLs of Appendix IV above the established GWPS. In accordance with 40 CFR § 257.96, Georgia Power has initiated an assessment of corrective measures study for the identified SSLs.

Based on the findings presented herein, Plant McDonough will continue with assessment groundwater monitoring and reporting. The next sampling event is tentatively scheduled for March 2021.

## 9.0 REFERENCES

- Golder, 2019, *2019 First Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company – Plant McDonough-Atkinson Ash Pond 2 and 3/4, August 1, 2019.
- Golder, 2020a, Hydrogeologic Assessment Report, Georgia Power Company – Plant McDonough-Atkinson, December 12, 2020.
- Golder, 2020b, Piezometer Installation Report, Piezometers B-94 through B-100, Georgia Power Company, Plant McDonough-Atkinson, November 23, 2020.
- Golder, 2020c, Well Installation Report – Addendum, Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1, revised September 2020.
- Golder, 2020d, *Assessment of Corrective Measures*, Georgia Power Company, Plant McDonough-Atkinson Ash Pond 1, December 4, 2020.
- Golder, 2021, Well Installation Report, Piezometers B-101D through B-111D, Georgia Power Company, Plant McDonough-Atkinson, February 12, 2021.
- Groundwater Stats Consulting, 2019, *Georgia Power Company's Plant McDonough Ash Pond 1 (AP-1) Statistical Analysis Plan*, April 2019.
- Heath, R.C., 1982, Basic Ground-Water Hydrology. Water Supply Paper 2220. U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado.
- United States Environmental Protection Agency (USEPA), 1986, *RCRA Groundwater Monitoring Technical Enforcement Guidance Document*.
- USEPA, 1996, *Soil Guidance Manual*.
- USEPA, 2001, *Environmental Investigations Standard Operating Procedures and Quality Assurance Manual*, November 2001.
- USEPA, 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division, March 2009.
- USEPA, 2011, *Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Revision IV. Athens, GA, September 2011.

USEPA, 2015, *Field Equipment Cleaning and Decontamination*, Region 4 USEPA Science and Ecosystem Support Division, Revision III, Athens, GA, December 2015.

USEPA, 2017, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington. DC, January 2011.

## Tables & Figures

**TABLE 1A**  
**DETECTION AND ASSESSMENT MONITORING NETWORK SUMMARY**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
<b>ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK</b>											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-37	Downgradient	Overburden	1390482.2	2200919.8	766.21	763.7	39.7	734.4	724.4	10	11/28/2012
DGWC-38	Downgradient	Overburden	1390362.7	2201148.6	757.43	754.7	25.0	740.0	730.0	10	11/29/2012
DGWC-39	Downgradient	Overburden	1390303.6	2201540.1	759.89	757.0	21.2	746.2	736.2	10	11/6/2012
DGWC-40	Downgradient	Overburden	1390625.7	2201825.9	779.06	776.2	34.9	751.7	741.7	10	11/5/2012
DGWC-67	Downgradient	Overburden	1390953.8	2200830.7	766.70	767.0	56.3	720.7	710.7	10	3/14/2017
DGWC-68A	Downgradient	Overburden	1391301.2	2200734.9	765.33	765.4	29.8	746.0	736.0	10	4/20/2017
DGWC-69	Downgradient	Overburden	1391585.0	2200657.1	763.75	764.0	24.3	749.7	739.7	10	3/16/2017
<b>ASH POND 1 (AP-1) ASSESSMENT MONITORING NETWORK</b>											
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-105D	Downgradient	Bedrock	1390633.9	2201832.7	779.01	776.0	70	716.0	706.0	10	10/19/2020
B-110D	Downgradient	Bedrock	1391294.0	2200734.6	764.61	764.7	63	711.7	701.7	10	11/17/2020
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) DETECTION MONITORING WELL NETWORK</b>											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-2	Downgradient	Overburden/Upper Bedrock	1393958.0	2202119.5	850.88	848.3	49.0	809.6	799.6	10	10/2/2012
DGWC-4	Downgradient	Overburden	1394171.5	2202662.4	814.85	812.1	45.0	777.4	767.4	10	10/3/2012
DGWC-5	Downgradient	Overburden/Upper Bedrock	1394306.3	2202965.1	791.75	788.7	30.0	769.0	759.0	10	10/4/2012
DGWC-8	Downgradient	Overburden	1394322.2	2203882.1	826.38	824.1	49.1	785.4	775.4	10	10/10/2012
DGWC-9	Downgradient	Overburden	1394055.9	2204170.0	824.35	821.8	30.0	802.2	792.2	10	10/10/2012
DGWC-10	Downgradient	Overburden	1393818.3	2204201.1	823.55	820.9	45.4	785.9	775.9	10	10/11/2012
DGWC-11	Downgradient	Overburden	1393547.1	2204166.2	800.57	798.1	49.1	759.3	749.3	10	10/15/2012
DGWC-12	Downgradient	Overburden	1393149.4	2204128.3	773.86	771.2	25.1	756.5	746.5	10	10/15/2012
DGWC-13	Downgradient	Overburden	1392881.1	2204084.6	794.10	791.3	43.8	757.9	747.9	10	11/29/2012
DGWC-14	Downgradient	Overburden/Upper Bedrock	1392574.2	2204013.3	792.40	789.8	34.3	765.9	755.9	10	12/18/2012

**TABLE 1A**  
**DETECTION AND ASSESSMENT MONITORING NETWORK SUMMARY**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
DGWC-15	Downgradient	Overburden	1392544.1	2203679.0	824.50	821.5	67.1	764.8	754.8	10	11/29/2012
DGWC-17	Downgradient	Overburden	1392645.6	2203051.0	837.05	834.2	44.5	800.0	790.0	10	1/9/2013
DGWC-19	Downgradient	Overburden	1392342.6	2202601.0	825.46	822.9	39.8	793.5	783.5	10	3/12/2013
DGWC-20	Downgradient	Overburden	1392164.5	2202315.6	822.14	819.8	39.7	790.7	780.7	10	3/5/2013
DGWC-21	Downgradient	Overburden/Upper Bedrock	1392067.5	2202063.5	816.28	813.5	69.0	754.9	744.9	10	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.7	60.0	764.0	754.0	10	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.7	60.1	765.9	755.9	10	10/25/2012
DGWC-42	Downgradient	Overburden	1391327.8	2201870.2	804.68	802.0	50.4	762.1	752.1	10	11/12/2012
DGWC-47	Downgradient	Overburden/Upper Bedrock	1391553.8	2202610.5	797.45	794.3	28.8	775.9	765.9	10	6/23/2016
DGWC-48	Downgradient	Overburden/Upper Bedrock	1391314.6	2202290.2	788.33	785.2	30.0	765.6	755.6	10	6/22/2016
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK</b>											
B-56	Downgradient	Overburden	1393957.9	2204187.8	823.59	821.0	45.0	786.4	776.4	10	10/3/2016
B-77	Downgradient	Overburden	1390948.7	2202942.0	776.86	777.1	42	745.1	735.1	10	9/17/2019
B-83	Downgradient	Overburden	1390735.5	2202695.6	776.98	777.1	48.6	738.5	728.5	10	9/30/2019
B-88	Downgradient	Overburden	1394401.1	2203738.3	820.07	817.0	72	755.0	745.0	10	11/15/2019
B-93	Downgradient	Overburden	1394348.7	2202946.7	789.07	789.2	28.9	770.3	760.3	10	12/12/2019
B-101D	Downgradient	Bedrock	1394063.3	2204167.1	824.29	821.2	74.9	756.3	746.3	10	11/12/2020
B-102D	Downgradient	Bedrock	1393828.2	2204199.0	823.42	820.6	84.4	745.2	736.2	9	11/10/2020
B-104D	Downgradient	Bedrock	1391317.9	2202297.4	787.90	785.3	60	735.3	725.3	10	10/20/2020
B-106D	Downgradient	Bedrock	1394328.3	2203869.6	826.21	823.5	79.4	754.1	744.1	10	11/13/2020
B-107D	Downgradient	Bedrock	1392333.6	2202597.0	823.38	820.6	85.1	745.5	735.5	10	10/28/2020
B-108D	Downgradient	Bedrock	1392155.6	2202313.1	821.13	818.4	79	749.4	739.4	10	10/27/2020
B-109D	Downgradient	Bedrock	1393956.4	2202127.0	850.73	847.8	99.4	759.4	748.4	11	10/31/2020
B-111D	Downgradient	Bedrock	1394302.6	2202956.5	791.87	789.1	84.15	714.9	704.9	10	11/3/2020

**Notes:**

1. bgs = below ground surface
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
3. NAD - North American Datum; NAVD - North American Vertical Datum



**TABLE 1B**  
**PIEZOMETER NETWORK SUMMARY**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
<b>PIEZOMETERS</b>											
B-3	Downgradient	Overburden/Upper Bedrock	1394045.1	2202411.5	837.78	835.0	37.0	808.3	798.3	10	10/3/2012
B-6	Downgradient	Overburden	1394419.5	2203266.5	789.47	786.5	35.4	761.5	751.5	10	10/9/2012
B-7	Downgradient	Overburden	1394374.6	2203596.1	809.16	806.1	25.2	791.3	781.3	10	10/9/2012
B-16	Downgradient	Overburden	1392595.1	2203315.4	826.47	823.6	43.7	790.2	780.2	10	12/19/2012
B-18	Downgradient	Overburden	1392521.0	2202875.5	826.56	823.9	32.6	801.5	791.5	10	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.3	79.1	751.0	741.0	10	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.5	54.8	789.1	779.1	10	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.6	49.3	811.7	801.7	10	10/23/2012
B-28	Downgradient	Overburden/Upper Bedrock	1391967.4	2201679.2	816.08	813.3	69.4	754.3	744.3	10	10/31/2012
B-29	Downgradient	Overburden	1391890.0	2201422.0	816.43	813.5	54.4	769.4	759.4	10	1/11/2013
B-31	Downgradient	Upper Bedrock	1392034.3	2200928.5	797.47	794.9	45.1	760.2	750.2	10	1/22/2013
B-41	Downgradient	Overburden	1390920.8	2201751.9	795.20	792.4	60.0	743.0	733.0	10	11/14/2012
B-50	Downgradient	Overburden	1391657.1	2201841.0	809.67	809.2	36.0	784.4	774.4	10	6/24/2016
B-51	Downgradient	Overburden	1390501.2	2200906.5	765.92	763.3	65.0	708.3	698.3	10	6/27/2016
B-52	Downgradient	Overburden	1392308.3	2201314.8	822.89	820.3	50.0	781.4	771.4	10	9/28/2016
B-54	Downgradient	Overburden/Upper Bedrock	1394423.5	2203140.7	785.46	782.6	34.2	758.8	748.8	10	9/26/2016
B-55	Downgradient	Overburden	1394142.6	2204147.9	825.12	822.9	52.0	781.9	771.9	10	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.0	50.5	746.0	736.0	10	9/24/2016
B-58	Downgradient	Overburden	1391125.7	2202426.5	788.17	785.2	45.0	750.7	740.7	10	9/23/2016
B-59	Downgradient	Overburden/Upper Bedrock	1394349.1	2203001.1	788.00	785.5	30.3	765.3	755.3	10	9/23/2016
B-60	Downgradient	Overburden	1391100.7	2202881.6	782.13	779.2	49.8	739.9	729.9	10	9/29/2016
B-61	Downgradient	Overburden	1390957.8	2202505.8	782.09	779.0	51.9	737.5	727.5	10	9/29/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-63	Downgradient	Overburden	1390999.1	2202978.1	777.10	777.3	46.0	741.8	731.8	10	10/6/2016
B-64	Downgradient	Overburden	1394381.9	2203031.3	785.83	786.1	30.4	766.1	756.1	10	11/2/2016
B-65	Downgradient	Overburden/Upper Bedrock	1394381.2	2204050.8	821.95	822.3	45.4	787.9	777.9	10	11/15/2016
B-66	Downgradient	Overburden	1393858.2	2204277.5	815.90	813.3	55.3	768.3	758.3	10	11/16/2016
B-68	Downgradient	Overburden	1391298.2	2200714.2	758.68	759.0	18.0	751.0	741.0	10	3/16/2017

**TABLE 1B**  
**PIEZOMETER NETWORK SUMMARY**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
B-72	Downgradient	Overburden	1391241.2	2200724.9	758.46	758.52	21.9	746.6	736.6	10	4/19/2017
B-73	Downgradient	Overburden	1391351.5	2200698.5	759.21	759.23	15.8	753.5	743.5	10	4/19/2017
B-74	Downgradient	Overburden	1391278.9	2200666.3	759.06	759.21	16.5	748.2	743.2	5	4/25/2017
B-78	Downgradient	Overburden/Upper Bedrock	1394328.2	2202958.2	790.75	788.0	30	768.0	758.5	10	9/22/2019
B-79	Downgradient	Overburden	1394458.6	2203223.0	788.66	785.9	34.93	761.0	751.5	10	9/21/2019
B-80	Downgradient	Overburden	1394372.6	2203533.9	804.47	801.8	30	782.0	772.5	10	9/20/2019
B-81	Downgradient	Overburden	1394364.9	2203741.1	820.56	817.7	50	778.5	768.5	10	9/22/2019
B-82	Downgradient	Overburden	1393750.0	2204258.1	810.07	807.5	45	773.0	763.0	10	9/21/2019
B-84	Downgradient	Overburden	1390411.9	2202241.9	776.34	776.6	49.1	737.5	727.5	10	10/1/2019
B-85	Downgradient	Overburden/Upper Bedrock	1394433.4	2203134.5	782.54	782.7	34.5	758.5	748.5	10	11/18/2019
B-86	Downgradient	Overburden/Upper Bedrock	1394480.0	2203206.6	784.29	784.6	34.1	760.5	750.5	10	11/18/2019
B-87	Downgradient	Overburden	1394401.9	2203531.3	803.37	800.4	42	768.7	758.7	10	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.6	49.5	783.1	773.1	10	11/19/2019
B-90	Downgradient	Overburden	1394501.0	2203212.6	784.00	784.2	33.4	760.8	750.8	10	12/10/2019
B-91	Downgradient	Overburden	1394447.1	2203123.9	782.98	783.1	34.6	758.5	748.5	10	12/11/2019
B-92	Downgradient	Overburden	1394392.7	2203026.7	785.08	785.3	24.6	770.7	760.7	10	12/11/2019
B-94	Downgradient	Overburden	1394402.0	2203513.7	801.74	799.2	45.24	764.6	754.6	10	1/23/2020
B-95	Downgradient	Overburden	1394518.6	2203167.7	784.00	784.3	33.3	761.3	751.3	10	2/11/2020
B-96	Downgradient	Overburden	1394478.7	2203099.3	784.92	785.3	33.1	762.2	752.2	10	2/10/2020
B-97	Downgradient	Overburden/Upper Bedrock	1394430.0	2203008.3	786.29	786.6	31	765.3	755.3	10	2/11/2020
B-98	Downgradient	Overburden	1394392.5	2202934.0	789.67	789.8	19.4	780.8	770.8	10	2/10/2020
B-99	Downgradient	Overburden	1394524.2	2203084.5	782.39	782.6	12.3	775.3	770.3	5	7/7/2020
B-103D	Downgradient	Bedrock	1391542.8	2202615.0	795.96	793.8	70.0	733.8	723.8	10	10/15/2020

**Notes:**

1. bgs = below ground surface
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
3. NAD - North American Datum; NAVD - North American Vertical Datum

**TABLE 2**  
**GROUNDWATER SAMPLING EVENT SUMMARY**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well ID	Hydraulic Location	Summary of Sampling Events		Status of Monitoring Well
		August 2020	September 2020	
Purpose of Sampling Event		Annual Appendix IV	Detection/Assessment	
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2 &amp; 3/4) MONITORING WELL NETWORK</b>				
DGWA-53	Upgradient	Annual 02	A03	Assessment
DGWA-70A	Upgradient	Annual 02	A03	Assessment
DGWA-71	Upgradient	Annual 02	A03	Assessment
DGWC-2	Downgradient	Annual 02	A03	Assessment
DGWC-4	Downgradient	Annual 02	A03	Assessment
DGWC-5	Downgradient	Annual 02	A03	Assessment
DGWC-8	Downgradient	Annual 02	A03	Assessment
DGWC-9	Downgradient	Annual 02	A03	Assessment
DGWC-10	Downgradient	Annual 02	A03	Assessment
DGWC-11	Downgradient	Annual 02	A03	Assessment
DGWC-12	Downgradient	Annual 02	A03	Assessment
DGWC-13	Downgradient	Annual 02	A03	Assessment
DGWC-14	Downgradient	Annual 02	A03	Assessment
DGWC-15	Downgradient	Annual 02	A03	Assessment
DGWC-17	Downgradient	Annual 02	A03	Assessment
DGWC-19	Downgradient	Annual 02	A03	Assessment
DGWC-20	Downgradient	Annual 02	A03	Assessment
DGWC-21	Downgradient	Annual 02	A03	Assessment
DGWC-22	Downgradient	Annual 02	A03	Assessment
DGWC-23	Downgradient	Annual 02	A03	Assessment
DGWC-42	Downgradient	Annual 02	A03	Assessment
DGWC-47	Downgradient	Annual 02	A03	Assessment
DGWC-48	Downgradient	Annual 02	A03	Assessment

**Notes:**

1. Annual## = Annual Appendix IV Scan
2. A## = Assessment Monitoring Event Number

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well ID	Top of Casing Elevation (feet)	Top of Casing Elevation (feet) August 2020	Groundwater Elevation (feet)		
			8/10/2020	9/21/2020	11/3/2020
<b>ASH POND 1 (AP-1) MONITORING WELLS</b>					
DGWA-53	850.74	844.26	829.41	830.68	830.87
DGWA-70A	808.60	808.52	768.95	762.11	768.37
DGWA-71	863.95	863.84	835.74	835.26	835.91
DGWC-37	766.19	766.21	752.13	752.92	752.91
DGWC-38	757.44	757.43	750.97	751.54	751.70
DGWC-39	759.67	759.89	751.21	752.88	753.63
DGWC-40	779.07	779.06	760.12	761.56	762.55
DGWC-67	766.76	766.70	756.40	757.31	757.35
DGWC-68A	765.61	765.33	755.00	755.53	755.42
DGWC-69	763.82	763.75	757.37	758.01	758.10
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) MONITORING WELLS</b>					
DGWA-53	850.74	844.26	829.41	830.68	830.87
DGWA-70A	808.60	808.52	768.95	762.11	768.37
DGWA-71	863.95	863.84	835.74	835.26	835.91
DGWC-2	850.93	850.88	820.86	820.53	820.83
DGWC-4	814.87	814.85	791.48	791.43	792.04
DGWC-5	791.84	791.75	782.15	782.85	782.85
DGWC-8	826.50	826.38	793.33	793.57	793.85
DGWC-9	824.39	824.35	799.07	800.14	801.59
DGWC-10	823.60	823.55	791.09	793.53	795.37
DGWC-11	800.64	800.57	783.81	786.33	788.68
DGWC-12	773.90	773.86	763.51	765.13	765.11
DGWC-13	793.90	794.10	760.55	761.87	760.77
DGWC-14	792.36	792.40	771.30	771.31	772.97
DGWC-15	824.53	824.50	785.05	784.94	785.33
DGWC-17	837.10	837.05	804.92	804.51	804.59
DGWC-19	825.53	825.46	801.16	801.20	801.51
DGWC-20	822.16	822.14	798.00	799.24	800.39
DGWC-21	816.33	816.28	796.96	798.78	800.10
DGWC-22	816.64	816.59	796.03	796.29	797.34
DGWC-23	818.59	818.37	797.89	798.92	799.67
DGWC-42	804.73	804.68	772.46	769.51	774.54
DGWC-47	797.50	797.45	777.61	780.49	781.06
DGWC-48	788.34	788.33	771.83	772.89	774.29

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well ID	Top of Casing Elevation (feet)	Top of Casing Elevation (feet) August 2020	Groundwater Elevation (feet)		
			8/10/2020	9/21/2020	11/3/2020
<b>PIEZOMETERS</b>					
B-3	837.82	837.78	803.08	802.55	802.66
B-6	789.49	789.47	783.87	784.14	784.17
B-7	809.24	809.16	787.35	786.75	786.46
B-16	826.50	826.47	795.42	795.25	795.82
B-18	826.54	826.56	804.91	804.71	805.23
B-24	822.27	822.11	803.11	802.87	803.49
B-25	836.62	836.54	818.43	821.53	822.84
B-26	853.67	853.60	826.64	825.55	827.05
B-28	816.10	816.08	786.05	786.95	787.92
B-29	816.45	816.43	788.57	788.90	790.08
B-31	797.42	797.47	763.94	764.01	764.21
B-41	795.22	795.20	768.70	769.91	770.89
B-50	809.78	809.67	781.58	784.77	786.78
B-51	765.93	765.92	752.66	753.37	753.42
B-52	823.22	822.89	796.63	795.34	795.87
B-54	785.59	785.46	779.52	779.86	779.96
B-55	825.11	825.12	802.40	804.99	805.72
B-56	823.70	823.59	794.43	795.39	796.80
B-57	789.22	789.04	769.93	770.02	771.62
B-58	788.20	788.17	767.77	767.76	769.52
B-59	788.16	788.00	780.39	780.72	780.85
B-60	782.12	782.13	750.42	751.22	753.80
B-61	782.03	782.09	761.75	762.24	764.58
B-62	763.34	760.08	742.48	743.11	749.24
B-63	777.15	777.10	747.56	749.12	751.65
B-64	786.02	785.83	779.70	780.14	780.27
B-65	822.02	821.95	803.50	803.40	804.50
B-66	815.96	815.90	793.69	796.72	797.58
B-68	758.73	758.68	754.72	755.19	755.09
B-72	n/a	758.46	755.04	754.83	755.35
B-73	n/a	759.206	754.72	755.26	755.116
B-74	n/a	759.06	754.90	754.68	754.59
B-76	760.31	760.53	745.42	745.11	750.04
B-77	776.75	776.86	746.42	748.68	750.96
B-78	790.65	790.75	780.25	780.84	780.9
B-79	788.55	788.66	781.84	782.14	782.21
B-80	804.45	804.47	787.10	786.62	786.37

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well ID	Top of Casing Elevation (feet)	Top of Casing Elevation (feet) August 2020	Groundwater Elevation (feet)		
			8/10/2020	9/21/2020	11/3/2020
<b>PIEZOMETERS</b>					
B-81	820.51	820.56	788.63	787.86	787.48
B-82	809.98	810.07	790.70	794.12	795.37
B-83	776.89	776.98	744.88	745.99	750.59
B-84	776.24	776.34	741.33	743.85	749.64
B-85	782.67	782.54	779.54	775.63	779.94
B-86	784.40	784.29	782.34	777.24	782.77
B-87	803.54	803.37	786.87	786.57	786.41
B-88	820.11	820.07	787.50	786.77	786.47
B-89	822.50	822.36	799.35	799.26	800.36
B-90	784.18	784.00	781.14	782.44	782.5
B-91	783.07	782.98	779.29	779.60	779.67
B-92	785.22	785.08	779.78	780.32	780.4
B-93	789.14	789.07	781.35	782.55	782.67
B-94	801.90	801.74	786.71	786.49	786.26
B-95	784.16	784.00	781.58	781.89	781.92
B-96	785.06	784.92	779.37	779.82	779.85
B-97	786.46	786.29	780.26	781.29	780.99
B-98	789.58	789.67	780.52	782.01	782.15
B-99	782.39	782.39	778.57	778.97	778.99
B-100	777.95	777.95	742.31	742.78	749.14

**Notes:**

1. Elevation data recorded in feet North American Vertical Datum (NAVD)
2. NM = Not Mesured
3. Updated survey data for all wells provided by Metro Engineering in August 2020. Groundwaer elevations prior to August 2020 were calculated using the original Top of Casing Elevations.



**TABLE 4A  
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS - AUGUST 2020**

**Georgia Power Company - Plant McDonough  
Atlanta, GA**

Flow Paths	Groundwater Elevation (feet msl)	$\Delta h$ (feet) <sup>1</sup>	$\Delta l$ (feet) <sup>2</sup>	Hydraulic Gradient ( $\Delta h/\Delta l$ ) <sup>3</sup>	Average Hydraulic Conductivity, K (centimeter per second) <sup>5</sup>	Assumed Effective Porosity ( $n_e$ ) <sup>6</sup>	Average Linear Groundwater Velocity	
							(feet per day) <sup>4</sup>	(feet per year) <sup>4</sup>
<b>ASH POND 2 AND ASH PONDS 3/4 (AP-2, 3/4)</b>								
DGWA-53/DGWC-13	829.41	68.86	2550	0.027	0.00084	0.2	0.32	117
	760.55							
DGWA-71/DGWC-5	835.74	53.59	1450	0.037	0.00084	0.2	0.44	161
	782.15							
B-26/DGWC-48	826.64	54.81	2000	0.027	0.00084	0.2	0.33	119
	771.83							

**Notes:**

1.  $\Delta h$  = Change in groundwater elevation
2.  $\Delta l$  = Distance along flow path
3.  $I = \Delta h / \Delta l$
4. Velocity =  $(I * K)/n_e$
5. Hydraulic conductivity based on historic aquifer performance tests
6. Assumed effective porosities for overburden was based on the default values recommended by USEPA for a silty sand-type soil (1996). Assumed effective porosity for bedrock was derived from Daniel and Dahlen (2002) and Dowd and Marshall (1995).

**TABLE 4B**  
**HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS - SEPTEMBER 2020**

**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Flow Paths	Groundwater Elevation (feet msl)	$\Delta h$ (feet) <sup>1</sup>	$\Delta l$ (feet) <sup>2</sup>	Hydraulic Gradient ( $\Delta h/\Delta l$ ) <sup>3</sup>	Average Hydraulic Conductivity, K (centimeter per second) <sup>5</sup>	Assumed Effective Porosity ( $n_e$ ) <sup>6</sup>	Average Linear Groundwater Velocity	
							(feet per day) <sup>4</sup>	(feet per year) <sup>4</sup>
<b>ASH POND 2 AND ASH PONDS 3/4 (AP-2, 3/4)</b>								
DGWA-53/DGWC-13	830.68	68.81	2550	0.027	0.00084	0.2	0.32	117
	761.87							
DGWA-71/DGWC-5	835.26	52.41	1450	0.036	0.00084	0.2	0.43	157
	782.85							
B-26/DGWC-48	825.55	52.66	2000	0.026	0.00084	0.2	0.31	114
	772.89							

**Notes:**

1.  $\Delta h$  = Change in groundwater elevation
2.  $\Delta l$  = Distance along flow path
3.  $I = \Delta h / \Delta l$
4. Velocity =  $(I * K)/n_e$
5. Hydraulic conductivity based on historic aquifer performance tests
6. Assumed effective porosities for overburden was based on the default values recommended by USEPA for a silty sand-type soil (1996). Assumed effective porosity for bedrock was derived from Daniel and Dahlen (2002) and Dowd and Marshall (1995).

**TABLE 5A**  
**ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and Ash Ponds 3/4 - August 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	UNITS	Well ID													
		DGWA-53	DGWA-70A	DGWA-71	DGWC-2	DGWC-4	DGWC-5	DGWC-8	DGWC-9	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
		8/13/2020	8/11/2020	8/11/2020	8/11/2020	85/12/2020	85/12/2020	85/12/2020	8/11/2020	8/11/2020	8/11/2020	8/11/2020	85/12/2020	8/11/2020	8/13/2020
<b>Appendix III</b>															
BORON, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CALCIUM, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CHLORIDE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
FLUORIDE, TOTAL	mg/L	0.062 J	<0.050	<0.050	<0.050	<0.050	0.13	0.056 J	1.3	1.4	<0.050	<0.050	0.051 J	<0.050	<0.050
pH	S.U.	6.17	5.86	5.96	6.04	5.93	4.84	5.36	4.00	4.92	5.68	5.69	5.68	5.73	6.58
SULFATE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
TOTAL DISSOLVED SOLIDS	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
<b>Appendix IV</b>															
ANTIMONY, TOTAL	mg/L	0.00030 J	0.0013 J	0.0018 J	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	0.00073 J
ARSENIC, TOTAL	mg/L	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	0.0020 J	<0.00078	0.022	0.0028 J	<0.00078	<0.00078	<0.00078	<0.00078	0.0013 J
BARIUM, TOTAL	mg/L	0.046	0.041	0.026	0.022	0.036	0.017	0.034	0.016	0.024	0.064	0.028	0.032	0.061	0.060
BERYLLIUM, TOTAL	mg/L	<0.000046	0.00013 J	0.00011 J	<0.000046	0.00024 J	0.0081	0.0018 J	0.0062	0.0066	0.00011 J	0.00024 J	0.000078 J	<0.000046	0.00022 J
CADMIUM, TOTAL	mg/L	<0.00012	<0.00012	<0.00012	<0.00012	0.00080 J	0.00079 J	0.0021 J	0.00059 J	0.00071 J	<0.00012	0.00038 J	<0.00012	<0.00012	0.00013 J
CHROMIUM, TOTAL	mg/L	<0.00055	0.0016 J	0.00060 J	0.00067 J	<0.00055	<0.00055	0.0028 J	0.00061 J	0.00097 J	0.00061 J	0.00094 J	0.00074 J	<0.00055	0.0048 J
COBALT, TOTAL	mg/L	0.0051	0.0012 J	<0.00038	0.0064	0.0018 J	0.021	0.053	0.22	0.11	0.00055 J	0.0060	<0.00038	<0.00038	0.0024 J
FLUORIDE, TOTAL	mg/L	0.062 J	<0.050	<0.050	<0.050	<0.050	0.13	0.056 J	1.3	1.4	<0.050	<0.050	0.051 J	<0.050	<0.050
LEAD, TOTAL	mg/L	<0.000036	0.00030 J	<0.000036	0.000064 J	<0.000036	0.000063 J	0.00070 J	<0.00018	0.00007 J	0.000053 J	<0.000036	<0.000036	0.000096 J	0.0012 J
LITHIUM, TOTAL	mg/L	0.0085 J	0.0019 J	0.0015 J	0.028 J	0.0031 J	0.0067 J	0.0058 J	0.032	0.0033 J	0.0028 J	0.0011 J	0.0034 J	0.0035 J	0.0089 J
MERCURY, TOTAL	mg/L	<0.000078	<0.000078	<0.000078	<0.000078	<0.000078	0.00017 J	0.000079 J	0.00026	<0.000078	<0.000078	<0.000078	<0.000078	<0.000078	<0.000078
MOLYBDENUM, TOTAL	mg/L	0.012	<0.00069	<0.00069	0.0020 J	0.0057 J	<0.00069	<0.00069	<0.00069	<0.00069	<0.00069	<0.00069	0.012	<0.00069	<0.00069
RADIUM (226 + 228)	pCi/L	1.04	0.812 U	0.965 U	1.37	1.95	1.13	0.721 U	0.819 U	1.45	1.02	0.770 U	1.63	1.17 U	3.58
SELENIUM, TOTAL	mg/L	<0.0016	<0.0016	<0.0016	0.0053 J	<0.0016	0.011	<0.0016	0.11	0.023	<0.0016	0.0019 J	0.0038 J	<0.0016	0.0018 J
THALLIUM, TOTAL	mg/L	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	0.00023 J	<0.00072	0.00037 J	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014

Notes:

1. mg/L - Milligrams per Liter; pCi/L - picocuries per Liter; S.U. - Standard Units
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. Not Sampled - Sample not analyzed for this constituent.

**TABLE 5A**  
**ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and Ash Ponds 3/4 - August 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	UNITS	Well ID								
		DGWC-17	DGWC-19	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-42	DGWC-47	DGWC-48
		8/14/2020	8/11/2020	8/13/2020	8/14/2020	8/14/2020	8/13/2020	8/13/2020	85/12/2020	8/13/2020
<b>Appendix III</b>										
BORON, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CALCIUM, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CHLORIDE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
FLUORIDE, TOTAL	mg/L	0.069 J	0.20	0.90	<0.050	<0.050	0.10	<0.050	0.22	0.47
pH	S.U.	5.01	4.90	4.36	5.66	5.76	6.00	5.34	4.43	4.26
SULFATE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
TOTAL DISSOLVED SOLIDS	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
<b>Appendix IV</b>										
ANTIMONY, TOTAL	mg/L	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028	<0.00028
ARSENIC, TOTAL	mg/L	<0.00078	0.0014 J	0.014	<0.00078	<0.00078	<0.00078	<0.00078	0.00081 J	<0.00078
BARIUM, TOTAL	mg/L	0.046	0.027	0.019	0.027	0.035	0.027	0.027	0.016	0.013
BERYLLIUM, TOTAL	mg/L	0.00064 J	0.0020 J	0.0063	0.00020 J	0.00016 J	0.00041 J	0.0026 J	0.0068	0.0071
CADMIUM, TOTAL	mg/L	0.00029 J	0.00030 J	0.0021 J	0.00054 J	0.00057 J	0.00027 J	0.0013 J	0.0010 J	0.0028
CHROMIUM, TOTAL	mg/L	0.0033 J	0.0024 J	0.0023 J	<0.00055	<0.00055	0.00085 J	0.0021 J	<0.00055	<0.00055
COBALT, TOTAL	mg/L	0.026	0.049	0.73	0.0098	0.0087	0.00048 J	0.025	0.21	0.35
FLUORIDE, TOTAL	mg/L	0.069 J	0.20	0.90	<0.050	<0.050	0.10	<0.050	0.22	0.47
LEAD, TOTAL	mg/L	0.00017 J	0.000053 J	0.00044 J	<0.000036	<0.000036	<0.000036	0.0016 J	0.00040 J	0.00092 J
LITHIUM, TOTAL	mg/L	0.0015 J	0.0031 J	0.012 J	0.0058 J	0.0039 J	0.0052 J	0.011 J	0.054	0.098
MERCURY, TOTAL	mg/L	0.000098 J	<0.000078	<0.000078	<0.000078	<0.000078	0.00014 J	<0.000078	<0.000078	<0.000078
MOLYBDENUM, TOTAL	mg/L	<0.00069	<0.00069	<0.00069	<0.00069	<0.00069	0.013	<0.00069	<0.00069	<0.00069
RADIUM (226 + 228)	pCi/L	0.804 U	0.723 U	1.77	0.602 U	1.83	1.48 U	1.23 U	2.56	1.74
SELENIUM, TOTAL	mg/L	0.0084 J	0.0096 J	0.091	<0.0016	<0.0016	<0.0016	<0.0016	0.0020 J	0.0029 J
THALLIUM, TOTAL	mg/L	0.00019 J	0.00059 J	0.0016 J	<0.00014	<0.00014	<0.00014	<0.00014	0.00018 J	<0.00014

Notes:

1. mg/L - Milligrams per Liter; pCi/L - picocuries per Liter; S.U. - Standard Units
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. Not Sampled - Sample not analyzed for this constituent.

**TABLE 5B**  
**ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and 3/4 - September 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	Units	Well ID															
		DGWA-53	DGWA-70A	DGWA-71	DGWC-2	DGWC-4	DGWC-5	DGWC-8	DGWC-9	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19
		9/22/2020	9/22/2020	9/22/2020	9/23/2020	9/22/2020	9/22/2020	9/23/2020	9/22/2020	9/24/2020	9/22/2020	9/22/2020	9/23/2020	9/22/2020	9/23/2020	9/24/2020	9/22/2020
<b>Appendix III</b>																	
BORON, TOTAL	mg/L	0.056 J	< 0.0052	< 0.0052	0.57	4.3	4.6	1.0	0.78	0.45	1.3	4.2	0.57	0.086 J	1.6	0.88	2.6
CALCIUM, TOTAL	mg/L	15.5	5.0	5.4	44.4	263	99.2	39.3	54.7	53.1	72.7	55.4	39.0	11.6	35.6	12.7	103
CHLORIDE, TOTAL	mg/L	1.6	1.9	5.2	2.1	17.0	10.5	9.1	8.0	5.9	16.0	10.8	12.6	3.2	22.4	22.7	27.6
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	< 0.050	< 0.050	< 0.050	0.12	< 0.050	0.99	0.97	< 0.050	< 0.050	0.058 J	< 0.050	< 0.050	0.056 J	0.084 J
pH	S.U.	6.43	6.01	6.06	5.99	5.88	4.83	5.21	4.00	4.89	5.54	6.00	5.72	5.70	5.85	5.10	4.91
SULFATE, TOTAL	mg/L	13.5	< 0.50	6.5	122	800	423	178	282	204	267	183	134	40.2	146	259	310
TOTAL DISSOLVED SOLIDS	mg/L	142	46.0	74.0	267	1400	716	333	461	283	481	338	278	105	317	411	513
<b>Appendix IV</b>																	
ANTIMONY, TOTAL	mg/L	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	0.0011 J	< 0.00028	0.00045 J	0.00036 J
ARSENIC, TOTAL	mg/L	0.00093 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0062	< 0.00078	0.040	0.0078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0011 J	0.0017 J
BARIUM, TOTAL	mg/L	0.070	0.038	0.024	0.023	0.030	0.017	0.025	0.015	0.021	0.058	0.036	0.030	0.060	0.043	0.033	0.026
BERYLLIUM, TOTAL	mg/L	< 0.000046	0.000068 J	0.000069 J	< 0.000046	0.00019 J	0.0081	0.0015 J	0.0049	0.0077	0.00015 J	0.00017 J	0.000068 J	< 0.000046	0.000058 J	0.00060 J	0.0020 J
CADMIUM, TOTAL	mg/L	< 0.00012	< 0.00012	< 0.00012	0.00013 J	0.00065 J	0.00072 J	0.0018 J	0.00059 J	0.00055 J	0.00016 J	0.00017 J	< 0.00012	< 0.00012	< 0.00012	0.00024 J	0.00036 J
CHROMIUM, TOTAL	mg/L	< 0.00055	0.00089 J	< 0.00055	< 0.00055	< 0.00055	< 0.00055	0.00086 J	< 0.00055	0.0010 J	0.00058 J	< 0.00055	0.00059 J	< 0.00055	< 0.00055	0.0029 J	0.0030 J
COBALT, TOTAL	mg/L	0.011	< 0.00038	< 0.00038	0.0062	0.0014 J	0.020	0.040	0.16	0.086	0.00098 J	0.013	0.00038 J	< 0.00038	0.0018 J	0.028	0.051
FLUORIDE, TOTAL	mg/L	0.099 J	< 0.050	< 0.050	< 0.050	< 0.050	0.12	< 0.050	0.99	0.97	< 0.050	< 0.050	0.058 J	< 0.050	< 0.050	0.056 J	0.084 J
LEAD, TOTAL	mg/L	< 0.000036	0.000078 J	< 0.000036	0.000094 J	< 0.000036	0.000048 J	0.00011 J	0.00015 J	0.00013 J	0.00010 J	0.00011 J	0.000098 J	0.000044 J	0.000082 J	0.000079 J	0.00016 J
LITHIUM, TOTAL	mg/L	0.0089 J	< 0.00081	0.0012 J	0.022 J	0.0026 J	0.0065 J	0.0045 J	0.025 J	0.0049 J	0.0019 J	< 0.00081	0.0033 J	0.0038 J	0.0060 J	0.00096 J	0.0034 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	0.00020 J	< 0.000078	0.00013 J	0.000081 J	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	0.000082 J	< 0.000078
MOLYBDENUM, TOTAL	mg/L	0.039	< 0.00069	< 0.00069	0.0022 J	0.0028 J	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	0.012	< 0.00069	< 0.00069	< 0.00069	< 0.00069
RADIUM (226 + 228)	pCi/L	2.27	0.450 U	0.216 U	1.96 U	1.43 U	1.40 U	0.800 U	1.15 U	1.39	0.502 U	0.515 U	0.935 U	1.20 U	1.69 U	0.369 U	0.960 U
SELENIUM, TOTAL	mg/L	< 0.0016	< 0.0016	< 0.0016	0.0046 J	< 0.0016	0.040	0.0028 J	0.23	0.074	< 0.0016	< 0.0016	0.0053 J	< 0.0016	< 0.0016	0.015	0.0052 J
THALLIUM, TOTAL	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00020 J	0.00043 J	0.00034 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00018 J	0.00050 J

Notes:

1. mg/L - Milligrams per Liter; pCi/L - picocuries per Liter; S.U. - Standard Units
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

**TABLE 5B**  
**ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and 3/4 - September 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	UNITS	Well ID						
		DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-42	DGWC-47	DGWC-48
		9/22/2020	9/24/2020	9/24/2020	9/24/2020	9/22/2020	9/23/2020	9/23/2020
<b>Appendix III</b>								
BORON, TOTAL	mg/L	4.9	6.1	4.1	4.6	0.88	0.21	0.65
CALCIUM, TOTAL	mg/L	79.2	80.0	62.6	73.7	43.8	22.3	72.2
CHLORIDE, TOTAL	mg/L	25.8	20.0	21.5	13.7	22.1	3.3	8.0
FLUORIDE, TOTAL	mg/L	0.15	< 0.050	< 0.050	0.075 J	< 0.050	0.11	0.32
pH	S.U.	4.66	5.64	5.69	6.19	5.76	4.40	4.64
SULFATE, TOTAL	mg/L	408	269	262	215	320	111	313
TOTAL DISSOLVED SOLIDS	mg/L	724	494	455	456	547	229	575
<b>Appendix IV</b>								
ANTIMONY, TOTAL	mg/L	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	0.0012 J	0.00039 J
ARSENIC, TOTAL	mg/L	0.0063	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
BARIUM, TOTAL	mg/L	0.011	0.024	0.031	0.020	0.016	0.014	0.013
BERYLLIUM, TOTAL	mg/L	0.0027 J	0.00018 J	0.00017 J	0.00045 J	0.0013 J	0.0069	0.0072
CADMIUM, TOTAL	mg/L	0.0014 J	0.00073 J	0.00058 J	0.00018 J	0.00070 J	0.0013 J	0.0025
CHROMIUM, TOTAL	mg/L	0.0013 J	0.00096 J	< 0.00055	0.00084 J	0.0010 J	< 0.00055	< 0.00055
COBALT, TOTAL	mg/L	0.47	0.010	0.010	< 0.00038	0.014	0.17	0.37
FLUORIDE, TOTAL	mg/L	0.15	< 0.050	< 0.050	0.075 J	< 0.050	0.11	0.32
LEAD, TOTAL	mg/L	0.00013 J	0.00014 J	< 0.000036	< 0.000036	0.00074 J	0.00053 J	0.0010 J
LITHIUM, TOTAL	mg/L	0.0026 J	0.0062 J	0.0037 J	0.0045 J	0.0099 J	0.046	0.10
MERCURY, TOTAL	mg/L	< 0.000078	0.00012 J	< 0.000078	0.00020 J	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00069	< 0.00069	< 0.00069	0.0088 J	< 0.00069	< 0.00069	< 0.00069
RADIUM (226 + 228)	pCi/L	1.61 U	0.396 U	1.02 U	1.49	1.03 U	2.30 U	1.51 U
SELENIUM, TOTAL	mg/L	0.023	< 0.0016	< 0.0016	< 0.0016	< 0.0016	< 0.0016	0.0016 J
THALLIUM, TOTAL	mg/L	0.00055 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00026 J	< 0.00014

Notes:

1. mg/L - Milligrams per Liter; pCi/L - picocuries per Liter; S.U. - Standard Units
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.



**TABLE 5C**  
**ASSESSMENT MONITORING ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and 3/4 - August 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	UNITS	Well ID						
		B-3	B-56	B-77	B-82	B-83	B-88	B-93
		8/17/2020	8/17/2020	8/13/2020	8/17/2020	8/14/2020	8/17/2020	8/19/2020
<b>Appendix III</b>								
BORON, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CALCIUM, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CHLORIDE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
FLUORIDE, TOTAL	mg/L	0.077 J	0.19	<0.050	<0.050	0.050 J	<0.050	0.32
pH	S.U.	5.51	4.82	6.14	5.48	5.59	5.76	4.78
SULFATE, TOTAL	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
TOTAL DISSOLVED SOLIDS	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
<b>Appendix IV</b>								
ANTIMONY, TOTAL	mg/L	<0.00028	<0.00028	0.00043 J	<0.00028	<0.00028	<0.00028	<0.00028
ARSENIC, TOTAL	mg/L	<0.00078	0.0032 J	0.0020 J	<0.00078	<0.00078	<0.00078	0.0013 J
BARIUM, TOTAL	mg/L	0.026	0.030	0.11	0.024	0.056	0.022	0.018
BERYLLIUM, TOTAL	mg/L	0.0035	0.0013 J	0.00014 J	0.0014 J	0.00070 J	0.0014 J	0.015
CADMIUM, TOTAL	mg/L	0.00077 J	0.00029 J	<0.00012	0.00058 J	0.00037 J	0.0018 J	0.00077 J
CHROMIUM, TOTAL	mg/L	<0.00055	0.0014 J	0.0021 J	<0.00055	0.0050 J	0.0014 J	0.00057 J
COBALT, TOTAL	mg/L	0.061	0.042	0.0011 J	0.0028 J	0.021	0.0031 J	0.068
FLUORIDE, TOTAL	mg/L	0.077 J	0.19	<0.050	<0.050	0.050 J	<0.050	0.32
LEAD, TOTAL	mg/L	<0.000036	0.00022 J	0.0016 J	0.000059 J	0.00092 J	0.00081 J	0.00012 J
LITHIUM, TOTAL	mg/L	0.58	0.0056 J	0.0018 J	0.0016 J	0.0045 J	0.0060 J	0.011 J
MERCURY, TOTAL	mg/L	0.00010 J	0.00016 J	<0.000078	0.00011 J	<0.000078	0.00011 J	0.00026
MOLYBDENUM, TOTAL	mg/L	0.0015 J	<0.00069	<0.00069	<0.00069	<0.00069	0.0012 J	<0.00069
RADIUM (226 + 228)	pCi/L	1.78 U	1.15 U	2.17	0.662 U	0.950 U	2.47	1.19 U
SELENIUM, TOTAL	mg/L	0.0021 J	0.011	<0.0016	<0.0016	0.015	0.0017 J	0.018
THALLIUM, TOTAL	mg/L	<0.00014	0.00016 J	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014

Notes:

1. mg/L - Milligrams per Liter; pCi/L - picocuries per Liter; S.U. - Standard Units
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. Not Sampled - Sample not analyzed for this constituent.

**TABLE 5D**  
**ASSESSMENT MONITORING ANALYTICAL DATA SUMMARY**  
**Ash Pond 2 and 3/4 - September 2020**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Analyte	Units	Well ID						
		B-3	B-56	B-77	B-82	B-83	B-88	B-93
		11/11/2020	9/28/2020	9/24/2020	9/28/2020	9/25/2020	9/25/2020	9/28/2020
<b>Appendix III</b>								
BORON, TOTAL	mg/L	2.6	1.4	0.27	1.1	0.35	1.8	3.0
CALCIUM, TOTAL	mg/L	147.000	15.1	17.9	26.5	39.8	79.8	110
CHLORIDE, TOTAL	mg/L	Not Sampled	8.7	5.3	9.9	3.0	10.0	10.8
FLUORIDE, TOTAL	mg/L	Not Sampled	0.098 J	< 0.050	< 0.050	< 0.050	< 0.050	0.30
pH	S.U.	5.420	4.90	6.46	5.54	5.97	5.75	4.67
SULFATE, TOTAL	mg/L	Not Sampled	211	2.9	287	107	344	419
TOTAL DISSOLVED SOLIDS	mg/L	Not Sampled	320	124	454	244	624	686
<b>Appendix IV</b>								
ANTIMONY, TOTAL	mg/L	< 0.00028	< 0.00028	0.00036 J	< 0.00028	< 0.00028	< 0.00028	0.0014 J
ARSENIC, TOTAL	mg/L	< 0.00078	0.0047 J	0.0025 J	< 0.00078	< 0.00078	< 0.00078	0.0027 J
BARIUM, TOTAL	mg/L	0.027	0.026	0.12	0.023	0.027	0.021	0.017
BERYLLIUM, TOTAL	mg/L	0.0028J	0.0012 J	0.000053 J	0.0015 J	0.00028 J	0.00063 J	0.015
CADMIUM, TOTAL	mg/L	0.00069J	0.00024 J	< 0.00012	0.00066 J	0.00026 J	0.00022 J	0.00074 J
CHROMIUM, TOTAL	mg/L	0.00068J	< 0.00055	0.00070 J	< 0.00055	0.0051 J	0.00085 J	0.00066 J
COBALT, TOTAL	mg/L	0.049	0.042	0.00040 J	0.0053	0.0073	0.0015 J	0.064
FLUORIDE, TOTAL	mg/L	Not Sampled	0.098 J	< 0.050	< 0.050	< 0.050	< 0.050	0.30
LEAD, TOTAL	mg/L	0.000093J	0.000091 J	0.00021 J	0.00011 J	0.000065 J	0.00035 J	0.00012 J
LITHIUM, TOTAL	mg/L	0.610	0.0050 J	0.00095 J	0.0010 J	0.0018 J	0.0016 J	0.011 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	0.00024 J
MOLYBDENUM, TOTAL	mg/L	0.0017J	< 0.00069	< 0.00069	< 0.00069	< 0.00069	0.0012 J	< 0.00069
RADIUM (226 + 228)	pCi/L	Not Sampled	1.39	0.761 U	0.747 U	0.0359 U	0.925 U	1.54
SELENIUM, TOTAL	mg/L	0.0039J	0.029	< 0.0016	0.0021 J	0.019	0.0033 J	0.036
THALLIUM, TOTAL	mg/L	< 0.00014	0.00023 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014

Notes:

1. mg/L - Milligrams per Liter; pCi/L -
2. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
3. 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.
4. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. Not Sampled - Sample not analyzed for this constituent.

**TABLE 5E**  
**SURFACE WATER ANALYTICAL DATA SUMMARY - NOVEMBER 2020**  
**Ash Pond 2 and 3/4**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA



Analyte	Units	SURFACE WATER SAMPLES						
		CR+0.4	CR+0.2	Dewatering Upstream	Dewatering Downstream	CR-0.2	CR-0.5	CR-0.8
		11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020
<b>Appendix III</b>								
pH	SU	7.35	7.42	6.9	7.03	7.82	7.4	7.62
<b>Appendix IV</b>								
Beryllium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Cobalt	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
<b>Major Ions</b>								
Magnesium	mg/L	2	2	2	2	2.1	2	2
Potassium	mg/L	2.6	2.5	2.7	2.6	2.6	2.8	2.6
Sodium	mg/L	5.4	5.5	5.5	5.6	5.9	5.7	5.6

Notes:

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

"--" = analysis was not performed

**TABLE 5F**  
**SURFACE WATER ANALYTICAL DATA SUMMARY - FEBRUARY 2021**  
**Ash Pond 2 and 3/4**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA



Analyte	Units	SURFACE WATER SAMPLES							
		CR+0.4	CR+0.2	CR-0.1	Dewatering Downstream	Dewatering Upstream	CR-0.2	CR-0.5	CR-0.8
		2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021
<b>Field Parameters</b>									
Temperature	F	46.16	46.24	46.43	46.41	46.52	46.6	46.75	46.98
pH	S.U.	7.65	7.57	7.78	7.7	7.51	7.48	7.46	7.15
ORP	mv	-4.8	-3.4	-8.1	-11	-9.8	-19.3	-20.8	-21.3
Dissolved Oxygen	mg/L	13.02	13.08	12.92	14.72	12.87	13.00	13.05	13.97
Turbidity	NTU	14.2	13.7	16.0	11.8	12.3	14.0	14.4	14.0
Specific Conductance	mS/cm	0.080	0.080	0.083	0.079	0.079	0.079	0.078	0.080
<b>Appendix III</b>									
Boron	mg/L	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Calcium	mg/L	5.3	5	5.2	5.1	4.9	5	5.2	4.9
Chloride	mg/L	6.3	6.2	6.6	6.1	6.1	6.2	6.2	6.4
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	4.5	4.4	4.8	4.3	4.3	4.3	4.3	4.5
Total Dissolved Solids	mg/L	27	41	25	30	29	38	31	30
<b>Appendix IV</b>									
Arsenic	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Beryllium	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
<b>Major Ions</b>									
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	20.5	20.4	20.7	16.7	20.1	17.2	17	17
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	20.5	20.4	20.7	16.7	20.1	17.2	17	17
Magnesium	mg/L	2.1	2	2.1	2	2	2.1	2.1	2.1
Potassium	mg/L	2.8	2.7	2.8	2.7	2.7	2.8	2.8	2.8
Sodium	mg/L	7	6.8	7	6.9	6.8	6.8	7	7

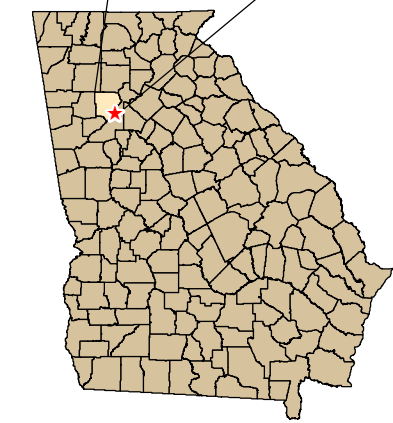
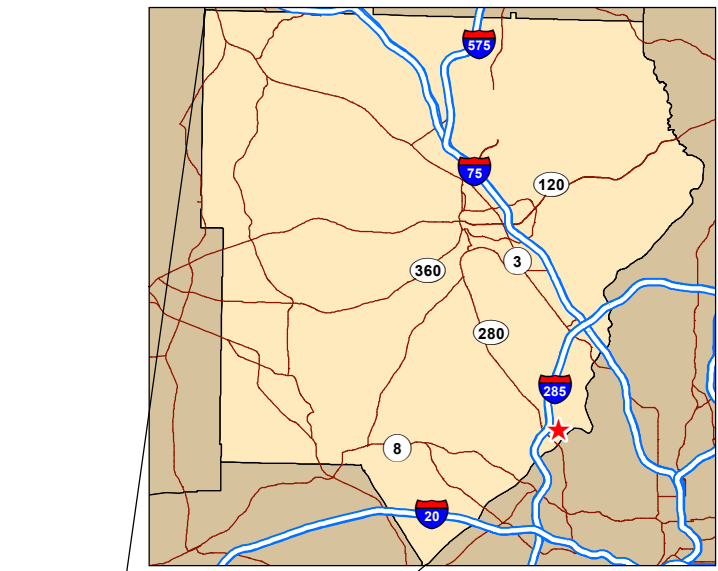
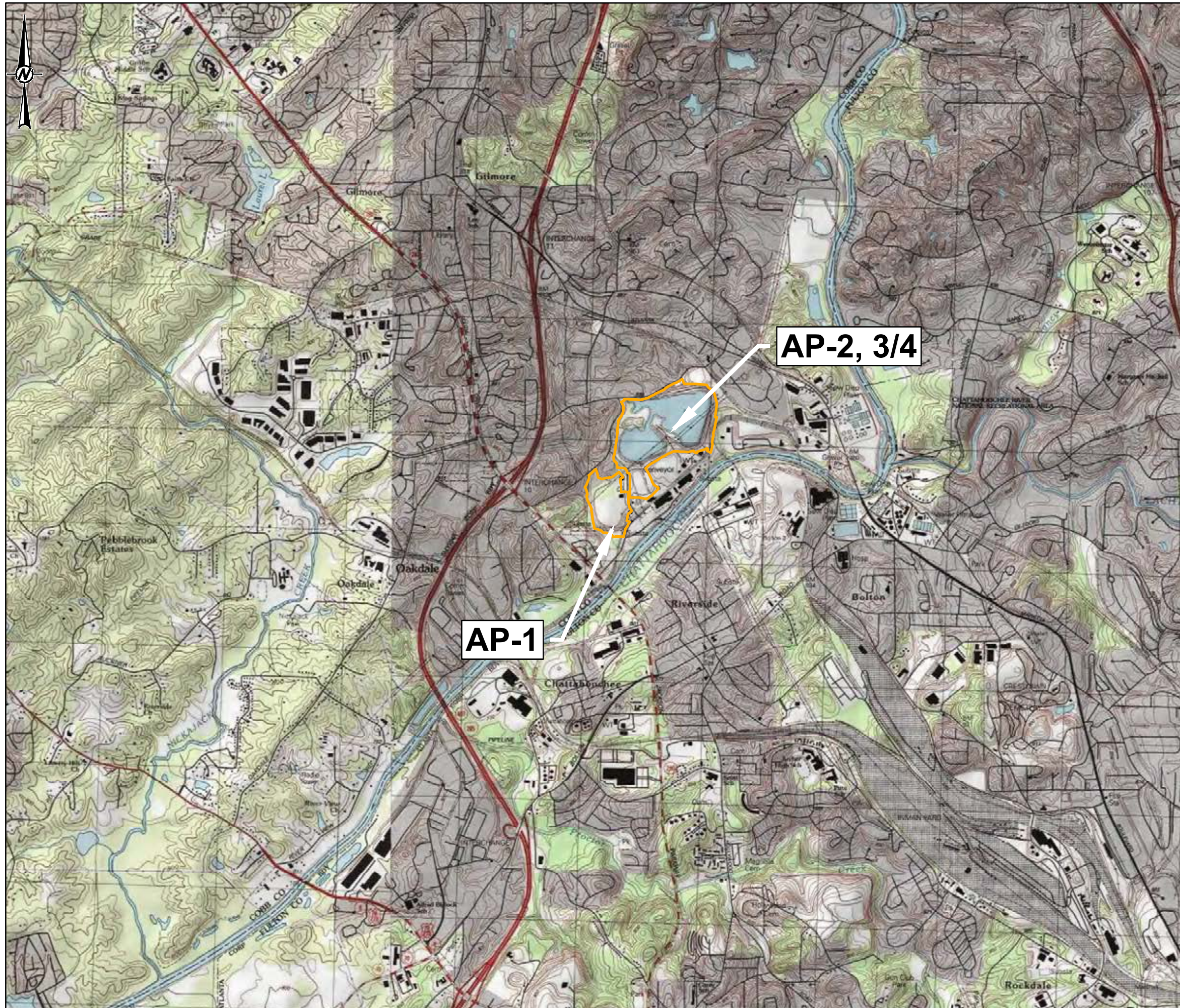
Notes:

F = Fahrenheit; S.U. = Standard Units; mV = Millivolts; mg/L = milligrams per liter; mS/cm = Milisemens per centimeter; NTU = nephelometric turbidity unit

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

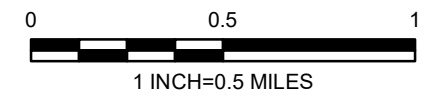
"--" = analysis was not performed





**REFERENCE**

SERVICE LAYER CREDITS: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT MCDONOUGH  
 PROJECT  
 2020 SEMI-ANNUAL GROUNDWATER  
 MONITORING REPORT

TITLE  
**SITE LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2019-1-31
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	DLP
	APPROVED	TIR

THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE SHEET HAS BEEN MODIFIED FROM ANS1.B





**LEGEND**

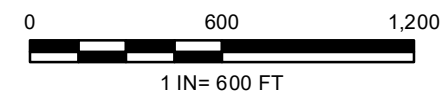
- ◆ AP-1 MONITORING WELL
- ◆ PIEZOMETER
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRADIENT WELL
- ◆ AP-1 SURFACE WATER
- ◆ AP-2,3/4 SURFACE WATER
- STAFF GAUGE
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE

**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 PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING 08/10/2020.



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT MCDONOUGH



PROJECT  
 PLANT MCDONOUGH GROUNDWATER  
 MONITORING

TITLE  
**MONITORING WELL, PIEZOMETER AND SURFACE WATER  
 LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2021-02-03
	PREPARED	DJC
	DESIGN	DLP
	REVIEW	DP/RK
	APPROVED	TIR

PROJECT No.  
 166849621

Rev.  
 0

FIGURE  
**2**

Path: C:\Users\jdozier\Documents\166849621\_SCS Plant McDonough GW Cont. Svcs GA - Project File\800\_Shapefiles\MXD\Remedy Selection Work Plan\Figure 2 - Proposed Investigation Location Map.mxd





**LEGEND**

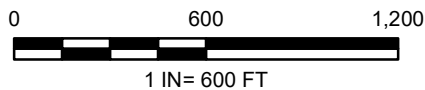
- PIEZOMETER
- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- PropertyBoundary\_edit
- PERMIT BOUNDARY
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT NAVD)

**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED AUGUST 10, 2020 BY GOLDER ASSOCIATES.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD).
4. B-27, B-68, AND DGWA-70 ARE NOT USED AS MONITORING WELLS DUE TO WELL REPLACEMENT, PROXIMITY TO CLOSURE ACTIVITIES, OR MODIFICATIONS TO THE PROPOSED WELL NETWORK.
5. B-72 THROUGH B-74 WATER LEVELS NOT TAKEN DURING AUGUST 10TH, 2020 EVENT.
6. INTERSTITIAL WELLS GROUNDWATER ELEVATION DETERMINED USING TOPOGRAPHY.

**REFERENCE**

1. AERIAL IMAGE DATED NOVEMBER 2018 FROM GOOGLE EARTH.
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020



CLIENT  
**SOUTHERN COMPANY SERVICES, INC.**  
 PLANT MCDONOUGH

PROJECT  
 SEMI-ANNUAL GROUNDWATER  
 MONITORING REPORT



**TITLE**  
**SITE POTENTIOMETRIC MAP**  
**AUGUST 10, 2020**

CONSULTANT	YYYY-MM-DD	2020-08-10
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	BAS
	APPROVED	TIR

PROJECT No.  
 166849618

Rev.  
 0

FIGURE  
**3A**

Path: D:\GIS\Southern Company\1668496-SCS-Plant\_McDonough\figures\SitePotentiometricMap\_SEB\_Aug2020\_WL\_10.4.mxd

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



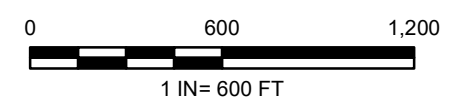


**LEGEND**

- ◆ PIEZOMETER
- ◆ AP-1 MONITORING WELL
- ◆ AP-2,3/4 MONITORING WELL
- ◆ UPGRAIDENT WELL
- PERMIT BOUNDARY
- - - PROPERTY BOUNDARY
- ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT NAVD)

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
  2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED SEPTEMBER 21, 2020 BY GOLDER ASSOCIATES.
  3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD).
  4. B-27, B-68, AND DGWA-70 ARE NOT USED AS MONITORING WELLS DUE TO WELL REPLACEMENT, PROXIMITY TO CLOSURE ACTIVITIES, OR MODIFICATIONS TO THE PROPOSED WELL NETWORK.
  5. B-72 THROUGH B-74 WATER LEVELS NOT TAKEN DURING SEPTEMBER 21ST, 2020 EVENT.
  6. INTERSTITIAL WELLS GROUNDWATER ELEVATION DETERMINED USING TOPOGRAPHY.

- REFERENCE**
1. AERIAL IMAGE DATED NOVEMBER 2018 FROM GOOGLE EARTH.
  2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
  3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020.



CLIENT  
**SOUTHERN COMPANY SERVICES, INC.**  
 PLANT MCDONOUGH

PROJECT  
**SEMI-ANNUAL GROUNDWATER MONITORING REPORT**



TITLE  
**SITE POTENTIOMETRIC MAP**  
**SEPTEMBER 21, 2020**

CONSULTANT	YYYY-MM-DD	2020-09-21
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	BAS
	REVIEWED/APPROVED	DLP

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



**APPENDIX A**

**Laboratory Analytical Data, Field Data Forms,  
Instrument Calibration Forms, Well Inspection Forms,  
Data Validation Summaries, and Laboratory  
Accreditation**

**APPENDIX A**

**Laboratory Analytical Data  
August 2020**

September 09, 2020

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

RE: Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 12, 2020 and August 14, 2020. 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
- Pace Analytical Services - Greensburg

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

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

---

### 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 #: 191  
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

---

### Pace Analytical Services Charlotte

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

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

---

### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
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  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92490488001	DGWA-70A	Water	08/11/20 11:37	08/12/20 08:57
92490488002	DGWA-71	Water	08/11/20 14:55	08/12/20 08:57
92490488003	EB-1	Water	08/11/20 12:50	08/12/20 08:57
92490488004	DGWA-53	Water	08/13/20 13:07	08/14/20 14:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490488001	DGWA-70A	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490488002	DGWA-71	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490488003	EB-1	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490488004	DGWA-53	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA  
PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

**Sample: DGWA-70A**      **Lab ID: 92490488001**      Collected: 08/11/20 11:37      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	--------------	-----	----	----------	----------	---------	------

**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	5.86	Std. Units			1		08/20/20 17:23		
----	------	------------	--	--	---	--	----------------	--	--

**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	<b>0.0013J</b>	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 18:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 18:33	7440-38-2	
Barium	<b>0.041</b>	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 18:33	7440-39-3	
Beryllium	<b>0.00013J</b>	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 18:33	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 18:33	7440-43-9	
Chromium	<b>0.0016J</b>	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 18:33	7440-47-3	B
Cobalt	<b>0.0012J</b>	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 18:33	7440-48-4	
Lead	<b>0.00030J</b>	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 18:33	7439-92-1	
Lithium	<b>0.0019J</b>	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 18:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 18:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 18:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 18:33	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:26	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/13/20 23:59	16984-48-8	
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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

**Sample: DGWA-71**      **Lab ID: 92490488002**      Collected: 08/11/20 14:55      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.96	Std. Units			1		08/20/20 17:23		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0018J	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 18:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 18:56	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 18:56	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 18:56	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 18:56	7440-43-9	
Chromium	0.00060J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 18:56	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 18:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 18:56	7439-92-1	
Lithium	0.0015J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 18:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 18:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 18:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 18:56	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:29	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 01:08	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Sample: EB-1		Lab ID: 92490488003		Collected: 08/11/20 12:50		Received: 08/12/20 08:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	0.00038J	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:13	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:13	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:13	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:13	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:31	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 01:22	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Sample: DGWA-53		Lab ID: 92490488004		Collected: 08/13/20 13:07		Received: 08/14/20 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.17	Std. Units			1		08/20/20 17:23		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00030J	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 18:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 18:37	7440-38-2	
Barium	0.046	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 18:37	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 18:37	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 18:37	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 18:37	7440-47-3	
Cobalt	0.0051	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 18:37	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 18:37	7439-92-1	
Lithium	0.0085J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 18:37	7439-93-2	
Molybdenum	0.012	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 18:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 18:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 18:37	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 11:13	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.062J	mg/L	0.10	0.050	1		08/18/20 19:53	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch: 559731	Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A	Analysis Description: 6020 MET
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490488001, 92490488002, 92490488003

METHOD BLANK: 2969713 Matrix: Water

Associated Lab Samples: 92490488001, 92490488002, 92490488003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/17/20 18:05	
Arsenic	mg/L	ND	0.0050	0.00078	08/17/20 18:05	
Barium	mg/L	ND	0.010	0.00071	08/17/20 18:05	
Beryllium	mg/L	ND	0.0030	0.000046	08/17/20 18:05	
Cadmium	mg/L	ND	0.0025	0.00012	08/17/20 18:05	
Chromium	mg/L	0.00061J	0.010	0.00055	08/17/20 18:05	
Cobalt	mg/L	ND	0.0050	0.00038	08/17/20 18:05	
Lead	mg/L	ND	0.0050	0.000036	08/17/20 18:05	
Lithium	mg/L	ND	0.030	0.00081	08/17/20 18:05	
Molybdenum	mg/L	ND	0.010	0.00069	08/17/20 18:05	
Selenium	mg/L	ND	0.010	0.0016	08/17/20 18:05	
Thallium	mg/L	ND	0.0010	0.00014	08/17/20 18:05	

LABORATORY CONTROL SAMPLE: 2969714

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2973381 2973382

Parameter	Units	MS 92490488001		MSD 2973382		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		Result	Spike Conc.	Spike Conc.	Result							
Antimony	mg/L	0.0013J	0.1	0.1	0.11	0.11	110	105	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Barium	mg/L	0.041	0.1	0.1	0.15	0.15	112	106	75-125	4	20	
Beryllium	mg/L	0.00013J	0.1	0.1	0.11	0.10	105	103	75-125	2	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Parameter	Units	2973381		2973382		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Cadmium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.096	102	95	75-125	7	20		
Cobalt	mg/L	0.0012J	0.1	0.1	0.10	0.097	101	96	75-125	5	20		
Lead	mg/L	0.00030J	0.1	0.1	0.11	0.10	106	101	75-125	5	20		
Lithium	mg/L	0.0019J	0.1	0.1	0.11	0.11	106	104	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.097	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	3	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

QC Batch: 560739 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490488004

METHOD BLANK: 2974806 Matrix: Water  
Associated Lab Samples: 92490488004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/19/20 17:51	
Arsenic	mg/L	ND	0.0050	0.00078	08/19/20 17:51	
Barium	mg/L	ND	0.010	0.00071	08/19/20 17:51	
Beryllium	mg/L	ND	0.0030	0.000046	08/19/20 17:51	
Cadmium	mg/L	ND	0.0025	0.00012	08/19/20 17:51	
Chromium	mg/L	ND	0.010	0.00055	08/19/20 17:51	
Cobalt	mg/L	ND	0.0050	0.00038	08/19/20 17:51	
Lead	mg/L	ND	0.0050	0.000036	08/19/20 17:51	
Lithium	mg/L	ND	0.030	0.00081	08/19/20 17:51	
Molybdenum	mg/L	ND	0.010	0.00069	08/19/20 17:51	
Selenium	mg/L	ND	0.010	0.0016	08/19/20 17:51	
Thallium	mg/L	ND	0.0010	0.00014	08/19/20 17:51	

LABORATORY CONTROL SAMPLE: 2974807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	111	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974808 2974809

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92490942006 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	114	109	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	2	20	
Barium	mg/L	0.088	0.1	0.1	0.22	0.21	131	119	75-125	6	20	M1
Beryllium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

Parameter	Units	2974808		2974809		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Cadmium	mg/L	0.00021J	0.1	0.1	0.10	0.098	99	98	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	0	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.098	102	97	75-125	4	20		
Molybdenum	mg/L	0.19	0.1	0.1	0.31	0.29	122	105	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.093	99	92	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

QC Batch: 559929 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92490488001, 92490488002, 92490488003

METHOD BLANK: 2971190 Matrix: Water  
Associated Lab Samples: 92490488001, 92490488002, 92490488003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/14/20 12:55	

LABORATORY CONTROL SAMPLE: 2971191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2971192 2971193

Parameter	Units	2971192		2971193		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92489844052 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	98	99	75-125	1	20

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch: 560630

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490488004

METHOD BLANK: 2974336

Matrix: Water

Associated Lab Samples: 92490488004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/19/20 10:06	

LABORATORY CONTROL SAMPLE: 2974337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974338 2974339

Parameter	Units	2974338		2974339		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	mg/L	3.1 ug/L	0.0025	0.0025	0.0060	0.0058	118	111	75-125	3	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch:	559792	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: 92490488001, 92490488002, 92490488003

METHOD BLANK: 2970272 Matrix: Water

Associated Lab Samples: 92490488001, 92490488002, 92490488003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/13/20 23:31	

LABORATORY CONTROL SAMPLE: 2970273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2970274 2970275

Parameter	Units	92490488001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.7	2.6	106	104	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2970276 2970277

Parameter	Units	92490503008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.6	2.4	102	98	90-110	4	10	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch: 560576	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: 92490488004

METHOD BLANK: 2974090 Matrix: Water

Associated Lab Samples: 92490488004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/18/20 13:07	

LABORATORY CONTROL SAMPLE: 2974091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974092 2974093

Parameter	Units	2974092		2974093		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92490804001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Fluoride	mg/L	0.82	2.5	2.5	3.3	3.3	100	101	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974094 2974095

Parameter	Units	2974094		2974095		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92490867001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Fluoride	mg/L	0.37	2.5	2.5	3.0	3.1	107	107	90-110	1	10

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWA-70A</b> <b>Lab ID: 92490488001</b> Collected: 08/11/20 11:37      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.178 ± 0.171 (0.324)</b> <b>C:89% T:NA</b>	pCi/L	08/24/20 07:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.634 ± 0.446 (0.869)</b> <b>C:64% T:88%</b>	pCi/L	08/27/20 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.812 ± 0.617 (1.19)</b>	pCi/L	09/04/20 08:28	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

**Sample: DGWA-71**      **Lab ID: 92490488002**      Collected: 08/11/20 14:55      Received: 08/12/20 08:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.217 ± 0.159 (0.256)</b> <b>C:94% T:NA</b>	pCi/L	08/24/20 07:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.748 ± 0.451 (0.847)</b> <b>C:69% T:85%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.965 ± 0.610 (1.10)</b>	pCi/L	09/04/20 08:28	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: EB-1</b> <b>Lab ID: 92490488003</b> Collected: 08/11/20 12:50      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0219 ± 0.117 (0.336)</b> <b>C:88% T:NA</b>	pCi/L	08/24/20 07:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.168 ± 0.413 (0.918)</b> <b>C:66% T:83%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.168 ± 0.530 (1.25)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWA-53</b> <b>Lab ID: 92490488004</b> Collected: 08/13/20 13:07      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.706 ± 0.192 (0.183)</b> <b>C:81% T:NA</b>	pCi/L	08/31/20 19:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.337 ± 0.382 (0.798)</b> <b>C:61% T:83%</b>	pCi/L	09/08/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.04 ± 0.574 (0.981)</b>	pCi/L	09/09/20 08:53	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch:	411433	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92490488004

METHOD BLANK: 1990338 Matrix: Water

Associated Lab Samples: 92490488004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.527 ± 0.407 (0.796) C:61% T:86%	pCi/L	09/08/20 11:52	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch: 410124

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92490488001, 92490488002, 92490488003

METHOD BLANK: 1984702

Matrix: Water

Associated Lab Samples: 92490488001, 92490488002, 92490488003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.731 ± 0.425 (0.763) C:63% T:81%	pCi/L	08/27/20 11:50	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

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QC Batch:	410046	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92490488001, 92490488002, 92490488003

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METHOD BLANK: 1984358 Matrix: Water

Associated Lab Samples: 92490488001, 92490488002, 92490488003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0476 ± 0.101 (0.237) C:93% T:NA	pCi/L	08/24/20 07:55	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

QC Batch:	411372	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92490488004

METHOD BLANK: 1989991 Matrix: Water

Associated Lab Samples: 92490488004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0430 ± 0.0800 (0.185) C:87% T:NA	pCi/L	08/31/20 19:25	

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 92490488

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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.

### 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: PLANT MCDONOUGH BACKGROUND  
Pace Project No.: 92490488

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490488001	DGWA-70A				
92490488002	DGWA-71				
92490488004	DGWA-53				
92490488001	DGWA-70A	EPA 3005A	559731	EPA 6020B	559753
92490488002	DGWA-71	EPA 3005A	559731	EPA 6020B	559753
92490488003	EB-1	EPA 3005A	559731	EPA 6020B	559753
92490488004	DGWA-53	EPA 3005A	560739	EPA 6020B	560802
92490488001	DGWA-70A	EPA 7470A	559929	EPA 7470A	559986
92490488002	DGWA-71	EPA 7470A	559929	EPA 7470A	559986
92490488003	EB-1	EPA 7470A	559929	EPA 7470A	559986
92490488004	DGWA-53	EPA 7470A	560630	EPA 7470A	560770
92490488001	DGWA-70A	EPA 9315	410046		
92490488002	DGWA-71	EPA 9315	410046		
92490488003	EB-1	EPA 9315	410046		
92490488004	DGWA-53	EPA 9315	411372		
92490488001	DGWA-70A	EPA 9320	410124		
92490488002	DGWA-71	EPA 9320	410124		
92490488003	EB-1	EPA 9320	410124		
92490488004	DGWA-53	EPA 9320	411433		
92490488001	DGWA-70A	Total Radium Calculation	412557		
92490488002	DGWA-71	Total Radium Calculation	412557		
92490488003	EB-1	Total Radium Calculation	412558		
92490488004	DGWA-53	Total Radium Calculation	413004		
92490488001	DGWA-70A	EPA 300.0 Rev 2.1 1993	559792		
92490488002	DGWA-71	EPA 300.0 Rev 2.1 1993	559792		
92490488003	EB-1	EPA 300.0 Rev 2.1 1993	559792		
92490488004	DGWA-53	EPA 300.0 Rev 2.1 1993	560576		

**REPORT OF LABORATORY ANALYSIS**

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Sample Condition Upon Rec

WO#: 92490488

Client Name: G A Power



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Oll Tracking #: \_\_\_\_\_

Proj. Due Date: \_\_\_\_\_  
Proj. Name: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 233 Type of Ice: Wdt Blue None  Samples on ice, cooling process has begun

Cooler Temperature 1.8 Biological Tissue Is Frozen: Yes No  
Temp should be above freezing to 6°C

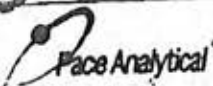
Date and Initials of person examining contents: 8/12/06

		Comments:	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):	_____		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project #

**WO# : 92490488**

PM: KLH1

Due Date: 08/26/20

CLIENT: GA-GA Power

• 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/BO15 (water) DOC, LLHg

• Bottom half of box is to list number of bottle

Matrix	Item#	Matrix	Item#	Matrix	Item#	Matrix	Item#	Matrix	Item#	Matrix	Item#	Matrix	Item#	Matrix	Item#
	BP4U-125 mL Plastic Unpreserved (N/A) (C-)		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) (C-)		BP3N-250 mL plastic HNO3 (pH < 2)		BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)		BP4C-125 mL Plastic NaOH (pH > 12) (C-)
	WGFW-Wide-mouthed Glass jar Unpreserved		AG1U-1 liter Amber Unpreserved (N/A) (C-)		AG1H-1 liter Amber HCl (pH < 2)		AG3U-250 mL Amber Unpreserved (N/A) (C-)		AG1S-1 liter Amber H2SO4 (pH < 2)		AG3S-250 mL Amber H2SO4 (pH < 2)		AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)		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)

**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. 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

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Jeya Abraham		Client/Inv: scdmw@cs@southemco.com	
Address: 2480 Manor Road		Copy To: Golden		Company Name:	
Atlanta, GA 30339		Purchase Order #:		Address:	
E-Mail: jabraham@southemco.com		Project Name: Plant McDonough Background		Pace Quote:	
Phone: (404) 506-7239		Project #: 160849618		Pace Project Manager: Kevin Herring	
Requested Due Date:		Pace Profile #:		Regulatory Agency:	
				State / Location: GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, /, -) Sample IDs must be unique	Matrix	Date	Time	Temp	Preservatives	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)	
							App IV Metals*	Fluoride	Radon 220/228		
1	DGWA-70A	G	8/11/2020	1137	3	1	2	X	X	X	pH 5.86
2	DGWA-71	G	8/11/2020	1455	3	1	2	X	X	X	pH 5.96
3	EB-1	G	8/11/2020	1250	3	1	2	X	X	X	
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App IV Metals - SO, AL, BA, BE, CE, CR, CO, PB, LI, HQ, MO, SE, TI	<i>[Signature]</i>	8/12	856	<i>[Signature]</i>	8/12	857	
	<i>[Signature]</i>	8/12	1436	<i>[Signature]</i>	8/12	1445	pH 5.8 4 A Y

SAMPLER NAME AND SIGNATURE		TEMP in C Received on (Y/N) Custody Sealed Cooler ID#: ID#: Samples Intact (Y/N)
SAMPLER NAME: <i>Kevin Mitchen</i>		
SAMPLER SIGNATURE: <i>[Signature]</i>	DATE Signed: <i>8/12/20</i>	



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: JJY  
Date: 8/21/2020  
Worklist: 55663  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	1984358
MB concentration:	0.048
M/B Counting Uncertainty:	0.101
MB MDC:	0.237
MB Numerical Performance Indicator:	0.93
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS55663	LCS/D55663
Count Date:	8/24/2020	8/24/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.045	24.045
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.503
Target Conc. (pCi/L, g, F):	4.760	4.776
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.133	5.003
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.579	0.603
Numerical Performance Indicator:	-2.12	0.74
Percent Recovery:	86.81%	104.76%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS55663	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS/D55663	
Sample Result (pCi/L, g, F):	4.133	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.579	
Sample Duplicate Result (pCi/L, g, F):	5.003	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.603	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-2.043	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	18.74%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

JJY  
8-24-20

*OK 8/24/2020*



### Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: JJY  
Date: 8/21/2020  
Worklist: 55663  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	1984358
MB concentration:	0.048
M/B Counting Uncertainty:	0.101
MB MDC:	0.237
MB Numerical Performance Indicator:	0.93
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
		LCSD55663
Count Date:	8/24/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.505	
Target Conc. (pCi/L, g, F):	4.760	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.133	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.579	
Numerical Performance Indicator:	-2.12	
Percent Recovery:	86.81%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92490503014	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92490503014DUP	
Sample Result (pCi/L, g, F):	0.870	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.275	
Sample Duplicate Result (pCi/L, g, F):	0.731	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.265	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.709	92490503014
Duplicate RPD:	17.33%	92490503014DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

*Handwritten signature: JJY 8/24/2020*

*Handwritten initials: JJY 8-24-20*



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 8/31/2020  
Worklist: 55836  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	1989991
MB concentration:	-0.043
M/B Counting Uncertainty:	0.080
MB MDC:	0.185
MB Numerical Performance Indicator:	-1.06
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
		LCSD55836
Count Date:	9/1/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.501	
Target Conc. (pCi/L, g, F):	4.798	
Uncertainty (Calculated):	0.058	
Result (pCi/L, g, F):	4.493	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.750	
Numerical Performance Indicator:	-0.79	
Percent Recovery:	93.65%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92490503020	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92490503020DUP	
Sample Result (pCi/L, g, F):	0.717	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.321	
Sample Duplicate Result (pCi/L, g, F):	0.626	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.314	
Are sample and/or duplicate results below RL? See Below ##		
Duplicate Numerical Performance Indicator:	0.399	92490503020
Duplicate RPD:	13.61%	92490503020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

van 9/1/2020

*Analyst*



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 8/31/2020  
Worklist: 55836  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	1989991	
MB concentration:	-0.043	
M/B Counting Uncertainty:	0.080	
MB MDC:	0.185	
MB Numerical Performance Indicator:	-1.06	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS55836	LCS55836
Count Date:	9/1/2020	9/1/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.045	24.045
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.501	0.500
Target Conc. (pCi/L, g, F):	4.798	4.808
Uncertainty (Calculated):	0.058	0.058
Result (pCi/L, g, F):	4.493	5.168
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.750	0.855
Numerical Performance Indicator:	-0.79	0.82
Percent Recovery:	93.65%	107.49%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS55836	Enter Duplicate sample IDs if other than the space below.
Duplicate Sample I.D.:	LCS55836	
Sample Result (pCi/L, g, F):	4.493	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.750	
Sample Duplicate Result (pCi/L, g, F):	5.168	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.855	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.163	92490503020
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.75%	92490503020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

uam 9/1/2020

*uam*





### Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 8/24/2020  
Worklist: 55667  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	1984702
MB concentration:	0.731
M/B 2 Sigma CSU:	0.425
MB MDC:	0.763
MB Numerical Performance Indicator:	3.37
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS55667	LCSD55667
Count Date:	8/27/2020	8/27/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.637	38.637
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.809	0.805
Target Conc. (pCi/L, g, F):	4.773	4.800
Uncertainty (Calculated):	0.234	0.235
Result (pCi/L, g, F):	6.454	5.781
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.448	1.299
Numerical Performance Indicator:	2.25	1.45
Percent Recovery:	135.21%	120.42%
Status vs Numerical Indicator:	Warning	N/A
Status vs Recovery:	Fail High**	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:		
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		
Sample I.D.:	LCS55667	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD55667	
Sample Result (pCi/L, g, F):	6.454	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.448	
Sample Duplicate Result (pCi/L, g, F):	5.781	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.299	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.678	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	11.57%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:**

\*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

\*\*If all sample results are below MDC, the batch is acceptable, otherwise this batch must be re-prepped due to LCS failure.

LCS NPI 23

537  
8-28-2020

JJ 8-28-20

DU 8/28/20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/2/2020  
Worklist: 55850  
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1990338
MB concentration:	0.527
M/B 2 Sigma CSU:	0.407
MB MDC:	0.796
MB Numerical Performance Indicator:	2.54
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS55850	LCSD55850
Count Date:	9/8/2020	9/8/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.485	38.485
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.807	0.803
Target Conc. (pCi/L, g, F):	4.769	4.794
Uncertainty (Calculated):	0.234	0.235
Result (pCi/L, g, F):	4.945	4.330
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.130	1.089
Numerical Performance Indicator:	0.30	-0.82
Percent Recovery:	103.69%	90.32%
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:		
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		
Sample I.D.:	LCS55850	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD55850	
Sample Result (pCi/L, g, F):	4.945	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.130	
Sample Duplicate Result (pCi/L, g, F):	4.330	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.089	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.769	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.79%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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/initials*

September 10, 2020

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

RE: Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 12, 2020 and August 14, 2020. 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
- Pace Analytical Services - Greensburg

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

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

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### **Pace Analytical Services Pennsylvania**

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

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

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92490503001	DGWC-2	Water	08/11/20 13:20	08/12/20 08:57
92490503002	DGWC-9	Water	08/11/20 16:05	08/12/20 08:57
92490503003	DGWC-10	Water	08/11/20 16:30	08/12/20 08:57
92490503004	DGWC-11	Water	08/11/20 12:15	08/12/20 08:57
92490503005	DGWC-12	Water	08/11/20 14:50	08/12/20 08:57
92490503006	DGWC-14	Water	08/11/20 11:32	08/12/20 08:57
92490503007	DGWC-19	Water	08/11/20 13:00	08/12/20 08:57
92490503008	FB-1	Water	08/11/20 11:55	08/12/20 08:57
92490503009	FD-1	Water	08/11/20 00:00	08/12/20 08:57
92490503010	DGWC-4	Water	08/12/20 11:46	08/13/20 10:15
92490503011	DGWC-5	Water	08/12/20 10:45	08/13/20 10:15
92490503012	DGWC-8	Water	08/12/20 10:15	08/13/20 10:15
92490503013	DGWC-13	Water	08/12/20 11:40	08/13/20 10:15
92490503014	DGWC-47	Water	08/12/20 10:25	08/13/20 10:15
92490503015	FD-2	Water	08/12/20 00:00	08/13/20 10:15
92490503016	DGWC-15	Water	08/13/20 10:40	08/14/20 14:30
92490503017	DGWC-20	Water	08/13/20 13:15	08/14/20 14:30
92490503018	DGWC-23	Water	08/13/20 13:10	08/14/20 14:30
92490503019	DGWC-42	Water	08/13/20 15:12	08/14/20 14:30
92490503020	DGWC-48	Water	08/13/20 09:46	08/14/20 14:30
92490503021	FB-2	Water	08/13/20 09:40	08/14/20 14:30
92490503022	DGWC-17	Water	08/14/20 10:15	08/14/20 14:30
92490503023	DGWC-21	Water	08/14/20 10:55	08/14/20 14:30
92490503024	DGWC-22	Water	08/14/20 11:53	08/14/20 14:30
92490503025	FB-3	Water	08/14/20 10:40	08/14/20 14:30
92490503026	EB-3	Water	08/14/20 12:45	08/14/20 14:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490503001	DGWC-2	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503002	DGWC-9	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503003	DGWC-10	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503004	DGWC-11	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503005	DGWC-12	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503006	DGWC-14	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503007	DGWC-19	EPA 6020B	CW1	12	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490503008	FB-1	EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92490503009	FD-1	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
92490503010	DGWC-4	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
92490503011	DGWC-5	EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92490503012	DGWC-8	EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	JJY	1	PASI-PA
92490503013	DGWC-13	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
92490503014	DGWC-47	EPA 9315	JJY	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A		
		EPA 6020B	CW1	12	PASI-GA		
		EPA 7470A	VB	1	PASI-GA		
		EPA 9315	JJY	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A		
92490503015	FD-2	EPA 6020B	CW1	12	PASI-GA		
		EPA 7470A	VB	1	PASI-GA		
		EPA 9315	JJY	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A		
		92490503016	DGWC-15	EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
				EPA 9320	VAL	1	PASI-PA
Total Radium Calculation	CMC			1	PASI-PA		
EPA 300.0 Rev 2.1 1993	CDC			1	PASI-A		
92490503017	DGWC-20			EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
				EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A		
		92490503018	DGWC-23	EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
				EPA 9320	VAL	1	PASI-PA
Total Radium Calculation	CMC			1	PASI-PA		
EPA 300.0 Rev 2.1 1993	CDC			1	PASI-A		
92490503019	DGWC-42			EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490503020	DGWC-48	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92490503021	FB-2	Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92490503022	DGWC-17	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490503023	DGWC-21	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		92490503024	DGWC-22	EPA 6020B	CW1
EPA 7470A	VB			1	PASI-GA
EPA 9315	LAL			1	PASI-PA
EPA 9320	VAL			1	PASI-PA
Total Radium Calculation	CMC			1	PASI-PA
EPA 300.0 Rev 2.1 1993	CDC			1	PASI-A
92490503025	FB-3			EPA 6020B	CW1
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490503026	EB-3	Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

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

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-2**      **Lab ID: 92490503001**      Collected: 08/11/20 13:20      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.04	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:19	7440-38-2	
Barium	0.022	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:19	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:19	7440-43-9	
Chromium	0.00067J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:19	7440-47-3	B
Cobalt	0.0064	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:19	7440-48-4	
Lead	0.00064J	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:19	7439-92-1	
Lithium	0.028J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:19	7439-93-2	
Molybdenum	0.0020J	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:19	7439-98-7	
Selenium	0.0053J	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:19	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:33	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 01:36	16984-48-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: DGWC-9		Lab ID: 92490503002		Collected: 08/11/20 16:05		Received: 08/12/20 08:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.00	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:25	7440-36-0	
Arsenic	0.022	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:25	7440-38-2	
Barium	0.016	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:25	7440-39-3	
Beryllium	0.0062	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:25	7440-41-7	
Cadmium	0.00059J	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:25	7440-43-9	
Chromium	0.00061J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:25	7440-47-3	B
Cobalt	0.22	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:25	7440-48-4	
Lead	ND	mg/L	0.025	0.00018	5	08/13/20 10:10	08/18/20 16:02	7439-92-1	D3
Lithium	0.032	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:25	7439-98-7	
Selenium	0.11	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:25	7782-49-2	
Thallium	ND	mg/L	0.0050	0.00072	5	08/13/20 10:10	08/18/20 16:02	7440-28-0	D3
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00026	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:36	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	1.3	mg/L	0.10	0.050	1		08/14/20 01:50	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-10		Lab ID: 92490503003		Collected: 08/11/20 16:30		Received: 08/12/20 08:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.92	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:31	7440-36-0	
Arsenic	0.0028J	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:31	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:31	7440-39-3	
Beryllium	0.0066	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:31	7440-41-7	
Cadmium	0.00071J	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:31	7440-43-9	
Chromium	0.00097J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:31	7440-47-3	B
Cobalt	0.11	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:31	7440-48-4	
Lead	0.000070J	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:31	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:31	7439-98-7	
Selenium	0.023	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:31	7782-49-2	
Thallium	0.00037J	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:31	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:38	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	1.4	mg/L	0.10	0.050	1		08/14/20 02:04	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-11**      **Lab ID: 92490503004**      Collected: 08/11/20 12:15      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.68	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:36	7440-38-2	
Barium	0.064	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:36	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:36	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:36	7440-43-9	
Chromium	0.00061J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:36	7440-47-3	B
Cobalt	0.00055J	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:36	7440-48-4	
Lead	0.000053J	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:36	7439-92-1	
Lithium	0.0028J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:36	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:45	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 02:18	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-12**      **Lab ID: 92490503005**      Collected: 08/11/20 14:50      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.69	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:42	7440-38-2	
Barium	0.028	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:42	7440-39-3	
Beryllium	0.00024J	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:42	7440-41-7	
Cadmium	0.00038J	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:42	7440-43-9	
Chromium	0.00094J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:42	7440-47-3	B
Cobalt	0.0060	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:42	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:42	7439-98-7	
Selenium	0.0019J	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:48	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 02:32	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-14**      **Lab ID: 92490503006**      Collected: 08/11/20 11:32      Received: 08/12/20 08:57      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.73	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:48	7440-38-2	
Barium	0.061	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:48	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:48	7440-48-4	
Lead	0.000096J	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:48	7439-92-1	
Lithium	0.0035J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:48	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:50	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 02:46	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-19		Lab ID: 92490503007		Collected: 08/11/20 13:00		Received: 08/12/20 08:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.90	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:54	7440-36-0	
Arsenic	0.0014J	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:54	7440-38-2	
Barium	0.027	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:54	7440-39-3	
Beryllium	0.0020J	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:54	7440-41-7	
Cadmium	0.00030J	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:54	7440-43-9	
Chromium	0.0024J	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:54	7440-47-3	B
Cobalt	0.049	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:54	7440-48-4	
Lead	0.000053J	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:54	7439-92-1	
Lithium	0.0031J	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:54	7439-98-7	
Selenium	0.0096J	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:54	7782-49-2	
Thallium	0.00059J	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:52	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.20	mg/L	0.10	0.050	1		08/14/20 03:00	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: <b>FB-1</b>		Lab ID: <b>92490503008</b>		Collected: 08/11/20 11:55	Received: 08/12/20 08:57	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 19:59	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 19:59	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 19:59	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 19:59	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 19:59	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 19:59	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 19:59	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 19:59	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 19:59	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 19:59	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 19:59	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 19:59	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:55	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		08/14/20 03:42	16984-48-8		

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: FD-1		Lab ID: 92490503009		Collected: 08/11/20 00:00		Received: 08/12/20 08:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	08/13/20 10:10	08/17/20 20:05	7440-36-0	
Arsenic	<b>0.0027J</b>	mg/L	0.0050	0.00078	1	08/13/20 10:10	08/17/20 20:05	7440-38-2	
Barium	<b>0.024</b>	mg/L	0.010	0.00071	1	08/13/20 10:10	08/17/20 20:05	7440-39-3	
Beryllium	<b>0.0065</b>	mg/L	0.0030	0.000046	1	08/13/20 10:10	08/17/20 20:05	7440-41-7	
Cadmium	<b>0.00086J</b>	mg/L	0.0025	0.00012	1	08/13/20 10:10	08/17/20 20:05	7440-43-9	
Chromium	<b>0.0010J</b>	mg/L	0.010	0.00055	1	08/13/20 10:10	08/17/20 20:05	7440-47-3	B
Cobalt	<b>0.11</b>	mg/L	0.0050	0.00038	1	08/13/20 10:10	08/17/20 20:05	7440-48-4	
Lead	<b>0.000067J</b>	mg/L	0.0050	0.000036	1	08/13/20 10:10	08/17/20 20:05	7439-92-1	
Lithium	<b>0.0034J</b>	mg/L	0.030	0.00081	1	08/13/20 10:10	08/17/20 20:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/13/20 10:10	08/17/20 20:05	7439-98-7	
Selenium	<b>0.025</b>	mg/L	0.010	0.0016	1	08/13/20 10:10	08/17/20 20:05	7782-49-2	
Thallium	<b>0.00038J</b>	mg/L	0.0010	0.00014	1	08/13/20 10:10	08/17/20 20:05	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:57	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	<b>1.5</b>	mg/L	0.10	0.050	1		08/14/20 04:24	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-4		Lab ID: 92490503010		Collected: 08/12/20 11:46		Received: 08/13/20 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.93	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 18:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 18:57	7440-38-2	
Barium	0.036	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 18:57	7440-39-3	
Beryllium	0.00024J	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 18:57	7440-41-7	
Cadmium	0.00080J	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 18:57	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 18:57	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 18:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 18:57	7439-92-1	
Lithium	0.0031J	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 18:57	7439-93-2	
Molybdenum	0.0057J	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 18:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 18:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 18:57	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 13:59	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/15/20 21:48	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-5		Lab ID: 92490503011		Collected: 08/12/20 10:45		Received: 08/13/20 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.84	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 19:32	7440-36-0	
Arsenic	0.0020J	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 19:32	7440-38-2	
Barium	0.017	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 19:32	7440-39-3	
Beryllium	0.0081	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 19:32	7440-41-7	
Cadmium	0.00079J	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 19:32	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 19:32	7440-47-3	
Cobalt	0.021	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 19:32	7440-48-4	
Lead	0.000063J	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 19:32	7439-92-1	
Lithium	0.0067J	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 19:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 19:32	7439-98-7	
Selenium	0.011	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 19:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 19:32	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00017J	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 14:02	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.13	mg/L	0.10	0.050	1		08/15/20 22:02	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: **DGWC-8** Lab ID: **92490503012** Collected: 08/12/20 10:15 Received: 08/13/20 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>5.36</b>	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 19:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 19:37	7440-38-2	
Barium	<b>0.034</b>	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 19:37	7440-39-3	
Beryllium	<b>0.0018J</b>	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 19:37	7440-41-7	
Cadmium	<b>0.0021J</b>	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 19:37	7440-43-9	
Chromium	<b>0.0028J</b>	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 19:37	7440-47-3	
Cobalt	<b>0.053</b>	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 19:37	7440-48-4	
Lead	<b>0.00070J</b>	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 19:37	7439-92-1	
Lithium	<b>0.0058J</b>	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 19:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 19:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 19:37	7782-49-2	
Thallium	<b>0.00023J</b>	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 19:37	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	<b>0.000079J</b>	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 14:14	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	<b>0.056J</b>	mg/L	0.10	0.050	1		08/15/20 22:16	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-13**      **Lab ID: 92490503013**      Collected: 08/12/20 11:40      Received: 08/13/20 10:15      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>5.68</b>	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 19:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 19:43	7440-38-2	
Barium	<b>0.032</b>	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 19:43	7440-39-3	
Beryllium	<b>0.000078J</b>	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 19:43	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 19:43	7440-43-9	
Chromium	<b>0.00074J</b>	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 19:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 19:43	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 19:43	7439-92-1	
Lithium	<b>0.0034J</b>	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 19:43	7439-93-2	
Molybdenum	<b>0.012</b>	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 19:43	7439-98-7	
Selenium	<b>0.0038J</b>	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 19:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 19:43	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 14:23	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	<b>0.051J</b>	mg/L	0.10	0.050	1		08/15/20 22:30	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-47		Lab ID: 92490503014		Collected: 08/12/20 10:25		Received: 08/13/20 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.43	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 19:49	7440-36-0	
Arsenic	0.00081J	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 19:49	7440-38-2	
Barium	0.016	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 19:49	7440-39-3	
Beryllium	0.0068	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 19:49	7440-41-7	
Cadmium	0.0010J	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 19:49	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 19:49	7440-47-3	
Cobalt	0.21	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 19:49	7440-48-4	
Lead	0.00040J	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 19:49	7439-92-1	
Lithium	0.054	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 19:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 19:49	7439-98-7	
Selenium	0.0020J	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 19:49	7782-49-2	
Thallium	0.00018J	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 19:49	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 14:26	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.22	mg/L	0.10	0.050	1		08/15/20 22:45	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: <b>FD-2</b>		Lab ID: <b>92490503015</b>		Collected: 08/12/20 00:00	Received: 08/13/20 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/17/20 16:46	08/20/20 19:55	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	08/17/20 16:46	08/20/20 19:55	7440-38-2		
Barium	<b>0.034</b>	mg/L	0.010	0.00071	1	08/17/20 16:46	08/20/20 19:55	7440-39-3		
Beryllium	<b>0.0019J</b>	mg/L	0.0030	0.000046	1	08/17/20 16:46	08/20/20 19:55	7440-41-7		
Cadmium	<b>0.0023J</b>	mg/L	0.0025	0.00012	1	08/17/20 16:46	08/20/20 19:55	7440-43-9		
Chromium	<b>0.0025J</b>	mg/L	0.010	0.00055	1	08/17/20 16:46	08/20/20 19:55	7440-47-3		
Cobalt	<b>0.055</b>	mg/L	0.0050	0.00038	1	08/17/20 16:46	08/20/20 19:55	7440-48-4		
Lead	<b>0.00049J</b>	mg/L	0.0050	0.000036	1	08/17/20 16:46	08/20/20 19:55	7439-92-1		
Lithium	<b>0.0057J</b>	mg/L	0.030	0.00081	1	08/17/20 16:46	08/20/20 19:55	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	08/17/20 16:46	08/20/20 19:55	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	08/17/20 16:46	08/20/20 19:55	7782-49-2		
Thallium	<b>0.00022J</b>	mg/L	0.0010	0.00014	1	08/17/20 16:46	08/20/20 19:55	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	08/14/20 08:10	08/14/20 14:28	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	<b>0.075J</b>	mg/L	0.10	0.050	1		08/15/20 22:59	16984-48-8		

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-15**      **Lab ID: 92490503016**      Collected: 08/13/20 10:40      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	6.58	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	<b>0.00073J</b>	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 18:42	7440-36-0	
Arsenic	<b>0.0013J</b>	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 18:42	7440-38-2	
Barium	<b>0.060</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 18:42	7440-39-3	
Beryllium	<b>0.00022J</b>	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 18:42	7440-41-7	
Cadmium	<b>0.00013J</b>	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 18:42	7440-43-9	
Chromium	<b>0.0048J</b>	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 18:42	7440-47-3	
Cobalt	<b>0.0024J</b>	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 18:42	7440-48-4	
Lead	<b>0.0012J</b>	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 18:42	7439-92-1	
Lithium	<b>0.0089J</b>	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 18:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 18:42	7439-98-7	
Selenium	<b>0.0018J</b>	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 18:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 18:42	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 11:58	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 01:00	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: DGWC-20		Lab ID: 92490503017		Collected: 08/13/20 13:15	Received: 08/14/20 14:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.36	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:00	7440-36-0	
Arsenic	0.014	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:00	7440-38-2	
Barium	0.019	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:00	7440-39-3	
Beryllium	0.0063	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:00	7440-41-7	
Cadmium	0.0021J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:00	7440-43-9	
Chromium	0.0023J	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:00	7440-47-3	
Cobalt	0.73	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:00	7440-48-4	
Lead	0.00044J	mg/L	0.025	0.00018	5	08/18/20 18:30	08/20/20 16:26	7439-92-1	D3
Lithium	0.012J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:00	7439-98-7	
Selenium	0.091	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:00	7782-49-2	
Thallium	0.0016J	mg/L	0.0050	0.00072	5	08/18/20 18:30	08/20/20 16:26	7440-28-0	D3
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:00	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.90	mg/L	0.10	0.050	1		08/20/20 01:15	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: DGWC-23		Lab ID: 92490503018		Collected: 08/13/20 13:10		Received: 08/14/20 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.00	Std. Units			1		08/20/20 17:21		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:05	7440-38-2	
Barium	0.027	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:05	7440-39-3	
Beryllium	0.00041J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:05	7440-41-7	
Cadmium	0.00027J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:05	7440-43-9	
Chromium	0.00085J	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:05	7440-47-3	
Cobalt	0.00048J	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:05	7439-92-1	
Lithium	0.0052J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:05	7439-93-2	
Molybdenum	0.013	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:05	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00014J	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:03	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.10	mg/L	0.10	0.050	1		08/20/20 01:29	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-42**      **Lab ID: 92490503019**      Collected: 08/13/20 15:12      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>5.34</b>	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:11	7440-38-2	
Barium	<b>0.027</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:11	7440-39-3	
Beryllium	<b>0.0026J</b>	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:11	7440-41-7	
Cadmium	<b>0.0013J</b>	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:11	7440-43-9	
Chromium	<b>0.0021J</b>	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:11	7440-47-3	
Cobalt	<b>0.025</b>	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:11	7440-48-4	
Lead	<b>0.0016J</b>	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:11	7439-92-1	
Lithium	<b>0.011J</b>	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:11	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:05	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 01:44	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-48**      **Lab ID: 92490503020**      Collected: 08/13/20 09:46      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>4.26</b>	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:17	7440-38-2	
Barium	<b>0.013</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:17	7440-39-3	
Beryllium	<b>0.0071</b>	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:17	7440-41-7	
Cadmium	<b>0.0028</b>	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:17	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:17	7440-47-3	
Cobalt	<b>0.35</b>	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:17	7440-48-4	
Lead	<b>0.00092J</b>	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:17	7439-92-1	
Lithium	<b>0.098</b>	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:17	7439-98-7	
Selenium	<b>0.0029J</b>	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:17	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:07	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	<b>0.47</b>	mg/L	0.10	0.050	1		08/20/20 01:59	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Sample: <b>FB-2</b> Lab ID: <b>92490503021</b> Collected: 08/13/20 09:40      Received: 08/14/20 14:30      Matrix: Water										
Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>										
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA										
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:23	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:23	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:23	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:23	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:23	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:23	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:23	7440-48-4		
Lead	<b>0.00017J</b>	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:23	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:23	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:23	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:23	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:23	7440-28-0		
<b>7470 Mercury</b>										
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA										
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:14	7439-97-6		
<b>300.0 IC Anions 28 Days</b>										
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville										
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 02:14	16984-48-8		

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-17**      **Lab ID: 92490503022**      Collected: 08/14/20 10:15      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	5.01	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:28	7440-38-2	
Barium	0.046	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:28	7440-39-3	
Beryllium	0.00064J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:28	7440-41-7	
Cadmium	0.00029J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:28	7440-43-9	
Chromium	0.0033J	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:28	7440-47-3	
Cobalt	0.026	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:28	7440-48-4	
Lead	0.00017J	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:28	7439-92-1	
Lithium	0.0015J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:28	7439-98-7	
Selenium	0.0084J	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:28	7782-49-2	
Thallium	0.00019J	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:28	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	0.000098J	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:17	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	0.069J	mg/L	0.10	0.050	1		08/20/20 02:29	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-21**      **Lab ID: 92490503023**      Collected: 08/14/20 10:55      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	5.66	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:34	7440-38-2	
Barium	0.027	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:34	7440-39-3	
Beryllium	0.00020J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:34	7440-41-7	
Cadmium	0.00054J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:34	7440-47-3	
Cobalt	0.0098	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:34	7439-92-1	
Lithium	0.0058J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:34	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:19	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 03:14	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-22**      **Lab ID: 92490503024**      Collected: 08/14/20 11:53      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	5.76	Std. Units			1		08/20/20 17:21		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:40	7440-38-2	
Barium	0.035	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:40	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:40	7440-41-7	
Cadmium	0.00057J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:40	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:40	7440-47-3	
Cobalt	0.0087	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:40	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:40	7439-92-1	
Lithium	0.0039J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:40	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:40	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:40	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:22	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 03:29	16984-48-8	
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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: FB-3**      **Lab ID: 92490503025**      Collected: 08/14/20 10:40      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:45	7440-38-2	
Barium	<b>0.00087J</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:45	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:45	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:45	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:24	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 05:52	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Sample: EB-3		Lab ID: 92490503026		Collected: 08/14/20 12:45		Received: 08/14/20 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 19:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 19:51	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 19:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 19:51	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 19:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 19:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 19:51	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 19:51	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 19:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 19:51	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 19:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 19:51	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 12:26	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 06:06	16984-48-8	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

QC Batch: 559731 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009

METHOD BLANK: 2969713 Matrix: Water  
Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/17/20 18:05	
Arsenic	mg/L	ND	0.0050	0.00078	08/17/20 18:05	
Barium	mg/L	ND	0.010	0.00071	08/17/20 18:05	
Beryllium	mg/L	ND	0.0030	0.000046	08/17/20 18:05	
Cadmium	mg/L	ND	0.0025	0.00012	08/17/20 18:05	
Chromium	mg/L	0.00061J	0.010	0.00055	08/17/20 18:05	
Cobalt	mg/L	ND	0.0050	0.00038	08/17/20 18:05	
Lead	mg/L	ND	0.0050	0.000036	08/17/20 18:05	
Lithium	mg/L	ND	0.030	0.00081	08/17/20 18:05	
Molybdenum	mg/L	ND	0.010	0.00069	08/17/20 18:05	
Selenium	mg/L	ND	0.010	0.0016	08/17/20 18:05	
Thallium	mg/L	ND	0.0010	0.00014	08/17/20 18:05	

LABORATORY CONTROL SAMPLE: 2969714

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2973381 2973382

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Spike Conc.	Result	Result								
Antimony	mg/L	0.0013J	0.1	0.1	0.11	0.11	110	105	75-125	4	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20		
Barium	mg/L	0.041	0.1	0.1	0.15	0.15	112	106	75-125	4	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameter	Units	2973381		2973382		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92490488001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Beryllium	mg/L	0.00013J	0.1	0.1	0.11	0.10	105	103	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.096	102	95	75-125	7	20	
Cobalt	mg/L	0.0012J	0.1	0.1	0.10	0.097	101	96	75-125	5	20	
Lead	mg/L	0.00030J	0.1	0.1	0.11	0.10	106	101	75-125	5	20	
Lithium	mg/L	0.0019J	0.1	0.1	0.11	0.11	106	104	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.095	96	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	3	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 560481 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

METHOD BLANK: 2973740 Matrix: Water

Associated Lab Samples: 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/20/20 17:20	
Arsenic	mg/L	ND	0.0050	0.00078	08/20/20 17:20	
Barium	mg/L	ND	0.010	0.00071	08/20/20 17:20	
Beryllium	mg/L	ND	0.0030	0.000046	08/20/20 17:20	
Cadmium	mg/L	ND	0.0025	0.00012	08/20/20 17:20	
Chromium	mg/L	ND	0.010	0.00055	08/20/20 17:20	
Cobalt	mg/L	ND	0.0050	0.00038	08/20/20 17:20	
Lead	mg/L	ND	0.0050	0.000036	08/20/20 17:20	
Lithium	mg/L	ND	0.030	0.00081	08/20/20 17:20	
Molybdenum	mg/L	ND	0.010	0.00069	08/20/20 17:20	
Selenium	mg/L	ND	0.010	0.0016	08/20/20 17:20	
Thallium	mg/L	ND	0.0010	0.00014	08/20/20 17:20	

LABORATORY CONTROL SAMPLE: 2973741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	106	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	105	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2973742 2973743

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92490503010 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	108	103	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	102	97	75-125	5	20	
Barium	mg/L	0.036	0.1	0.1	0.14	0.13	107	91	75-125	12	20	
Beryllium	mg/L	0.00024J	0.1	0.1	0.090	0.086	90	86	75-125	4	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameter	Units	2973742		2973743		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92490503010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Cadmium	mg/L	0.00080J	0.1	0.1	0.098	0.095	97	94	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.094	98	94	75-125	5	20	
Cobalt	mg/L	0.0018J	0.1	0.1	0.098	0.095	96	93	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.092	97	92	75-125	5	20	
Lithium	mg/L	0.0031J	0.1	0.1	0.095	0.092	92	88	75-125	4	20	
Molybdenum	mg/L	0.0057J	0.1	0.1	0.11	0.10	102	97	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.098	0.094	98	94	75-125	4	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

QC Batch: 560739 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024, 92490503025, 92490503026

METHOD BLANK: 2974806 Matrix: Water  
Associated Lab Samples: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024, 92490503025, 92490503026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/19/20 17:51	
Arsenic	mg/L	ND	0.0050	0.00078	08/19/20 17:51	
Barium	mg/L	ND	0.010	0.00071	08/19/20 17:51	
Beryllium	mg/L	ND	0.0030	0.000046	08/19/20 17:51	
Cadmium	mg/L	ND	0.0025	0.00012	08/19/20 17:51	
Chromium	mg/L	ND	0.010	0.00055	08/19/20 17:51	
Cobalt	mg/L	ND	0.0050	0.00038	08/19/20 17:51	
Lead	mg/L	ND	0.0050	0.000036	08/19/20 17:51	
Lithium	mg/L	ND	0.030	0.00081	08/19/20 17:51	
Molybdenum	mg/L	ND	0.010	0.00069	08/19/20 17:51	
Selenium	mg/L	ND	0.010	0.0016	08/19/20 17:51	
Thallium	mg/L	ND	0.0010	0.00014	08/19/20 17:51	

LABORATORY CONTROL SAMPLE: 2974807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	111	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974808 2974809

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result								
Antimony	mg/L	ND	0.1	0.1	0.1	0.11	0.11	114	109	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.1	0.10	0.099	100	99	75-125	2	20	
Barium	mg/L	0.088	0.1	0.1	0.1	0.22	0.21	131	119	75-125	6	20	M1

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameter	Units	2974808		2974809		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92490942006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Beryllium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Cadmium	mg/L	0.00021J	0.1	0.1	0.10	0.098	99	98	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	0	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.098	102	97	75-125	4	20		
Molybdenum	mg/L	0.19	0.1	0.1	0.31	0.29	122	105	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.093	99	92	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

QC Batch:	559929	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011

METHOD BLANK: 2971190 Matrix: Water  
Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/14/20 12:55	

LABORATORY CONTROL SAMPLE: 2971191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2971192 2971193

Parameter	Units	92489844052 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	98	99	75-125	1	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 559932

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490503012, 92490503013, 92490503014, 92490503015

METHOD BLANK: 2971194

Matrix: Water

Associated Lab Samples: 92490503012, 92490503013, 92490503014, 92490503015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/14/20 14:09	

LABORATORY CONTROL SAMPLE: 2971195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2971196 2971197

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result	% Rec	% Rec				
Mercury	mg/L	0.00079J	0.0025	0.0025	0.0026	0.0026	102	100	75-125	2	20

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch:	560631	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024, 92490503025, 92490503026

METHOD BLANK: 2974348 Matrix: Water

Associated Lab Samples: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024, 92490503025, 92490503026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/19/20 11:20	

LABORATORY CONTROL SAMPLE: 2974349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974350 2974351

Parameter	Units	92490831003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	96	96	75-125	0	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

QC Batch: 559792 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: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009

METHOD BLANK: 2970272 Matrix: Water  
Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/13/20 23:31	

LABORATORY CONTROL SAMPLE: 2970273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2970274 2970275

Parameter	Units	92490488001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.7	2.6	106	104	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2970276 2970277

Parameter	Units	92490503008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.6	2.4	102	98	90-110	4	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 560228 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: 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

METHOD BLANK: 2972550 Matrix: Water  
 Associated Lab Samples: 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/15/20 19:39	

LABORATORY CONTROL SAMPLE: 2972551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2972552 2972553

Parameter	Units	2972552		2972553		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92490788002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Fluoride	mg/L	0.52	2.5	2.5	3.0	3.2	100	105	90-110	5	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2972554 2972555

Parameter	Units	2972554		2972555		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92490596012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Fluoride	mg/L	0.084J	2.5	2.5	2.2	2.4	85	91	90-110	6	10 M1

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch:	560825	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: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024

METHOD BLANK: 2975208 Matrix: Water

Associated Lab Samples: 92490503016, 92490503017, 92490503018, 92490503019, 92490503020, 92490503021, 92490503022, 92490503023, 92490503024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/19/20 19:46	

LABORATORY CONTROL SAMPLE: 2975209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2975210 2975211

Parameter	Units	92490043008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.88	2.5	2.5	3.5	3.6	106	108	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2975212 2975213

Parameter	Units	92490043018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	107	107	90-110	0	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 561129

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: 92490503025, 92490503026

METHOD BLANK: 2976672

Matrix: Water

Associated Lab Samples: 92490503025, 92490503026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/20/20 00:59	

LABORATORY CONTROL SAMPLE: 2976673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976674 2976675

Parameter	Units	92491362001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	ND	2.5	2.5	2.9	2.9	113	115	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976676 2976677

Parameter	Units	92491256001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	0.28	2.5	2.5	2.8	2.8	99	99	90-110	0	10	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-2**      **Lab ID: 92490503001**      Collected: 08/11/20 13:20      Received: 08/12/20 08:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.613 ± 0.269 (0.316)</b> <b>C:81% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.755 ± 0.427 (0.776)</b> <b>C:68% T:85%</b>	pCi/L	08/27/20 11:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.37 ± 0.696 (1.09)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-9</b> <b>Lab ID: 92490503002</b> Collected: 08/11/20 16:05      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.349 ± 0.203 (0.300)</b> <b>C:89% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.470 ± 0.406 (0.822)</b> <b>C:66% T:90%</b>	pCi/L	08/27/20 11:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.819 ± 0.609 (1.12)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-10**      **Lab ID: 92490503003**      Collected: 08/11/20 16:30      Received: 08/12/20 08:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.412 ± 0.223 (0.307)</b> <b>C:86% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.04 ± 0.453 (0.734)</b> <b>C:67% T:85%</b>	pCi/L	08/27/20 11:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.45 ± 0.676 (1.04)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-11**      **Lab ID: 92490503004**      Collected: 08/11/20 12:15      Received: 08/12/20 08:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.104 ± 0.123 (0.243)</b> <b>C:98% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.915 ± 0.417 (0.679)</b> <b>C:68% T:87%</b>	pCi/L	08/27/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.02 ± 0.540 (0.922)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-12</b> <b>Lab ID: 92490503005</b> Collected: 08/11/20 14:50      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.234 ± 0.189 (0.334)</b> <b>C:78% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.536 ± 0.398 (0.785)</b> <b>C:69% T:92%</b>	pCi/L	08/27/20 11:51	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.770 ± 0.587 (1.12)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-14**      **Lab ID: 92490503006**      Collected: 08/11/20 11:32      Received: 08/12/20 08:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.298 ± 0.218 (0.388)</b> <b>C:84% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.875 ± 0.449 (0.800)</b> <b>C:72% T:85%</b>	pCi/L	08/27/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.17 ± 0.667 (1.19)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-19</b> <b>Lab ID: 92490503007</b> Collected: 08/11/20 13:00      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.265 ± 0.175 (0.275)</b> <b>C:97% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.458 ± 0.406 (0.826)</b> <b>C:67% T:87%</b>	pCi/L	08/27/20 11:51	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.723 ± 0.581 (1.10)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: FB-1</b> <b>Lab ID: 92490503008</b> Collected: 08/11/20 11:55      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.124 ± 0.131 (0.248)</b> <b>C:95% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.129 ± 0.420 (0.944)</b> <b>C:64% T:85%</b>	pCi/L	08/27/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.253 ± 0.551 (1.19)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: FD-1</b> <b>Lab ID: 92490503009</b> Collected: 08/11/20 00:00      Received: 08/12/20 08:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.508 ± 0.244 (0.312)</b> <b>C:87% T:NA</b>	pCi/L	08/24/20 07:55	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.781 ± 0.473 (0.890)</b> <b>C:65% T:87%</b>	pCi/L	08/27/20 11:52	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.29 ± 0.717 (1.20)</b>	pCi/L	09/04/20 08:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-4**      **Lab ID: 92490503010**      Collected: 08/12/20 11:46      Received: 08/13/20 10:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.708 ± 0.281 (0.321)</b> <b>C:93% T:NA</b>	pCi/L	08/24/20 06:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.24 ± 0.531 (0.875)</b> <b>C:62% T:91%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.95 ± 0.812 (1.20)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-5**      **Lab ID: 92490503011**      Collected: 08/12/20 10:45      Received: 08/13/20 10:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.362 ± 0.199 (0.272)</b> <b>C:92% T:NA</b>	pCi/L	08/24/20 06:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.772 ± 0.451 (0.837)</b> <b>C:64% T:91%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.13 ± 0.650 (1.11)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-8**      **Lab ID: 92490503012**      Collected: 08/12/20 10:15      Received: 08/13/20 10:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.247 ± 0.233 (0.458)</b> <b>C:78% T:NA</b>	pCi/L	08/24/20 06:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.474 ± 0.410 (0.827)</b> <b>C:66% T:86%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.721 ± 0.643 (1.29)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-13</b> <b>Lab ID: 92490503013</b> Collected: 08/12/20 11:40      Received: 08/13/20 10:15      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.703 ± 0.290 (0.308)</b> <b>C:86% T:NA</b>	pCi/L	08/24/20 06:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.926 ± 0.530 (0.990)</b> <b>C:63% T:88%</b>	pCi/L	08/27/20 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.63 ± 0.820 (1.30)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-47**      **Lab ID: 92490503014**      Collected: 08/12/20 10:25      Received: 08/13/20 10:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.870 ± 0.304 (0.227)</b> <b>C:95% T:NA</b>	pCi/L	08/24/20 06:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.69 ± 0.594 (0.865)</b> <b>C:65% T:88%</b>	pCi/L	08/27/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.56 ± 0.898 (1.09)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: FD-2**      **Lab ID: 92490503015**      Collected: 08/12/20 00:00      Received: 08/13/20 10:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.228 ± 0.176 (0.279)</b> <b>C:77% T:NA</b>	pCi/L	08/24/20 06:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.398 ± 0.390 (0.802)</b> <b>C:62% T:89%</b>	pCi/L	08/27/20 11:53	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.626 ± 0.566 (1.08)</b>	pCi/L	09/04/20 08:38	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-15**      **Lab ID: 92490503016**      Collected: 08/13/20 10:40      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.97 ± 0.631 (0.506)</b> <b>C:73% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.61 ± 0.793 (1.38)</b> <b>C:64% T:54%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>3.58 ± 1.42 (1.89)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-20</b> <b>Lab ID: 92490503017</b> Collected: 08/13/20 13:15      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.379 ± 0.282 (0.470)</b> <b>C:83% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.39 ± 0.561 (0.893)</b> <b>C:67% T:82%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.77 ± 0.843 (1.36)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-23**      **Lab ID: 92490503018**      Collected: 08/13/20 13:10      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.504 ± 0.320 (0.472)</b> <b>C:75% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.971 ± 0.580 (1.09)</b> <b>C:63% T:75%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.48 ± 0.900 (1.56)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-42</b> <b>Lab ID: 92490503019</b> Collected: 08/13/20 15:12      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.248 ± 0.238 (0.434)</b> <b>C:82% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.977 ± 0.485 (0.836)</b> <b>C:64% T:82%</b>	pCi/L	09/08/20 11:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.23 ± 0.723 (1.27)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-48**      **Lab ID: 92490503020**      Collected: 08/13/20 09:46      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.717 ± 0.337 (0.368)</b> <b>C:88% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.02 ± 0.512 (0.893)</b> <b>C:65% T:80%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.74 ± 0.849 (1.26)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: FB-2**      **Lab ID: 92490503021**      Collected: 08/13/20 09:40      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0253 ± 0.128 (0.401)</b> <b>C:90% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.691 ± 0.511 (1.01)</b> <b>C:64% T:81%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.691 ± 0.639 (1.41)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-17</b> <b>Lab ID: 92490503022</b> Collected: 08/14/20 10:15      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0503 ± 0.236 (0.663)</b> <b>C:78% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.804 ± 0.508 (0.960)</b> <b>C:66% T:76%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.804 ± 0.744 (1.62)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-21**      **Lab ID: 92490503023**      Collected: 08/14/20 10:55      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.118 ± 0.238 (0.553)</b> <b>C:74% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.484 ± 0.393 (0.781)</b> <b>C:65% T:84%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.602 ± 0.631 (1.33)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: DGWC-22**      **Lab ID: 92490503024**      Collected: 08/14/20 11:53      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.200 ± 0.224 (0.437)</b> <b>C:82% T:NA</b>	pCi/L	09/01/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.63 ± 0.583 (0.812)</b> <b>C:61% T:81%</b>	pCi/L	09/08/20 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.83 ± 0.807 (1.25)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: FB-3**      **Lab ID: 92490503025**      Collected: 08/14/20 10:40      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.201 ± 0.279 (0.601)</b> <b>C:83% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.05 ± 0.750 (1.49)</b> <b>C:59% T:64%</b>	pCi/L	09/08/20 11:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 1.03 (2.09)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

**Sample: EB-3**      **Lab ID: 92490503026**      Collected: 08/14/20 12:45      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.00266 ± 0.205 (0.567)</b> <b>C:78% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0837 ± 0.431 (0.975)</b> <b>C:63% T:82%</b>	pCi/L	09/08/20 11:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.0864 ± 0.636 (1.54)</b>	pCi/L	09/09/20 14:53	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 410124

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

METHOD BLANK: 1984702

Matrix: Water

Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.731 ± 0.425 (0.763) C:63% T:81%	pCi/L	08/27/20 11:50	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 411373

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92490503025, 92490503026

METHOD BLANK: 1989993

Matrix: Water

Associated Lab Samples: 92490503025, 92490503026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0671 ± 0.195 (0.481) C:88% T:NA	pCi/L	09/02/20 07:31	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

QC Batch: 410046

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

METHOD BLANK: 1984358

Matrix: Water

Associated Lab Samples: 92490503001, 92490503002, 92490503003, 92490503004, 92490503005, 92490503006, 92490503007, 92490503008, 92490503009, 92490503010, 92490503011, 92490503012, 92490503013, 92490503014, 92490503015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0476 ± 0.101 (0.237) C:93% T:NA	pCi/L	08/24/20 07:55	

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490503001	DGWC-2				
92490503002	DGWC-9				
92490503003	DGWC-10				
92490503004	DGWC-11				
92490503005	DGWC-12				
92490503006	DGWC-14				
92490503007	DGWC-19				
92490503010	DGWC-4				
92490503011	DGWC-5				
92490503012	DGWC-8				
92490503013	DGWC-13				
92490503014	DGWC-47				
92490503016	DGWC-15				
92490503017	DGWC-20				
92490503018	DGWC-23				
92490503019	DGWC-42				
92490503020	DGWC-48				
92490503022	DGWC-17				
92490503023	DGWC-21				
92490503024	DGWC-22				
92490503001	DGWC-2	EPA 3005A	559731	EPA 6020B	559753
92490503002	DGWC-9	EPA 3005A	559731	EPA 6020B	559753
92490503003	DGWC-10	EPA 3005A	559731	EPA 6020B	559753
92490503004	DGWC-11	EPA 3005A	559731	EPA 6020B	559753
92490503005	DGWC-12	EPA 3005A	559731	EPA 6020B	559753
92490503006	DGWC-14	EPA 3005A	559731	EPA 6020B	559753
92490503007	DGWC-19	EPA 3005A	559731	EPA 6020B	559753
92490503008	FB-1	EPA 3005A	559731	EPA 6020B	559753
92490503009	FD-1	EPA 3005A	559731	EPA 6020B	559753
92490503010	DGWC-4	EPA 3005A	560481	EPA 6020B	560487
92490503011	DGWC-5	EPA 3005A	560481	EPA 6020B	560487
92490503012	DGWC-8	EPA 3005A	560481	EPA 6020B	560487
92490503013	DGWC-13	EPA 3005A	560481	EPA 6020B	560487
92490503014	DGWC-47	EPA 3005A	560481	EPA 6020B	560487
92490503015	FD-2	EPA 3005A	560481	EPA 6020B	560487
92490503016	DGWC-15	EPA 3005A	560739	EPA 6020B	560802
92490503017	DGWC-20	EPA 3005A	560739	EPA 6020B	560802
92490503018	DGWC-23	EPA 3005A	560739	EPA 6020B	560802
92490503019	DGWC-42	EPA 3005A	560739	EPA 6020B	560802
92490503020	DGWC-48	EPA 3005A	560739	EPA 6020B	560802
92490503021	FB-2	EPA 3005A	560739	EPA 6020B	560802
92490503022	DGWC-17	EPA 3005A	560739	EPA 6020B	560802
92490503023	DGWC-21	EPA 3005A	560739	EPA 6020B	560802
92490503024	DGWC-22	EPA 3005A	560739	EPA 6020B	560802
92490503025	FB-3	EPA 3005A	560739	EPA 6020B	560802
92490503026	EB-3	EPA 3005A	560739	EPA 6020B	560802
92490503001	DGWC-2	EPA 7470A	559929	EPA 7470A	559986

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490503002	DGWC-9	EPA 7470A	559929	EPA 7470A	559986
92490503003	DGWC-10	EPA 7470A	559929	EPA 7470A	559986
92490503004	DGWC-11	EPA 7470A	559929	EPA 7470A	559986
92490503005	DGWC-12	EPA 7470A	559929	EPA 7470A	559986
92490503006	DGWC-14	EPA 7470A	559929	EPA 7470A	559986
92490503007	DGWC-19	EPA 7470A	559929	EPA 7470A	559986
92490503008	FB-1	EPA 7470A	559929	EPA 7470A	559986
92490503009	FD-1	EPA 7470A	559929	EPA 7470A	559986
92490503010	DGWC-4	EPA 7470A	559929	EPA 7470A	559986
92490503011	DGWC-5	EPA 7470A	559929	EPA 7470A	559986
92490503012	DGWC-8	EPA 7470A	559932	EPA 7470A	559990
92490503013	DGWC-13	EPA 7470A	559932	EPA 7470A	559990
92490503014	DGWC-47	EPA 7470A	559932	EPA 7470A	559990
92490503015	FD-2	EPA 7470A	559932	EPA 7470A	559990
92490503016	DGWC-15	EPA 7470A	560631	EPA 7470A	560771
92490503017	DGWC-20	EPA 7470A	560631	EPA 7470A	560771
92490503018	DGWC-23	EPA 7470A	560631	EPA 7470A	560771
92490503019	DGWC-42	EPA 7470A	560631	EPA 7470A	560771
92490503020	DGWC-48	EPA 7470A	560631	EPA 7470A	560771
92490503021	FB-2	EPA 7470A	560631	EPA 7470A	560771
92490503022	DGWC-17	EPA 7470A	560631	EPA 7470A	560771
92490503023	DGWC-21	EPA 7470A	560631	EPA 7470A	560771
92490503024	DGWC-22	EPA 7470A	560631	EPA 7470A	560771
92490503025	FB-3	EPA 7470A	560631	EPA 7470A	560771
92490503026	EB-3	EPA 7470A	560631	EPA 7470A	560771
92490503001	DGWC-2	EPA 9315	410046		
92490503002	DGWC-9	EPA 9315	410046		
92490503003	DGWC-10	EPA 9315	410046		
92490503004	DGWC-11	EPA 9315	410046		
92490503005	DGWC-12	EPA 9315	410046		
92490503006	DGWC-14	EPA 9315	410046		
92490503007	DGWC-19	EPA 9315	410046		
92490503008	FB-1	EPA 9315	410046		
92490503009	FD-1	EPA 9315	410046		
92490503010	DGWC-4	EPA 9315	410046		
92490503011	DGWC-5	EPA 9315	410046		
92490503012	DGWC-8	EPA 9315	410046		
92490503013	DGWC-13	EPA 9315	410046		
92490503014	DGWC-47	EPA 9315	410046		
92490503015	FD-2	EPA 9315	410046		
92490503016	DGWC-15	EPA 9315	411372		
92490503017	DGWC-20	EPA 9315	411372		
92490503018	DGWC-23	EPA 9315	411372		
92490503019	DGWC-42	EPA 9315	411372		
92490503020	DGWC-48	EPA 9315	411372		
92490503021	FB-2	EPA 9315	411372		
92490503022	DGWC-17	EPA 9315	411372		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-2, 3/4  
Pace Project No.: 92490503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490503023	DGWC-21	EPA 9315	411372		
92490503024	DGWC-22	EPA 9315	411372		
92490503025	FB-3	EPA 9315	411373		
92490503026	EB-3	EPA 9315	411373		
92490503001	DGWC-2	EPA 9320	410124		
92490503002	DGWC-9	EPA 9320	410124		
92490503003	DGWC-10	EPA 9320	410124		
92490503004	DGWC-11	EPA 9320	410124		
92490503005	DGWC-12	EPA 9320	410124		
92490503006	DGWC-14	EPA 9320	410124		
92490503007	DGWC-19	EPA 9320	410124		
92490503008	FB-1	EPA 9320	410124		
92490503009	FD-1	EPA 9320	410124		
92490503010	DGWC-4	EPA 9320	410124		
92490503011	DGWC-5	EPA 9320	410124		
92490503012	DGWC-8	EPA 9320	410124		
92490503013	DGWC-13	EPA 9320	410124		
92490503014	DGWC-47	EPA 9320	410124		
92490503015	FD-2	EPA 9320	410124		
92490503016	DGWC-15	EPA 9320	411433		
92490503017	DGWC-20	EPA 9320	411433		
92490503018	DGWC-23	EPA 9320	411433		
92490503019	DGWC-42	EPA 9320	411433		
92490503020	DGWC-48	EPA 9320	411433		
92490503021	FB-2	EPA 9320	411433		
92490503022	DGWC-17	EPA 9320	411433		
92490503023	DGWC-21	EPA 9320	411433		
92490503024	DGWC-22	EPA 9320	411433		
92490503025	FB-3	EPA 9320	411433		
92490503026	EB-3	EPA 9320	411433		
92490503001	DGWC-2	Total Radium Calculation	412557		
92490503002	DGWC-9	Total Radium Calculation	412557		
92490503003	DGWC-10	Total Radium Calculation	412557		
92490503004	DGWC-11	Total Radium Calculation	412557		
92490503005	DGWC-12	Total Radium Calculation	412557		
92490503006	DGWC-14	Total Radium Calculation	412557		
92490503007	DGWC-19	Total Radium Calculation	412557		
92490503008	FB-1	Total Radium Calculation	412557		
92490503009	FD-1	Total Radium Calculation	412557		
92490503010	DGWC-4	Total Radium Calculation	412558		
92490503011	DGWC-5	Total Radium Calculation	412558		
92490503012	DGWC-8	Total Radium Calculation	412558		
92490503013	DGWC-13	Total Radium Calculation	412558		
92490503014	DGWC-47	Total Radium Calculation	412558		
92490503015	FD-2	Total Radium Calculation	412558		
92490503016	DGWC-15	Total Radium Calculation	413154		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-2, 3/4

Pace Project No.: 92490503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490503017	DGWC-20	Total Radium Calculation	413154		
92490503018	DGWC-23	Total Radium Calculation	413154		
92490503019	DGWC-42	Total Radium Calculation	413154		
92490503020	DGWC-48	Total Radium Calculation	413154		
92490503021	FB-2	Total Radium Calculation	413154		
92490503022	DGWC-17	Total Radium Calculation	413154		
92490503023	DGWC-21	Total Radium Calculation	413154		
92490503024	DGWC-22	Total Radium Calculation	413154		
92490503025	FB-3	Total Radium Calculation	413154		
92490503026	EB-3	Total Radium Calculation	413154		
92490503001	DGWC-2	EPA 300.0 Rev 2.1 1993	559792		
92490503002	DGWC-9	EPA 300.0 Rev 2.1 1993	559792		
92490503003	DGWC-10	EPA 300.0 Rev 2.1 1993	559792		
92490503004	DGWC-11	EPA 300.0 Rev 2.1 1993	559792		
92490503005	DGWC-12	EPA 300.0 Rev 2.1 1993	559792		
92490503006	DGWC-14	EPA 300.0 Rev 2.1 1993	559792		
92490503007	DGWC-19	EPA 300.0 Rev 2.1 1993	559792		
92490503008	FB-1	EPA 300.0 Rev 2.1 1993	559792		
92490503009	FD-1	EPA 300.0 Rev 2.1 1993	559792		
92490503010	DGWC-4	EPA 300.0 Rev 2.1 1993	560228		
92490503011	DGWC-5	EPA 300.0 Rev 2.1 1993	560228		
92490503012	DGWC-8	EPA 300.0 Rev 2.1 1993	560228		
92490503013	DGWC-13	EPA 300.0 Rev 2.1 1993	560228		
92490503014	DGWC-47	EPA 300.0 Rev 2.1 1993	560228		
92490503015	FD-2	EPA 300.0 Rev 2.1 1993	560228		
92490503016	DGWC-15	EPA 300.0 Rev 2.1 1993	560825		
92490503017	DGWC-20	EPA 300.0 Rev 2.1 1993	560825		
92490503018	DGWC-23	EPA 300.0 Rev 2.1 1993	560825		
92490503019	DGWC-42	EPA 300.0 Rev 2.1 1993	560825		
92490503020	DGWC-48	EPA 300.0 Rev 2.1 1993	560825		
92490503021	FB-2	EPA 300.0 Rev 2.1 1993	560825		
92490503022	DGWC-17	EPA 300.0 Rev 2.1 1993	560825		
92490503023	DGWC-21	EPA 300.0 Rev 2.1 1993	560825		
92490503024	DGWC-22	EPA 300.0 Rev 2.1 1993	560825		
92490503025	FB-3	EPA 300.0 Rev 2.1 1993	561129		
92490503026	EB-3	EPA 300.0 Rev 2.1 1993	561129		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: G. A. Lower

WO#: **92490503**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pac

Tracking #: \_\_\_\_\_



Custody Seal on Cooler/Box Present:  yes  no Seals intact: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 233

Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 1.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/12/2007

Temp should be above freezing to 6°C

Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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.

# WO#: 92490503

PM: KLH1 Due Date: 08/26/20

CLIENT: GA-GA Power

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Page: 1 Of 1	
Company: Georgia Power - Coal Combustion Residuals		Report To: Jruq Abraham		Attention: scsr@voices@southernco.com		Regulatory Agency	
Address: 2450 Manier Road Atlanta, GA 30339		Copy To: Golden		Company Name		State / Location	
Email: jabraham@southernco.com		Purchase Order #:		Address:		GA	
Phone: (404) 506-7239	Fax:	Project Name: Plant McDonough AP-2, 3/4		Pace Quote			
Requested Due Date:		Project #: 166849616		Pace Project Manager: Kevin Herring			
				Pace Profile #			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, ., -) Sample IDs must be unique	MATRIX Cooling Water Water Waste Water Product Sediment Oil Wipe Air Other Tissue	COCK DW WT WWS P SL OL WP AK OT TS	MATERIAL CODE (see last page to left)	SAMPLE TYPE (G-GAR G-COAP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										ANALYSES TEST	Y/N	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)
										Unpreserved - Ice												App IV Metals	Fluoride	Radium 226/228	
										H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Aspirinol	Other	N	N	N						
1	DGWC-15	WT	G	8/13/2020	1040	4	1	3									X	X	X				pH: 6.58	016	
2	DGWC-20	WT	G	8/13/2020	1315	4	1	3									X	X	X				pH: 4.36	017	
3	DGWC-23	WT	G	8/13/2020	1330	4	1	3									X	X	X				pH: 6.00	018	
4	DGWC-42	WT	G	8/13/2020	1512	4	1	3									X	X	X				pH: 5.34	019	
5	DGWC-48	WT	G	8/13/2020	946	6	1	5									X	X	X				pH: 4.25; Extra radium	020	
6	FB-2	WT	G	8/13/2020	940	4	1	3									X	X	X					021	
7	DGWC-17			8/14/20	1015	4	1	7									X	X	X				pH: 5.01	022	
8	DGWC-21				1055	4	1	7									X	X	X				pH: 5.66	023	
9	DGWC-22				1153	4	1	7									X	X	X				pH: 5.76	024	
10	FB-3				1090	4	1	7									X	X	X					025	
11	EB-3				1245	4	1	3									X	X	X					026	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App IV metals - Sb, As, Ba, Bx, Cd, Cr, Co, Pb, Li, Hg, Ni, Se, Tl	JW SAMPLER	08/14/20	14:30	Charles Feate	8/14/20	14:30	3.7 Y N Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples intact (Y/N)
SAMPLER NAME: JUDIE WAGUESPACK						
SAMPLER SIGNATURE: [Signature]	DATE Signed: 08/14/20					

September 14, 2020

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

RE: Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 14, 2020 and August 19, 2020. 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
- Pace Analytical Services - Greensburg

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

Sincerely,



Tyler Forney for  
Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

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### Pace Analytical Services Pennsylvania

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

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

### Pace Analytical Services Charlotte

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

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

### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
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  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92490963001	B-62	Water	08/13/20 17:06	08/14/20 14:30
92490963002	B-77	Water	08/13/20 16:55	08/14/20 14:30
92490963003	B-74	Water	08/14/20 11:34	08/14/20 14:30
92490963004	B-89	Water	08/14/20 10:03	08/14/20 14:30
92490963005	FD-3	Water	08/14/20 00:00	08/14/20 14:30
92490963006	B-83	Water	08/14/20 13:00	08/14/20 14:30
92490963007	B-88	Water	08/17/20 10:45	08/18/20 10:54
92490963008	B-100	Water	08/17/20 10:49	08/18/20 10:54
92490963009	B-56	Water	08/17/20 12:00	08/18/20 10:54
92490963010	B-3	Water	08/17/20 13:08	08/18/20 10:54
92490963011	B-82	Water	08/17/20 14:25	08/18/20 10:54
92490963012	B-93	Water	08/19/20 12:29	08/19/20 13:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92490963001	B-62	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963002	B-77	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963003	B-74	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963004	B-89	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963005	FD-3	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963006	B-83	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92490963007	B-88	EPA 6020B	CW1	12	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
92490963008	B-100	EPA 7470A	VB	1	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A		
		EPA 6020B	CW1	12	PASI-GA		
		EPA 7470A	VB	1	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
92490963009	B-56	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A		
		EPA 6020B	CW1	12	PASI-GA		
		EPA 7470A	VB	1	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A		
		92490963010	B-3	EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
EPA 9320	VAL			1	PASI-PA		
Total Radium Calculation	CMC			1	PASI-PA		
EPA 300.0 Rev 2.1 1993	CDC			1	PASI-A		
92490963011	B-82			EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
				EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA		
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A		
		92490963012	B-93	EPA 6020B	CW1	12	PASI-GA
				EPA 7470A	VB	1	PASI-GA
				EPA 9315	LAL	1	PASI-PA
				EPA 9320	VAL	1	PASI-PA
Total Radium Calculation	JAL			1	PASI-PA		
EPA 300.0 Rev 2.1 1993	CDC			1	PASI-A		

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
PASI-GA = Pace Analytical Services - Peachtree Corners, GA					
PASI-PA = Pace Analytical Services - Greensburg					

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Sample: B-62		Lab ID: 92490963001		Collected: 08/13/20 17:06		Received: 08/14/20 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.40	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 20:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 20:08	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 20:08	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 20:08	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 20:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 20:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 20:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 20:08	7439-92-1	
Lithium	0.0087J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 20:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 20:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 20:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 20:08	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:09	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.11	mg/L	0.10	0.050	1		08/20/20 06:20	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-77**      **Lab ID: 92490963002**      Collected: 08/13/20 16:55      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	6.14	Std. Units			1		08/20/20 17:22		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	0.00043J	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 20:14	7440-36-0	
Arsenic	0.0020J	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 20:14	7440-38-2	
Barium	0.11	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 20:14	7440-39-3	
Beryllium	0.00014J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 20:14	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 20:14	7440-43-9	
Chromium	0.0021J	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 20:14	7440-47-3	
Cobalt	0.0011J	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 20:14	7440-48-4	
Lead	0.0016J	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 20:14	7439-92-1	
Lithium	0.0018J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 20:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 20:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 20:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 20:14	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:11	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 06:34	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Sample: B-74		Lab ID: 92490963003		Collected: 08/14/20 11:34		Received: 08/14/20 14:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.19	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 20:20	7440-36-0	
Arsenic	0.010	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 20:20	7440-38-2	
Barium	0.077	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 20:20	7440-39-3	
Beryllium	0.000076J	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 20:20	7440-41-7	
Cadmium	0.00026J	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 20:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 20:20	7440-47-3	
Cobalt	0.0023J	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 20:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 20:20	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 20:20	7439-93-2	
Molybdenum	0.052	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 20:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 20:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 20:20	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:14	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.16	mg/L	0.10	0.050	1		08/20/20 07:16	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-89**      **Lab ID: 92490963004**      Collected: 08/14/20 10:03      Received: 08/14/20 14:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>5.83</b>	Std. Units			1		08/20/20 17:22		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 20:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 20:26	7440-38-2	
Barium	<b>0.031</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 20:26	7440-39-3	
Beryllium	<b>0.000074J</b>	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 20:26	7440-41-7	
Cadmium	<b>0.00063J</b>	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 20:26	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 20:26	7440-47-3	
Cobalt	<b>0.0058</b>	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 20:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 20:26	7439-92-1	
Lithium	<b>0.0055J</b>	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 20:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 20:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 20:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 20:26	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	<b>0.00014J</b>	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:16	7439-97-6	
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 07:30	16984-48-8	
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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Sample: <b>FD-3</b>		Lab ID: <b>92490963005</b>		Collected: 08/14/20 00:00	Received: 08/14/20 14:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:30	08/19/20 20:31	7440-36-0		
Arsenic	<b>0.0099</b>	mg/L	0.0050	0.00078	1	08/18/20 18:30	08/19/20 20:31	7440-38-2		
Barium	<b>0.074</b>	mg/L	0.010	0.00071	1	08/18/20 18:30	08/19/20 20:31	7440-39-3		
Beryllium	<b>0.000066J</b>	mg/L	0.0030	0.000046	1	08/18/20 18:30	08/19/20 20:31	7440-41-7		
Cadmium	<b>0.00021J</b>	mg/L	0.0025	0.00012	1	08/18/20 18:30	08/19/20 20:31	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:30	08/19/20 20:31	7440-47-3		
Cobalt	<b>0.0023J</b>	mg/L	0.0050	0.00038	1	08/18/20 18:30	08/19/20 20:31	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:30	08/19/20 20:31	7439-92-1		
Lithium	<b>0.0011J</b>	mg/L	0.030	0.00081	1	08/18/20 18:30	08/19/20 20:31	7439-93-2		
Molybdenum	<b>0.052</b>	mg/L	0.010	0.00069	1	08/18/20 18:30	08/19/20 20:31	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:30	08/19/20 20:31	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:30	08/19/20 20:31	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:18	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	<b>0.15</b>	mg/L	0.10	0.050	1		08/20/20 07:44	16984-48-8		

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Sample: B-83		Lab ID: 92490963006		Collected: 08/14/20 13:00	Received: 08/14/20 14:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.59	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 18:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 18:20	7440-38-2	
Barium	0.056	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 18:20	7440-39-3	
Beryllium	0.00070J	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 15:22	7440-41-7	
Cadmium	0.00037J	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 18:20	7440-43-9	
Chromium	0.0050J	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 18:20	7440-47-3	
Cobalt	0.021	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 18:20	7440-48-4	
Lead	0.00092J	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 18:20	7439-92-1	
Lithium	0.0045J	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 18:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 18:20	7439-98-7	
Selenium	0.015	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 18:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 18:20	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/18/20 12:00	08/19/20 13:21	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.050J	mg/L	0.10	0.050	1		08/20/20 07:58	16984-48-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-88**      **Lab ID: 92490963007**      Collected: 08/17/20 10:45      Received: 08/18/20 10:54      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

pH	<b>5.76</b>	Std. Units			1		08/20/20 17:22		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 18:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 18:26	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 18:26	7440-39-3	
Beryllium	<b>0.0014J</b>	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 15:28	7440-41-7	
Cadmium	<b>0.0018J</b>	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 18:26	7440-43-9	
Chromium	<b>0.0014J</b>	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 18:26	7440-47-3	
Cobalt	<b>0.0031J</b>	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 18:26	7440-48-4	
Lead	<b>0.00081J</b>	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 18:26	7439-92-1	
Lithium	<b>0.0060J</b>	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 18:26	7439-93-2	
Molybdenum	<b>0.0012J</b>	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 18:26	7439-98-7	
Selenium	<b>0.0017J</b>	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 18:26	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	08/19/20 12:30	08/20/20 15:05	7439-97-6	B
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**300.0 IC Anions 28 Days**

Analytical Method: EPA 300.0 Rev 2.1 1993  
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 16:15	16984-48-8	
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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Sample: B-100		Lab ID: 92490963008		Collected: 08/17/20 10:49		Received: 08/18/20 10:54		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.02	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0013J	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 19:00	7440-38-2	
Barium	0.015	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 19:00	7440-39-3	
Beryllium	0.00040J	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 15:45	7440-41-7	
Cadmium	0.00059J	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 19:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 19:00	7440-47-3	
Cobalt	0.077	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 19:00	7440-48-4	
Lead	0.00088J	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 19:00	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 19:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 19:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00011J	mg/L	0.00020	0.000078	1	08/19/20 12:30	08/20/20 15:07	7439-97-6	B
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 16:59	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Sample: B-56		Lab ID: 92490963009		Collected: 08/17/20 12:00		Received: 08/18/20 10:54		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.82	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 19:06	7440-36-0	
Arsenic	0.0032J	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 19:06	7440-38-2	
Barium	0.030	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 19:06	7440-39-3	
Beryllium	0.0013J	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 15:50	7440-41-7	
Cadmium	0.00029J	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 19:06	7440-43-9	
Chromium	0.0014J	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 19:06	7440-47-3	
Cobalt	0.042	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 19:06	7440-48-4	
Lead	0.00022J	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 19:06	7439-92-1	
Lithium	0.0056J	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 19:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 19:06	7439-98-7	
Selenium	0.011	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 19:06	7782-49-2	
Thallium	0.00016J	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 19:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00016J	mg/L	0.00020	0.000078	1	08/19/20 12:30	08/20/20 15:10	7439-97-6	B
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.19	mg/L	0.10	0.050	1		08/20/20 17:14	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-3**      **Lab ID: 92490963010**      Collected: 08/17/20 13:08      Received: 08/18/20 10:54      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.51	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 19:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 19:12	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 19:12	7440-39-3	
Beryllium	0.0035	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 15:56	7440-41-7	
Cadmium	0.00077J	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 19:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 19:12	7440-47-3	
Cobalt	0.061	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 19:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 19:12	7439-92-1	
Lithium	0.58	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 19:12	7439-93-2	
Molybdenum	0.0015J	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 19:12	7439-98-7	
Selenium	0.0021J	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 19:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 19:12	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00010J	mg/L	0.00020	0.000078	1	08/19/20 12:30	08/20/20 15:12	7439-97-6	B
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.077J	mg/L	0.10	0.050	1		08/20/20 17:29	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Sample: B-82		Lab ID: 92490963011		Collected: 08/17/20 14:25	Received: 08/18/20 10:54	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.48	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/18/20 18:26	08/20/20 19:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/18/20 18:26	08/20/20 19:17	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	08/18/20 18:26	08/20/20 19:17	7440-39-3	
Beryllium	0.0014J	mg/L	0.0030	0.000046	1	08/18/20 18:26	08/21/20 16:24	7440-41-7	
Cadmium	0.00058J	mg/L	0.0025	0.00012	1	08/18/20 18:26	08/20/20 19:17	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/18/20 18:26	08/20/20 19:17	7440-47-3	
Cobalt	0.0028J	mg/L	0.0050	0.00038	1	08/18/20 18:26	08/20/20 19:17	7440-48-4	
Lead	0.000059J	mg/L	0.0050	0.000036	1	08/18/20 18:26	08/20/20 19:17	7439-92-1	
Lithium	0.0016J	mg/L	0.030	0.00081	1	08/18/20 18:26	08/20/20 19:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/18/20 18:26	08/20/20 19:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/18/20 18:26	08/20/20 19:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/18/20 18:26	08/20/20 19:17	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00011J	mg/L	0.00020	0.000078	1	08/19/20 12:30	08/20/20 15:14	7439-97-6	B
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 17:44	16984-48-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-93**      **Lab ID: 92490963012**      Collected: 08/19/20 12:29      Received: 08/19/20 13:55      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>4.78</b>	Std. Units			1		08/20/20 17:22		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 17:00	7440-36-0	
Arsenic	<b>0.0013J</b>	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 17:00	7440-38-2	
Barium	<b>0.018</b>	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 17:00	7440-39-3	
Beryllium	<b>0.015</b>	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 17:00	7440-41-7	
Cadmium	<b>0.00077J</b>	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 17:00	7440-43-9	
Chromium	<b>0.00057J</b>	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 17:00	7440-47-3	
Cobalt	<b>0.068</b>	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 17:00	7440-48-4	
Lead	<b>0.00012J</b>	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 17:06	7439-92-1	
Lithium	<b>0.011J</b>	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 17:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 17:00	7439-98-7	
Selenium	<b>0.018</b>	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 17:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 17:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00026</b>	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 08:52	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	<b>0.32</b>	mg/L	0.10	0.050	1		08/21/20 03:44	16984-48-8	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

QC Batch:	560739	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005

METHOD BLANK: 2974806 Matrix: Water

Associated Lab Samples: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/19/20 17:51	
Arsenic	mg/L	ND	0.0050	0.00078	08/19/20 17:51	
Barium	mg/L	ND	0.010	0.00071	08/19/20 17:51	
Beryllium	mg/L	ND	0.0030	0.000046	08/19/20 17:51	
Cadmium	mg/L	ND	0.0025	0.00012	08/19/20 17:51	
Chromium	mg/L	ND	0.010	0.00055	08/19/20 17:51	
Cobalt	mg/L	ND	0.0050	0.00038	08/19/20 17:51	
Lead	mg/L	ND	0.0050	0.000036	08/19/20 17:51	
Lithium	mg/L	ND	0.030	0.00081	08/19/20 17:51	
Molybdenum	mg/L	ND	0.010	0.00069	08/19/20 17:51	
Selenium	mg/L	ND	0.010	0.0016	08/19/20 17:51	
Thallium	mg/L	ND	0.0010	0.00014	08/19/20 17:51	

LABORATORY CONTROL SAMPLE: 2974807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	111	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974808 2974809

Parameter	Units	2974808		2974809		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.11	0.11	114	109	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.10	0.099	100	99	75-125	2	20	
Barium	mg/L	0.088	0.1	0.22	0.21	131	119	75-125	6	20	M1
Beryllium	mg/L	ND	0.1	0.099	0.096	99	96	75-125	3	20	

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

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Parameter	Units	2974808		2974809		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92490942006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Cadmium	mg/L	0.00021J	0.1	0.1	0.10	0.098	99	98	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	0	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.098	102	97	75-125	4	20		
Molybdenum	mg/L	0.19	0.1	0.1	0.31	0.29	122	105	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.093	99	92	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

QC Batch:	560791	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490963006, 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

METHOD BLANK: 2975067 Matrix: Water

Associated Lab Samples: 92490963006, 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/20/20 16:30	
Arsenic	mg/L	ND	0.0050	0.00078	08/20/20 16:30	
Barium	mg/L	ND	0.010	0.00071	08/20/20 16:30	
Beryllium	mg/L	ND	0.0030	0.000046	08/20/20 16:30	
Cadmium	mg/L	ND	0.0025	0.00012	08/20/20 16:30	
Chromium	mg/L	ND	0.010	0.00055	08/20/20 16:30	
Cobalt	mg/L	ND	0.0050	0.00038	08/20/20 16:30	
Lead	mg/L	ND	0.0050	0.000036	08/20/20 16:30	
Lithium	mg/L	ND	0.030	0.00081	08/20/20 16:30	
Molybdenum	mg/L	ND	0.010	0.00069	08/20/20 16:30	
Selenium	mg/L	ND	0.010	0.0016	08/20/20 16:30	
Thallium	mg/L	ND	0.0010	0.00014	08/20/20 16:30	

LABORATORY CONTROL SAMPLE: 2975068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	113	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2975069 2975070

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92490963007 Result	Conc.	Conc.	Result							Result
Antimony	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	103	75-125	3	20	
Barium	mg/L	0.022	0.1	0.1	0.12	0.12	99	99	75-125	0	20	
Beryllium	mg/L	0.0014J	0.1	0.1	0.094	0.095	92	93	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Parameter	Units	2975069		2975070		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Cadmium	mg/L	0.0018J	0.1	0.1	0.10	0.10	99	98	75-125	1	20		
Chromium	mg/L	0.0014J	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Cobalt	mg/L	0.0031J	0.1	0.1	0.10	0.099	97	96	75-125	1	20		
Lead	mg/L	0.00081J	0.1	0.1	0.088	0.095	87	94	75-125	8	20		
Lithium	mg/L	0.0060J	0.1	0.1	0.095	0.096	89	90	75-125	1	20		
Molybdenum	mg/L	0.0012J	0.1	0.1	0.098	0.10	97	101	75-125	4	20		
Selenium	mg/L	0.0017J	0.1	0.1	0.098	0.10	96	100	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.085	0.094	85	94	75-125	10	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

QC Batch: 561963 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490963012

METHOD BLANK: 2980652 Matrix: Water  
Associated Lab Samples: 92490963012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/25/20 16:08	
Arsenic	mg/L	ND	0.0050	0.00078	08/25/20 16:08	
Barium	mg/L	ND	0.010	0.00071	08/25/20 16:08	
Beryllium	mg/L	ND	0.0030	0.000046	08/25/20 16:08	
Cadmium	mg/L	ND	0.0025	0.00012	08/25/20 16:08	
Chromium	mg/L	ND	0.010	0.00055	08/25/20 16:08	
Cobalt	mg/L	ND	0.0050	0.00038	08/25/20 16:08	
Lead	mg/L	ND	0.0050	0.000036	08/26/20 16:20	
Lithium	mg/L	ND	0.030	0.00081	08/25/20 16:08	
Molybdenum	mg/L	ND	0.010	0.00069	08/25/20 16:08	
Selenium	mg/L	ND	0.010	0.0016	08/25/20 16:08	
Thallium	mg/L	ND	0.0010	0.00014	08/26/20 16:20	

LABORATORY CONTROL SAMPLE: 2980653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2980654 2980655

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92491455013	Result	Spike Conc.	Spike Conc.							Result
Antimony	mg/L	0.00064J	0.1	0.1	0.10	0.10	101	99	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Barium	mg/L	0.12	0.1	0.1	0.24	0.23	115	114	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Parameter	Units	2980654		2980655		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92491455013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Cadmium	mg/L	0.00058J	0.1	0.1	0.096	0.096	95	95	75-125	0	20	
Chromium	mg/L	0.0015J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.10	99	99	75-125	0	20	
Lead	mg/L	0.00035J	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.096	0.098	96	97	75-125	1	20	
Molybdenum	mg/L	0.00077J	0.1	0.1	0.10	0.10	102	99	75-125	2	20	
Selenium	mg/L	0.0028J	0.1	0.1	0.10	0.10	99	99	75-125	0	20	
Thallium	mg/L	0.00021J	0.1	0.1	0.094	0.093	94	93	75-125	1	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

QC Batch: 560634

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005, 92490963006

METHOD BLANK: 2974354

Matrix: Water

Associated Lab Samples: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005, 92490963006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/19/20 12:33	

LABORATORY CONTROL SAMPLE: 2974355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2974356 2974357

Parameter	Units	2974356		2974357		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0022	0.0025	86	98	75-125	13	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

QC Batch: 560972 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

METHOD BLANK: 2975790 Matrix: Water  
Associated Lab Samples: 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00012J	0.00020	0.000078	08/20/20 14:39	

LABORATORY CONTROL SAMPLE: 2975791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2975792 2975793

Parameter	Units	2975792		2975793		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	mg/L	0.51 ug/L	0.0025	0.0025	0.0030	0.0025	101	81	75-125	18	20	M1,R1

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

QC Batch: 561894	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92490963012

METHOD BLANK: 2980088 Matrix: Water

Associated Lab Samples: 92490963012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	08/25/20 08:19	

LABORATORY CONTROL SAMPLE: 2980089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2980090 2980091

Parameter	Units	2980090		2980091		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0023	0.0026	90	102	75-125	12	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

QC Batch: 561129 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: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005, 92490963006

METHOD BLANK: 2976672 Matrix: Water  
 Associated Lab Samples: 92490963001, 92490963002, 92490963003, 92490963004, 92490963005, 92490963006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/20/20 00:59	

LABORATORY CONTROL SAMPLE: 2976673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976674 2976675

Parameter	Units	92491362001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	ND	2.5	2.5	2.9	2.9	113	115	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976676 2976677

Parameter	Units	92491256001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	0.28	2.5	2.5	2.8	2.8	99	99	90-110	0	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

QC Batch: 561131 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: 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

METHOD BLANK: 2976682 Matrix: Water  
Associated Lab Samples: 92490963007, 92490963008, 92490963009, 92490963010, 92490963011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/20/20 15:45	

LABORATORY CONTROL SAMPLE: 2976683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976684 2976685

Parameter	Units	2976684		2976685		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	104	102	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2976686 2976687

Parameter	Units	2976686		2976687		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	105	105	90-110	0	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

QC Batch: 561238 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: 92490963012

METHOD BLANK: 2977016 Matrix: Water  
Associated Lab Samples: 92490963012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/21/20 01:16	

LABORATORY CONTROL SAMPLE: 2977017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977018 2977019

Parameter	Units	2977018		2977019		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Fluoride	mg/L	92491455012 ND	2.5	2.5	2.5	2.5	98	99	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977020 2977021

Parameter	Units	2977020		2977021		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Fluoride	mg/L	92490037060 ND	2.5	2.5	2.5	2.5	97	100	90-110	3	10	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: B-62</b> <b>Lab ID: 92490963001</b> Collected: 08/13/20 17:06      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.647 ± 0.395 (0.610)</b> <b>C:75% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.986 ± 0.474 (0.809)</b> <b>C:65% T:85%</b>	pCi/L	09/09/20 12:03	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.63 ± 0.869 (1.42)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-77**      **Lab ID: 92490963002**      Collected: 08/13/20 16:55      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.782 ± 0.417 (0.602)</b> <b>C:81% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.39 ± 0.593 (0.977)</b> <b>C:66% T:78%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.17 ± 1.01 (1.58)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-74**      **Lab ID: 92490963003**      Collected: 08/14/20 11:34      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.678 ± 0.362 (0.450)</b> <b>C:79% T:NA</b>	pCi/L	09/02/20 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.989 ± 0.494 (0.872)</b> <b>C:66% T:84%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.67 ± 0.856 (1.32)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-89**      **Lab ID: 92490963004**      Collected: 08/14/20 10:03      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.116 ± 0.302 (0.720)</b> <b>C:79% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.37 ± 0.567 (0.907)</b> <b>C:64% T:82%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.49 ± 0.869 (1.63)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: FD-3**      **Lab ID: 92490963005**      Collected: 08/14/20 00:00      Received: 08/14/20 14:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.113 ± 0.250 (0.588)</b> <b>C:86% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.881 ± 0.508 (0.942)</b> <b>C:61% T:88%</b>	pCi/L	09/09/20 12:04	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.994 ± 0.758 (1.53)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: B-83</b> <b>Lab ID: 92490963006</b> Collected: 08/14/20 13:00      Received: 08/14/20 14:30      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.367 ± 0.263 (0.414)</b> <b>C:91% T:NA</b>	pCi/L	09/02/20 07:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.583 ± 0.517 (1.05)</b> <b>C:66% T:71%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.950 ± 0.780 (1.46)</b>	pCi/L	09/10/20 13:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-88**      **Lab ID: 92490963007**      Collected: 08/17/20 10:45      Received: 08/18/20 10:54      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.556 ± 0.309 (0.385)</b> <b>C:93% T:NA</b>	pCi/L	09/02/20 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.91 ± 0.689 (1.02)</b> <b>C:66% T:71%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.47 ± 0.998 (1.41)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-100**      **Lab ID: 92490963008**      Collected: 08/17/20 10:49      Received: 08/18/20 10:54      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.277 ± 0.266 (0.509)</b> <b>C:92% T:NA</b>	pCi/L	09/02/20 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.12 ± 0.565 (0.994)</b> <b>C:62% T:77%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.40 ± 0.831 (1.50)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-56**      **Lab ID: 92490963009**      Collected: 08/17/20 12:00      Received: 08/18/20 10:54      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.436 ± 0.307 (0.501)</b> <b>C:89% T:NA</b>	pCi/L	09/02/20 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.712 ± 0.484 (0.933)</b> <b>C:61% T:86%</b>	pCi/L	09/09/20 12:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.15 ± 0.791 (1.43)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-3**      **Lab ID: 92490963010**      Collected: 08/17/20 13:08      Received: 08/18/20 10:54      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.992 ± 0.457 (0.654)</b> <b>C:94% T:NA</b>	pCi/L	09/02/20 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.784 ± 0.970 (2.06)</b> <b>C:34% T:74%</b>	pCi/L	09/09/20 12:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.78 ± 1.43 (2.71)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-82**      **Lab ID: 92490963011**      Collected: 08/17/20 14:25      Received: 08/18/20 10:54      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.119 ± 0.187 (0.404)</b> <b>C:91% T:NA</b>	pCi/L	09/02/20 07:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.543 ± 0.463 (0.930)</b> <b>C:61% T:78%</b>	pCi/L	09/09/20 12:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.662 ± 0.650 (1.33)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

**Sample: B-93**      **Lab ID: 92490963012**      Collected: 08/19/20 12:29      Received: 08/19/20 13:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.725 ± 0.347 (0.405)</b> <b>C:96% T:NA</b>	pCi/L	09/02/20 07:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.467 ± 0.517 (1.09)</b> <b>C:63% T:83%</b>	pCi/L	09/09/20 12:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.19 ± 0.864 (1.50)</b>	pCi/L	09/10/20 13:18	7440-14-4	

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## QUALIFIERS

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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.

### 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.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH ASSESSMENT

Pace Project No.: 92490963

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490963001	B-62				
92490963002	B-77				
92490963003	B-74				
92490963004	B-89				
92490963006	B-83				
92490963007	B-88				
92490963008	B-100				
92490963009	B-56				
92490963010	B-3				
92490963011	B-82				
92490963012	B-93				
92490963001	B-62	EPA 3005A	560739	EPA 6020B	560802
92490963002	B-77	EPA 3005A	560739	EPA 6020B	560802
92490963003	B-74	EPA 3005A	560739	EPA 6020B	560802
92490963004	B-89	EPA 3005A	560739	EPA 6020B	560802
92490963005	FD-3	EPA 3005A	560739	EPA 6020B	560802
92490963006	B-83	EPA 3005A	560791	EPA 6020B	560801
92490963007	B-88	EPA 3005A	560791	EPA 6020B	560801
92490963008	B-100	EPA 3005A	560791	EPA 6020B	560801
92490963009	B-56	EPA 3005A	560791	EPA 6020B	560801
92490963010	B-3	EPA 3005A	560791	EPA 6020B	560801
92490963011	B-82	EPA 3005A	560791	EPA 6020B	560801
92490963012	B-93	EPA 3005A	561963	EPA 6020B	562039
92490963001	B-62	EPA 7470A	560634	EPA 7470A	560773
92490963002	B-77	EPA 7470A	560634	EPA 7470A	560773
92490963003	B-74	EPA 7470A	560634	EPA 7470A	560773
92490963004	B-89	EPA 7470A	560634	EPA 7470A	560773
92490963005	FD-3	EPA 7470A	560634	EPA 7470A	560773
92490963006	B-83	EPA 7470A	560634	EPA 7470A	560773
92490963007	B-88	EPA 7470A	560972	EPA 7470A	561213
92490963008	B-100	EPA 7470A	560972	EPA 7470A	561213
92490963009	B-56	EPA 7470A	560972	EPA 7470A	561213
92490963010	B-3	EPA 7470A	560972	EPA 7470A	561213
92490963011	B-82	EPA 7470A	560972	EPA 7470A	561213
92490963012	B-93	EPA 7470A	561894	EPA 7470A	562048
92490963001	B-62	EPA 9315	411373		
92490963002	B-77	EPA 9315	411373		
92490963003	B-74	EPA 9315	411373		
92490963004	B-89	EPA 9315	411373		
92490963005	FD-3	EPA 9315	411373		
92490963006	B-83	EPA 9315	411373		
92490963007	B-88	EPA 9315	411373		
92490963008	B-100	EPA 9315	411373		
92490963009	B-56	EPA 9315	411373		
92490963010	B-3	EPA 9315	411373		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH ASSESSMENT  
Pace Project No.: 92490963

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92490963011	B-82	EPA 9315	411373		
92490963012	B-93	EPA 9315	411373		
92490963001	B-62	EPA 9320	411435		
92490963002	B-77	EPA 9320	411435		
92490963003	B-74	EPA 9320	411435		
92490963004	B-89	EPA 9320	411435		
92490963005	FD-3	EPA 9320	411435		
92490963006	B-83	EPA 9320	411435		
92490963007	B-88	EPA 9320	411435		
92490963008	B-100	EPA 9320	411435		
92490963009	B-56	EPA 9320	411435		
92490963010	B-3	EPA 9320	411435		
92490963011	B-82	EPA 9320	411435		
92490963012	B-93	EPA 9320	411435		
92490963001	B-62	Total Radium Calculation	413340		
92490963002	B-77	Total Radium Calculation	413340		
92490963003	B-74	Total Radium Calculation	413340		
92490963004	B-89	Total Radium Calculation	413340		
92490963005	FD-3	Total Radium Calculation	413340		
92490963006	B-83	Total Radium Calculation	413340		
92490963007	B-88	Total Radium Calculation	413341		
92490963008	B-100	Total Radium Calculation	413341		
92490963009	B-56	Total Radium Calculation	413341		
92490963010	B-3	Total Radium Calculation	413341		
92490963011	B-82	Total Radium Calculation	413341		
92490963012	B-93	Total Radium Calculation	413342		
92490963001	B-62	EPA 300.0 Rev 2.1 1993	561129		
92490963002	B-77	EPA 300.0 Rev 2.1 1993	561129		
92490963003	B-74	EPA 300.0 Rev 2.1 1993	561129		
92490963004	B-89	EPA 300.0 Rev 2.1 1993	561129		
92490963005	FD-3	EPA 300.0 Rev 2.1 1993	561129		
92490963006	B-83	EPA 300.0 Rev 2.1 1993	561129		
92490963007	B-88	EPA 300.0 Rev 2.1 1993	561131		
92490963008	B-100	EPA 300.0 Rev 2.1 1993	561131		
92490963009	B-56	EPA 300.0 Rev 2.1 1993	561131		
92490963010	B-3	EPA 300.0 Rev 2.1 1993	561131		
92490963011	B-82	EPA 300.0 Rev 2.1 1993	561131		
92490963012	B-93	EPA 300.0 Rev 2.1 1993	561238		

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Sample Condition Upon Receipt

Client Name: GA Power WO#: 92490963

PM: KLH1 Due Date: 08/28/20 CLIENT: GA-GA Power

Courier: Fed Ex UPS USPS Client Commercial Pace C Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other ZIPLOC

Thermometer Used THR214 Type of Ice: Blue None Samples on ice, cooling process has begun

Cooler Temperature 3.8 Biological Tissue is Frozen: Yes No Date and Initials of person examining contents: Kew 8/18/20

Table with 16 rows of checklist items including Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present.

Client Notification/ Resolution: Field Data Required? Y / N Person Contacted: Date/Time: Comments/ Resolution:

Project Manager Review: Date:

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-226  
Analyst: LAL  
Date: 9/1/2020  
Worklist: 55837  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	1989993
MB concentration:	0.067
M/B Counting Uncertainty:	0.195
MB MDC:	0.481
MB Numerical Performance Indicator:	0.67
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD55837	LCSD55837
Count Date:	9/2/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.508	
Target Conc. (pCi/L, g, F):	4.738	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	5.286	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.868	
Numerical Performance Indicator:	1.24	
Percent Recovery:	111.58%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92490963004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92490963004DUP	
Sample Result (pCi/L, g, F):	0.116	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.301	
Sample Duplicate Result (pCi/L, g, F):	0.448	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.277	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.591	92490963004
Duplicate RPD:	117.70%	92490963004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

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

N/A  
LAM 9/2/2020

*Handwritten signature/initials*

LAM 9/2/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 9/1/2020  
Worklist: 55837  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	1989993	
MB concentration:	0.067	
M/B Counting Uncertainty:	0.195	
MB MDC:	0.481	
MB Numerical Performance Indicator:	0.67	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	Y	N
	LCS55837	LCS55837
Count Date:	9/2/2020	9/2/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.045	24.045
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.501
Target Conc. (pCi/L, g, F):	4.738	4.797
Uncertainty (Calculated):	0.057	0.058
Result (pCi/L, g, F):	5.286	4.329
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.868	0.805
Numerical Performance Indicator:	1.24	-1.13
Percent Recovery:	111.58%	90.26%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS55837	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS55837	
Sample Result (pCi/L, g, F):	5.286	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.868	
Sample Duplicate Result (pCi/L, g, F):	4.329	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.805	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.584	92490963004
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	21.13%	92490963004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

*Handwritten signature: Chuanlai Cao*

*Handwritten date: 9/1/2020*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/2/2020  
Worklist: 55851  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	1990342
MB concentration:	0.664
M/B 2 Sigma CSU:	0.374
MB MDC:	0.672
MB Numerical Performance Indicator:	3.48
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS55851	LCSD55851
Count Date:	9/9/2020	9/9/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.472	38.472
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.812	0.803
Target Conc. (pCi/L, g, F):	4.737	4.789
Uncertainty (Calculated):	0.232	0.235
Result (pCi/L, g, F):	5.598	4.322
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.288	1.030
Numerical Performance Indicator:	1.29	-0.67
Percent Recovery:	118.17%	90.24%
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:		
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		
Sample I.D.:	LCS55851	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD55851	
Sample Result (pCi/L, g, F):	5.598	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.288	
Sample Duplicate Result (pCi/L, g, F):	4.322	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.030	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.516	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	26.80%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:**

\*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

111  
9-10-20

**APPENDIX A**

**Laboratory Analytical Data  
September 2020**

October 16, 2020

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

RE: Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

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## SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92496940001	DGWA-53	Water	09/22/20 12:40	09/23/20 09:35
92496940002	DGWA-70A	Water	09/22/20 10:20	09/23/20 09:35
92496940003	DGWA-71	Water	09/22/20 11:45	09/23/20 09:35
92496940004	EB-1	Water	09/22/20 11:45	09/23/20 09:35

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92496940001	DGWA-53	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496940002	DGWA-70A	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496940003	DGWA-71	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496940004	EB-1	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	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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### ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Sample: DGWA-53		Lab ID: 92496940001		Collected: 09/22/20 12:40		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.43	Std. Units			1		10/08/20 08:14		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	15.5	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:29	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 18:55	7440-36-0	
Arsenic	0.00093J	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 18:55	7440-38-2	
Barium	0.070	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 18:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 18:55	7440-41-7	
Boron	0.056J	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 18:55	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/28/20 15:08	09/29/20 18:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 18:55	7440-47-3	
Cobalt	0.011	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 18:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 18:55	7439-92-1	
Lithium	0.0089J	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 18:55	7439-93-2	
Molybdenum	0.039	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 18:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/28/20 15:08	09/29/20 18:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/28/20 15:08	09/29/20 18:55	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:15	09/29/20 09:13	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	142	mg/L	10.0	10.0	1		09/24/20 10:30		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.6	mg/L	1.0	0.60	1		09/27/20 03:05	16887-00-6	M1
Fluoride	0.099J	mg/L	0.10	0.050	1		09/27/20 03:05	16984-48-8	M1
Sulfate	13.5	mg/L	1.0	0.50	1		09/27/20 03:05	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Sample: DGWA-70A		Lab ID: 92496940002		Collected: 09/22/20 10:20		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.01	Std. Units			1		10/08/20 08:14		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	5.0	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:33	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:12	7440-38-2	
Barium	0.038	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:12	7440-39-3	
Beryllium	0.000068J	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:12	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/28/20 15:08	09/29/20 19:12	7440-43-9	
Chromium	0.00089J	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:12	7440-48-4	
Lead	0.000078J	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/28/20 15:08	09/29/20 19:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/28/20 15:08	09/29/20 19:12	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:15	09/29/20 09:15	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	46.0	mg/L	10.0	10.0	1		09/24/20 10:30		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		09/27/20 03:48	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 03:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/20 03:48	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Sample: DGWA-71		Lab ID: 92496940003		Collected: 09/22/20 11:45		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.06	Std. Units			1		10/08/20 08:14		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	5.4	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:18	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:18	7440-39-3	
Beryllium	0.000069J	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:18	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:18	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/28/20 15:08	09/29/20 19:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:18	7439-92-1	
Lithium	0.0012J	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/28/20 15:08	09/29/20 19:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/28/20 15:08	09/29/20 19:18	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:15	09/29/20 09:17	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	74.0	mg/L	10.0	10.0	1		09/24/20 10:31		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	5.2	mg/L	1.0	0.60	1		09/27/20 04:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 04:02	16984-48-8	
Sulfate	6.5	mg/L	1.0	0.50	1		09/27/20 04:02	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Sample: EB-1		Lab ID: 92496940004		Collected: 09/22/20 11:45	Received: 09/23/20 09:35	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:42	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:24	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:24	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:24	7440-41-7		
Boron	ND	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:24	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/28/20 15:08	09/29/20 19:24	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:24	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:24	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:24	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/28/20 15:08	09/29/20 19:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/28/20 15:08	09/29/20 19:24	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:15	09/29/20 09:20	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/24/20 10:31			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/20 22:22	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 22:22	16984-48-8		
Sulfate	<b>0.64J</b>	mg/L	1.0	0.50	1		09/27/20 22:22	14808-79-8		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

QC Batch: 568748      Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A      Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

METHOD BLANK: 3013298      Matrix: Water  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 20:40	

LABORATORY CONTROL SAMPLE: 3013299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.95J	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013300      3013301

Parameter	Units	92495894022		3013301		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	75.3	1	1	79.7	76.2	438	83	75-125	5	20 M1

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

QC Batch: 569382 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

METHOD BLANK: 3016873 Matrix: Water  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/29/20 18:03	
Arsenic	mg/L	ND	0.0050	0.00078	09/29/20 18:03	
Barium	mg/L	ND	0.010	0.00071	09/29/20 18:03	
Beryllium	mg/L	ND	0.0030	0.000046	09/29/20 18:03	
Boron	mg/L	ND	0.10	0.0052	09/29/20 18:03	
Cadmium	mg/L	ND	0.0025	0.00012	09/29/20 18:03	
Chromium	mg/L	ND	0.010	0.00055	09/29/20 18:03	
Cobalt	mg/L	ND	0.0050	0.00038	09/29/20 18:03	
Lead	mg/L	ND	0.0050	0.000036	09/29/20 18:03	
Lithium	mg/L	ND	0.030	0.00081	09/29/20 18:03	
Molybdenum	mg/L	ND	0.010	0.00069	09/29/20 18:03	
Selenium	mg/L	ND	0.010	0.0016	09/29/20 18:03	
Thallium	mg/L	ND	0.0010	0.00014	09/29/20 18:03	

LABORATORY CONTROL SAMPLE: 3016874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.94	94	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.091	91	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016875 3016876

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495870024	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20		
Arsenic	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	3	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

Parameter	Units	3016875		3016876		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495870024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Barium	mg/L	0.013	0.1	0.1	0.11	0.11	98	95	75-125	3	20
Beryllium	mg/L	ND	0.1	0.1	0.096	0.094	96	94	75-125	1	20
Boron	mg/L	ND	1	1	0.97	0.93	96	93	75-125	4	20
Cadmium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20
Chromium	mg/L	0.00089J	0.1	0.1	0.098	0.095	98	94	75-125	4	20
Cobalt	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	3	20
Lead	mg/L	0.000075J	0.1	0.1	0.095	0.094	95	94	75-125	1	20
Lithium	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	2	20
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.096	98	96	75-125	3	20
Selenium	mg/L	ND	0.1	0.1	0.092	0.093	91	91	75-125	1	20
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	1	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

QC Batch: 569298      Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A      Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

METHOD BLANK: 3016185      Matrix: Water  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/29/20 08:13	

LABORATORY CONTROL SAMPLE: 3016186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016187      3016188

Parameter	Units	3016187		3016188		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0026	0.0024	102	96	75-125	6	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT

Pace Project No.: 92496940

QC Batch: 568649	Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

METHOD BLANK: 3012742 Matrix: Water  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/24/20 10:30	

LABORATORY CONTROL SAMPLE: 3012743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	407	102	84-108	

SAMPLE DUPLICATE: 3012744

Parameter	Units	92496914002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	107	113	5	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

QC Batch: 569206 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: 92496940001, 92496940002, 92496940003, 92496940004

METHOD BLANK: 3015927 Matrix: Water  
Associated Lab Samples: 92496940001, 92496940002, 92496940003, 92496940004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/20 02:07	
Fluoride	mg/L	ND	0.10	0.050	09/27/20 02:07	
Sulfate	mg/L	ND	1.0	0.50	09/27/20 02:07	

LABORATORY CONTROL SAMPLE: 3015928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.4	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.9	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015931 3015932

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496941006	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.2	50	50	57.3	57.2	108	108	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	99	99	90-110	0	10		
Sulfate	mg/L	40.2	50	50	93.6	93.5	107	106	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015973 3015974

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496940001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	1.6	50	50	64.7	63.0	126	123	90-110	3	10	M1	
Fluoride	mg/L	0.099J	2.5	2.5	3.3	3.2	130	126	90-110	3	10	M1	
Sulfate	mg/L	13.5	50	50	78.6	76.7	130	126	90-110	2	10	M1	

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## QUALIFIERS

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MCDONOUGH UPGRADIENT  
Pace Project No.: 92496940

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496940001	DGWA-53				
92496940002	DGWA-70A				
92496940003	DGWA-71				
92496940001	DGWA-53	EPA 3010A	568748	EPA 6010D	568812
92496940002	DGWA-70A	EPA 3010A	568748	EPA 6010D	568812
92496940003	DGWA-71	EPA 3010A	568748	EPA 6010D	568812
92496940004	EB-1	EPA 3010A	568748	EPA 6010D	568812
92496940001	DGWA-53	EPA 3005A	569382	EPA 6020B	569504
92496940002	DGWA-70A	EPA 3005A	569382	EPA 6020B	569504
92496940003	DGWA-71	EPA 3005A	569382	EPA 6020B	569504
92496940004	EB-1	EPA 3005A	569382	EPA 6020B	569504
92496940001	DGWA-53	EPA 7470A	569298	EPA 7470A	569454
92496940002	DGWA-70A	EPA 7470A	569298	EPA 7470A	569454
92496940003	DGWA-71	EPA 7470A	569298	EPA 7470A	569454
92496940004	EB-1	EPA 7470A	569298	EPA 7470A	569454
92496940001	DGWA-53	SM 2450C-2011	568649		
92496940002	DGWA-70A	SM 2450C-2011	568649		
92496940003	DGWA-71	SM 2450C-2011	568649		
92496940004	EB-1	SM 2450C-2011	568649		
92496940001	DGWA-53	EPA 300.0 Rev 2.1 1993	569206		
92496940002	DGWA-70A	EPA 300.0 Rev 2.1 1993	569206		
92496940003	DGWA-71	EPA 300.0 Rev 2.1 1993	569206		
92496940004	EB-1	EPA 300.0 Rev 2.1 1993	569206		

**REPORT OF LABORATORY ANALYSIS**

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**Sample Condition Upon Receipt**



Client Name: GA Power - Coal

WO#: **92496940**



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  
 Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact: Yes

Packing Material:  Bubble Wrap  Bubble Bags  None  Other Ziplock

Thermometer Used 230    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun  
 Cooler Temperature 3.5    Biological Tissue is Frozen: Yes No    Date and Initials of person examining contents: CO

Temp should be above freezing to 6°C    Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>CO</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Field Data Required?    Y / N

**Client Notification/ Resolution:**  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Project Manager Review:** \_\_\_\_\_ Date: \_\_\_\_\_

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)

F-ALLC003rev.3, 11September2006





Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project #

WO#: 92496940

PM: KLH1

Due Date: 10/07/20

CLIENT: GA-GA Power

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/BOIS (water) DOC, LLHg

Bottom half of box is to list number of bottle

Matrix	Item#	Item Description	1	2	3	4	5	6	7	8	9	10	11	12
	BP4U-125 mL Plastic Unpreserved (N/A) (C-)													
	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) (C-)													
	BP3N-250 mL plastic HNO3 (pH < 2)													
	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)													
	BP4Z-125 mL Plastic NaOH (pH > 12) (C-)													
	BP4C-125 mL Plastic NaOH (pH > 12) (C-)													
	WIGFU-Wide-mouthed Glass Jar Unpreserved													
	AG1U-1 liter Amber Unpreserved (N/A) (C-)													
	AG1H-1 liter Amber HCl (pH < 2)													
	AG1H-1 liter Amber HCl (pH < 2)													
	AG3U-250 mL Amber Unpreserved (N/A) (C-)													
	AG3U-250 mL Amber Unpreserved (N/A) (C-)													
	AG1S-1 liter Amber H2SO4 (pH < 2)													
	AG3S-250 mL Amber H2SO4 (pH < 2)													
	AG3S-250 mL Amber H2SO4 (pH < 2)													
	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)													
	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)													
	DG9H-40 mL VOA HCl (N/A)													
	DG9H-40 mL VOA HCl (N/A)													
	VG9T-40 mL VOA Na2S2O3 (N/A)													
	VG9T-40 mL VOA Na2S2O3 (N/A)													
	VG9U-40 mL VOA Unp (N/A)													
	VG9U-40 mL VOA Unp (N/A)													
	DG9P-40 mL VOA H3PO4 (N/A)													
	DG9P-40 mL VOA H3PO4 (N/A)													
	VOAK (6 vials per kit)-S03S kit (N/A)													
	VOAK (6 vials per kit)-VPH/Gas kit (N/A)													
	V/GK (3 vials per kit)-VPH/Gas kit (N/A)													
	V/GK (3 vials per kit)-VPH/Gas kit (N/A)													
	SP5T-125 mL Sterile Plastic (N/A - lab)													
	SP5T-125 mL Sterile Plastic (N/A - lab)													
	SP2T-250 mL Sterile Plastic (N/A - lab)													
	SP2T-250 mL Sterile Plastic (N/A - lab)													
	BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)													
	BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)													
	AG0U-100 mL Amber Unpreserved vials (N/A)													
	AG0U-100 mL Amber Unpreserved vials (N/A)													
	VSGU-20 mL Scintillation vials (N/A)													
	VSGU-20 mL Scintillation vials (N/A)													

BP1N

BP1N

BP1N

BP1N

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. Out of hold, incorrect preservative, out of temp, incorrect containers.





October 14, 2020

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

RE: Project: MCDONOUGH UPGRADIENT RADS  
Pace Project No.: 92496907

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH UPGRADIENT RADS  
Pace Project No.: 92496907

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### **Pace Analytical Services Pennsylvania**

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

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

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92496907001	DGWA-53	Water	09/22/20 12:40	09/23/20 09:35
92496907002	DGWA-70A	Water	09/22/20 10:20	09/23/20 09:35
92496907003	DGWA-71	Water	09/22/20 11:45	09/23/20 09:35
92496907004	EB-1	Water	09/22/20 10:40	09/23/20 09:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92496907001	DGWA-53	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496907002	DGWA-70A	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496907003	DGWA-71	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496907004	EB-1	EPA 9315	LAL	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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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWA-53</b> <b>Lab ID: 92496907001</b> Collected: 09/22/20 12:40      Received: 09/23/20 09:35      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.950 ± 0.407 (0.455)</b> <b>C:79% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.32 ± 0.588 (0.987)</b> <b>C:61% T:85%</b>	pCi/L	10/12/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>2.27 ± 0.995 (1.44)</b>	pCi/L	10/14/20 09:21	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

**Sample: DGWA-70A**      **Lab ID: 92496907002**      Collected: 09/22/20 10:20      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.178 ± 0.200 (0.398)</b> <b>C:96% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.272 ± 0.423 (0.915)</b> <b>C:63% T:86%</b>	pCi/L	10/12/20 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.450 ± 0.623 (1.31)</b>	pCi/L	10/14/20 09:21	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWA-71</b> <b>Lab ID: 92496907003</b> Collected: 09/22/20 11:45      Received: 09/23/20 09:35      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.216 ± 0.243 (0.484)</b> <b>C:83% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.365 ± 0.384 (0.955)</b> <b>C:67% T:84%</b>	pCi/L	10/12/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.216 ± 0.627 (1.44)</b>	pCi/L	10/14/20 09:21	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

**Sample: EB-1**      **Lab ID: 92496907004**      Collected: 09/22/20 10:40      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>-0.0348 ± 0.133 (0.424)</b> <b>C:80% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.962 ± 0.578 (1.09)</b> <b>C:66% T:76%</b>	pCi/L	10/12/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.962 ± 0.711 (1.51)</b>	pCi/L	10/14/20 09:21	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

QC Batch: 415887

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92496907001, 92496907002, 92496907003, 92496907004

METHOD BLANK: 2010984

Matrix: Water

Associated Lab Samples: 92496907001, 92496907002, 92496907003, 92496907004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.452 ± 0.429 (0.882) C:72% T:83%	pCi/L	10/12/20 11:46	

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: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

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QC Batch:	415889	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92496907001, 92496907002, 92496907003, 92496907004

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METHOD BLANK: 2010986 Matrix: Water

Associated Lab Samples: 92496907001, 92496907002, 92496907003, 92496907004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.196 ± 0.238 (0.495) C:89% T:NA	pCi/L	10/08/20 07:29	

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: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: MCDONOUGH UPGRADIENT RADS

Pace Project No.: 92496907

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496907001	DGWA-53	EPA 9315	415889		
92496907002	DGWA-70A	EPA 9315	415889		
92496907003	DGWA-71	EPA 9315	415889		
92496907004	EB-1	EPA 9315	415889		
92496907001	DGWA-53	EPA 9320	415887		
92496907002	DGWA-70A	EPA 9320	415887		
92496907003	DGWA-71	EPA 9320	415887		
92496907004	EB-1	EPA 9320	415887		
92496907001	DGWA-53	Total Radium Calculation	418329		
92496907002	DGWA-70A	Total Radium Calculation	418329		
92496907003	DGWA-71	Total Radium Calculation	418329		
92496907004	EB-1	Total Radium Calculation	418329		

**REPORT OF LABORATORY ANALYSIS**

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Sample Condition Upon Receipt

Client Name: GA Power - Coal Coml

WO#: 92496907



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Oth  
Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other Ziplock

Thermometer Used 230

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 3.5

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: CO

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>CO</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project #

WO#: 92496907

PH: KLH1

Due Date: 10/14/20

CLIENT: GR-GR Power

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/BO15 (water) DOC, LLHg

Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	BP8U-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) (C-)	BP3M-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Whole-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	VJGK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VS9U-20 mL Scintillation 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. 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.

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Page : 1 Of 1	
Company: Georgia Power - Coal Combustion Residuals		Report To: Jody Abraham		Attention: scalinvoices@southemco.com			
Address: 2850 Maner Road		Copy To: Collier		Company Name:			
Atlanta, GA 30339				Address:		Regulatory Agency	
Email: j.abraham@southemco.com		Purchase Order #:		Pace Code:			
Phone: (404) 596-7239		Project Name: Plant McDonough Upgradient		Pace Project Manager: Kevin Herring		State / Location	
Requested Due Date: 10 Day TAT		Project #: 100549018		Pace Profile #:		GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -, #) Sample IDs must be unique	MATRIX CODE Drinking Water (DW) Wastewater (WW) Process (P) Surface (S) Other (O)	CODE DW WT PT S O	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							ANALYSES TEST	Requested Analysis Filtered (Y/N)	Residual Choice (Y/N)					
								Unpreserved - Use										Y/N	X	N	N	N
								H2SO4	HNO3	HCl	HNOH + Zn Acetate	H2SO3	Methanol	Other								
1	DGWA-53	WT	DW	9/23/20	12:40		5	2						X	X	X	X		pH= 6.44			
2	DGWA-70A	WT	DW	9/23/20	10:20		5	2						X	X	X	X		pH= 6.91			
3	DGWA-71	WT	DW	9/23/20	11:45		5	2						X	X	X	X		pH= 6.06			
4	EB-1	WT	DW	9/23/20	10:40		5	2						X	X	X	X		-			
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Temp 11/14 Minima - An, Se, B, Ba, Be, Ca, Co, Cr, Cu, Pb, U, Hg, Mn, Se, Th	C. Tronell/Golder	9/23/20	09:05	M. BATA	9/23/20	09:05	
	M. BATA	9-23-20	9:35	K. Williams/Price	9/23/20	0935	7.5 Y Y Y

Sampled by: Chris Tronell  
 DATE Signed: 9/23/20

TEMP in C

Received on (Y/N)

Custody Sealed (Y/N)

Cooler (Y/N)

Samples Intact (Y/N)



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 10/7/2020  
Worklist: 56441  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010986	
MB concentration:	0.196	
M/B Counting Uncertainty:	0.236	
MB MDC:	0.495	
MB Numerical Performance Indicator:	1.62	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56441	LCSD56441
Count Date:	10/8/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.524	
Target Conc. (pCi/L, g, F):	4.587	
Uncertainty (Calculated):	0.055	
Result (pCi/L, g, F):	4.928	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.804	
Numerical Performance Indicator:	0.83	
Percent Recovery:	107.44%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment	LCSD (Y or N)?	N
Sample I.D.:	92496907001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92496907001DUP	
Sample Result (pCi/L, g, F):	0.950	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.383	
Sample Duplicate Result (pCi/L, g, F):	1.227	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.469	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.896	92496907001
Duplicate RPD:	25.43%	92496907001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision. N/A LAM 10/8/2020

LAM 10/8/2020

CMT  
10/8/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/7/2020  
Worklist: 56441  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010986	
MB concentration:	0.196	
M/B Counting Uncertainty:	0.236	
MB MDC:	0.495	
MB Numerical Performance Indicator:	1.62	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56441	LCSD56441
Count Date:	10/8/2020	10/8/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.524	0.512
Target Conc. (pCi/L, g, F):	4.587	4.700
Uncertainty (Calculated):	0.055	0.056
Result (pCi/L, g, F):	4.928	4.118
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.804	0.734
Numerical Performance Indicator:	0.83	-1.55
Percent Recovery:	107.44%	87.60%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56441	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56441	
Sample Result (pCi/L, g, F):	4.928	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.804	
Sample Duplicate Result (pCi/L, g, F):	4.118	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.734	
Are sample and/or duplicate results below RL?:	NO	
Duplicate Numerical Performance Indicator:	1.459	92496907001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	20.34%	92496907001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

*LAL*  
10/8/2020

LAL 10/8/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/6/2020  
Worklist: 56439  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2010984	
MB concentration:	0.452	
M/B 2 Sigma CSU:	0.429	
MB MDC:	0.882	
MB Numerical Performance Indicator:	2.07	
MB Status vs Numerical Indicator:	Warning	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56439	LCSD56439
Count Date:	10/12/2020	10/12/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.055	38.055
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.730	4.702
Uncertainty (Calculated):	0.232	0.230
Result (pCi/L, g, F):	5.342	4.034
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.236	1.010
Numerical Performance Indicator:	0.95	-1.26
Percent Recovery:	112.95%	85.79%
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:		
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		
Sample I.D.:	LCS56439	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56439	
Sample Result (pCi/L, g, F):	5.342	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.236	
Sample Duplicate Result (pCi/L, g, F):	4.034	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.010	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.607	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.34%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

10-15-20

On 10.13.20

October 16, 2020

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

RE: Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 23, 2020 and September 25, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92496941001	DGWC-4	Water	09/22/20 09:50	09/23/20 09:35
92496941002	DGWC-5	Water	09/22/20 11:10	09/23/20 09:35
92496941003	DGWC-9	Water	09/22/20 10:00	09/23/20 09:35
92496941004	DGWC-11	Water	09/22/20 11:00	09/23/20 09:35
92496941005	DGWC-12	Water	09/22/20 15:40	09/23/20 09:35
92496941006	DGWC-14	Water	09/22/20 14:25	09/23/20 09:35
92496941007	DGWC-19	Water	09/22/20 16:10	09/23/20 09:35
92496941008	DGWC-20	Water	09/22/20 12:35	09/23/20 09:35
92496941009	DGWC-42	Water	09/22/20 16:25	09/23/20 09:35
92496941010	FB-1	Water	09/22/20 09:50	09/23/20 09:35
92496941011	FD-1	Water	09/22/20 00:00	09/23/20 09:35
92496941012	DGWC-2	Water	09/23/20 12:35	09/24/20 09:25
92496941013	DGWC-8	Water	09/23/20 16:00	09/24/20 09:25
92496941014	DGWC-13	Water	09/23/20 10:30	09/24/20 09:25
92496941015	DGWC-15	Water	09/23/20 13:55	09/24/20 09:25
92496941016	DGWC-47	Water	09/23/20 12:37	09/24/20 09:25
92496941017	DGWC-48	Water	09/23/20 09:55	09/24/20 09:25
92496941018	EB-2	Water	09/23/20 14:25	09/24/20 09:25
92496941019	FB-2	Water	09/23/20 10:22	09/24/20 09:25
92496941020	DGWC-10	Water	09/24/20 09:55	09/25/20 13:30
92496941021	DGWC-17	Water	09/24/20 14:05	09/25/20 13:30
92496941022	DGWC-21	Water	09/24/20 12:30	09/25/20 13:30
92496941023	DGWC-22	Water	09/24/20 12:20	09/25/20 13:30
92496941024	DGWC-23	Water	09/24/20 13:02	09/25/20 13:30
92496941025	FD-3	Water	09/24/20 00:00	09/25/20 13:30
92496941026	EB-3	Water	09/24/20 12:25	09/25/20 13:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92496941001	DGWC-4	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941002	DGWC-5	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941003	DGWC-9	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941004	DGWC-11	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941005	DGWC-12	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941006	DGWC-14	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941007	DGWC-19	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941008	DGWC-20	EPA 6010D	KH	1
		EPA 6020B	CW1	13

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92496941009	DGWC-42	EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92496941010	FB-1	SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
92496941011	FD-1	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92496941012	DGWC-2	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
92496941013	DGWC-8	EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
92496941014	DGWC-13	EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92496941015	DGWC-15	SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92496941016	DGWC-47	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941017	DGWC-48	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941018	EB-2	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941019	FB-2	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941020	DGWC-10	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
92496941021	DGWC-17	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941022	DGWC-21	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
92496941023	DGWC-22	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92496941024	DGWC-23	EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92496941025	FD-3	SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92496941026	EB-3	SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-4		Lab ID: 92496941001		Collected: 09/22/20 09:50		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.88	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	263	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:46	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 19:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 19:49	7440-38-2	
Barium	0.030	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 19:49	7440-39-3	
Beryllium	0.00019J	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 19:49	7440-41-7	
Boron	4.3	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 19:49	7440-42-8	
Cadmium	0.00065J	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 19:49	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 19:49	7440-47-3	
Cobalt	0.0014J	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 19:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 19:49	7439-92-1	
Lithium	0.0026J	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 19:49	7439-93-2	
Molybdenum	0.0028J	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 19:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 19:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 19:49	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:04	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	1400	mg/L	50.0	50.0	1		09/24/20 10:31		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	17.0	mg/L	1.0	0.60	1		09/27/20 04:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 04:31	16984-48-8	
Sulfate	800	mg/L	11.0	5.5	11		09/27/20 10:47	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-5		Lab ID: 92496941002		Collected: 09/22/20 11:10		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.83	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	99.2	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 22:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 19:55	7440-36-0	
Arsenic	0.0062	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 19:55	7440-38-2	
Barium	0.017	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 19:55	7440-39-3	
Beryllium	0.0081	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 19:55	7440-41-7	
Boron	4.6	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 19:55	7440-42-8	
Cadmium	0.00072J	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 19:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 19:55	7440-47-3	
Cobalt	0.020	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 19:55	7440-48-4	
Lead	0.000048J	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 19:55	7439-92-1	
Lithium	0.0065J	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 19:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 19:55	7439-98-7	
Selenium	0.040	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 19:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 19:55	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00020J	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:14	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	716	mg/L	20.0	20.0	1		09/24/20 10:31		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	10.5	mg/L	1.0	0.60	1		09/27/20 04:46	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.050	1		09/27/20 04:46	16984-48-8	
Sulfate	423	mg/L	6.0	3.0	6		09/27/20 11:01	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-9		Lab ID: 92496941003		Collected: 09/22/20 10:00		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.00	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	54.7	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 19:50	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 20:00	7440-36-0	
Arsenic	0.040	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 20:00	7440-38-2	
Barium	0.015	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 20:00	7440-39-3	
Beryllium	0.0049	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 20:00	7440-41-7	
Boron	0.78	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 20:00	7440-42-8	
Cadmium	0.00059J	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 20:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 20:00	7440-47-3	
Cobalt	0.16	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 20:00	7440-48-4	
Lead	0.00015J	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 20:00	7439-92-1	
Lithium	0.025J	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 20:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 20:00	7439-98-7	
Selenium	0.23	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 20:00	7782-49-2	
Thallium	0.00043J	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 20:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00013J	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:16	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	461	mg/L	10.0	10.0	1		09/24/20 10:31		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	8.0	mg/L	1.0	0.60	1		09/27/20 05:00	16887-00-6	
Fluoride	0.99	mg/L	0.10	0.050	1		09/27/20 05:00	16984-48-8	
Sulfate	282	mg/L	4.0	2.0	4		09/27/20 11:59	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-11		Lab ID: 92496941004		Collected: 09/22/20 11:00		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.54	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	72.7	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:16	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 20:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 20:06	7440-38-2	
Barium	0.058	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 20:06	7440-39-3	
Beryllium	0.00015J	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 20:06	7440-41-7	
Boron	1.3	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 20:06	7440-42-8	
Cadmium	0.00016J	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 20:06	7440-43-9	
Chromium	0.00058J	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 20:06	7440-47-3	
Cobalt	0.00098J	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 20:06	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 20:06	7439-92-1	
Lithium	0.0019J	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 20:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 20:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 20:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 20:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:19	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	481	mg/L	10.0	10.0	1		09/24/20 10:31		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	16.0	mg/L	1.0	0.60	1		09/27/20 05:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 05:15	16984-48-8	
Sulfate	267	mg/L	4.0	2.0	4		09/27/20 12:13	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-12		Lab ID: 92496941005		Collected: 09/22/20 15:40		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.00	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	55.4	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:20	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 17:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 17:47	7440-38-2	
Barium	0.036	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 17:47	7440-39-3	
Beryllium	0.00017J	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 17:47	7440-41-7	
Boron	4.2	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 17:47	7440-42-8	
Cadmium	0.00017J	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 17:47	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 17:47	7440-47-3	
Cobalt	0.013	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 17:47	7440-48-4	
Lead	0.00011J	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 17:47	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 17:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 17:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 17:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 17:47	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:26	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	338	mg/L	10.0	10.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	10.8	mg/L	1.0	0.60	1		09/27/20 05:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 05:58	16984-48-8	
Sulfate	183	mg/L	3.0	1.5	3		09/27/20 12:27	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-14		Lab ID: 92496941006		Collected: 09/22/20 14:25		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.70	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	11.6	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:24	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0011J	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:10	7440-38-2	
Barium	0.060	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:10	7440-41-7	
Boron	0.086J	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:10	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:10	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:10	7440-48-4	
Lead	0.000044J	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:10	7439-92-1	
Lithium	0.0038J	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:10	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:10	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:28	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	105	mg/L	10.0	10.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	0.60	1		09/27/20 06:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 06:12	16984-48-8	
Sulfate	40.2	mg/L	1.0	0.50	1		09/27/20 06:12	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-19		Lab ID: 92496941007		Collected: 09/22/20 16:10		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.91	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	103	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:29	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00036J	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:16	7440-36-0	
Arsenic	0.0017J	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:16	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:16	7440-39-3	
Beryllium	0.0020J	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:16	7440-41-7	
Boron	2.6	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:16	7440-42-8	
Cadmium	0.00036J	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:16	7440-43-9	
Chromium	0.0030J	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:16	7440-47-3	
Cobalt	0.051	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:16	7440-48-4	
Lead	0.00016J	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:16	7439-92-1	
Lithium	0.0034J	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:16	7439-98-7	
Selenium	0.0052J	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:16	7782-49-2	
Thallium	0.00050J	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:16	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:31	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	513	mg/L	10.0	10.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	27.6	mg/L	1.0	0.60	1		09/27/20 06:56	16887-00-6	
Fluoride	0.084J	mg/L	0.10	0.050	1		09/27/20 06:56	16984-48-8	
Sulfate	310	mg/L	4.0	2.0	4		09/27/20 12:41	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-20		Lab ID: 92496941008		Collected: 09/22/20 12:35		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.66	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	79.2	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:33	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:21	7440-36-0	
Arsenic	0.0063	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:21	7440-38-2	
Barium	0.011	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:21	7440-39-3	
Beryllium	0.0027J	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:21	7440-41-7	
Boron	4.9	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:21	7440-42-8	
Cadmium	0.0014J	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:21	7440-43-9	
Chromium	0.0013J	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:21	7440-47-3	
Cobalt	0.47	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:21	7440-48-4	
Lead	0.00013J	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:21	7439-92-1	
Lithium	0.0026J	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:21	7439-98-7	
Selenium	0.023	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:21	7782-49-2	
Thallium	0.00055J	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:21	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:33	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	724	mg/L	20.0	20.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	25.8	mg/L	1.0	0.60	1		09/27/20 07:11	16887-00-6	
Fluoride	0.15	mg/L	0.10	0.050	1		09/27/20 07:11	16984-48-8	
Sulfate	408	mg/L	6.0	3.0	6		09/27/20 12:55	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: <b>DGWC-42</b>		Lab ID: <b>92496941009</b>		Collected: 09/22/20 16:25		Received: 09/23/20 09:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.76</b>	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>43.8</b>	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:27	7440-38-2	
Barium	<b>0.016</b>	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:27	7440-39-3	
Beryllium	<b>0.0013J</b>	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:27	7440-41-7	
Boron	<b>0.88</b>	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:27	7440-42-8	
Cadmium	<b>0.00070J</b>	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:27	7440-43-9	
Chromium	<b>0.0010J</b>	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:27	7440-47-3	
Cobalt	<b>0.014</b>	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:27	7440-48-4	
Lead	<b>0.00074J</b>	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:27	7439-92-1	
Lithium	<b>0.0099J</b>	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:27	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 13:06	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>547</b>	mg/L	10.0	10.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>22.1</b>	mg/L	1.0	0.60	1		09/27/20 07:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 07:25	16984-48-8	
Sulfate	<b>320</b>	mg/L	5.0	2.5	5		09/27/20 13:09	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: FB-1		Lab ID: 92496941010		Collected: 09/22/20 09:50	Received: 09/23/20 09:35	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:42	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:44	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:44	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:44	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:44	7440-41-7		
Boron	ND	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:44	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:44	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:44	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:44	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:44	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:44	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:44	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:44	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:35	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/25/20 21:58			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/20 07:40	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 07:40	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/27/20 07:40	14808-79-8		

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

**Sample: FD-1**      **Lab ID: 92496941011**      Collected: 09/22/20 00:00      Received: 09/23/20 09:35      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	11.9	mg/L	1.0	0.070	1	09/25/20 15:02	09/28/20 20:46	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:28	09/30/20 18:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:28	09/30/20 18:50	7440-38-2	
Barium	0.060	mg/L	0.010	0.00071	1	09/29/20 18:28	09/30/20 18:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:28	09/30/20 18:50	7440-41-7	
Boron	0.066J	mg/L	0.10	0.0052	1	09/29/20 18:28	09/30/20 18:50	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:28	09/30/20 18:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:28	09/30/20 18:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:28	09/30/20 18:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:28	09/30/20 18:50	7439-92-1	
Lithium	0.0039J	mg/L	0.030	0.00081	1	09/29/20 18:28	09/30/20 18:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:28	09/30/20 18:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:28	09/30/20 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:28	09/30/20 18:50	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:38	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	96.0	mg/L	10.0	10.0	1		09/25/20 21:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	0.60	1		09/27/20 07:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 07:54	16984-48-8	
Sulfate	40.7	mg/L	1.0	0.50	1		09/27/20 07:54	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-2		Lab ID: 92496941012		Collected: 09/23/20 12:35		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.99	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	44.4	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:31	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 12:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 12:34	7440-38-2	
Barium	0.023	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 12:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 12:34	7440-41-7	
Boron	0.57	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 12:34	7440-42-8	
Cadmium	0.00013J	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 12:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 12:34	7440-47-3	
Cobalt	0.0062	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 12:34	7440-48-4	
Lead	0.000094J	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 12:34	7439-92-1	
Lithium	0.022J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 12:34	7439-93-2	
Molybdenum	0.0022J	mg/L	0.010	0.00069	1	09/29/20 18:39	10/01/20 12:34	7439-98-7	
Selenium	0.0046J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 12:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 12:34	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:40	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	267	mg/L	10.0	10.0	1		09/28/20 11:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.1	mg/L	1.0	0.60	1		09/29/20 14:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 14:35	16984-48-8	
Sulfate	122	mg/L	3.0	1.5	3		09/29/20 21:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-8		Lab ID: 92496941013		Collected: 09/23/20 16:00		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.21	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	39.3	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:35	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 12:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 12:39	7440-38-2	
Barium	0.025	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 12:39	7440-39-3	
Beryllium	0.0015J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 12:39	7440-41-7	
Boron	1.0	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 12:39	7440-42-8	
Cadmium	0.0018J	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 12:39	7440-43-9	
Chromium	0.00086J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 12:39	7440-47-3	
Cobalt	0.040	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 12:39	7440-48-4	
Lead	0.00011J	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 12:39	7439-92-1	
Lithium	0.0045J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 12:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:39	10/01/20 12:39	7439-98-7	
Selenium	0.0028J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 12:39	7782-49-2	
Thallium	0.00020J	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 12:39	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:42	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	333	mg/L	10.0	10.0	1		09/28/20 11:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.1	mg/L	1.0	0.60	1		09/29/20 14:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 14:49	16984-48-8	
Sulfate	178	mg/L	4.0	2.0	4		09/29/20 21:49	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-13		Lab ID: 92496941014		Collected: 09/23/20 10:30		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.72	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	39.0	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:48	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 12:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 12:45	7440-38-2	
Barium	0.030	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 12:45	7440-39-3	
Beryllium	0.000068J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 12:45	7440-41-7	
Boron	0.57	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 12:45	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 12:45	7440-43-9	
Chromium	0.00059J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 12:45	7440-47-3	
Cobalt	0.00038J	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 12:45	7440-48-4	
Lead	0.000098J	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 12:45	7439-92-1	
Lithium	0.0033J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 12:45	7439-93-2	
Molybdenum	0.012	mg/L	0.010	0.00069	1	09/29/20 18:39	10/01/20 12:45	7439-98-7	
Selenium	0.0053J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 12:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 12:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:45	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	278	mg/L	10.0	10.0	1		09/28/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	12.6	mg/L	1.0	0.60	1		09/29/20 15:04	16887-00-6	
Fluoride	0.058J	mg/L	0.10	0.050	1		09/29/20 15:04	16984-48-8	
Sulfate	134	mg/L	3.0	1.5	3		09/29/20 22:04	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: DGWC-15		Lab ID: 92496941015		Collected: 09/23/20 13:55		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.85	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	35.6	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:52	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 14:00	10/01/20 14:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 14:00	10/01/20 14:32	7440-38-2	
Barium	0.043	mg/L	0.010	0.00071	1	09/30/20 14:00	10/01/20 14:32	7440-39-3	
Beryllium	0.000058J	mg/L	0.0030	0.000046	1	09/30/20 14:00	10/01/20 14:32	7440-41-7	
Boron	1.6	mg/L	0.10	0.0052	1	09/30/20 14:00	10/01/20 14:32	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 14:00	10/01/20 14:32	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 14:00	10/01/20 14:32	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00038	1	09/30/20 14:00	10/01/20 14:32	7440-48-4	
Lead	0.000082J	mg/L	0.0050	0.000036	1	09/30/20 14:00	10/01/20 14:32	7439-92-1	
Lithium	0.0060J	mg/L	0.030	0.00081	1	09/30/20 14:00	10/01/20 14:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 14:00	10/01/20 14:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 14:00	10/01/20 14:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 14:00	10/01/20 14:32	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:52	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	317	mg/L	10.0	10.0	1		09/28/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	22.4	mg/L	1.0	0.60	1		09/29/20 15:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 15:18	16984-48-8	
Sulfate	146	mg/L	3.0	1.5	3		09/29/20 22:18	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-47		Lab ID: 92496941016		Collected: 09/23/20 12:37		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.40	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	22.3	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:57	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0012J	mg/L	0.0030	0.00028	1	09/30/20 14:00	10/01/20 14:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 14:00	10/01/20 14:55	7440-38-2	
Barium	0.014	mg/L	0.010	0.00071	1	09/30/20 14:00	10/01/20 14:55	7440-39-3	
Beryllium	0.0069	mg/L	0.0030	0.000046	1	09/30/20 14:00	10/01/20 14:55	7440-41-7	
Boron	0.21	mg/L	0.10	0.0052	1	09/30/20 14:00	10/01/20 14:55	7440-42-8	
Cadmium	0.0013J	mg/L	0.0025	0.00012	1	09/30/20 14:00	10/01/20 14:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 14:00	10/01/20 14:55	7440-47-3	
Cobalt	0.17	mg/L	0.0050	0.00038	1	09/30/20 14:00	10/01/20 14:55	7440-48-4	
Lead	0.00053J	mg/L	0.0050	0.000036	1	09/30/20 14:00	10/01/20 14:55	7439-92-1	
Lithium	0.046	mg/L	0.030	0.00081	1	09/30/20 14:00	10/01/20 14:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 14:00	10/01/20 14:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 14:00	10/01/20 14:55	7782-49-2	
Thallium	0.00026J	mg/L	0.0010	0.00014	1	09/30/20 14:00	10/01/20 14:55	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:54	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	229	mg/L	10.0	10.0	1		09/28/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.3	mg/L	1.0	0.60	1		09/29/20 15:33	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.050	1		09/29/20 15:33	16984-48-8	
Sulfate	111	mg/L	3.0	1.5	3		09/29/20 23:02	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-48		Lab ID: 92496941017		Collected: 09/23/20 09:55		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.64	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	72.2	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 22:01	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00039J	mg/L	0.0030	0.00028	1	09/30/20 14:00	10/01/20 15:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 14:00	10/01/20 15:01	7440-38-2	
Barium	0.013	mg/L	0.010	0.00071	1	09/30/20 14:00	10/01/20 15:01	7440-39-3	
Beryllium	0.0072	mg/L	0.0030	0.000046	1	09/30/20 14:00	10/01/20 15:01	7440-41-7	
Boron	0.65	mg/L	0.10	0.0052	1	09/30/20 14:00	10/01/20 15:01	7440-42-8	
Cadmium	0.0025	mg/L	0.0025	0.00012	1	09/30/20 14:00	10/01/20 15:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 14:00	10/01/20 15:01	7440-47-3	
Cobalt	0.37	mg/L	0.0050	0.00038	1	09/30/20 14:00	10/01/20 15:01	7440-48-4	
Lead	0.0010J	mg/L	0.0050	0.000036	1	09/30/20 14:00	10/01/20 15:01	7439-92-1	
Lithium	0.10	mg/L	0.030	0.00081	1	09/30/20 14:00	10/01/20 15:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 14:00	10/01/20 15:01	7439-98-7	
Selenium	0.0016J	mg/L	0.010	0.0016	1	09/30/20 14:00	10/01/20 15:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 14:00	10/01/20 15:01	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:57	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	575	mg/L	10.0	10.0	1		09/28/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	8.0	mg/L	1.0	0.60	1		09/29/20 15:47	16887-00-6	
Fluoride	0.32	mg/L	0.10	0.050	1		09/29/20 15:47	16984-48-8	
Sulfate	313	mg/L	7.0	3.5	7		09/29/20 23:16	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: EB-2		Lab ID: 92496941018		Collected: 09/23/20 14:25	Received: 09/24/20 09:25	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 22:10	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 14:00	10/01/20 15:07	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 14:00	10/01/20 15:07	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/30/20 14:00	10/01/20 15:07	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/30/20 14:00	10/01/20 15:07	7440-41-7		
Boron	<b>0.0055J</b>	mg/L	0.10	0.0052	1	09/30/20 14:00	10/01/20 15:07	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 14:00	10/01/20 15:07	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 14:00	10/01/20 15:07	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 14:00	10/01/20 15:07	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 14:00	10/01/20 15:07	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/30/20 14:00	10/01/20 15:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 14:00	10/01/20 15:07	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 14:00	10/01/20 15:07	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 14:00	10/01/20 15:07	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 12:59	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/28/20 11:54			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/29/20 16:01	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 16:01	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 16:01	14808-79-8		

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: <b>FB-2</b>		Lab ID: <b>92496941019</b>		Collected: 09/23/20 10:22	Received: 09/24/20 09:25	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	ND	mg/L	1.0	0.070	1	09/29/20 18:42	09/30/20 16:23	7440-70-2	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 14:00	10/01/20 15:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 14:00	10/01/20 15:12	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/30/20 14:00	10/01/20 15:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/30/20 14:00	10/01/20 15:12	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/30/20 14:00	10/01/20 15:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 14:00	10/01/20 15:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 14:00	10/01/20 15:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 14:00	10/01/20 15:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 14:00	10/01/20 15:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/30/20 14:00	10/01/20 15:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 14:00	10/01/20 15:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 14:00	10/01/20 15:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 14:00	10/01/20 15:12	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 11:50	09/29/20 13:02	7439-97-6	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/28/20 14:27		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		09/29/20 17:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 17:14	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 17:14	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: <b>DGWC-10</b> Lab ID: <b>92496941020</b> Collected: 09/24/20 09:55      Received: 09/25/20 13:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		10/08/20 08:16		
pH	<b>4.89</b>	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>53.1</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 19:32	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:45	10/01/20 23:27	7440-36-0	
Arsenic	<b>0.0078</b>	mg/L	0.0050	0.00078	1	09/30/20 17:45	10/01/20 23:27	7440-38-2	
Barium	<b>0.021</b>	mg/L	0.010	0.00071	1	09/30/20 17:45	10/01/20 23:27	7440-39-3	
Beryllium	<b>0.0077</b>	mg/L	0.0030	0.000046	1	09/30/20 17:45	10/01/20 23:27	7440-41-7	
Boron	<b>0.45</b>	mg/L	0.10	0.0052	1	09/30/20 17:45	10/06/20 12:52	7440-42-8	
Cadmium	<b>0.00055J</b>	mg/L	0.0025	0.00012	1	09/30/20 17:45	10/01/20 23:27	7440-43-9	
Chromium	<b>0.0010J</b>	mg/L	0.010	0.00055	1	09/30/20 17:45	10/01/20 23:27	7440-47-3	
Cobalt	<b>0.086</b>	mg/L	0.0050	0.00038	1	09/30/20 17:45	10/01/20 23:27	7440-48-4	
Lead	<b>0.00013J</b>	mg/L	0.0050	0.000036	1	09/30/20 17:45	10/01/20 23:27	7439-92-1	
Lithium	<b>0.0049J</b>	mg/L	0.030	0.00081	1	09/30/20 17:45	10/01/20 23:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:45	10/01/20 23:27	7439-98-7	
Selenium	<b>0.074</b>	mg/L	0.010	0.0016	1	09/30/20 17:45	10/01/20 23:27	7782-49-2	
Thallium	<b>0.00034J</b>	mg/L	0.0010	0.00014	1	09/30/20 17:45	10/01/20 23:27	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.000081J</b>	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:11	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>283</b>	mg/L	10.0	10.0	1		09/30/20 09:29		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.9</b>	mg/L	1.0	0.60	1		09/30/20 01:11	16887-00-6	
Fluoride	<b>0.97</b>	mg/L	0.10	0.050	1		09/30/20 01:11	16984-48-8	
Sulfate	<b>204</b>	mg/L	4.0	2.0	4		09/30/20 08:08	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: <b>DGWC-17</b> Lab ID: <b>92496941021</b> Collected: 09/24/20 14:05      Received: 09/25/20 13:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		10/08/20 08:16		
pH	<b>5.10</b>	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>12.7</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 19:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00045J</b>	mg/L	0.0030	0.00028	1	09/30/20 17:45	10/01/20 23:33	7440-36-0	
Arsenic	<b>0.0011J</b>	mg/L	0.0050	0.00078	1	09/30/20 17:45	10/01/20 23:33	7440-38-2	
Barium	<b>0.033</b>	mg/L	0.010	0.00071	1	09/30/20 17:45	10/01/20 23:33	7440-39-3	
Beryllium	<b>0.00060J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:45	10/01/20 23:33	7440-41-7	
Boron	<b>0.88</b>	mg/L	0.50	0.026	5	09/30/20 17:45	10/03/20 13:45	7440-42-8	
Cadmium	<b>0.00024J</b>	mg/L	0.0025	0.00012	1	09/30/20 17:45	10/01/20 23:33	7440-43-9	
Chromium	<b>0.0029J</b>	mg/L	0.010	0.00055	1	09/30/20 17:45	10/01/20 23:33	7440-47-3	
Cobalt	<b>0.028</b>	mg/L	0.0050	0.00038	1	09/30/20 17:45	10/01/20 23:33	7440-48-4	
Lead	<b>0.000079J</b>	mg/L	0.0050	0.000036	1	09/30/20 17:45	10/01/20 23:33	7439-92-1	
Lithium	<b>0.00096J</b>	mg/L	0.030	0.00081	1	09/30/20 17:45	10/01/20 23:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:45	10/01/20 23:33	7439-98-7	
Selenium	<b>0.015</b>	mg/L	0.010	0.0016	1	09/30/20 17:45	10/01/20 23:33	7782-49-2	
Thallium	<b>0.00018J</b>	mg/L	0.0010	0.00014	1	09/30/20 17:45	10/01/20 23:33	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.000082J</b>	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:20	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>411</b>	mg/L	10.0	10.0	1		09/29/20 18:56		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>22.7</b>	mg/L	1.0	0.60	1		09/30/20 01:54	16887-00-6	
Fluoride	<b>0.056J</b>	mg/L	0.10	0.050	1		09/30/20 01:54	16984-48-8	
Sulfate	<b>259</b>	mg/L	5.0	2.5	5		09/30/20 08:29	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-21      Lab ID: 92496941022      Collected: 09/24/20 12:30      Received: 09/25/20 13:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		10/08/20 08:16		
pH	5.64	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	80.0	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 19:54	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:45	10/01/20 23:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:45	10/01/20 23:39	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	09/30/20 17:45	10/01/20 23:39	7440-39-3	
Beryllium	0.00018J	mg/L	0.0030	0.000046	1	09/30/20 17:45	10/01/20 23:39	7440-41-7	
Boron	6.1	mg/L	0.50	0.026	5	09/30/20 17:45	10/03/20 13:51	7440-42-8	
Cadmium	0.00073J	mg/L	0.0025	0.00012	1	09/30/20 17:45	10/01/20 23:39	7440-43-9	
Chromium	0.00096J	mg/L	0.010	0.00055	1	09/30/20 17:45	10/01/20 23:39	7440-47-3	
Cobalt	0.010	mg/L	0.0050	0.00038	1	09/30/20 17:45	10/01/20 23:39	7440-48-4	
Lead	0.00014J	mg/L	0.0050	0.000036	1	09/30/20 17:45	10/01/20 23:39	7439-92-1	
Lithium	0.0062J	mg/L	0.030	0.00081	1	09/30/20 17:45	10/01/20 23:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:45	10/01/20 23:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:45	10/01/20 23:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:45	10/01/20 23:39	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00012J	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:23	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	494	mg/L	10.0	10.0	1		09/29/20 19:04		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	20.0	mg/L	1.0	0.60	1		09/30/20 02:09	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 02:09	16984-48-8	
Sulfate	269	mg/L	6.0	3.0	6		09/30/20 09:18	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

**Sample: DGWC-22**      **Lab ID: 92496941023**      Collected: 09/24/20 12:20      Received: 09/25/20 13:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		10/08/20 08:16		
pH	<b>5.69</b>	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>62.6</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:07	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:45	10/01/20 23:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:45	10/01/20 23:45	7440-38-2	
Barium	<b>0.031</b>	mg/L	0.010	0.00071	1	09/30/20 17:45	10/01/20 23:45	7440-39-3	
Beryllium	<b>0.00017J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:45	10/01/20 23:45	7440-41-7	
Boron	<b>4.1</b>	mg/L	0.50	0.026	5	09/30/20 17:45	10/03/20 13:57	7440-42-8	
Cadmium	<b>0.00058J</b>	mg/L	0.0025	0.00012	1	09/30/20 17:45	10/01/20 23:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 17:45	10/01/20 23:45	7440-47-3	
Cobalt	<b>0.010</b>	mg/L	0.0050	0.00038	1	09/30/20 17:45	10/01/20 23:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 17:45	10/01/20 23:45	7439-92-1	
Lithium	<b>0.0037J</b>	mg/L	0.030	0.00081	1	09/30/20 17:45	10/01/20 23:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:45	10/01/20 23:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:45	10/01/20 23:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:45	10/01/20 23:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:25	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>455</b>	mg/L	10.0	10.0	1		09/29/20 19:04		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>21.5</b>	mg/L	1.0	0.60	1		09/30/20 02:23	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 02:23	16984-48-8	
Sulfate	<b>262</b>	mg/L	5.0	2.5	5		09/30/20 09:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: DGWC-23		Lab ID: 92496941024		Collected: 09/24/20 13:02		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		10/08/20 08:16		
pH	6.19	Std. Units			1		10/08/20 08:16		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	73.7	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:11	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:45	10/01/20 23:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:45	10/01/20 23:50	7440-38-2	
Barium	0.020	mg/L	0.010	0.00071	1	09/30/20 17:45	10/01/20 23:50	7440-39-3	
Beryllium	0.00045J	mg/L	0.0030	0.000046	1	09/30/20 17:45	10/01/20 23:50	7440-41-7	
Boron	4.6	mg/L	0.50	0.026	5	09/30/20 17:45	10/03/20 14:03	7440-42-8	
Cadmium	0.00018J	mg/L	0.0025	0.00012	1	09/30/20 17:45	10/01/20 23:50	7440-43-9	
Chromium	0.00084J	mg/L	0.010	0.00055	1	09/30/20 17:45	10/01/20 23:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 17:45	10/01/20 23:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 17:45	10/01/20 23:50	7439-92-1	
Lithium	0.0045J	mg/L	0.030	0.00081	1	09/30/20 17:45	10/01/20 23:50	7439-93-2	
Molybdenum	0.0088J	mg/L	0.010	0.00069	1	09/30/20 17:45	10/01/20 23:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:45	10/01/20 23:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:45	10/01/20 23:50	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00020J	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:28	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	456	mg/L	10.0	10.0	1		09/29/20 19:05		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	13.7	mg/L	1.0	0.60	1		09/30/20 16:54	16887-00-6	
Fluoride	0.075J	mg/L	0.10	0.050	1		09/30/20 16:54	16984-48-8	
Sulfate	215	mg/L	5.0	2.5	5		09/30/20 19:52	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Sample: FD-3		Lab ID: 92496941025		Collected: 09/24/20 00:00		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	12.7	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:15	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 17:51	7440-36-0	
Arsenic	0.00088J	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 17:51	7440-38-2	
Barium	0.032	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 17:51	7440-39-3	
Beryllium	0.00070J	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 17:51	7440-41-7	
Boron	0.84	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 17:51	7440-42-8	
Cadmium	0.00028J	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 17:51	7440-43-9	
Chromium	0.0028J	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 17:51	7440-47-3	
Cobalt	0.027	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 17:51	7440-48-4	
Lead	0.00022J	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 17:51	7439-92-1	
Lithium	0.0012J	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 17:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 17:51	7439-98-7	
Selenium	0.012	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 17:51	7782-49-2	
Thallium	0.00034J	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 17:51	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:35	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	422	mg/L	10.0	10.0	1		09/29/20 19:05		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	22.8	mg/L	1.0	0.60	1		09/30/20 17:08	16887-00-6	
Fluoride	0.076J	mg/L	0.10	0.050	1		09/30/20 17:08	16984-48-8	
Sulfate	251	mg/L	5.0	2.5	5		09/30/20 20:06	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Sample: EB-3		Lab ID: 92496941026		Collected: 09/24/20 12:25		Received: 09/25/20 13:30		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:19	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	<b>0.0015J</b>	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:14	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:14	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:14	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:14	7440-41-7		
Boron	<b>0.010J</b>	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:14	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:14	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:14	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:14	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:14	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:14	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:14	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:14	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:14	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 13:37	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>19.0</b>	mg/L	10.0	10.0	1		09/29/20 19:05			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/30/20 17:23	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 17:23	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/30/20 17:23	14808-79-8		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 568748      Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A      Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941001, 92496941002

METHOD BLANK: 3013298      Matrix: Water  
Associated Lab Samples: 92496941001, 92496941002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 20:40	

LABORATORY CONTROL SAMPLE: 3013299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.95J	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013300      3013301

Parameter	Units	3013300		3013301		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495894022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	75.3	1	1	79.7	76.2	438	83	75-125	5	20 M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch:	569036	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

METHOD BLANK: 3014892 Matrix: Water  
Associated Lab Samples: 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/28/20 19:33	

LABORATORY CONTROL SAMPLE: 3014893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3014894 3014895

Parameter	Units	92496941003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	54.7	1	1	57.3	56.8	256	203	75-125	1	20	M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch:	569672	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018

METHOD BLANK: 3017857 Matrix: Water  
Associated Lab Samples: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/29/20 19:56	

LABORATORY CONTROL SAMPLE: 3017858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.97J	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017859 3017860

Parameter	Units	3017859		3017860		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Calcium	mg/L	2510 ug/L	1	1	3.4	3.4	93	92	75-125	0	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569776	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941019

METHOD BLANK: 3018383 Matrix: Water  
Associated Lab Samples: 92496941019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/30/20 16:15	

LABORATORY CONTROL SAMPLE: 3018384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018385 3018386

Parameter	Units	3018385		3018386		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497532001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	45.2	1	1	47.0	47.9	181	276	75-125	2	20 M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 570008 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

METHOD BLANK: 3019452 Matrix: Water  
Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/01/20 19:24	

LABORATORY CONTROL SAMPLE: 3019453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3019454 3019455

Parameter	Units	3019454		3019455		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	53.1	1	1	55.5	54.3	237	115	75-125	2	20 M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569670 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004

METHOD BLANK: 3017842 Matrix: Water  
Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/30/20 17:26	
Arsenic	mg/L	ND	0.0050	0.00078	09/30/20 17:26	
Barium	mg/L	ND	0.010	0.00071	09/30/20 17:26	
Beryllium	mg/L	ND	0.0030	0.000046	09/30/20 17:26	
Boron	mg/L	ND	0.10	0.0052	09/30/20 17:26	
Cadmium	mg/L	ND	0.0025	0.00012	09/30/20 17:26	
Chromium	mg/L	ND	0.010	0.00055	09/30/20 17:26	
Cobalt	mg/L	ND	0.0050	0.00038	09/30/20 17:26	
Lead	mg/L	ND	0.0050	0.000036	09/30/20 17:26	
Lithium	mg/L	ND	0.030	0.00081	09/30/20 17:26	
Molybdenum	mg/L	ND	0.010	0.00069	09/30/20 17:26	
Selenium	mg/L	ND	0.010	0.0016	09/30/20 17:26	
Thallium	mg/L	ND	0.0010	0.00014	09/30/20 17:26	

LABORATORY CONTROL SAMPLE: 3017843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017844 3017845

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495894020 Result	Spike Conc.	Spike Conc.	Result						
Antimony	mg/L	0.00029J	0.1	0.1	0.099	0.10	99	102	75-125	3	20
Arsenic	mg/L	0.39	0.1	0.1	0.48	0.48	88	90	75-125	1	20

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Parameter	Units	3017844		3017845		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Barium	mg/L	0.052	0.1	0.1	0.15	0.15	98	101	75-125	2	20		
Beryllium	mg/L	0.00011J	0.1	0.1	0.087	0.090	87	90	75-125	4	20		
Boron	mg/L	1.6	1	1	2.4	2.5	79	89	75-125	4	20		
Cadmium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20		
Chromium	mg/L	0.00056J	0.1	0.1	0.093	0.094	93	93	75-125	1	20		
Cobalt	mg/L	0.0032J	0.1	0.1	0.094	0.096	91	92	75-125	2	20		
Lead	mg/L	0.00015J	0.1	0.1	0.093	0.093	93	92	75-125	0	20		
Lithium	mg/L	0.028J	0.1	0.1	0.12	0.12	87	89	75-125	2	20		
Molybdenum	mg/L	0.032	0.1	0.1	0.13	0.13	95	99	75-125	3	20		
Selenium	mg/L	0.0016J	0.1	0.1	0.094	0.10	92	98	75-125	6	20		
Thallium	mg/L	0.00036J	0.1	0.1	0.095	0.096	94	95	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569772 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

METHOD BLANK: 3018362 Matrix: Water  
Associated Lab Samples: 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/30/20 17:36	
Arsenic	mg/L	ND	0.0050	0.00078	09/30/20 17:36	
Barium	mg/L	ND	0.010	0.00071	09/30/20 17:36	
Beryllium	mg/L	ND	0.0030	0.000046	09/30/20 17:36	
Boron	mg/L	ND	0.10	0.0052	09/30/20 17:36	
Cadmium	mg/L	ND	0.0025	0.00012	09/30/20 17:36	
Chromium	mg/L	ND	0.010	0.00055	09/30/20 17:36	
Cobalt	mg/L	ND	0.0050	0.00038	09/30/20 17:36	
Lead	mg/L	ND	0.0050	0.000036	09/30/20 17:36	
Lithium	mg/L	ND	0.030	0.00081	09/30/20 17:36	
Molybdenum	mg/L	ND	0.010	0.00069	09/30/20 17:36	
Selenium	mg/L	ND	0.010	0.0016	09/30/20 17:36	
Thallium	mg/L	ND	0.0010	0.00014	09/30/20 17:36	

LABORATORY CONTROL SAMPLE: 3018363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.095	95	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018364 3018365

Parameter	Units	92496941005 Result	MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			MS Spike Conc.	MSD Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Parameter	Units	3018364		3018365		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92496941005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.036	0.1	0.1	0.13	0.14	93	99	75-125	5	20		
Beryllium	mg/L	0.00017J	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Boron	mg/L	4.2	1	1	5.1	5.2	93	101	75-125	2	20		
Cadmium	mg/L	0.00017J	0.1	0.1	0.098	0.097	97	97	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.097	0.10	97	101	75-125	5	20		
Cobalt	mg/L	0.013	0.1	0.1	0.11	0.11	92	98	75-125	5	20		
Lead	mg/L	0.00011J	0.1	0.1	0.096	0.097	95	97	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.095	0.095	94	95	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.097	95	96	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569774 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941012, 92496941013, 92496941014

METHOD BLANK: 3018372 Matrix: Water

Associated Lab Samples: 92496941012, 92496941013, 92496941014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/01/20 09:53	
Arsenic	mg/L	ND	0.0050	0.00078	10/01/20 09:53	
Barium	mg/L	ND	0.010	0.00071	10/01/20 09:53	
Beryllium	mg/L	ND	0.0030	0.000046	10/01/20 09:53	
Boron	mg/L	ND	0.10	0.0052	10/01/20 09:53	
Cadmium	mg/L	ND	0.0025	0.00012	10/01/20 09:53	
Chromium	mg/L	ND	0.010	0.00055	10/01/20 09:53	
Cobalt	mg/L	ND	0.0050	0.00038	10/01/20 09:53	
Lead	mg/L	ND	0.0050	0.000036	10/01/20 09:53	
Lithium	mg/L	ND	0.030	0.00081	10/01/20 09:53	
Molybdenum	mg/L	ND	0.010	0.00069	10/01/20 09:53	
Selenium	mg/L	ND	0.010	0.0016	10/01/20 09:53	
Thallium	mg/L	ND	0.0010	0.00014	10/01/20 09:53	

LABORATORY CONTROL SAMPLE: 3018373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.092	92	80-120	
Molybdenum	mg/L	0.1	0.098	98	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: 3018374 3018375

Parameter	Units	92497149004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Parameter	Units	3018374		3018375		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.0039J	0.1	0.1	0.10	0.10	99	100	75-125	1	20		
Beryllium	mg/L	0.000059J	0.1	0.1	0.090	0.091	90	91	75-125	1	20		
Boron	mg/L	0.0073J	1	1	0.88	0.90	87	89	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.095	0.095	94	94	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20		
Lead	mg/L	0.00015J	0.1	0.1	0.093	0.094	92	94	75-125	1	20		
Lithium	mg/L	0.013J	0.1	0.1	0.10	0.10	91	91	75-125	0	20		
Molybdenum	mg/L	0.010	0.1	0.1	0.11	0.11	96	97	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.099	0.096	98	95	75-125	3	20		
Thallium	mg/L	0.00016J	0.1	0.1	0.094	0.095	94	95	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 570000 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

METHOD BLANK: 3019421 Matrix: Water  
Associated Lab Samples: 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/01/20 14:21	
Arsenic	mg/L	ND	0.0050	0.00078	10/01/20 14:21	
Barium	mg/L	ND	0.010	0.00071	10/01/20 14:21	
Beryllium	mg/L	ND	0.0030	0.000046	10/01/20 14:21	
Boron	mg/L	ND	0.10	0.0052	10/01/20 14:21	
Cadmium	mg/L	ND	0.0025	0.00012	10/01/20 14:21	
Chromium	mg/L	ND	0.010	0.00055	10/01/20 14:21	
Cobalt	mg/L	ND	0.0050	0.00038	10/01/20 14:21	
Lead	mg/L	ND	0.0050	0.000036	10/01/20 14:21	
Lithium	mg/L	ND	0.030	0.00081	10/01/20 14:21	
Molybdenum	mg/L	ND	0.010	0.00069	10/01/20 14:21	
Selenium	mg/L	ND	0.010	0.0016	10/01/20 14:21	
Thallium	mg/L	ND	0.0010	0.00014	10/01/20 14:21	

LABORATORY CONTROL SAMPLE: 3019422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3019423 3019424

Parameter	Units	92496941015 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	1	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Parameter	Units	3019423		3019424		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Barium	mg/L	0.043	0.1	0.1	0.15	0.15	102	102	75-125	0	20	
Beryllium	mg/L	0.000058J	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Boron	mg/L	1.6	1	1	2.6	2.7	98	111	75-125	5	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	1	20	
Cobalt	mg/L	0.0018J	0.1	0.1	0.10	0.10	99	101	75-125	2	20	
Lead	mg/L	0.000082J	0.1	0.1	0.097	0.10	97	100	75-125	3	20	
Lithium	mg/L	0.0060J	0.1	0.1	0.11	0.11	101	101	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.098	96	98	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 570088 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024

METHOD BLANK: 3020035 Matrix: Water  
Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/01/20 21:10	
Arsenic	mg/L	ND	0.0050	0.00078	10/01/20 21:10	
Barium	mg/L	ND	0.010	0.00071	10/01/20 21:10	
Beryllium	mg/L	ND	0.0030	0.000046	10/01/20 21:10	
Boron	mg/L	ND	0.10	0.0052	10/01/20 21:10	
Cadmium	mg/L	ND	0.0025	0.00012	10/01/20 21:10	
Chromium	mg/L	ND	0.010	0.00055	10/01/20 21:10	
Cobalt	mg/L	ND	0.0050	0.00038	10/01/20 21:10	
Lead	mg/L	ND	0.0050	0.000036	10/01/20 21:10	
Lithium	mg/L	ND	0.030	0.00081	10/01/20 21:10	
Molybdenum	mg/L	ND	0.010	0.00069	10/01/20 21:10	
Selenium	mg/L	ND	0.010	0.0016	10/01/20 21:10	
Thallium	mg/L	ND	0.0010	0.00014	10/01/20 21:10	

LABORATORY CONTROL SAMPLE: 3020036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020037 3020038

Parameter	Units	92496524010 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	97	99	75-125	1	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Parameter	Units	3020037		3020038		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92496524010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.036	0.1	0.1	0.14	0.14	102	104	75-125	2	20		
Beryllium	mg/L	0.00088J	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Boron	mg/L	2.2	1	1	3.3	3.3	108	107	75-125	0	20		
Cadmium	mg/L	0.00076J	0.1	0.1	0.094	0.096	93	95	75-125	2	20		
Chromium	mg/L	0.00081J	0.1	0.1	0.096	0.099	96	98	75-125	3	20		
Cobalt	mg/L	0.0019J	0.1	0.1	0.096	0.099	94	97	75-125	3	20		
Lead	mg/L	0.00028J	0.1	0.1	0.095	0.098	95	97	75-125	2	20		
Lithium	mg/L	0.0017J	0.1	0.1	0.093	0.095	92	93	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.094	0.097	94	96	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.10	95	102	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	98	100	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 570089 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941025, 92496941026

METHOD BLANK: 3020046 Matrix: Water  
Associated Lab Samples: 92496941025, 92496941026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/03/20 17:40	
Arsenic	mg/L	ND	0.0050	0.00078	10/03/20 17:40	
Barium	mg/L	ND	0.010	0.00071	10/03/20 17:40	
Beryllium	mg/L	ND	0.0030	0.000046	10/03/20 17:40	
Boron	mg/L	ND	0.10	0.0052	10/03/20 17:40	
Cadmium	mg/L	ND	0.0025	0.00012	10/03/20 17:40	
Chromium	mg/L	ND	0.010	0.00055	10/03/20 17:40	
Cobalt	mg/L	ND	0.0050	0.00038	10/03/20 17:40	
Lead	mg/L	ND	0.0050	0.000036	10/03/20 17:40	
Lithium	mg/L	ND	0.030	0.00081	10/03/20 17:40	
Molybdenum	mg/L	ND	0.010	0.00069	10/03/20 17:40	
Selenium	mg/L	ND	0.010	0.0016	10/03/20 17:40	
Thallium	mg/L	ND	0.0010	0.00014	10/03/20 17:40	

LABORATORY CONTROL SAMPLE: 3020047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.092	92	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020048 3020049

Parameter	Units	92496941025 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	0.095	0.10	95	100	75-125	6	20	
Arsenic	mg/L	0.00088J	0.1	0.1	0.095	0.095	94	94	75-125	1	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020048		3020049		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92496941025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.032	0.1	0.1	0.13	0.13	95	98	75-125	3	20		
Beryllium	mg/L	0.00070J	0.1	0.1	0.099	0.097	98	97	75-125	1	20		
Boron	mg/L	0.84	1	1	2.0	1.9	112	107	75-125	3	20		
Cadmium	mg/L	0.00028J	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Chromium	mg/L	0.0028J	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Cobalt	mg/L	0.027	0.1	0.1	0.13	0.13	99	98	75-125	1	20		
Lead	mg/L	0.00022J	0.1	0.1	0.087	0.094	86	93	75-125	8	20		
Lithium	mg/L	0.0012J	0.1	0.1	0.10	0.10	102	100	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20		
Selenium	mg/L	0.012	0.1	0.1	0.11	0.11	96	95	75-125	1	20		
Thallium	mg/L	0.00034J	0.1	0.1	0.093	0.094	93	94	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch:	569306	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011, 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

METHOD BLANK: 3016285 Matrix: Water

Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011, 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/29/20 12:00	

LABORATORY CONTROL SAMPLE: 3016286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016287 3016288

Parameter	Units	3016287		3016288		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	100	99	75-125	1	20

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch: 569684 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

METHOD BLANK: 3017929 Matrix: Water  
 Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000087J	0.00050	0.000078	09/30/20 13:06	

LABORATORY CONTROL SAMPLE: 3017930

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017931 3017932

Parameter	Units	3017931		3017932		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.000081J	0.0025	0.0025	0.0026	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch: 568649

Analysis Method: SM 2450C-2011

QC Batch Method: SM 2450C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004

METHOD BLANK: 3012742

Matrix: Water

Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/24/20 10:30	

LABORATORY CONTROL SAMPLE: 3012743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	407	102	84-108	

SAMPLE DUPLICATE: 3012744

Parameter	Units	92496914002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	107	113	5	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch:	569144	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

METHOD BLANK: 3015749 Matrix: Water  
Associated Lab Samples: 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/25/20 21:57	

LABORATORY CONTROL SAMPLE: 3015750

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	404	101	84-108	

SAMPLE DUPLICATE: 3015751

Parameter	Units	92496941005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	338	338	0	10	

SAMPLE DUPLICATE: 3015752

Parameter	Units	92497141005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch:	569350	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018

METHOD BLANK: 3016719 Matrix: Water  
Associated Lab Samples: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/20 11:53	

LABORATORY CONTROL SAMPLE: 3016720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	427	107	84-108	

SAMPLE DUPLICATE: 3016721

Parameter	Units	92496925001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	215	218	1	10	

SAMPLE DUPLICATE: 3016722

Parameter	Units	92495900024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	894	864	3	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569386      Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92496941019

METHOD BLANK: 3016890      Matrix: Water  
Associated Lab Samples: 92496941019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/20 14:18	

LABORATORY CONTROL SAMPLE: 3016891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	429	107	84-108	

SAMPLE DUPLICATE: 3016892

Parameter	Units	92497125001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	260	295	13	10	D6

SAMPLE DUPLICATE: 3016893

Parameter	Units	92497141008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	59.0	31	10	D6

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

QC Batch:	569806	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

METHOD BLANK: 3018686 Matrix: Water  
Associated Lab Samples: 92496941021, 92496941022, 92496941023, 92496941024, 92496941025, 92496941026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/29/20 18:54	

LABORATORY CONTROL SAMPLE: 3018687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	84-108	

SAMPLE DUPLICATE: 3018688

Parameter	Units	92497721002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	386	353	9	10	

SAMPLE DUPLICATE: 3018689

Parameter	Units	92497141012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	69.0	74.0	7	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569874	Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92496941020

METHOD BLANK: 3018862 Matrix: Water  
Associated Lab Samples: 92496941020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/20 09:26	

LABORATORY CONTROL SAMPLE: 3018863

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	84-108	

SAMPLE DUPLICATE: 3018864

Parameter	Units	92497404001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	130	150	14	10	D6

SAMPLE DUPLICATE: 3018865

Parameter	Units	92495894026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	774	2	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569206 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: 92496941001, 92496941002, 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

METHOD BLANK: 3015927 Matrix: Water  
Associated Lab Samples: 92496941001, 92496941002, 92496941003, 92496941004, 92496941005, 92496941006, 92496941007, 92496941008, 92496941009, 92496941010, 92496941011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/20 02:07	
Fluoride	mg/L	ND	0.10	0.050	09/27/20 02:07	
Sulfate	mg/L	ND	1.0	0.50	09/27/20 02:07	

LABORATORY CONTROL SAMPLE: 3015928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.4	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.9	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015931 3015932

Parameter	Units	92496941006		3015932		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	3.2	50	50	57.3	57.2	108	108	90-110	0	10
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	99	99	90-110	0	10
Sulfate	mg/L	40.2	50	50	93.6	93.5	107	106	90-110	0	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015973 3015974

Parameter	Units	92496940001		3015974		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	1.6	50	50	64.7	63.0	126	123	90-110	3	10 M1
Fluoride	mg/L	0.099J	2.5	2.5	3.3	3.2	130	126	90-110	3	10 M1
Sulfate	mg/L	13.5	50	50	78.6	76.7	130	126	90-110	2	10 M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch:	569514	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: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

METHOD BLANK: 3017398 Matrix: Water  
Associated Lab Samples: 92496941012, 92496941013, 92496941014, 92496941015, 92496941016, 92496941017, 92496941018, 92496941019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 11:26	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 11:26	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 11:26	

LABORATORY CONTROL SAMPLE: 3017399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.9	108	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	52.6	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017400 3017401

Parameter	Units	92496941018		3017401		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	ND	50	50	52.4	51.8	105	104	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.3	2.4	93	94	90-110	0	10
Sulfate	mg/L	ND	50	50	51.0	50.1	101	100	90-110	2	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017402 3017403

Parameter	Units	92496941019		3017403		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	ND	50	50	51.7	51.7	103	103	90-110	0	10
Fluoride	mg/L	ND	2.5	2.5	2.3	2.4	91	95	90-110	5	10
Sulfate	mg/L	ND	50	50	50.0	49.9	100	100	90-110	0	10

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569577 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: 92496941020, 92496941021, 92496941022, 92496941023

METHOD BLANK: 3017567 Matrix: Water  
Associated Lab Samples: 92496941020, 92496941021, 92496941022, 92496941023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 17:37	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 17:37	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 17:37	

LABORATORY CONTROL SAMPLE: 3017568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	50.7	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017569 3017570

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496524012	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	8.9	8.9	50	50	59.8	60.2	102	103	90-110	1	10	
Fluoride	mg/L	ND	ND	2.5	2.5	2.2	2.5	89	99	90-110	10	10	M1
Sulfate	mg/L	298	298	50	50	347	351	98	106	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017571 3017572

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497532021	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	449	449	50	50	491	491	85	84	90-110	0	10	M6
Fluoride	mg/L	0.097J	0.097J	2.5	2.5	2.6	2.6	100	101	90-110	2	10	
Sulfate	mg/L	393	393	50	50	441	441	97	98	90-110	0	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

QC Batch: 569831 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: 92496941024, 92496941025, 92496941026

METHOD BLANK: 3018763 Matrix: Water  
Associated Lab Samples: 92496941024, 92496941025, 92496941026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/20 10:50	
Fluoride	mg/L	ND	0.10	0.050	09/30/20 10:50	
Sulfate	mg/L	ND	1.0	0.50	09/30/20 10:50	

LABORATORY CONTROL SAMPLE: 3018764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.8	108	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	53.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018765 3018766

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496574018	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	ND	50	50	50	52.4	52.1	105	104	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	50	52.1	51.8	104	104	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018767 3018768

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496941026	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	ND	50	50	50	52.0	51.8	104	104	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	2.6	104	104	90-110	0	10	
Sulfate	mg/L	ND	50	50	50	51.7	51.4	103	103	90-110	0	10	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496941001	DGWC-4				
92496941002	DGWC-5				
92496941003	DGWC-9				
92496941004	DGWC-11				
92496941005	DGWC-12				
92496941006	DGWC-14				
92496941007	DGWC-19				
92496941008	DGWC-20				
92496941009	DGWC-42				
92496941012	DGWC-2				
92496941013	DGWC-8				
92496941014	DGWC-13				
92496941015	DGWC-15				
92496941016	DGWC-47				
92496941017	DGWC-48				
92496941020	DGWC-10				
92496941021	DGWC-17				
92496941022	DGWC-21				
92496941023	DGWC-22				
92496941024	DGWC-23				
92496941001	DGWC-4	EPA 3010A	568748	EPA 6010D	568812
92496941002	DGWC-5	EPA 3010A	568748	EPA 6010D	568812
92496941003	DGWC-9	EPA 3010A	569036	EPA 6010D	569131
92496941004	DGWC-11	EPA 3010A	569036	EPA 6010D	569131
92496941005	DGWC-12	EPA 3010A	569036	EPA 6010D	569131
92496941006	DGWC-14	EPA 3010A	569036	EPA 6010D	569131
92496941007	DGWC-19	EPA 3010A	569036	EPA 6010D	569131
92496941008	DGWC-20	EPA 3010A	569036	EPA 6010D	569131
92496941009	DGWC-42	EPA 3010A	569036	EPA 6010D	569131
92496941010	FB-1	EPA 3010A	569036	EPA 6010D	569131
92496941011	FD-1	EPA 3010A	569036	EPA 6010D	569131
92496941012	DGWC-2	EPA 3010A	569672	EPA 6010D	569722
92496941013	DGWC-8	EPA 3010A	569672	EPA 6010D	569722
92496941014	DGWC-13	EPA 3010A	569672	EPA 6010D	569722
92496941015	DGWC-15	EPA 3010A	569672	EPA 6010D	569722
92496941016	DGWC-47	EPA 3010A	569672	EPA 6010D	569722
92496941017	DGWC-48	EPA 3010A	569672	EPA 6010D	569722
92496941018	EB-2	EPA 3010A	569672	EPA 6010D	569722
92496941019	FB-2	EPA 3010A	569776	EPA 6010D	569815
92496941020	DGWC-10	EPA 3010A	570008	EPA 6010D	570053
92496941021	DGWC-17	EPA 3010A	570008	EPA 6010D	570053
92496941022	DGWC-21	EPA 3010A	570008	EPA 6010D	570053
92496941023	DGWC-22	EPA 3010A	570008	EPA 6010D	570053
92496941024	DGWC-23	EPA 3010A	570008	EPA 6010D	570053
92496941025	FD-3	EPA 3010A	570008	EPA 6010D	570053
92496941026	EB-3	EPA 3010A	570008	EPA 6010D	570053

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496941001	DGWC-4	EPA 3005A	569670	EPA 6020B	569718
92496941002	DGWC-5	EPA 3005A	569670	EPA 6020B	569718
92496941003	DGWC-9	EPA 3005A	569670	EPA 6020B	569718
92496941004	DGWC-11	EPA 3005A	569670	EPA 6020B	569718
92496941005	DGWC-12	EPA 3005A	569772	EPA 6020B	569809
92496941006	DGWC-14	EPA 3005A	569772	EPA 6020B	569809
92496941007	DGWC-19	EPA 3005A	569772	EPA 6020B	569809
92496941008	DGWC-20	EPA 3005A	569772	EPA 6020B	569809
92496941009	DGWC-42	EPA 3005A	569772	EPA 6020B	569809
92496941010	FB-1	EPA 3005A	569772	EPA 6020B	569809
92496941011	FD-1	EPA 3005A	569772	EPA 6020B	569809
92496941012	DGWC-2	EPA 3005A	569774	EPA 6020B	569814
92496941013	DGWC-8	EPA 3005A	569774	EPA 6020B	569814
92496941014	DGWC-13	EPA 3005A	569774	EPA 6020B	569814
92496941015	DGWC-15	EPA 3005A	570000	EPA 6020B	570049
92496941016	DGWC-47	EPA 3005A	570000	EPA 6020B	570049
92496941017	DGWC-48	EPA 3005A	570000	EPA 6020B	570049
92496941018	EB-2	EPA 3005A	570000	EPA 6020B	570049
92496941019	FB-2	EPA 3005A	570000	EPA 6020B	570049
92496941020	DGWC-10	EPA 3005A	570088	EPA 6020B	570109
92496941021	DGWC-17	EPA 3005A	570088	EPA 6020B	570109
92496941022	DGWC-21	EPA 3005A	570088	EPA 6020B	570109
92496941023	DGWC-22	EPA 3005A	570088	EPA 6020B	570109
92496941024	DGWC-23	EPA 3005A	570088	EPA 6020B	570109
92496941025	FD-3	EPA 3005A	570089	EPA 6020B	570110
92496941026	EB-3	EPA 3005A	570089	EPA 6020B	570110
92496941001	DGWC-4	EPA 7470A	569306	EPA 7470A	569459
92496941002	DGWC-5	EPA 7470A	569306	EPA 7470A	569459
92496941003	DGWC-9	EPA 7470A	569306	EPA 7470A	569459
92496941004	DGWC-11	EPA 7470A	569306	EPA 7470A	569459
92496941005	DGWC-12	EPA 7470A	569306	EPA 7470A	569459
92496941006	DGWC-14	EPA 7470A	569306	EPA 7470A	569459
92496941007	DGWC-19	EPA 7470A	569306	EPA 7470A	569459
92496941008	DGWC-20	EPA 7470A	569306	EPA 7470A	569459
92496941009	DGWC-42	EPA 7470A	569306	EPA 7470A	569459
92496941010	FB-1	EPA 7470A	569306	EPA 7470A	569459
92496941011	FD-1	EPA 7470A	569306	EPA 7470A	569459
92496941012	DGWC-2	EPA 7470A	569306	EPA 7470A	569459
92496941013	DGWC-8	EPA 7470A	569306	EPA 7470A	569459
92496941014	DGWC-13	EPA 7470A	569306	EPA 7470A	569459
92496941015	DGWC-15	EPA 7470A	569306	EPA 7470A	569459
92496941016	DGWC-47	EPA 7470A	569306	EPA 7470A	569459
92496941017	DGWC-48	EPA 7470A	569306	EPA 7470A	569459
92496941018	EB-2	EPA 7470A	569306	EPA 7470A	569459
92496941019	FB-2	EPA 7470A	569306	EPA 7470A	569459

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MCDONOUGH AP-234  
Pace Project No.: 92496941

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496941020	DGWC-10	EPA 7470A	569684	EPA 7470A	569888
92496941021	DGWC-17	EPA 7470A	569684	EPA 7470A	569888
92496941022	DGWC-21	EPA 7470A	569684	EPA 7470A	569888
92496941023	DGWC-22	EPA 7470A	569684	EPA 7470A	569888
92496941024	DGWC-23	EPA 7470A	569684	EPA 7470A	569888
92496941025	FD-3	EPA 7470A	569684	EPA 7470A	569888
92496941026	EB-3	EPA 7470A	569684	EPA 7470A	569888
92496941001	DGWC-4	SM 2450C-2011	568649		
92496941002	DGWC-5	SM 2450C-2011	568649		
92496941003	DGWC-9	SM 2450C-2011	568649		
92496941004	DGWC-11	SM 2450C-2011	568649		
92496941005	DGWC-12	SM 2450C-2011	569144		
92496941006	DGWC-14	SM 2450C-2011	569144		
92496941007	DGWC-19	SM 2450C-2011	569144		
92496941008	DGWC-20	SM 2450C-2011	569144		
92496941009	DGWC-42	SM 2450C-2011	569144		
92496941010	FB-1	SM 2450C-2011	569144		
92496941011	FD-1	SM 2450C-2011	569144		
92496941012	DGWC-2	SM 2450C-2011	569350		
92496941013	DGWC-8	SM 2450C-2011	569350		
92496941014	DGWC-13	SM 2450C-2011	569350		
92496941015	DGWC-15	SM 2450C-2011	569350		
92496941016	DGWC-47	SM 2450C-2011	569350		
92496941017	DGWC-48	SM 2450C-2011	569350		
92496941018	EB-2	SM 2450C-2011	569350		
92496941019	FB-2	SM 2450C-2011	569386		
92496941020	DGWC-10	SM 2450C-2011	569874		
92496941021	DGWC-17	SM 2450C-2011	569806		
92496941022	DGWC-21	SM 2450C-2011	569806		
92496941023	DGWC-22	SM 2450C-2011	569806		
92496941024	DGWC-23	SM 2450C-2011	569806		
92496941025	FD-3	SM 2450C-2011	569806		
92496941026	EB-3	SM 2450C-2011	569806		
92496941001	DGWC-4	EPA 300.0 Rev 2.1 1993	569206		
92496941002	DGWC-5	EPA 300.0 Rev 2.1 1993	569206		
92496941003	DGWC-9	EPA 300.0 Rev 2.1 1993	569206		
92496941004	DGWC-11	EPA 300.0 Rev 2.1 1993	569206		
92496941005	DGWC-12	EPA 300.0 Rev 2.1 1993	569206		
92496941006	DGWC-14	EPA 300.0 Rev 2.1 1993	569206		
92496941007	DGWC-19	EPA 300.0 Rev 2.1 1993	569206		
92496941008	DGWC-20	EPA 300.0 Rev 2.1 1993	569206		
92496941009	DGWC-42	EPA 300.0 Rev 2.1 1993	569206		
92496941010	FB-1	EPA 300.0 Rev 2.1 1993	569206		
92496941011	FD-1	EPA 300.0 Rev 2.1 1993	569206		
92496941012	DGWC-2	EPA 300.0 Rev 2.1 1993	569514		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-234

Pace Project No.: 92496941

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496941013	DGWC-8	EPA 300.0 Rev 2.1 1993	569514		
92496941014	DGWC-13	EPA 300.0 Rev 2.1 1993	569514		
92496941015	DGWC-15	EPA 300.0 Rev 2.1 1993	569514		
92496941016	DGWC-47	EPA 300.0 Rev 2.1 1993	569514		
92496941017	DGWC-48	EPA 300.0 Rev 2.1 1993	569514		
92496941018	EB-2	EPA 300.0 Rev 2.1 1993	569514		
92496941019	FB-2	EPA 300.0 Rev 2.1 1993	569514		
92496941020	DGWC-10	EPA 300.0 Rev 2.1 1993	569577		
92496941021	DGWC-17	EPA 300.0 Rev 2.1 1993	569577		
92496941022	DGWC-21	EPA 300.0 Rev 2.1 1993	569577		
92496941023	DGWC-22	EPA 300.0 Rev 2.1 1993	569577		
92496941024	DGWC-23	EPA 300.0 Rev 2.1 1993	569831		
92496941025	FD-3	EPA 300.0 Rev 2.1 1993	569831		
92496941026	EB-3	EPA 300.0 Rev 2.1 1993	569831		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power-Coal Comb

WO#: 92496941



92496941

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

Proj. Name: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other Ziplock

Thermometer Used 230    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 3.5    Biological Tissue is Frozen: Yes No    Date and Initials of person examining contents: CO

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>CO</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Field Data Required?    Y / N

Client Notification/ Resolution: \_\_\_\_\_  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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)

F-ALLC003rev.3, 11September2006







October 20, 2020

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

RE: Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 23, 2020 and September 25, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

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### **Pace Analytical Services Pennsylvania**

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

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

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92496904001	DGWC-4	Water	09/22/20 09:50	09/23/20 09:35
92496904002	DGWC-5	Water	09/22/20 11:10	09/23/20 09:35
92496904003	DGWC-9	Water	09/22/20 10:00	09/23/20 09:35
92496904004	DGWC-11	Water	09/22/20 11:00	09/23/20 09:35
92496904005	DGWC-12	Water	09/22/20 15:40	09/23/20 09:35
92496904006	DGWC-14	Water	09/22/20 14:25	09/23/20 09:35
92496904007	DGWC-19	Water	09/22/20 16:10	09/23/20 09:35
92496904008	DGWC-20	Water	09/22/20 12:35	09/23/20 09:35
92496904009	DGWC-42	Water	09/22/20 16:25	09/23/20 09:35
92496904010	FB-1	Water	09/22/20 09:50	09/23/20 09:35
92496904011	FD-1	Water	09/22/20 00:00	09/23/20 09:35
92496904012	DGWC-2	Water	09/23/20 12:35	09/24/20 09:25
92496904013	DGWC-8	Water	09/23/20 16:00	09/24/20 09:25
92496904014	DGWC-13	Water	09/23/20 10:30	09/24/20 09:25
92496904015	DGWC-15	Water	09/23/20 13:55	09/24/20 09:25
92496904016	DGWC-47	Water	09/23/20 12:37	09/24/20 09:25
92496904017	DGWC-48	Water	09/23/20 09:55	09/24/20 09:25
92496904018	EB-2	Water	09/23/20 14:25	09/24/20 09:25
92496904019	FB-2	Water	09/23/20 10:22	09/24/20 09:25
92496904020	DGWC-10	Water	09/24/20 09:55	09/25/20 13:30
92496904021	DGWC-17	Water	09/24/20 14:05	09/25/20 13:30
92496904022	DGWC-21	Water	09/24/20 12:30	09/25/20 13:30
92496904023	DGWC-22	Water	09/24/20 12:20	09/25/20 13:30
92496904024	DGWC-23	Water	09/24/20 13:02	09/25/20 13:30
92496904025	FD-3	Water	09/24/20 00:00	09/25/20 13:30
92496904026	EB-3	Water	09/24/20 12:25	09/25/20 13:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92496904001	DGWC-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904002	DGWC-5	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904003	DGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904004	DGWC-11	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904005	DGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904006	DGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904007	DGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904008	DGWC-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92496904009	DGWC-42	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92496904010	FB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92496904011	FD-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92496904012	DGWC-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92496904013	DGWC-8	EPA 9315	LAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92496904014	DGWC-13	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904015	DGWC-15	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904016	DGWC-47	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904017	DGWC-48	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904018	EB-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904019	FB-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904020	DGWC-10	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904021	DGWC-17	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904022	DGWC-21	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904023	DGWC-22	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904024	DGWC-23	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92496904025	FD-3	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92496904026	EB-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-4**      **Lab ID: 92496904001**      Collected: 09/22/20 09:50      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.536 ± 0.304 (0.431)</b> <b>C:89% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.890 ± 0.747 (1.51)</b> <b>C:63% T:73%</b>	pCi/L	10/12/20 14:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.43 ± 1.05 (1.94)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-5**      **Lab ID: 92496904002**      Collected: 09/22/20 11:10      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.561 ± 0.350 (0.575)</b> <b>C:82% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.841 ± 0.689 (1.38)</b> <b>C:63% T:81%</b>	pCi/L	10/12/20 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.40 ± 1.04 (1.96)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-9**      **Lab ID: 92496904003**      Collected: 09/22/20 10:00      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.326 ± 0.287 (0.526)</b> <b>C:77% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.823 ± 0.490 (0.898)</b> <b>C:62% T:79%</b>	pCi/L	10/12/20 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.15 ± 0.777 (1.42)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-11**      **Lab ID: 92496904004**      Collected: 09/22/20 11:00      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.145 ± 0.221 (0.480)</b> <b>C:72% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.357 ± 0.547 (1.18)</b> <b>C:59% T:66%</b>	pCi/L	10/12/20 12:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.502 ± 0.768 (1.66)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-12**      **Lab ID: 92496904005**      Collected: 09/22/20 15:40      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0641 ± 0.191 (0.586)</b> <b>C:68% T:NA</b>	pCi/L	10/08/20 07:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.515 ± 0.558 (1.16)</b> <b>C:61% T:57%</b>	pCi/L	10/12/20 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.515 ± 0.749 (1.75)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-14</b> <b>Lab ID: 92496904006</b> Collected: 09/22/20 14:25      Received: 09/23/20 09:35      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.283 ± 0.249 (0.445)</b> <b>C:79% T:NA</b>	pCi/L	10/08/20 07:29	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.914 ± 0.525 (0.948)</b> <b>C:58% T:77%</b>	pCi/L	10/12/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.20 ± 0.774 (1.39)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-19**      **Lab ID: 92496904007**      Collected: 09/22/20 16:10      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.480 ± 0.284 (0.410)</b> <b>C:88% T:NA</b>	pCi/L	10/08/20 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.480 ± 0.496 (1.02)</b> <b>C:56% T:72%</b>	pCi/L	10/12/20 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.960 ± 0.780 (1.43)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-20**      **Lab ID: 92496904008**      Collected: 09/22/20 12:35      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.600 ± 0.334 (0.461)</b> <b>C:78% T:NA</b>	pCi/L	10/08/20 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.01 ± 0.689 (1.33)</b> <b>C:51% T:74%</b>	pCi/L	10/12/20 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.61 ± 1.02 (1.79)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.268 ± 0.234 (0.422)</b> <b>C:95% T:NA</b>	pCi/L	10/08/20 08:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.758 ± 0.626 (1.27)</b> <b>C:64% T:77%</b>	pCi/L	10/12/20 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.03 ± 0.860 (1.69)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: FB-1**      **Lab ID: 92496904010**      Collected: 09/22/20 09:50      Received: 09/23/20 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0986 ± 0.190 (0.436)</b> <b>C:80% T:NA</b>	pCi/L	10/08/20 08:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.191 ± 0.514 (1.14)</b> <b>C:61% T:86%</b>	pCi/L	10/12/20 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.290 ± 0.704 (1.58)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: FD-1</b> <b>Lab ID: 92496904011</b> Collected: 09/22/20 00:00      Received: 09/23/20 09:35      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.179 ± 0.214 (0.436)</b> <b>C:84% T:NA</b>	pCi/L	10/08/20 08:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.654 ± 0.570 (1.17)</b> <b>C:63% T:84%</b>	pCi/L	10/12/20 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.833 ± 0.784 (1.61)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-2**      **Lab ID: 92496904012**      Collected: 09/23/20 12:35      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.971 ± 0.451 (0.564)</b> <b>C:77% T:NA</b>	pCi/L	10/09/20 08:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.988 ± 0.733 (1.43)</b> <b>C:69% T:77%</b>	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.96 ± 1.18 (1.99)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-8**      **Lab ID: 92496904013**      Collected: 09/23/20 16:00      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.335 ± 0.253 (0.408)</b> <b>C:87% T:NA</b>	pCi/L	10/09/20 08:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.465 ± 0.755 (1.64)</b> <b>C:68% T:72%</b>	pCi/L	10/12/20 18:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.800 ± 1.01 (2.05)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DGWC-13</b> <b>Lab ID: 92496904014</b> Collected: 09/23/20 10:30      Received: 09/24/20 09:25      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.207 ± 0.289 (0.630)</b> <b>C:95% T:NA</b>	pCi/L	10/09/20 08:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.728 ± 0.904 (1.92)</b> <b>C:65% T:64%</b>	pCi/L	10/12/20 18:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.935 ± 1.19 (2.55)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-15**      **Lab ID: 92496904015**      Collected: 09/23/20 13:55      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.408 ± 0.307 (0.497)</b> <b>C:74% T:NA</b>	pCi/L	10/09/20 08:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.28 ± 0.781 (1.47)</b> <b>C:69% T:75%</b>	pCi/L	10/12/20 18:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.69 ± 1.09 (1.97)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-47**      **Lab ID: 92496904016**      Collected: 09/23/20 12:37      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.961 ± 0.448 (0.593)</b> <b>C:78% T:NA</b>	pCi/L	10/09/20 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.34 ± 0.988 (1.93)</b> <b>C:64% T:63%</b>	pCi/L	10/12/20 19:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.30 ± 1.44 (2.52)</b>	pCi/L	10/15/20 13:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-48**      **Lab ID: 92496904017**      Collected: 09/23/20 09:55      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.337 ± 0.275 (0.475)</b> <b>C:83% T:NA</b>	pCi/L	10/09/20 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.17 ± 0.815 (1.57)</b> <b>C:61% T:83%</b>	pCi/L	10/12/20 19:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.51 ± 1.09 (2.05)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: EB-2**      **Lab ID: 92496904018**      Collected: 09/23/20 14:25      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0454 ± 0.157 (0.403)</b> <b>C:92% T:NA</b>	pCi/L	10/09/20 08:21	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.707 ± 0.751 (1.56)</b> <b>C:66% T:70%</b>	pCi/L	10/12/20 19:07	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.752 ± 0.908 (1.96)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: FB-2**      **Lab ID: 92496904019**      Collected: 09/23/20 10:22      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.137 ± 0.192 (0.405)</b> <b>C:92% T:NA</b>	pCi/L	10/09/20 09:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.820 ± 0.738 (1.48)</b> <b>C:58% T:77%</b>	pCi/L	10/12/20 19:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.957 ± 0.930 (1.89)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-10**      **Lab ID: 92496904020**      Collected: 09/24/20 09:55      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.317 ± 0.245 (0.398)</b> <b>C:83% T:NA</b>	pCi/L	10/14/20 06:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.07 ± 0.547 (0.963)</b> <b>C:81% T:67%</b>	pCi/L	10/15/20 11:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.39 ± 0.792 (1.36)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-17**      **Lab ID: 92496904021**      Collected: 09/24/20 14:05      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.155 ± 0.278 (0.634)</b> <b>C:88% T:NA</b>	pCi/L	10/14/20 06:41	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.214 ± 0.412 (0.905)</b> <b>C:78% T:72%</b>	pCi/L	10/15/20 11:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.369 ± 0.690 (1.54)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-21**      **Lab ID: 92496904022**      Collected: 09/24/20 12:30      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.264 ± 0.244 (0.444)</b> <b>C:86% T:NA</b>	pCi/L	10/14/20 06:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.132 ± 0.396 (0.888)</b> <b>C:81% T:76%</b>	pCi/L	10/15/20 11:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.396 ± 0.640 (1.33)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-22**      **Lab ID: 92496904023**      Collected: 09/24/20 12:20      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.311 ± 0.259 (0.453)</b> <b>C:84% T:NA</b>	pCi/L	10/14/20 06:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.709 ± 0.447 (0.841)</b> <b>C:78% T:72%</b>	pCi/L	10/15/20 11:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.02 ± 0.706 (1.29)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: DGWC-23**      **Lab ID: 92496904024**      Collected: 09/24/20 13:02      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.324 ± 0.251 (0.407)</b> <b>C:85% T:NA</b>	pCi/L	10/14/20 06:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.17 ± 0.556 (0.972)</b> <b>C:71% T:83%</b>	pCi/L	10/15/20 11:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.49 ± 0.807 (1.38)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: FD-3**      **Lab ID: 92496904025**      Collected: 09/24/20 00:00      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0450 ± 0.159 (0.404)</b> <b>C:85% T:NA</b>	pCi/L	10/14/20 07:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.334 ± 0.437 (0.931)</b> <b>C:72% T:76%</b>	pCi/L	10/15/20 11:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.379 ± 0.596 (1.34)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

**Sample: EB-3**      **Lab ID: 92496904026**      Collected: 09/24/20 12:25      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.00480 ± 0.0871 (0.286)</b> <b>C:90% T:NA</b>	pCi/L	10/14/20 06:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.635 ± 0.508 (1.02)</b> <b>C:79% T:71%</b>	pCi/L	10/15/20 11:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.635 ± 0.595 (1.31)</b>	pCi/L	10/20/20 08:55	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

QC Batch: 417134

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92496904020, 92496904021, 92496904022, 92496904023, 92496904024, 92496904025, 92496904026

METHOD BLANK: 2016817

Matrix: Water

Associated Lab Samples: 92496904020, 92496904021, 92496904022, 92496904023, 92496904024, 92496904025, 92496904026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.280 ± 0.239 (0.418) C:85% T:NA	pCi/L	10/14/20 06:41	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

QC Batch: 417135

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92496904020, 92496904021, 92496904022, 92496904023, 92496904024, 92496904025, 92496904026

METHOD BLANK: 2016818

Matrix: Water

Associated Lab Samples: 92496904020, 92496904021, 92496904022, 92496904023, 92496904024, 92496904025, 92496904026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.274 ± 0.291 (0.602) C:84% T:86%	pCi/L	10/15/20 11:05	

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

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## QUALIFIERS

Project: MCDONOUGH AP-234 RADS

Pace Project No.: 92496904

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496904001	DGWC-4	EPA 9315	415889		
92496904002	DGWC-5	EPA 9315	415889		
92496904003	DGWC-9	EPA 9315	415889		
92496904004	DGWC-11	EPA 9315	415889		
92496904005	DGWC-12	EPA 9315	415889		
92496904006	DGWC-14	EPA 9315	415889		
92496904007	DGWC-19	EPA 9315	415889		
92496904008	DGWC-20	EPA 9315	415889		
92496904009	DGWC-42	EPA 9315	415889		
92496904010	FB-1	EPA 9315	415889		
92496904011	FD-1	EPA 9315	415889		
92496904012	DGWC-2	EPA 9315	415890		
92496904013	DGWC-8	EPA 9315	415890		
92496904014	DGWC-13	EPA 9315	415890		
92496904015	DGWC-15	EPA 9315	415890		
92496904016	DGWC-47	EPA 9315	415890		
92496904017	DGWC-48	EPA 9315	415890		
92496904018	EB-2	EPA 9315	415890		
92496904019	FB-2	EPA 9315	415890		
92496904020	DGWC-10	EPA 9315	417134		
92496904021	DGWC-17	EPA 9315	417134		
92496904022	DGWC-21	EPA 9315	417134		
92496904023	DGWC-22	EPA 9315	417134		
92496904024	DGWC-23	EPA 9315	417134		
92496904025	FD-3	EPA 9315	417134		
92496904026	EB-3	EPA 9315	417134		
92496904001	DGWC-4	EPA 9320	415887		
92496904002	DGWC-5	EPA 9320	415887		
92496904003	DGWC-9	EPA 9320	415887		
92496904004	DGWC-11	EPA 9320	415887		
92496904005	DGWC-12	EPA 9320	415887		
92496904006	DGWC-14	EPA 9320	415887		
92496904007	DGWC-19	EPA 9320	415887		
92496904008	DGWC-20	EPA 9320	415887		
92496904009	DGWC-42	EPA 9320	415887		
92496904010	FB-1	EPA 9320	415887		
92496904011	FD-1	EPA 9320	415887		
92496904012	DGWC-2	EPA 9320	415888		
92496904013	DGWC-8	EPA 9320	415888		
92496904014	DGWC-13	EPA 9320	415888		
92496904015	DGWC-15	EPA 9320	415888		
92496904016	DGWC-47	EPA 9320	415888		
92496904017	DGWC-48	EPA 9320	415888		
92496904018	EB-2	EPA 9320	415888		
92496904019	FB-2	EPA 9320	415888		
92496904020	DGWC-10	EPA 9320	417135		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH AP-234 RADS  
Pace Project No.: 92496904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92496904021	DGWC-17	EPA 9320	417135		
92496904022	DGWC-21	EPA 9320	417135		
92496904023	DGWC-22	EPA 9320	417135		
92496904024	DGWC-23	EPA 9320	417135		
92496904025	FD-3	EPA 9320	417135		
92496904026	EB-3	EPA 9320	417135		
92496904001	DGWC-4	Total Radium Calculation	418331		
92496904002	DGWC-5	Total Radium Calculation	418331		
92496904003	DGWC-9	Total Radium Calculation	418331		
92496904004	DGWC-11	Total Radium Calculation	418331		
92496904005	DGWC-12	Total Radium Calculation	418331		
92496904006	DGWC-14	Total Radium Calculation	418331		
92496904007	DGWC-19	Total Radium Calculation	418331		
92496904008	DGWC-20	Total Radium Calculation	418331		
92496904009	DGWC-42	Total Radium Calculation	418746		
92496904010	FB-1	Total Radium Calculation	418746		
92496904011	FD-1	Total Radium Calculation	418746		
92496904012	DGWC-2	Total Radium Calculation	418746		
92496904013	DGWC-8	Total Radium Calculation	418746		
92496904014	DGWC-13	Total Radium Calculation	418746		
92496904015	DGWC-15	Total Radium Calculation	418746		
92496904016	DGWC-47	Total Radium Calculation	418746		
92496904017	DGWC-48	Total Radium Calculation	418910		
92496904018	EB-2	Total Radium Calculation	418910		
92496904019	FB-2	Total Radium Calculation	418910		
92496904020	DGWC-10	Total Radium Calculation	419262		
92496904021	DGWC-17	Total Radium Calculation	419262		
92496904022	DGWC-21	Total Radium Calculation	419262		
92496904023	DGWC-22	Total Radium Calculation	419262		
92496904024	DGWC-23	Total Radium Calculation	419262		
92496904025	FD-3	Total Radium Calculation	419262		
92496904026	EB-3	Total Radium Calculation	419262		

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Sample Condition Upon Receipt

Client Name: GA Power - Coal Co WO#: 92496904



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Or Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no Proj. name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other Ziplock

Thermometer Used 230 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 3.5 Biological Tissue is Frozen: Yes No  Date and initials of person examining contents: CO  
Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>CO</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
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#: 92496904

PM: KLH1

Due Date: 10/14/20

CLIENT: GR-GR Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/BO15 (water) DOC, LLHg  
Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3H-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG8A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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)	BP1A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG8U-100 mL Amber Unpreserved vials (N/A)	VG9U-20 mL Sulfonation 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 Of Out of hold, incorrect preservative, out of temp, incorrect containers.







## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/7/2020  
Worklist: 56441  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010986	
MB concentration:	0.196	
M/B Counting Uncertainty:	0.236	
MB MDC:	0.495	
MB Numerical Performance Indicator:	1.62	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56441	LCSD56441
Count Date:	10/8/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.524	
Target Conc. (pCi/L, g, F):	4.587	
Uncertainty (Calculated):	0.055	
Result (pCi/L, g, F):	4.928	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.804	
Numerical Performance Indicator:	0.83	
Percent Recovery:	107.44%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92496907001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92496907001DUP	
Sample Result (pCi/L, g, F):	0.950	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.383	
Sample Duplicate Result (pCi/L, g, F):	1.227	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.469	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.896	92496907001
Duplicate RPD:	25.43%	92496907001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision. N/A LAM 10/8/2020

LAM 10/8/2020

CMT  
10/8/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/7/2020  
Worklist: 56441  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010986	
MB concentration:	0.196	
M/B Counting Uncertainty:	0.236	
MB MDC:	0.495	
MB Numerical Performance Indicator:	1.62	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56441	LCSD56441
Count Date:	10/8/2020	10/8/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.524	0.512
Target Conc. (pCi/L, g, F):	4.587	4.700
Uncertainty (Calculated):	0.055	0.056
Result (pCi/L, g, F):	4.928	4.118
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.804	0.734
Numerical Performance Indicator:	0.83	-1.55
Percent Recovery:	107.44%	87.60%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56441	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56441	
Sample Result (pCi/L, g, F):	4.928	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.804	
Sample Duplicate Result (pCi/L, g, F):	4.118	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.734	
Are sample and/or duplicate results below RL?:	NO	
Duplicate Numerical Performance Indicator:	1.459	92496907001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	20.34%	92496907001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

*ONE*  
*10/8/2020*

*LAM 10/8/2020*





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/8/2020  
Worklist: 56442  
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	2010987	
MB concentration:	0.214	
M/B Counting Uncertainty:	0.229	
MB MDC:	0.446	
MB Numerical Performance Indicator:	1.83	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS/D (Y or N)?	N
	LCS56442	LCSD56442
Count Date:	10/9/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.507	
Target Conc. (pCi/L, g, F):	4.741	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.940	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	
Numerical Performance Indicator:	0.49	
Percent Recovery:	104.19%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92497110001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92497110001DUP	
Sample Result (pCi/L, g, F):	0.477	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.309	
Sample Duplicate Result (pCi/L, g, F):	0.448	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.340	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.121	92497110001
Duplicate RPD:	6.12%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

OUT  
10/9/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 10/8/2020  
Worklist: 56442  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010987	
MB concentration:	0.214	
M/B Counting Uncertainty:	0.229	
MB MDC:	0.446	
MB Numerical Performance Indicator:	1.83	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56442	LCSD56442
Count Date:	10/9/2020	10/9/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.514
Target Conc. (pCi/L, g, F):	4.741	4.677
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.940	4.201
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	0.785
Numerical Performance Indicator:	0.49	-1.18
Percent Recovery:	104.19%	89.83%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56442	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56442	
Sample Result (pCi/L, g, F):	4.940	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.794	
Sample Duplicate Result (pCi/L, g, F):	4.201	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.785	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.297	92497110001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.81%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

Out  
10/9/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56591  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016817	
MB concentration:	0.280	
M/B Counting Uncertainty:	0.235	
MB MDC:	0.418	
MB Numerical Performance Indicator:	2.33	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56591	LCSD56591
Count Date:	10/14/2020	10/14/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.512	0.510
Target Conc. (pCi/L, g, F):	4.697	4.711
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	4.666	4.350
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.761	0.758
Numerical Performance Indicator:	-0.08	-0.93
Percent Recovery:	99.33%	92.35%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment	LCSD (Y or N)?	Y
Sample I.D.:	LCS56591	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56591	
Sample Result (pCi/L, g, F):	4.666	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.761	
Sample Duplicate Result (pCi/L, g, F):	4.350	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.758	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.577	92496904020
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.29%	92496904020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

AM 10/14/2020

AM 10/14/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56591  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016617	
MB concentration:	0.280	
M/B Counting Uncertainty:	0.235	
MB MDC:	0.418	
MB Numerical Performance Indicator:	2.33	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56591	LCSD56591
Count Date:	10/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.512	
Target Conc. (pCi/L, g, F):	4.697	
Uncertainty (Calculated):	0.056	
Result (pCi/L, g, F):	4.666	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.761	
Numerical Performance Indicator:	-0.08	
Percent Recovery:	99.33%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment		
Sample I.D.:	92496904020	Enter Duplicate
Duplicate Sample I.D.:	92496904020DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.317	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.241	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.374	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.240	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.331	92496904020
Duplicate RPD:	16.61%	92496904020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	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.:		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

*Quinn 10/14/2020*

*LAM 10/14/2020*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/6/2020  
Worklist: 56439  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2010984	
MB concentration:	0.452	
M/B 2 Sigma CSU:	0.429	
MB MDC:	0.882	
MB Numerical Performance Indicator:	2.07	
MB Status vs Numerical Indicator:	Warning	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56439	LCSD56439
Count Date:	10/12/2020	10/12/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.055	38.055
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.730	4.702
Uncertainty (Calculated):	0.232	0.230
Result (pCi/L, g, F):	5.342	4.034
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.236	1.010
Numerical Performance Indicator:	0.95	-1.26
Percent Recovery:	112.95%	85.79%
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:		
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		
Sample I.D.:	LCS56439	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56439	
Sample Result (pCi/L, g, F):	5.342	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.236	
Sample Duplicate Result (pCi/L, g, F):	4.034	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.010	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.607	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.34%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

10-15-20

On 10.13.20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/6/2020  
Worklist: 56440  
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2010985
MB concentration:	0.197
M/B 2 Sigma CSU:	0.376
MB MDC:	0.826
MB Numerical Performance Indicator:	1.03
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56440	LCSD56440
Count Date:	10/12/2020	10/12/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.054	38.054
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.803	0.803
Target Conc. (pCi/L, g, F):	4.741	4.737
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	3.863	4.161
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.965	1.023
Numerical Performance Indicator:	-1.73	-1.08
Percent Recovery:	81.48%	87.84%
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:		
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.:	LCS56440	
Duplicate Sample I.D.:	LCSD56440	
Sample Result (pCi/L, g, F):	3.863	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.965	
Sample Duplicate Result (pCi/L, g, F):	4.161	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.023	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.416	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.51%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

KUB  
10-13-2020

10-13-20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/16/2020  
Worklist: 56592  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	
MB concentration:	
M/B 2 Sigma CSU:	
MB MDC:	
MB Numerical Performance Indicator:	
MB Status vs Numerical Indicator:	
MB Status vs. MDC:	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56592	LCSD56592
Count Date:	10/19/2020	10/19/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	37.968	37.968
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.836
Target Conc. (pCi/L, g, F):	4.670	4.542
Uncertainty (Calculated):	0.229	0.223
Result (pCi/L, g, F):	4.645	4.409
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.050	1.018
Numerical Performance Indicator:	-0.04	-0.25
Percent Recovery:	99.48%	97.06%
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:		
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		
Sample I.D.:	LCS56592	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56592	
Sample Result (pCi/L, g, F):	4.645	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.050	
Sample Duplicate Result (pCi/L, g, F):	4.409	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.018	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.317	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.46%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:
(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:

*10/16/2020*

*10-20-20*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/13/2020  
Worklist: 56592  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2016818	
MB concentration:	0.274	
M/B 2 Sigma CSU:	0.291	
MB MDC:	0.602	
MB Numerical Performance Indicator:	1.85	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56592	LCSD56592
Count Date:	10/15/2020	10/15/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.018	38.018
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.836
Target Conc. (pCi/L, g, F):	4.676	4.548
Uncertainty (Calculated):	0.229	0.223
Result (pCi/L, g, F):	2.226	2.963
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.629	0.764
Numerical Performance Indicator:	-7.18	-3.91
Percent Recovery:	47.60%	65.14%
Status vs Numerical Indicator:	Fail**	N/A
Status vs Recovery:	Fail Low**	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:		
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		
Sample I.D.:	LCS56592	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56592	
Sample Result (pCi/L, g, F):	2.226	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.629	
Sample Duplicate Result (pCi/L, g, F):	2.963	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.764	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.460	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	31.10%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

\*\*Batch must be re-prepped due to LCS failure.

*Handwritten initials and date: VAL 10/16/20*

*Handwritten signature and date: M. 10/20/2020*



October 09, 2020

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

RE: Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 24, 2020 and September 28, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497125001	B-89	Water	09/23/20 15:30	09/24/20 09:25
92497125002	B-62	Water	09/24/20 10:18	09/25/20 13:30
92497125003	B-77	Water	09/24/20 14:19	09/25/20 13:30
92497125004	FB-3	Water	09/24/20 11:00	09/25/20 13:30
92497125005	B-74	Water	09/25/20 10:05	09/25/20 13:30
92497125006	B-83	Water	09/25/20 09:10	09/25/20 13:30
92497125007	B-88	Water	09/25/20 10:15	09/25/20 13:30
92497125008	B-100	Water	09/25/20 10:50	09/25/20 13:30
92497125009	B-56	Water	09/28/20 11:14	09/28/20 14:21
92497125010	B-82	Water	09/28/20 10:14	09/28/20 14:21
92497125011	B-93	Water	09/28/20 09:50	09/28/20 14:21

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92497125001	B-89	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497125002	B-62	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125003	B-77	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125004	FB-3	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125005	B-74	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125006	B-83	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125007	B-88	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92497125008	B-100	EPA 6010D	DRB	1
		EPA 6020B	CW1	13

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92497125009	B-56	EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92497125010	B-82	SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
92497125011	B-93	EPA 300.0 Rev 2.1 1993	BRJ	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

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

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-89		Lab ID: 92497125001		Collected: 09/23/20 15:30		Received: 09/24/20 09:25		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.87	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	31.4	mg/L	1.0	0.070	1	09/29/20 14:17	09/29/20 21:06	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:46	7440-38-2	
Barium	0.028	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:46	7440-39-3	
Beryllium	0.000054J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:46	7440-41-7	
Boron	0.76	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:46	7440-42-8	
Cadmium	0.00057J	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:46	7440-43-9	
Chromium	0.00072J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:46	7440-47-3	
Cobalt	0.0025J	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:46	7439-92-1	
Lithium	0.0055J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/29/20 18:39	10/01/20 11:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:46	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.000080J	mg/L	0.00050	0.000078	1	09/28/20 09:15	09/29/20 08:11	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	260	mg/L	10.0	10.0	1		09/28/20 14:18		D6
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.1	mg/L	1.0	0.60	1		09/29/20 12:38	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 12:38	16984-48-8	
Sulfate	138	mg/L	2.0	1.0	2		09/29/20 20:51	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-62		Lab ID: 92497125002		Collected: 09/24/20 10:18		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>6.55</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>28.8</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:24	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00046J</b>	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:20	7440-38-2	
Barium	<b>0.025</b>	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:20	7440-39-3	
Beryllium	<b>0.00013J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:20	7440-41-7	
Boron	<b>0.074J</b>	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:20	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:20	7439-92-1	
Lithium	<b>0.0084J</b>	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:20	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:33	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>170</b>	mg/L	10.0	10.0	1		09/30/20 09:29		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.7</b>	mg/L	1.0	0.60	1		09/30/20 20:53	16887-00-6	
Fluoride	<b>0.093J</b>	mg/L	0.10	0.050	1		09/30/20 20:53	16984-48-8	
Sulfate	<b>50.6</b>	mg/L	1.0	0.50	1		09/30/20 20:53	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-77		Lab ID: 92497125003		Collected: 09/24/20 14:19		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>6.46</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>17.9</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:28	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00036J</b>	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:25	7440-36-0	
Arsenic	<b>0.0025J</b>	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:25	7440-38-2	
Barium	<b>0.12</b>	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:25	7440-39-3	
Beryllium	<b>0.000053J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:25	7440-41-7	
Boron	<b>0.27</b>	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:25	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:25	7440-43-9	
Chromium	<b>0.00070J</b>	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:25	7440-47-3	
Cobalt	<b>0.00040J</b>	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:25	7440-48-4	
Lead	<b>0.00021J</b>	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:25	7439-92-1	
Lithium	<b>0.00095J</b>	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:25	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:40	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>124</b>	mg/L	10.0	10.0	1		09/30/20 09:30		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.3</b>	mg/L	1.0	0.60	1		09/30/20 21:08	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 21:08	16984-48-8	
Sulfate	<b>2.9</b>	mg/L	1.0	0.50	1		09/30/20 21:08	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: <b>FB-3</b>		Lab ID: <b>92497125004</b>		Collected: 09/24/20 11:00	Received: 09/25/20 13:30	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:32	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:31	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:31	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:31	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:31	7440-41-7		
Boron	ND	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:31	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:31	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:31	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:31	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:31	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:31	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:31	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:31	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:31	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:42	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/30/20 09:31			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/30/20 21:22	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 21:22	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/30/20 21:22	14808-79-8		

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-74		Lab ID: 92497125005		Collected: 09/25/20 10:05		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>6.16</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>18.6</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:48	7440-36-0	
Arsenic	<b>0.012</b>	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:48	7440-38-2	
Barium	<b>0.066</b>	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:48	7440-39-3	
Beryllium	<b>0.000097J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:48	7440-41-7	
Boron	<b>0.30</b>	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:48	7440-42-8	
Cadmium	<b>0.00017J</b>	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:48	7440-47-3	
Cobalt	<b>0.0028J</b>	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:48	7440-48-4	
Lead	<b>0.000041J</b>	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:48	7439-92-1	
Lithium	<b>0.0014J</b>	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:48	7439-93-2	
Molybdenum	<b>0.049</b>	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:48	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:45	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>134</b>	mg/L	10.0	10.0	1		10/01/20 15:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.0</b>	mg/L	1.0	0.60	1		09/30/20 22:05	16887-00-6	
Fluoride	<b>0.14</b>	mg/L	0.10	0.050	1		09/30/20 22:05	16984-48-8	
Sulfate	<b>20.1</b>	mg/L	1.0	0.50	1		09/30/20 22:05	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-83		Lab ID: 92497125006		Collected: 09/25/20 09:10		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/29/20 15:24		
pH	5.97	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	39.8	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:41	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 18:54	7440-38-2	
Barium	0.027	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 18:54	7440-39-3	
Beryllium	0.00028J	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 18:54	7440-41-7	
Boron	0.35	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 18:54	7440-42-8	
Cadmium	0.00026J	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 18:54	7440-43-9	
Chromium	0.0051J	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 18:54	7440-47-3	
Cobalt	0.0073	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 18:54	7440-48-4	
Lead	0.000065J	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 18:54	7439-92-1	
Lithium	0.0018J	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 18:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 18:54	7439-98-7	
Selenium	0.019	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 18:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:47	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	244	mg/L	10.0	10.0	1		10/01/20 15:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		09/30/20 22:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 22:49	16984-48-8	
Sulfate	107	mg/L	2.0	1.0	2		10/01/20 04:52	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-88		Lab ID: 92497125007		Collected: 09/25/20 10:15		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>5.75</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>79.8</b>	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:45	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 19:00	7440-38-2	
Barium	<b>0.021</b>	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 19:00	7440-39-3	
Beryllium	<b>0.00063J</b>	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 19:00	7440-41-7	
Boron	<b>1.8</b>	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 19:00	7440-42-8	
Cadmium	<b>0.00022J</b>	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 19:00	7440-43-9	
Chromium	<b>0.00085J</b>	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 19:00	7440-47-3	
Cobalt	<b>0.0015J</b>	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 19:00	7440-48-4	
Lead	<b>0.00035J</b>	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 19:00	7439-92-1	
Lithium	<b>0.0016J</b>	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 19:00	7439-93-2	
Molybdenum	<b>0.0012J</b>	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 19:00	7439-98-7	
Selenium	<b>0.0033J</b>	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 19:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:50	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>624</b>	mg/L	20.0	20.0	1		10/01/20 15:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>10</b>	mg/L	1.0	0.60	1		09/30/20 23:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 23:03	16984-48-8	
Sulfate	<b>344</b>	mg/L	7.0	3.5	7		10/01/20 05:06	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-100		Lab ID: 92497125008		Collected: 09/25/20 10:50		Received: 09/25/20 13:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/29/20 15:24		
pH	5.53	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	44.7	mg/L	1.0	0.070	1	09/30/20 14:57	10/01/20 20:58	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/30/20 17:48	10/03/20 19:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/30/20 17:48	10/03/20 19:06	7440-38-2	
Barium	0.022	mg/L	0.010	0.00071	1	09/30/20 17:48	10/03/20 19:06	7440-39-3	
Beryllium	0.00035J	mg/L	0.0030	0.000046	1	09/30/20 17:48	10/03/20 19:06	7440-41-7	
Boron	0.27	mg/L	0.10	0.0052	1	09/30/20 17:48	10/03/20 19:06	7440-42-8	
Cadmium	0.00027J	mg/L	0.0025	0.00012	1	09/30/20 17:48	10/03/20 19:06	7440-43-9	
Chromium	0.00094J	mg/L	0.010	0.00055	1	09/30/20 17:48	10/03/20 19:06	7440-47-3	
Cobalt	0.034	mg/L	0.0050	0.00038	1	09/30/20 17:48	10/03/20 19:06	7440-48-4	
Lead	0.00021J	mg/L	0.0050	0.000036	1	09/30/20 17:48	10/03/20 19:06	7439-92-1	
Lithium	0.0027J	mg/L	0.030	0.00081	1	09/30/20 17:48	10/03/20 19:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/30/20 17:48	10/03/20 19:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/30/20 17:48	10/03/20 19:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/30/20 17:48	10/03/20 19:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:52	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	724	mg/L	20.0	20.0	1		10/01/20 15:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	13.2	mg/L	1.0	0.60	1		09/30/20 23:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 23:18	16984-48-8	
Sulfate	385	mg/L	8.0	4.0	8		10/01/20 05:20	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-56		Lab ID: 92497125009		Collected: 09/28/20 11:14		Received: 09/28/20 14:21		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>4.90</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>15.1</b>	mg/L	1.0	0.070	1	10/01/20 15:00	10/02/20 19:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	10/01/20 15:24	10/02/20 19:51	7440-36-0	
Arsenic	<b>0.0047J</b>	mg/L	0.0050	0.00078	1	10/01/20 15:24	10/02/20 19:51	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.010	0.00071	1	10/01/20 15:24	10/02/20 19:51	7440-39-3	
Beryllium	<b>0.0012J</b>	mg/L	0.0030	0.000046	1	10/01/20 15:24	10/02/20 19:51	7440-41-7	
Boron	<b>1.4</b>	mg/L	0.10	0.0052	1	10/01/20 15:24	10/02/20 19:51	7440-42-8	
Cadmium	<b>0.00024J</b>	mg/L	0.0025	0.00012	1	10/01/20 15:24	10/02/20 19:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	10/01/20 15:24	10/02/20 19:51	7440-47-3	
Cobalt	<b>0.042</b>	mg/L	0.0050	0.00038	1	10/01/20 15:24	10/02/20 19:51	7440-48-4	
Lead	<b>0.000091J</b>	mg/L	0.0050	0.000036	1	10/01/20 15:24	10/02/20 19:51	7439-92-1	
Lithium	<b>0.0050J</b>	mg/L	0.030	0.00081	1	10/01/20 15:24	10/02/20 19:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/01/20 15:24	10/02/20 19:51	7439-98-7	
Selenium	<b>0.029</b>	mg/L	0.010	0.0016	1	10/01/20 15:24	10/02/20 19:51	7782-49-2	
Thallium	<b>0.00023J</b>	mg/L	0.0010	0.00014	1	10/01/20 15:24	10/02/20 19:51	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:54	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>320</b>	mg/L	10.0	10.0	1		10/01/20 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8.7</b>	mg/L	1.0	0.60	1		09/30/20 18:20	16887-00-6	
Fluoride	<b>0.098J</b>	mg/L	0.10	0.050	1		09/30/20 18:20	16984-48-8	
Sulfate	<b>211</b>	mg/L	4.0	2.0	4		09/30/20 22:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-82		Lab ID: 92497125010		Collected: 09/28/20 10:14		Received: 09/28/20 14:21		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/20 15:24		
pH	<b>5.54</b>	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>26.5</b>	mg/L	1.0	0.070	1	10/01/20 15:00	10/02/20 19:54	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	10/01/20 19:00	10/03/20 15:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	10/01/20 19:00	10/03/20 15:51	7440-38-2	
Barium	<b>0.023</b>	mg/L	0.010	0.00071	1	10/01/20 19:00	10/03/20 15:51	7440-39-3	
Beryllium	<b>0.0015J</b>	mg/L	0.0030	0.000046	1	10/01/20 19:00	10/03/20 15:51	7440-41-7	
Boron	<b>1.1</b>	mg/L	0.10	0.0052	1	10/01/20 19:00	10/03/20 15:51	7440-42-8	
Cadmium	<b>0.00066J</b>	mg/L	0.0025	0.00012	1	10/01/20 19:00	10/03/20 15:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	10/01/20 19:00	10/03/20 15:51	7440-47-3	
Cobalt	<b>0.0053</b>	mg/L	0.0050	0.00038	1	10/01/20 19:00	10/03/20 15:51	7440-48-4	
Lead	<b>0.00011J</b>	mg/L	0.0050	0.000036	1	10/01/20 19:00	10/03/20 15:51	7439-92-1	
Lithium	<b>0.0010J</b>	mg/L	0.030	0.00081	1	10/01/20 19:00	10/03/20 15:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/01/20 19:00	10/03/20 15:51	7439-98-7	
Selenium	<b>0.0021J</b>	mg/L	0.010	0.0016	1	10/01/20 19:00	10/03/20 15:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/20 19:00	10/03/20 15:51	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:57	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>454</b>	mg/L	10.0	10.0	1		10/01/20 15:27		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>9.9</b>	mg/L	1.0	0.60	1		09/30/20 18:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/20 18:35	16984-48-8	
Sulfate	<b>287</b>	mg/L	6.0	3.0	6		09/30/20 22:56	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

Sample: B-93		Lab ID: 92497125011		Collected: 09/28/20 09:50		Received: 09/28/20 14:21		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.67	Std. Units			1		09/29/20 15:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	110	mg/L	1.0	0.070	1	10/01/20 15:00	10/02/20 19:58	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.0014J	mg/L	0.0030	0.00028	1	10/01/20 19:00	10/03/20 16:14	7440-36-0	
Arsenic	0.0027J	mg/L	0.0050	0.00078	1	10/01/20 19:00	10/03/20 16:14	7440-38-2	
Barium	0.017	mg/L	0.010	0.00071	1	10/01/20 19:00	10/03/20 16:14	7440-39-3	
Beryllium	0.015	mg/L	0.0030	0.000046	1	10/01/20 19:00	10/03/20 16:14	7440-41-7	
Boron	3.0	mg/L	0.10	0.0052	1	10/01/20 19:00	10/03/20 16:14	7440-42-8	
Cadmium	0.00074J	mg/L	0.0025	0.00012	1	10/01/20 19:00	10/03/20 16:14	7440-43-9	
Chromium	0.00066J	mg/L	0.010	0.00055	1	10/01/20 19:00	10/03/20 16:14	7440-47-3	
Cobalt	0.064	mg/L	0.0050	0.00038	1	10/01/20 19:00	10/03/20 16:14	7440-48-4	
Lead	0.00012J	mg/L	0.0050	0.000036	1	10/01/20 19:00	10/03/20 16:14	7439-92-1	
Lithium	0.011J	mg/L	0.030	0.00081	1	10/01/20 19:00	10/03/20 16:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/01/20 19:00	10/03/20 16:14	7439-98-7	
Selenium	0.036	mg/L	0.010	0.0016	1	10/01/20 19:00	10/03/20 16:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/20 19:00	10/03/20 16:14	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00024J	mg/L	0.00050	0.000078	1	09/29/20 13:30	09/30/20 12:59	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	686	mg/L	20.0	20.0	1		10/01/20 15:27		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	10.8	mg/L	1.0	0.60	1		10/01/20 14:53	16887-00-6	
Fluoride	0.30	mg/L	0.10	0.050	1		10/01/20 14:53	16984-48-8	
Sulfate	419	mg/L	9.0	4.5	9		10/01/20 20:35	14808-79-8	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569672	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125001

METHOD BLANK: 3017857 Matrix: Water  
Associated Lab Samples: 92497125001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/29/20 19:56	

LABORATORY CONTROL SAMPLE: 3017858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.97J	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017859 3017860

Parameter	Units	92496847006		3017859		3017860		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Calcium	mg/L	2510 ug/L	1	1	3.4	3.4	93	92	75-125	0	20

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

QC Batch:	570008	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

METHOD BLANK: 3019452 Matrix: Water  
Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/01/20 19:24	

LABORATORY CONTROL SAMPLE: 3019453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3019454 3019455

Parameter	Units	3019454		3019455		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496941020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	53.1	1	1	55.5	54.3	237	115	75-125	2	20 M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

QC Batch: 570301	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125009, 92497125010, 92497125011

METHOD BLANK: 3020964 Matrix: Water

Associated Lab Samples: 92497125009, 92497125010, 92497125011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/02/20 18:13	

LABORATORY CONTROL SAMPLE: 3020965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020966 3020967

Parameter	Units	3020966		3020967		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	38.6	1	37.8	39.0	-77	45	75-125	3	20	M1

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569774      Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A      Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125001

METHOD BLANK: 3018372      Matrix: Water  
Associated Lab Samples: 92497125001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/01/20 09:53	
Arsenic	mg/L	ND	0.0050	0.00078	10/01/20 09:53	
Barium	mg/L	ND	0.010	0.00071	10/01/20 09:53	
Beryllium	mg/L	ND	0.0030	0.000046	10/01/20 09:53	
Boron	mg/L	ND	0.10	0.0052	10/01/20 09:53	
Cadmium	mg/L	ND	0.0025	0.00012	10/01/20 09:53	
Chromium	mg/L	ND	0.010	0.00055	10/01/20 09:53	
Cobalt	mg/L	ND	0.0050	0.00038	10/01/20 09:53	
Lead	mg/L	ND	0.0050	0.000036	10/01/20 09:53	
Lithium	mg/L	ND	0.030	0.00081	10/01/20 09:53	
Molybdenum	mg/L	ND	0.010	0.00069	10/01/20 09:53	
Selenium	mg/L	ND	0.010	0.0016	10/01/20 09:53	
Thallium	mg/L	ND	0.0010	0.00014	10/01/20 09:53	

LABORATORY CONTROL SAMPLE: 3018373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.092	92	80-120	
Molybdenum	mg/L	0.1	0.098	98	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: 3018374      3018375

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149004	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	0	20		
Arsenic	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Parameter	Units	3018374		3018375		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.0039J	0.1	0.1	0.10	0.10	99	100	75-125	1	20		
Beryllium	mg/L	0.000059J	0.1	0.1	0.090	0.091	90	91	75-125	1	20		
Boron	mg/L	0.0073J	1	1	0.88	0.90	87	89	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.095	0.095	94	94	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20		
Lead	mg/L	0.00015J	0.1	0.1	0.093	0.094	92	94	75-125	1	20		
Lithium	mg/L	0.013J	0.1	0.1	0.10	0.10	91	91	75-125	0	20		
Molybdenum	mg/L	0.010	0.1	0.1	0.11	0.11	96	97	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.099	0.096	98	95	75-125	3	20		
Thallium	mg/L	0.00016J	0.1	0.1	0.094	0.095	94	95	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 570089 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

METHOD BLANK: 3020046 Matrix: Water  
Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/03/20 17:40	
Arsenic	mg/L	ND	0.0050	0.00078	10/03/20 17:40	
Barium	mg/L	ND	0.010	0.00071	10/03/20 17:40	
Beryllium	mg/L	ND	0.0030	0.000046	10/03/20 17:40	
Boron	mg/L	ND	0.10	0.0052	10/03/20 17:40	
Cadmium	mg/L	ND	0.0025	0.00012	10/03/20 17:40	
Chromium	mg/L	ND	0.010	0.00055	10/03/20 17:40	
Cobalt	mg/L	ND	0.0050	0.00038	10/03/20 17:40	
Lead	mg/L	ND	0.0050	0.000036	10/03/20 17:40	
Lithium	mg/L	ND	0.030	0.00081	10/03/20 17:40	
Molybdenum	mg/L	ND	0.010	0.00069	10/03/20 17:40	
Selenium	mg/L	ND	0.010	0.0016	10/03/20 17:40	
Thallium	mg/L	ND	0.0010	0.00014	10/03/20 17:40	

LABORATORY CONTROL SAMPLE: 3020047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.092	92	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020048 3020049

Parameter	Units	92496941025 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.095	0.10	95	100	75-125	6	20	
Arsenic	mg/L	0.00088J	0.1	0.1	0.095	0.095	94	94	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020048		3020049		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92496941025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.032	0.1	0.1	0.13	0.13	95	98	75-125	3	20		
Beryllium	mg/L	0.00070J	0.1	0.1	0.099	0.097	98	97	75-125	1	20		
Boron	mg/L	0.84	1	1	2.0	1.9	112	107	75-125	3	20		
Cadmium	mg/L	0.00028J	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Chromium	mg/L	0.0028J	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Cobalt	mg/L	0.027	0.1	0.1	0.13	0.13	99	98	75-125	1	20		
Lead	mg/L	0.00022J	0.1	0.1	0.087	0.094	86	93	75-125	8	20		
Lithium	mg/L	0.0012J	0.1	0.1	0.10	0.10	102	100	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20		
Selenium	mg/L	0.012	0.1	0.1	0.11	0.11	96	95	75-125	1	20		
Thallium	mg/L	0.00034J	0.1	0.1	0.093	0.094	93	94	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 570307      Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A      Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125009

METHOD BLANK: 3020982      Matrix: Water  
Associated Lab Samples: 92497125009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/02/20 17:11	
Arsenic	mg/L	ND	0.0050	0.00078	10/02/20 17:11	
Barium	mg/L	ND	0.010	0.00071	10/02/20 17:11	
Beryllium	mg/L	ND	0.0030	0.000046	10/02/20 17:11	
Boron	mg/L	ND	0.10	0.0052	10/02/20 17:11	
Cadmium	mg/L	ND	0.0025	0.00012	10/02/20 17:11	
Chromium	mg/L	ND	0.010	0.00055	10/02/20 17:11	
Cobalt	mg/L	ND	0.0050	0.00038	10/02/20 17:11	
Lead	mg/L	ND	0.0050	0.000036	10/02/20 17:11	
Lithium	mg/L	ND	0.030	0.00081	10/02/20 17:11	
Molybdenum	mg/L	ND	0.010	0.00069	10/02/20 17:11	
Selenium	mg/L	ND	0.010	0.0016	10/02/20 17:11	
Thallium	mg/L	ND	0.0010	0.00014	10/02/20 17:11	

LABORATORY CONTROL SAMPLE: 3020983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020984      3020985

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149015	Result	Conc.	Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20		
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	98	75-125	0	20		

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**QUALITY CONTROL DATA**

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Parameter	Units	3020984		3020985		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.079	0.1	0.1	0.18	0.18	101	99	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20		
Boron	mg/L	2.1	1	1	3.1	3.1	99	97	75-125	1	20		
Cadmium	mg/L	0.00027J	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Lithium	mg/L	0.0065J	0.1	0.1	0.10	0.10	97	97	75-125	0	20		
Molybdenum	mg/L	0.0012J	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.095	0.094	95	94	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	0	20		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 570375 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125010, 92497125011

METHOD BLANK: 3021668 Matrix: Water  
Associated Lab Samples: 92497125010, 92497125011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/03/20 14:31	
Arsenic	mg/L	ND	0.0050	0.00078	10/03/20 14:31	
Barium	mg/L	ND	0.010	0.00071	10/03/20 14:31	
Beryllium	mg/L	ND	0.0030	0.000046	10/03/20 14:31	
Boron	mg/L	ND	0.10	0.0052	10/03/20 14:31	
Cadmium	mg/L	ND	0.0025	0.00012	10/03/20 14:31	
Chromium	mg/L	ND	0.010	0.00055	10/03/20 14:31	
Cobalt	mg/L	ND	0.0050	0.00038	10/03/20 14:31	
Lead	mg/L	ND	0.0050	0.000036	10/03/20 14:31	
Lithium	mg/L	ND	0.030	0.00081	10/03/20 14:31	
Molybdenum	mg/L	ND	0.010	0.00069	10/03/20 14:31	
Selenium	mg/L	ND	0.010	0.0016	10/03/20 14:31	
Thallium	mg/L	ND	0.0010	0.00014	10/03/20 14:31	

LABORATORY CONTROL SAMPLE: 3021669

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	0.092	92	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.092	92	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3021670 3021671

Parameter	Units	92497125010 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Conc.	Spike Conc.	Conc.	Spike Conc.						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.095	0.094	94	94	75-125	1	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3021670												3021671	
Parameter	Units	92497125010 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD			
Barium	mg/L	0.023	0.1	0.1	0.12	0.12	97	99	75-125	1	20		
Beryllium	mg/L	0.0015J	0.1	0.1	0.098	0.10	97	100	75-125	3	20		
Boron	mg/L	1.1	1	1	2.1	2.2	101	114	75-125	6	20		
Cadmium	mg/L	0.00066J	0.1	0.1	0.097	0.097	96	97	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Cobalt	mg/L	0.0053	0.1	0.1	0.10	0.10	98	99	75-125	1	20		
Lead	mg/L	0.00011J	0.1	0.1	0.095	0.095	95	95	75-125	1	20		
Lithium	mg/L	0.0010J	0.1	0.1	0.10	0.10	100	103	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20		
Selenium	mg/L	0.0021J	0.1	0.1	0.097	0.094	95	92	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20		

SAMPLE DUPLICATE: 3021683

Parameter	Units	92497981001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
Antimony	mg/L	ND	ND		20	
Arsenic	mg/L	ND	0.0078	4	20	
Barium	mg/L	ND	0.0046J		20	
Beryllium	mg/L	ND	ND		20	
Boron	mg/L	ND	0.018J		20	
Cadmium	mg/L	ND	ND		20	
Chromium	mg/L	ND	0.00061J		20	
Cobalt	mg/L	ND	0.00074J		20	
Lead	mg/L	ND	0.00016J		20	
Lithium	mg/L	ND	ND		20	
Molybdenum	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Thallium	mg/L	ND	ND		20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569295	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
Associated Lab Samples: 92497125001	Laboratory: Pace Analytical Services - Peachtree Corners, GA

METHOD BLANK: 3016173 Matrix: Water  
Associated Lab Samples: 92497125001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/29/20 07:07	

LABORATORY CONTROL SAMPLE: 3016174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016175 3016176

Parameter	Units	3016175		3016176		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0026	99	104	75-125	5	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569682 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008, 92497125009, 92497125010, 92497125011

METHOD BLANK: 3017915 Matrix: Water  
Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008, 92497125009, 92497125010, 92497125011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000096J	0.00050	0.000078	09/30/20 11:53	

LABORATORY CONTROL SAMPLE: 3017916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017917 3017918

Parameter	Units	92497141011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	96	98	75-125	2	20	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

QC Batch: 569386

Analysis Method: SM 2450C-2011

QC Batch Method: SM 2450C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125001

METHOD BLANK: 3016890

Matrix: Water

Associated Lab Samples: 92497125001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/20 14:18	

LABORATORY CONTROL SAMPLE: 3016891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	429	107	84-108	

**SAMPLE DUPLICATE: 3016892**

Parameter	Units	92497125001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	260	295	13	10	D6

SAMPLE DUPLICATE: 3016893

Parameter	Units	92497141008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	59.0	31	10	D6

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

QC Batch: 569874	Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125002

METHOD BLANK: 3018862 Matrix: Water

Associated Lab Samples: 92497125002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/20 09:26	

LABORATORY CONTROL SAMPLE: 3018863

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	84-108	

SAMPLE DUPLICATE: 3018864

Parameter	Units	92497404001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	130	150	14	10	D6

SAMPLE DUPLICATE: 3018865

Parameter	Units	92495894026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	774	2	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569876 Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497125003, 92497125004

METHOD BLANK: 3018866 Matrix: Water  
Associated Lab Samples: 92497125003, 92497125004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/20 09:30	

LABORATORY CONTROL SAMPLE: 3018867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	84-108	

SAMPLE DUPLICATE: 3018868

Parameter	Units	92497125003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	124	118	5	10	

SAMPLE DUPLICATE: 3018869

Parameter	Units	92497149013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 570219      Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497125005, 92497125006, 92497125007, 92497125008

METHOD BLANK: 3020458      Matrix: Water  
Associated Lab Samples: 92497125005, 92497125006, 92497125007, 92497125008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/01/20 15:22	

LABORATORY CONTROL SAMPLE: 3020459

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 3020460

Parameter	Units	92497125005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	134	142	6	10	

SAMPLE DUPLICATE: 3020461

Parameter	Units	92497146006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	878	918	4	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

QC Batch:	570220	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497125009, 92497125010, 92497125011

METHOD BLANK: 3020462 Matrix: Water

Associated Lab Samples: 92497125009, 92497125010, 92497125011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/01/20 15:26	

LABORATORY CONTROL SAMPLE: 3020463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	411	103	84-108	

SAMPLE DUPLICATE: 3020464

Parameter	Units	92496524014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	188	205	9	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569514      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: 92497125001

METHOD BLANK: 3017398      Matrix: Water  
Associated Lab Samples: 92497125001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 11:26	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 11:26	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 11:26	

LABORATORY CONTROL SAMPLE: 3017399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.9	108	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	52.6	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017400      3017401

Parameter	Units	92496941018		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	ND	50	50	50	52.4	51.8	105	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.3	2.4	93	94	90-110	0	10	
Sulfate	mg/L	ND	50	50	50	51.0	50.1	101	100	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017402      3017403

Parameter	Units	92496941019		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	ND	50	50	50	51.7	51.7	103	103	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.3	2.4	91	95	90-110	5	10	
Sulfate	mg/L	ND	50	50	50	50.0	49.9	100	100	90-110	0	10	

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569832 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: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

METHOD BLANK: 3018769 Matrix: Water  
Associated Lab Samples: 92497125002, 92497125003, 92497125004, 92497125005, 92497125006, 92497125007, 92497125008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/20 20:24	
Fluoride	mg/L	ND	0.10	0.050	09/30/20 20:24	
Sulfate	mg/L	ND	1.0	0.50	09/30/20 20:24	

LABORATORY CONTROL SAMPLE: 3018770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.0	102	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018771 3018772

Parameter	Units	92497125004		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	ND	50	50	51.9	51.4	104	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	103	90-110	2	10		
Sulfate	mg/L	ND	50	50	50.5	50.0	101	100	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018773 3018774

Parameter	Units	92497141016		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	ND	50	50	51.8	51.5	104	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	105	100	90-110	4	10		
Sulfate	mg/L	ND	50	50	50.5	50.1	101	100	90-110	1	10		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 569922 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: 92497125009, 92497125010

METHOD BLANK: 3019036 Matrix: Water  
Associated Lab Samples: 92497125009, 92497125010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/20 11:24	
Fluoride	mg/L	ND	0.10	0.050	09/30/20 11:24	
Sulfate	mg/L	ND	1.0	0.50	09/30/20 11:24	

LABORATORY CONTROL SAMPLE: 3019037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.9	100	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	50	50.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3019038 3019039

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497713005 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	25.7	50	50	75.8	77.8	100	104	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.3	2.9	92	116	90-110	23	10	M1,R1	
Sulfate	mg/L	1.3	50	50	53.1	55.8	104	109	90-110	5	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3019040 3019041

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497146005 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	7.5	50	50	59.7	61.3	104	108	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	1.8	2.0	71	81	90-110	13	10	M1,R1	
Sulfate	mg/L	7.2	50	50	59.9	61.2	105	108	90-110	2	10		

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### QUALITY CONTROL DATA

Project: MCDONOUGH ASSESSMENT  
Pace Project No.: 92497125

QC Batch: 570137 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: 92497125011

METHOD BLANK: 3020267 Matrix: Water  
Associated Lab Samples: 92497125011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/20 07:56	
Fluoride	mg/L	ND	0.10	0.050	10/01/20 07:56	
Sulfate	mg/L	ND	1.0	0.50	10/01/20 07:56	

LABORATORY CONTROL SAMPLE: 3020268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.3	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	53.4	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020269 3020270

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495894028 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	542	50	50	583	587	82	89	90-110	1	10	M6	
Fluoride	mg/L	0.41	2.5	2.5	3.2	3.1	110	109	90-110	1	10		
Sulfate	mg/L	3480	50	50	3520	3530	86	111	90-110	0	10	M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020271 3020272

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496914018 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	1.6	50	50	56.0	56.5	109	110	90-110	1	10		
Fluoride	mg/L	0.063J	2.5	2.5	2.8	2.8	109	111	90-110	2	10	M1	
Sulfate	mg/L	110	50	50	160	161	101	103	90-110	1	10		

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## QUALIFIERS

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497125001	B-89				
92497125002	B-62				
92497125003	B-77				
92497125005	B-74				
92497125006	B-83				
92497125007	B-88				
92497125008	B-100				
92497125009	B-56				
92497125010	B-82				
92497125011	B-93				
92497125001	B-89	EPA 3010A	569672	EPA 6010D	569722
92497125002	B-62	EPA 3010A	570008	EPA 6010D	570053
92497125003	B-77	EPA 3010A	570008	EPA 6010D	570053
92497125004	FB-3	EPA 3010A	570008	EPA 6010D	570053
92497125005	B-74	EPA 3010A	570008	EPA 6010D	570053
92497125006	B-83	EPA 3010A	570008	EPA 6010D	570053
92497125007	B-88	EPA 3010A	570008	EPA 6010D	570053
92497125008	B-100	EPA 3010A	570008	EPA 6010D	570053
92497125009	B-56	EPA 3010A	570301	EPA 6010D	570373
92497125010	B-82	EPA 3010A	570301	EPA 6010D	570373
92497125011	B-93	EPA 3010A	570301	EPA 6010D	570373
92497125001	B-89	EPA 3005A	569774	EPA 6020B	569814
92497125002	B-62	EPA 3005A	570089	EPA 6020B	570110
92497125003	B-77	EPA 3005A	570089	EPA 6020B	570110
92497125004	FB-3	EPA 3005A	570089	EPA 6020B	570110
92497125005	B-74	EPA 3005A	570089	EPA 6020B	570110
92497125006	B-83	EPA 3005A	570089	EPA 6020B	570110
92497125007	B-88	EPA 3005A	570089	EPA 6020B	570110
92497125008	B-100	EPA 3005A	570089	EPA 6020B	570110
92497125009	B-56	EPA 3005A	570307	EPA 6020B	570372
92497125010	B-82	EPA 3005A	570375	EPA 6020B	570411
92497125011	B-93	EPA 3005A	570375	EPA 6020B	570411
92497125001	B-89	EPA 7470A	569295	EPA 7470A	569452
92497125002	B-62	EPA 7470A	569682	EPA 7470A	569887
92497125003	B-77	EPA 7470A	569682	EPA 7470A	569887
92497125004	FB-3	EPA 7470A	569682	EPA 7470A	569887
92497125005	B-74	EPA 7470A	569682	EPA 7470A	569887
92497125006	B-83	EPA 7470A	569682	EPA 7470A	569887
92497125007	B-88	EPA 7470A	569682	EPA 7470A	569887
92497125008	B-100	EPA 7470A	569682	EPA 7470A	569887
92497125009	B-56	EPA 7470A	569682	EPA 7470A	569887
92497125010	B-82	EPA 7470A	569682	EPA 7470A	569887
92497125011	B-93	EPA 7470A	569682	EPA 7470A	569887
92497125001	B-89	SM 2450C-2011	569386		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCDONOUGH ASSESSMENT

Pace Project No.: 92497125

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497125002	B-62	SM 2450C-2011	569874		
92497125003	B-77	SM 2450C-2011	569876		
92497125004	FB-3	SM 2450C-2011	569876		
92497125005	B-74	SM 2450C-2011	570219		
92497125006	B-83	SM 2450C-2011	570219		
92497125007	B-88	SM 2450C-2011	570219		
92497125008	B-100	SM 2450C-2011	570219		
92497125009	B-56	SM 2450C-2011	570220		
92497125010	B-82	SM 2450C-2011	570220		
92497125011	B-93	SM 2450C-2011	570220		
92497125001	B-89	EPA 300.0 Rev 2.1 1993	569514		
92497125002	B-62	EPA 300.0 Rev 2.1 1993	569832		
92497125003	B-77	EPA 300.0 Rev 2.1 1993	569832		
92497125004	FB-3	EPA 300.0 Rev 2.1 1993	569832		
92497125005	B-74	EPA 300.0 Rev 2.1 1993	569832		
92497125006	B-83	EPA 300.0 Rev 2.1 1993	569832		
92497125007	B-88	EPA 300.0 Rev 2.1 1993	569832		
92497125008	B-100	EPA 300.0 Rev 2.1 1993	569832		
92497125009	B-56	EPA 300.0 Rev 2.1 1993	569922		
92497125010	B-82	EPA 300.0 Rev 2.1 1993	569922		
92497125011	B-93	EPA 300.0 Rev 2.1 1993	570137		

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Sample Condition Upon Receipt

Client Name: GA Power

WO#: 92497125



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other ZIPLOC

Thermometer Used THR214    Type of Ice: Ice Blue None  Samples on ice, cooling process has begun

Cooler Temperature 1.0    Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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.

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Page: 1 Of 1	
Company: Georgia Power - Coal Combustion Residuals		Report To: Joey Abraham		Advertiser: acsenvo-cos@southernco.com			
Address: 2432 Maner Road		Copy To: Golder		Company Name:			
Atlanta, GA 30339				Address:			
Email: jabraham@southernco.com		Purchase Order #:		Face Ductile:		Regulatory Agency:	
Phone: (404) 506-7239		Project Name: Plant McDonough Assessment		Face Project Manager: Kevin Herring		State / Location:	
Requested Due Date: 10 Day TAT		Project #: 166849618		Face Profile #:		GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, ., -) Sample IDs must be unique	MATRIX CODE Drinking Water DW Water WT Waste Water WW Pond P Soil/Sediment SS Wipe WIP Air AIR Dew Dew Tissue TIS	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES	ANALYSES TEST	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	
									H2SO4	HNO3	HCl	NaOH + Zn Acetate		Metaphenol
1	B-74	WT G	9/25/2020	10:05	5	2	J		X	X	X	X		pH= 6.16 005
2	B-83	WT G	9/25/2020	9:40	5	2	J		X	X	X	X		pH= 5.67 006
3	B-88	WT G	9/25/2020	10:11	5	2	J		X	X	X	X		pH= 5.75 007
4	B-100	WT G	9/25/2020	10:54	5	2	J		X	X	X	X		pH= 5.53 008
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*App III: IV Metals - As, Sb, B, Be, Bi, Ba, Ca, Cd, Cr, D, Co, Fe, Li, Hg, Mn, Se, Th	<i>Chris T...</i>	9/25/20	1330	<i>J. Williams / Golder</i>	9/25/20	1330	

Samples by: *Chris T...*  
 DATE Signed: 9-25-20

TEMP in C	Received on Ice (Y/N)	Cooling (Y/N)	Sealed (Y/N)	Collected (Y/N)	Sample Integrity (Y/N)





October 20, 2020

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

RE: Project: MCDONOUGH ASSESSMENT RADS  
Pace Project No.: 92497117

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 24, 2020 and September 28, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

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 Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCDONOUGH ASSESSMENT RADS  
Pace Project No.: 92497117

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### **Pace Analytical Services Pennsylvania**

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

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

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## SAMPLE SUMMARY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497117001	B-89	Water	09/23/20 15:30	09/24/20 09:25
92497117002	B-62	Water	09/24/20 10:18	09/25/20 13:30
92497117003	B-77	Water	09/24/20 14:19	09/25/20 13:30
92497117004	FB-3	Water	09/24/20 11:00	09/25/20 13:30
92497117005	B-74	Water	09/25/20 10:05	09/25/20 13:30
92497117006	B-83	Water	09/25/20 09:10	09/25/20 13:30
92497117007	B-88	Water	09/25/20 10:15	09/25/20 13:30
92497117008	B-100	Water	09/25/20 10:50	09/25/20 13:30
92497117009	B-56	Water	09/28/20 11:14	09/28/20 14:21
92497117010	B-82	Water	09/28/20 10:14	09/28/20 14:21
92497117011	B-93	Water	09/28/20 09:50	09/28/20 14:21

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCDONOUGH ASSESSMENT RADS  
Pace Project No.: 92497117

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92497117001	B-89	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497117002	B-62	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117003	B-77	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117004	FB-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117005	B-74	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117006	B-83	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117007	B-88	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117008	B-100	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117009	B-56	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117010	B-82	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497117011	B-93	EPA 9315	LAL	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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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-89**      **Lab ID: 92497117001**      Collected: 09/23/20 15:30      Received: 09/24/20 09:25      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.232 ± 0.237 (0.453)</b> <b>C:86% T:NA</b>	pCi/L	10/09/20 09:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.305 ± 0.529 (1.15)</b> <b>C:90% T:75%</b>	pCi/L	10/12/20 19:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.537 ± 0.766 (1.60)</b>	pCi/L	10/14/20 09:27	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-62**      **Lab ID: 92497117002**      Collected: 09/24/20 10:18      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.669 ± 0.364 (0.523)</b> <b>C:77% T:NA</b>	pCi/L	10/14/20 06:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.608 ± 0.461 (0.920)</b> <b>C:80% T:85%</b>	pCi/L	10/15/20 14:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.28 ± 0.825 (1.44)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-77**      **Lab ID: 92497117003**      Collected: 09/24/20 14:19      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.664 ± 0.343 (0.476)</b> <b>C:89% T:NA</b>	pCi/L	10/14/20 06:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0967 ± 0.397 (0.897)</b> <b>C:83% T:81%</b>	pCi/L	10/15/20 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.761 ± 0.740 (1.37)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: FB-3**      **Lab ID: 92497117004**      Collected: 09/24/20 11:00      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0243 ± 0.241 (0.620)</b> <b>C:87% T:NA</b>	pCi/L	10/14/20 06:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.506 ± 0.523 (1.09)</b> <b>C:78% T:73%</b>	pCi/L	10/15/20 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.530 ± 0.764 (1.71)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-74**      **Lab ID: 92497117005**      Collected: 09/25/20 10:05      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.485 ± 0.285 (0.380)</b> <b>C:85% T:NA</b>	pCi/L	10/14/20 06:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.804 ± 0.575 (1.13)</b> <b>C:74% T:76%</b>	pCi/L	10/15/20 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.29 ± 0.860 (1.51)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-83**      **Lab ID: 92497117006**      Collected: 09/25/20 09:10      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0359 ± 0.141 (0.374)</b> <b>C:76% T:NA</b>	pCi/L	10/14/20 06:40	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.0284 ± 0.399 (0.932)</b> <b>C:74% T:81%</b>	pCi/L	10/15/20 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.0359 ± 0.540 (1.31)</b>	pCi/L	10/19/20 11:01	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-88**      **Lab ID: 92497117007**      Collected: 09/25/20 10:15      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.925 ± 0.386 (0.410)</b> <b>C:90% T:NA</b>	pCi/L	10/14/20 06:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.198 ± 0.363 (0.893)</b> <b>C:78% T:74%</b>	pCi/L	10/15/20 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.925 ± 0.749 (1.30)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-100**      **Lab ID: 92497117008**      Collected: 09/25/20 10:50      Received: 09/25/20 13:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.132 ± 0.213 (0.472)</b> <b>C:84% T:NA</b>	pCi/L	10/14/20 06:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.667 ± 0.517 (1.02)</b> <b>C:77% T:67%</b>	pCi/L	10/15/20 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.799 ± 0.730 (1.49)</b>	pCi/L	10/19/20 11:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: B-56</b> <b>Lab ID: 92497117009</b> Collected: 09/28/20 11:14      Received: 09/28/20 14:21      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.471 ± 0.280 (0.380)</b> <b>C:84% T:NA</b>	pCi/L	10/14/20 07:51	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.914 ± 0.481 (0.853)</b> <b>C:77% T:79%</b>	pCi/L	10/15/20 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.39 ± 0.761 (1.23)</b>	pCi/L	10/19/20 11:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: B-82</b> <b>Lab ID: 92497117010</b> Collected: 09/28/20 10:14      Received: 09/28/20 14:21      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.157 ± 0.184 (0.362)</b> <b>C:89% T:NA</b>	pCi/L	10/14/20 06:41	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.590 ± 0.432 (0.845)</b> <b>C:79% T:80%</b>	pCi/L	10/15/20 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.747 ± 0.616 (1.21)</b>	pCi/L	10/19/20 11:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

**Sample: B-93**      **Lab ID: 92497117011**      Collected: 09/28/20 09:50      Received: 09/28/20 14:21      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.391 ± 0.271 (0.423)</b> <b>C:82% T:NA</b>	pCi/L	10/14/20 06:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.15 ± 0.502 (0.825)</b> <b>C:83% T:72%</b>	pCi/L	10/19/20 11:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.54 ± 0.773 (1.25)</b>	pCi/L	10/20/20 08:55	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

QC Batch: 415890

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92497117001

METHOD BLANK: 2010987

Matrix: Water

Associated Lab Samples: 92497117001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.214 ± 0.231 (0.446) C:86% T:NA	pCi/L	10/09/20 08:12	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

QC Batch: 417134

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92497117011

METHOD BLANK: 2016817

Matrix: Water

Associated Lab Samples: 92497117011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.280 ± 0.239 (0.418) C:85% T:NA	pCi/L	10/14/20 06:41	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

QC Batch: 417135

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92497117011

METHOD BLANK: 2016818

Matrix: Water

Associated Lab Samples: 92497117011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.274 ± 0.291 (0.602) C:84% T:86%	pCi/L	10/15/20 11:05	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

QC Batch: 415888

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92497117001

METHOD BLANK: 2010985

Matrix: Water

Associated Lab Samples: 92497117001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.197 ± 0.376 (0.826) C:67% T:78%	pCi/L	10/12/20 14:59	

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

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## QUALIFIERS

Project: MCDONOUGH ASSESSMENT RADS

Pace Project No.: 92497117

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: MCDONOUGH ASSESSMENT RADS  
Pace Project No.: 92497117

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497117001	B-89	EPA 9315	415890		
92497117002	B-62	EPA 9315	417132		
92497117003	B-77	EPA 9315	417132		
92497117004	FB-3	EPA 9315	417132		
92497117005	B-74	EPA 9315	417132		
92497117006	B-83	EPA 9315	417132		
92497117007	B-88	EPA 9315	417132		
92497117008	B-100	EPA 9315	417132		
92497117009	B-56	EPA 9315	417132		
92497117010	B-82	EPA 9315	417132		
92497117011	B-93	EPA 9315	417134		
92497117001	B-89	EPA 9320	415888		
92497117002	B-62	EPA 9320	417133		
92497117003	B-77	EPA 9320	417133		
92497117004	FB-3	EPA 9320	417133		
92497117005	B-74	EPA 9320	417133		
92497117006	B-83	EPA 9320	417133		
92497117007	B-88	EPA 9320	417133		
92497117008	B-100	EPA 9320	417133		
92497117009	B-56	EPA 9320	417133		
92497117010	B-82	EPA 9320	417133		
92497117011	B-93	EPA 9320	417135		
92497117001	B-89	Total Radium Calculation	418331		
92497117002	B-62	Total Radium Calculation	419143		
92497117003	B-77	Total Radium Calculation	419143		
92497117004	FB-3	Total Radium Calculation	419143		
92497117005	B-74	Total Radium Calculation	419143		
92497117006	B-83	Total Radium Calculation	419143		
92497117007	B-88	Total Radium Calculation	419143		
92497117008	B-100	Total Radium Calculation	419143		
92497117009	B-56	Total Radium Calculation	419145		
92497117010	B-82	Total Radium Calculation	419145		
92497117011	B-93	Total Radium Calculation	419262		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Rec

WO#: 92497117

Client Name: GA Power



92497117

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Otl

Tracking #: \_\_\_\_\_

Proj. Due Date: \_\_\_\_\_  
Proj. Name: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other ZIPLOC

Thermometer Used THR214 Type of Ice:  Ice Blue None  Samples on ice, cooling process has begun

Cooler Temperature 1.0

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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)

F-ALLC003rev.3, 11September2006



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:

**WO#: 92497117**

Project #

PM: KLH1 Due Date: 10/15/20  
CLIENT: GA-GA Power

• 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 bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3N-250 mL Amber HNO3 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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)-S035 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)	
	1																											
	2																											
	3																											
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											

BRIN - Radium

**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 Of Out of hold, incorrect preservative, out of temp, incorrect containers.















## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/8/2020  
Worklist: 56442  
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	2010987	
MB concentration:	0.214	
M/B Counting Uncertainty:	0.229	
MB MDC:	0.446	
MB Numerical Performance Indicator:	1.83	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS/D (Y or N)?	N
	LCS56442	LCSD56442
Count Date:	10/9/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.507	
Target Conc. (pCi/L, g, F):	4.741	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.940	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	
Numerical Performance Indicator:	0.49	
Percent Recovery:	104.19%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92497110001	Enter Duplicate
Duplicate Sample I.D.:	92497110001DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.477	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.309	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.448	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.340	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.121	92497110001
Duplicate RPD:	6.12%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

OUT  
10/9/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 10/8/2020  
Worklist: 56442  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2010987	
MB concentration:	0.214	
M/B Counting Uncertainty:	0.229	
MB MDC:	0.446	
MB Numerical Performance Indicator:	1.83	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56442	LCSD56442
Count Date:	10/9/2020	10/9/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.514
Target Conc. (pCi/L, g, F):	4.741	4.677
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.940	4.201
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	0.785
Numerical Performance Indicator:	0.49	-1.18
Percent Recovery:	104.19%	89.83%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56442	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56442	
Sample Result (pCi/L, g, F):	4.940	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.794	
Sample Duplicate Result (pCi/L, g, F):	4.201	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.785	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.297	92497110001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.81%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

*Handwritten signature*  
10/9/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56589  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016814	
MB concentration:	-0.098	
M/B Counting Uncertainty:	0.148	
MB MDC:	0.503	
MB Numerical Performance Indicator:	-1.30	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56589	LCSD56589
Count Date:	10/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.508	
Target Conc. (pCi/L, g, F):	4.736	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.957	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.812	
Numerical Performance Indicator:	0.53	
Percent Recovery:	104.66%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92497114005	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92497114005DUP	
Sample Result (pCi/L, g, F):	0.265	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.249	
Sample Duplicate Result (pCi/L, g, F):	-0.086	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.079	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	2.633	92497114005
Duplicate RPD:	390.92%	92497114005DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision. N/A LAM 10/14/2020

LAM 10/14/2020

On 10-15-20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56589  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016814	
MB concentration:	-0.098	
M/B Counting Uncertainty:	0.148	
MB MDC:	0.503	
MB Numerical Performance Indicator:	-1.30	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56589	LCSD56589
Count Date:	10/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.508	
Target Conc. (pCi/L, g, F):	4.736	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.957	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.812	
Numerical Performance Indicator:	0.53	
Percent Recovery:	104.66%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment		
Sample I.D.:	92497118006	Enter Duplicate
Duplicate Sample I.D.:	92497118006DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.280	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.271	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.399	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.250	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.631	92497118006
Duplicate RPD:	34.99%	92497118006DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	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	MS/MSD 1	MS/MSD 2
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision. N/A UAM 10/14/2020

LAM 10/14/2020

On 10.15.20



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56591  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016817	
MB concentration:	0.280	
M/B Counting Uncertainty:	0.235	
MB MDC:	0.418	
MB Numerical Performance Indicator:	2.33	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56591	LCSD56591
Count Date:	10/14/2020	10/14/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.512	0.510
Target Conc. (pCi/L, g, F):	4.697	4.711
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	4.666	4.350
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.761	0.758
Numerical Performance Indicator:	-0.08	-0.93
Percent Recovery:	99.33%	92.35%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment	LCSD (Y or N)?	Y
Sample I.D.:	LCS56591	Enter Duplicate sample IDs if other than LCSD/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56591	
Sample Result (pCi/L, g, F):	4.666	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.761	
Sample Duplicate Result (pCi/L, g, F):	4.350	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.758	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.577	92496904020
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.29%	92496904020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

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am 10/14/2020





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56591  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2016617	
MB concentration:	0.280	
M/B Counting Uncertainty:	0.235	
MB MDC:	0.418	
MB Numerical Performance Indicator:	2.33	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56591	LCSD56591
Count Date:	10/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.512	
Target Conc. (pCi/L, g, F):	4.697	
Uncertainty (Calculated):	0.056	
Result (pCi/L, g, F):	4.666	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.761	
Numerical Performance Indicator:	-0.08	
Percent Recovery:	99.33%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment		
Sample I.D.:	92496904020	Enter Duplicate
Duplicate Sample I.D.:	92496904020DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.317	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.241	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.374	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.240	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.331	92496904020
Duplicate RPD:	16.61%	92496904020DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	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.:		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

*Quinn 10/14/2020*

*LAM 10/14/2020*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/6/2020  
Worklist: 56440  
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	2010985	
MB concentration:	0.197	
M/B 2 Sigma CSU:	0.376	
MB MDC:	0.826	
MB Numerical Performance Indicator:	1.03	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56440	LCSD56440
Count Date:	10/12/2020	10/12/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.054	38.054
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.803	0.803
Target Conc. (pCi/L, g, F):	4.741	4.737
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	3.863	4.161
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.965	1.023
Numerical Performance Indicator:	-1.73	-1.08
Percent Recovery:	81.48%	87.84%
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:		
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		
Sample I.D.:	LCS56440	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56440	
Sample Result (pCi/L, g, F):	3.863	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.965	
Sample Duplicate Result (pCi/L, g, F):	4.161	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.023	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.416	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.51%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

KUB  
10-13-2020

10-13-20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/13/2020  
Worklist: 56590  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2018815	
MB concentration:	-0.010	
M/B 2 Sigma CSU:	0.301	
MB MDC:	0.708	
MB Numerical Performance Indicator:	-0.06	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56590	LCSD56590
Count Date:	10/15/2020	
Spike I.D.:	20-030	
Decay Corrected Spike Concentration (pCi/mL):	38.016	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.815	
Target Conc. (pCi/L, g, F):	4.665	
Uncertainty (Calculated):	0.229	
Result (pCi/L, g, F):	3.340	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.875	
Numerical Performance Indicator:	-2.87	
Percent Recovery:	71.58%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	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:		
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	LCSD (Y or N)?	N
Sample I.D.:	92497118006	
Duplicate Sample I.D.:	92497118006DUP	
Sample Result (pCi/L, g, F):	0.746	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.424	
Sample Duplicate Result (pCi/L, g, F):	0.204	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.426	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	1.767	
Duplicate RPD:	114.06%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Fail	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
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:		
(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/initials*

*Handwritten date: 10/16/2020*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/16/2020  
Worklist: 56592  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	
MB concentration:	
M/B 2 Sigma CSU:	
MB MDC:	
MB Numerical Performance Indicator:	
MB Status vs Numerical Indicator:	
MB Status vs. MDC:	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56592	LCSD56592
Count Date:	10/19/2020	10/19/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	37.968	37.968
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.836
Target Conc. (pCi/L, g, F):	4.670	4.542
Uncertainty (Calculated):	0.229	0.223
Result (pCi/L, g, F):	4.645	4.409
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.050	1.018
Numerical Performance Indicator:	-0.04	-0.25
Percent Recovery:	99.48%	97.06%
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:		
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		
Sample I.D.:	LCS56592	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56592	
Sample Result (pCi/L, g, F):	4.645	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.050	
Sample Duplicate Result (pCi/L, g, F):	4.409	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.018	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.317	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.46%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:
(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:

*10/16/2020*

*10-20-20*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 10/13/2020  
Worklist: 56592  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2016818	
MB concentration:	0.274	
M/B 2 Sigma CSU:	0.291	
MB MDC:	0.602	
MB Numerical Performance Indicator:	1.85	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56592	LCSD56592
Count Date:	10/15/2020	10/15/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.018	38.018
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.836
Target Conc. (pCi/L, g, F):	4.676	4.548
Uncertainty (Calculated):	0.229	0.223
Result (pCi/L, g, F):	2.226	2.963
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.629	0.764
Numerical Performance Indicator:	-7.18	-3.91
Percent Recovery:	47.60%	65.14%
Status vs Numerical Indicator:	Fail**	N/A
Status vs Recovery:	Fail Low**	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:		
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		
Sample I.D.:	LCS56592	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56592	
Sample Result (pCi/L, g, F):	2.226	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.629	
Sample Duplicate Result (pCi/L, g, F):	2.963	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.764	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.460	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	31.10%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:		
(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:

\*\*Batch must be re-prepped due to LCS failure.

*Handwritten initials and date: VAL 10-13-20*

*Handwritten date: 10/13/2020*

**APPENDIX A**

**Surface Water Laboratory Analytical Data  
November 2020 & February 2021**

November 16, 2020

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

RE: Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Dear Kelley Sharpe:

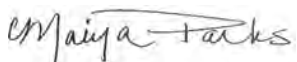
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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,



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

Enclosures

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



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92505233001	CR+0.4	Water	11/10/20 11:40	11/10/20 17:57
92505233002	CR+0.2	Water	11/10/20 11:50	11/10/20 17:57
92505233003	Dewatering Upstream	Water	11/10/20 11:55	11/10/20 17:57
92505233004	Dewatering Downstream	Water	11/10/20 12:25	11/10/20 17:57
92505233005	CR-0.2	Water	11/10/20 12:47	11/10/20 17:57
92505233006	CR-0.5	Water	11/10/20 12:55	11/10/20 17:57
92505233007	CR-0.8	Water	11/10/20 13:15	11/10/20 17:57

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92505233001	CR+0.4	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233002	CR+0.2	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233003	Dewatering Upstream	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233004	Dewatering Downstream	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233005	CR-0.2	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233006	CR-0.5	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233007	CR-0.8	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
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PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR+0.4		Lab ID: 92505233001		Collected: 11/10/20 11:40	Received: 11/10/20 17:57	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 11:40		
pH	<b>7.35</b>	Std. Units		1		11/10/20 11:40		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.4</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:48	7440-09-7	
Sodium	<b>5.4</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 19:42	7440-23-5	M1
Calcium	<b>4.2</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 19:42	7440-70-2	M1
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 19:42	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:04	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:04	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>43.0</b>	mg/L	10.0	1		11/11/20 15:48		D6
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.3</b>	mg/L	5.0	1		11/12/20 17:22		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.3</b>	mg/L	5.0	1		11/12/20 17:22		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 18:09	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 18:09	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 18:09	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR+0.2	Lab ID: 92505233002	Collected: 11/10/20 11:50	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 11:50		
pH	<b>7.42</b>	Std. Units		1		11/10/20 11:50		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.5</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:03	7440-23-5	
Calcium	<b>4.1</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:03	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:03	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:53	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:10	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:10	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>45.0</b>	mg/L	10.0	1		11/11/20 15:48		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.2</b>	mg/L	5.0	1		11/12/20 17:43		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.2</b>	mg/L	5.0	1		11/12/20 17:43		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 18:52	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 18:52	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 18:52	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: Dewatering Upstream		Lab ID: 92505233003	Collected: 11/10/20 11:55	Received: 11/10/20 17:57	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>		Analytical Method: Pace Analytical Services - Charlotte						
Performed by	<b>Client</b>			1		11/10/20 11:55		
pH	<b>6.90</b>	Std. Units		1		11/10/20 11:55		
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Sodium	<b>5.5</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:08	7440-23-5	
Calcium	<b>4.2</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:08	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:08	7439-95-4	
Potassium	<b>2.6</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:58	7440-09-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:44	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:44	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>43.0</b>	mg/L	10.0	1		11/11/20 15:48		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.3</b>	mg/L	5.0	1		11/12/20 17:49		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.3</b>	mg/L	5.0	1		11/12/20 17:49		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>4.9</b>	mg/L	1.0	1		11/12/20 19:06	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:06	16984-48-8	
Sulfate	<b>3.1</b>	mg/L	1.0	1		11/12/20 19:06	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: Dewatering Downstream		Lab ID: 92505233004	Collected: 11/10/20 12:25	Received: 11/10/20 17:57	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:25		
pH	<b>7.03</b>	Std. Units		1		11/10/20 12:25		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.6</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:14	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:14	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:14	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:03	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/12/20 09:41	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:50	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>38.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.7</b>	mg/L	5.0	1		11/12/20 17:54		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.7</b>	mg/L	5.0	1		11/12/20 17:54		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 19:21	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:21	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 19:21	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.2	Lab ID: 92505233005	Collected: 11/10/20 12:47	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:47		
pH	<b>7.82</b>	Std. Units		1		11/10/20 12:47		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.9</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:19	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:19	7440-70-2	
Magnesium	<b>2.1</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:19	7439-95-4	
Potassium	<b>2.6</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:09	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:55	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:55	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>48.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.7</b>	mg/L	5.0	1		11/12/20 18:00		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.7</b>	mg/L	5.0	1		11/12/20 18:00		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>11.2</b>	mg/L	1.0	1		11/12/20 19:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:35	16984-48-8	
Sulfate	<b>3.2</b>	mg/L	1.0	1		11/12/20 19:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.5	Lab ID: 92505233006	Collected: 11/10/20 12:55	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:55		
pH	<b>7.40</b>	Std. Units		1		11/10/20 12:55		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.7</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:24	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:24	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:24	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:14	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 17:29	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 17:29	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>47.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.2</b>	mg/L	5.0	1		11/12/20 18:06		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.2</b>	mg/L	5.0	1		11/12/20 18:06		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.9</b>	mg/L	1.0	1		11/12/20 19:50	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:50	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 19:50	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.8	Lab ID: 92505233007	Collected: 11/10/20 13:15	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 13:15		
pH	<b>7.62</b>	Std. Units		1		11/10/20 13:15		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.6</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:40	7440-23-5	
Calcium	<b>4.4</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:40	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:40	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:19	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 17:35	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 17:35	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>50.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.0</b>	mg/L	5.0	1		11/12/20 18:22		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.0</b>	mg/L	5.0	1		11/12/20 18:22		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>5.1</b>	mg/L	1.0	1		11/12/20 20:33	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 20:33	16984-48-8	
Sulfate	<b>3.2</b>	mg/L	1.0	1		11/12/20 20:33	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 579547 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3065899 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	11/11/20 19:22	
Magnesium	mg/L	ND	0.050	11/11/20 19:22	
Potassium	mg/L	ND	0.20	11/11/20 19:22	
Sodium	mg/L	ND	1.0	11/11/20 19:22	

LABORATORY CONTROL SAMPLE: 3065900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	105	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	1.2	119	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3065901 3065902

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505233001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	4.2	1	1	5.4	5.5	120	129	75-125	2	20 M1
Magnesium	mg/L	2.0	1	1	3.1	3.1	111	110	75-125	0	20
Potassium	mg/L	2.4	1	1	3.9	3.7	143	125	75-125	5	20
Sodium	mg/L	5.4	1	1	6.6	6.8	120	133	75-125	2	20 M1

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

QC Batch: 579551 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3065931

Matrix: Water

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Beryllium	mg/L	ND	0.00050	11/11/20 15:52	
Cobalt	mg/L	ND	0.0050	11/11/20 15:52	

LABORATORY CONTROL SAMPLE: 3065932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3065933 3065934

Parameter	Units	92505233002		3065934		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Beryllium	mg/L	ND	0.1	0.1	0.10	0.095	100	94	75-125	5	20
Cobalt	mg/L	ND	0.1	0.1	0.098	0.098	98	97	75-125	1	20

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

QC Batch:	579634	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3066400 Matrix: Water

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	11/11/20 15:42	

LABORATORY CONTROL SAMPLE: 3066401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	397	99	84-108	

SAMPLE DUPLICATE: 3066402

Parameter	Units	92505233001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	43.0	49.0	13	10	D6

SAMPLE DUPLICATE: 3066403

Parameter	Units	92505230001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	684	670	2	10	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 580018 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3068228 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	5.0	11/12/20 16:26	
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	5.0	11/12/20 16:26	

LABORATORY CONTROL SAMPLE: 3068229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	53.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068230 3068231

Parameter	Units	92505233001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	17.3	50	50	70.0	70.7	105	107	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068232 3068233

Parameter	Units	92504167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	452	50	50	482	482	61	60	80-120	0	25 M1	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 579993 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: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3068011 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	11/12/20 17:40	
Fluoride	mg/L	ND	0.10	11/12/20 17:40	
Sulfate	mg/L	ND	1.0	11/12/20 17:40	

LABORATORY CONTROL SAMPLE: 3068012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.5	95	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	47.9	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068013 3068014

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505233001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	4.8	50	50	56.6	55.1	103	100	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	103	99	90-110	3	10		
Sulfate	mg/L	3.0	50	50	55.0	52.8	104	100	90-110	4	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068378 3068379

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505059003	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	18.2	50	50	68.7	68.7	101	101	90-110	0	10		
Fluoride	mg/L	0.23	2.5	2.5	3.0	2.9	111	107	90-110	3	10	M1	
Sulfate	mg/L	426	50	50	497	511	142	170	90-110	3	10	M6	

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## QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92505233001	CR+0.4				
92505233002	CR+0.2				
92505233003	Dewatering Upstream				
92505233004	Dewatering Downstream				
92505233005	CR-0.2				
92505233006	CR-0.5				
92505233007	CR-0.8				
92505233001	CR+0.4	EPA 3010A	579547	EPA 6010D	579657
92505233002	CR+0.2	EPA 3010A	579547	EPA 6010D	579657
92505233003	Dewatering Upstream	EPA 3010A	579547	EPA 6010D	579657
92505233004	Dewatering Downstream	EPA 3010A	579547	EPA 6010D	579657
92505233005	CR-0.2	EPA 3010A	579547	EPA 6010D	579657
92505233006	CR-0.5	EPA 3010A	579547	EPA 6010D	579657
92505233007	CR-0.8	EPA 3010A	579547	EPA 6010D	579657
92505233001	CR+0.4	EPA 3005A	579551	EPA 6020B	579656
92505233002	CR+0.2	EPA 3005A	579551	EPA 6020B	579656
92505233003	Dewatering Upstream	EPA 3005A	579551	EPA 6020B	579656
92505233004	Dewatering Downstream	EPA 3005A	579551	EPA 6020B	579656
92505233005	CR-0.2	EPA 3005A	579551	EPA 6020B	579656
92505233006	CR-0.5	EPA 3005A	579551	EPA 6020B	579656
92505233007	CR-0.8	EPA 3005A	579551	EPA 6020B	579656
92505233001	CR+0.4	SM 2450C-2011	579634		
92505233002	CR+0.2	SM 2450C-2011	579634		
92505233003	Dewatering Upstream	SM 2450C-2011	579634		
92505233004	Dewatering Downstream	SM 2450C-2011	579634		
92505233005	CR-0.2	SM 2450C-2011	579634		
92505233006	CR-0.5	SM 2450C-2011	579634		
92505233007	CR-0.8	SM 2450C-2011	579634		
92505233001	CR+0.4	SM 2320B-2011	580018		
92505233002	CR+0.2	SM 2320B-2011	580018		
92505233003	Dewatering Upstream	SM 2320B-2011	580018		
92505233004	Dewatering Downstream	SM 2320B-2011	580018		
92505233005	CR-0.2	SM 2320B-2011	580018		
92505233006	CR-0.5	SM 2320B-2011	580018		
92505233007	CR-0.8	SM 2320B-2011	580018		
92505233001	CR+0.4	EPA 300.0 Rev 2.1 1993	579993		
92505233002	CR+0.2	EPA 300.0 Rev 2.1 1993	579993		
92505233003	Dewatering Upstream	EPA 300.0 Rev 2.1 1993	579993		
92505233004	Dewatering Downstream	EPA 300.0 Rev 2.1 1993	579993		
92505233005	CR-0.2	EPA 300.0 Rev 2.1 1993	579993		
92505233006	CR-0.5	EPA 300.0 Rev 2.1 1993	579993		
92505233007	CR-0.8	EPA 300.0 Rev 2.1 1993	579993		

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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:

*Acadix Atlanta*

Project #:

**WO# : 92505233**

Courier:

Fed Ex  UPS  USPS  Other:  Client

PM: MP Due Date: 11/13/20

CLIENT: GA-Arcadix1

Custody Seal Present?  Yes  No

Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *W/11/20*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  
 Yes  No  N/A

Thermometer:  IR Gun ID: *2114*

Type of Ice:  Wet  Blue  None

Cooler Temp: *21.1* Correction Factor: *0* Add/Subtract (°C)

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

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 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

CLIENT NOTIFICATION/RESOLUTION

Lot ID of split containers:

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:

February 10, 2021

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

RE: Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Dear Kelley Sharpe:

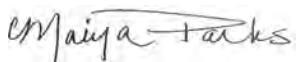
Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

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



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92519942001	CR+0.4	Water	02/02/21 13:44	02/03/21 08:50
92519942002	CR+0.2	Water	02/02/21 13:51	02/03/21 08:50
92519942003	DW_US	Water	02/02/21 14:12	02/03/21 08:50
92519942004	DW_DS	Water	02/02/21 14:08	02/03/21 08:50
92519942005	CR-0.2	Water	02/02/21 14:21	02/03/21 08:50
92519942006	CR-0.5	Water	02/02/21 14:26	02/03/21 08:50
92519942007	CR-0.8	Water	02/02/21 14:30	02/03/21 08:50
92519942008	CR-0.1	Water	02/02/21 14:00	02/03/21 08:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92519942001	CR+0.4	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942002	CR+0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942003	DW_US	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942004	DW_DS	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942005	CR-0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942006	CR-0.5	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942007	CR-0.8	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942008	CR-0.1	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

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

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: CR+0.4      Lab ID: 92519942001      Collected: 02/02/21 13:44      Received: 02/03/21 08:50      Matrix: Water</b>								
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.8</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:15	7440-09-7	
Sodium	<b>7.0</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:15	7440-23-5	
Calcium	<b>5.3</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:15	7440-70-2	
Magnesium	<b>2.1</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:15	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:40	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 16:40	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 16:40	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:40	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 16:40	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>27.0</b>	mg/L	10.0	1		02/04/21 12:06		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.5</b>	mg/L	5.0	1		02/05/21 22:32		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.5</b>	mg/L	5.0	1		02/05/21 22:32		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	<b>6.3</b>	mg/L	1.0	1		02/05/21 08:34	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 08:34	16984-48-8	
Sulfate	<b>4.5</b>	mg/L	1.0	1		02/05/21 08:34	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR+0.2	Lab ID: 92519942002	Collected: 02/02/21 13:51		Received: 02/03/21 08:50		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:34	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:34	7440-23-5	
Calcium	5.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:34	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:34	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:57	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 16:57	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 16:57	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:57	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 16:57	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	41.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.4	mg/L	5.0	1		02/05/21 22:39		
Alkalinity, Total as CaCO <sub>3</sub>	20.4	mg/L	5.0	1		02/05/21 22:39		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	1		02/05/21 09:40	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 09:40	16984-48-8	
Sulfate	4.4	mg/L	1.0	1		02/05/21 09:40	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: DW_US	Lab ID: 92519942003	Collected: 02/02/21 14:12	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:39	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:39	7440-23-5	
Calcium	4.9	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:39	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:39	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:03	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:03	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:03	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:03	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:03	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	29.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.1	mg/L	5.0	1		02/05/21 22:47		
Alkalinity, Total as CaCO <sub>3</sub>	20.1	mg/L	5.0	1		02/05/21 22:47		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.1	mg/L	1.0	1		02/05/21 09:54	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 09:54	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 09:54	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: DW_DS	Lab ID: 92519942004	Collected: 02/02/21 14:08	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:44	7440-09-7	
Sodium	6.9	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:44	7440-23-5	
Calcium	5.1	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:44	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:44	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:09	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:09	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:09	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:09	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:09	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	30.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	16.7	mg/L	5.0	1		02/05/21 23:01		
Alkalinity, Total as CaCO <sub>3</sub>	16.7	mg/L	5.0	1		02/05/21 23:01		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.1	mg/L	1.0	1		02/05/21 10:38	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 10:38	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 10:38	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR-0.2	Lab ID: 92519942005	Collected: 02/02/21 14:21	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:58	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:58	7440-23-5	
Calcium	5.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:58	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:58	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:15	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:15	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:15	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:15	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:15	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	38.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	17.2	mg/L	5.0	1		02/05/21 23:10		
Alkalinity, Total as CaCO <sub>3</sub>	17.2	mg/L	5.0	1		02/05/21 23:10		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	1		02/05/21 10:52	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 10:52	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 10:52	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR-0.5	Lab ID: 92519942006	Collected: 02/02/21 14:26	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:03	7440-09-7	
Sodium	7.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:03	7440-23-5	
Calcium	5.2	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:03	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:03	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:20	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:20	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:20	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:20	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:20	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	31.0	mg/L	10.0	1		02/04/21 12:08		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	17.0	mg/L	5.0	1		02/05/21 23:19		
Alkalinity, Total as CaCO <sub>3</sub>	17.0	mg/L	5.0	1		02/05/21 23:19		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	1		02/05/21 11:06	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:06	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 11:06	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: CR-0.8</b>								
<b>Lab ID: 92519942007</b>								
Collected: 02/02/21 14:30 Received: 02/03/21 08:50 Matrix: Water								
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.8</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:08	7440-09-7	
Sodium	<b>7.0</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:08	7440-23-5	
Calcium	<b>4.9</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:08	7440-70-2	
Magnesium	<b>2.1</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:08	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:26	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:26	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:26	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:26	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:26	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>30.0</b>	mg/L	10.0	1		02/04/21 12:08		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.0</b>	mg/L	5.0	1		02/05/21 23:27		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.0</b>	mg/L	5.0	1		02/05/21 23:27		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	<b>6.4</b>	mg/L	1.0	1		02/05/21 11:21	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:21	16984-48-8	
Sulfate	<b>4.5</b>	mg/L	1.0	1		02/05/21 11:21	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: CR-0.1	Lab ID: 92519942008	Collected: 02/02/21 14:00	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:13	7440-09-7	
Sodium	7.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:13	7440-23-5	
Calcium	5.2	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:13	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:13	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:32	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:32	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:32	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:32	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:32	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	25.0	mg/L	10.0	1		02/04/21 12:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.7	mg/L	5.0	1		02/05/21 23:34		
Alkalinity, Total as CaCO <sub>3</sub>	20.7	mg/L	5.0	1		02/05/21 23:34		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.6	mg/L	1.0	1		02/05/21 11:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:35	16984-48-8	
Sulfate	4.8	mg/L	1.0	1		02/05/21 11:35	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

QC Batch: 597431 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150491 Matrix: Water  
 Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	02/05/21 18:05	
Magnesium	mg/L	ND	0.050	02/05/21 18:05	
Potassium	mg/L	ND	0.20	02/05/21 18:05	
Sodium	mg/L	ND	1.0	02/05/21 18:05	

LABORATORY CONTROL SAMPLE: 3150492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	115	80-120	
Sodium	mg/L	1	1.1	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150493 3150494

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92519942001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	5.3	1	1	6.2	6.3	92	103	75-125	2	20		
Magnesium	mg/L	2.1	1	1	3.0	3.1	95	97	75-125	1	20		
Potassium	mg/L	2.8	1	1	3.9	3.9	107	109	75-125	0	20		
Sodium	mg/L	7.0	1	1	8.0	8.1	99	112	75-125	2	20		

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

QC Batch:	597433	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150562 Matrix: Water

Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	02/07/21 14:46	
Beryllium	mg/L	ND	0.00050	02/07/21 14:46	
Boron	mg/L	ND	0.040	02/07/21 14:46	
Cobalt	mg/L	ND	0.0050	02/07/21 14:46	
Molybdenum	mg/L	ND	0.010	02/07/21 14:46	

LABORATORY CONTROL SAMPLE: 3150563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150564 3150565

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519266022	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	1.4J ug/L	0.1	0.1	0.10	0.10	101	100	75-125	1	20
Beryllium	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20
Boron	mg/L	587 ug/L	1	1	1.6	1.5	97	96	75-125	1	20
Cobalt	mg/L	1.4J ug/L	0.1	0.1	0.10	0.096	99	95	75-125	5	20
Molybdenum	mg/L	14.0 ug/L	0.1	0.1	0.12	0.12	103	101	75-125	2	20

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

QC Batch: 597549      Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150931      Matrix: Water  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/04/21 12:04	

LABORATORY CONTROL SAMPLE: 3150932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3150933

Parameter	Units	92519931002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	45.0	43.0	5	10	

SAMPLE DUPLICATE: 3150934

Parameter	Units	92519942006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	31.0	33.0	6	10	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

QC Batch: 598016 Analysis Method: SM 2320B-2011  
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3153367 Matrix: Water  
 Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	02/05/21 20:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	02/05/21 20:00	

LABORATORY CONTROL SAMPLE: 3153368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153369 3153370

Parameter	Units	92518671027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	160	50	50	207	213	95	107	80-120	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153371 3153372

Parameter	Units	92519484005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.3	50	50	73.0	73.4	103	104	80-120	0	25	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

QC Batch:	597589	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: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3151020 Matrix: Water

Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	02/05/21 08:05	
Fluoride	mg/L	ND	0.10	02/05/21 08:05	
Sulfate	mg/L	ND	1.0	02/05/21 08:05	

LABORATORY CONTROL SAMPLE: 3151021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.2	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	47.6	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151022 3151023

Parameter	Units	3151022		3151023		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	6.3	50	50	52.7	53.2	93	94	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	93	95	90-110	2	10
Sulfate	mg/L	4.5	50	50	51.7	51.9	94	95	90-110	0	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151024 3151025

Parameter	Units	3151024		3151025		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	9.9	50	50	57.4	57.2	95	95	90-110	0	10
Fluoride	mg/L	0.17	2.5	2.5	2.5	2.5	94	94	90-110	0	10
Sulfate	mg/L	16.5	50	50	64.4	64.3	96	96	90-110	0	10

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92519942001	CR+0.4	EPA 3010A	597431	EPA 6010D	597695
92519942002	CR+0.2	EPA 3010A	597431	EPA 6010D	597695
92519942003	DW_US	EPA 3010A	597431	EPA 6010D	597695
92519942004	DW_DS	EPA 3010A	597431	EPA 6010D	597695
92519942005	CR-0.2	EPA 3010A	597431	EPA 6010D	597695
92519942006	CR-0.5	EPA 3010A	597431	EPA 6010D	597695
92519942007	CR-0.8	EPA 3010A	597431	EPA 6010D	597695
92519942008	CR-0.1	EPA 3010A	597431	EPA 6010D	597695
92519942001	CR+0.4	EPA 3005A	597433	EPA 6020B	597742
92519942002	CR+0.2	EPA 3005A	597433	EPA 6020B	597742
92519942003	DW_US	EPA 3005A	597433	EPA 6020B	597742
92519942004	DW_DS	EPA 3005A	597433	EPA 6020B	597742
92519942005	CR-0.2	EPA 3005A	597433	EPA 6020B	597742
92519942006	CR-0.5	EPA 3005A	597433	EPA 6020B	597742
92519942007	CR-0.8	EPA 3005A	597433	EPA 6020B	597742
92519942008	CR-0.1	EPA 3005A	597433	EPA 6020B	597742
92519942001	CR+0.4	SM 2450C-2011	597549		
92519942002	CR+0.2	SM 2450C-2011	597549		
92519942003	DW_US	SM 2450C-2011	597549		
92519942004	DW_DS	SM 2450C-2011	597549		
92519942005	CR-0.2	SM 2450C-2011	597549		
92519942006	CR-0.5	SM 2450C-2011	597549		
92519942007	CR-0.8	SM 2450C-2011	597549		
92519942008	CR-0.1	SM 2450C-2011	597549		
92519942001	CR+0.4	SM 2320B-2011	598016		
92519942002	CR+0.2	SM 2320B-2011	598016		
92519942003	DW_US	SM 2320B-2011	598016		
92519942004	DW_DS	SM 2320B-2011	598016		
92519942005	CR-0.2	SM 2320B-2011	598016		
92519942006	CR-0.5	SM 2320B-2011	598016		
92519942007	CR-0.8	SM 2320B-2011	598016		
92519942008	CR-0.1	SM 2320B-2011	598016		
92519942001	CR+0.4	EPA 300.0 Rev 2.1 1993	597589		
92519942002	CR+0.2	EPA 300.0 Rev 2.1 1993	597589		
92519942003	DW_US	EPA 300.0 Rev 2.1 1993	597589		
92519942004	DW_DS	EPA 300.0 Rev 2.1 1993	597589		
92519942005	CR-0.2	EPA 300.0 Rev 2.1 1993	597589		
92519942006	CR-0.5	EPA 300.0 Rev 2.1 1993	597589		
92519942007	CR-0.8	EPA 300.0 Rev 2.1 1993	597589		
92519942008	CR-0.1	EPA 300.0 Rev 2.1 1993	597589		

### 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:

Arcadis - Atlanta

Project #

**WO#: 92519942**

PM: MP

Due Date: 02/08/21

CLIENT: GA-ArcadAtl1

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 2/3/21 KRW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: THR230

Type of Ice:

Wet  Blue  None

Cooler Temp: 1.6 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): 1.6

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 type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>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: \_\_\_\_\_

**APPENDIX A**

**Field Data Forms  
August 2020**

Product Name: Low-Flow System

Date: 2020-08-13 13:10:54

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 32 ft

Pump placement from TOC 32 ft

Well Information:

Well ID DGWA-53  
Well diameter 2 in  
Well Total Depth 36.89 ft  
Screen Length 10 ft  
Depth to Water 15.04 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2328295 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 77.76 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:48:16	1799.96	23.34	6.15	148.70	4.84	20.79	3.12	169.64
Last 5	12:53:16	2099.96	23.88	6.16	147.57	4.62	21.03	2.95	164.41
Last 5	12:58:16	2399.99	23.79	6.15	149.01	4.25	21.25	2.96	167.90
Last 5	13:03:16	2699.96	24.61	6.16	147.76	4.24	21.39	2.89	166.74
Last 5	13:08:16	2999.93	24.69	6.17	149.94	4.11	21.52	2.84	161.59
Variance 0			-0.09	-0.01	1.44			0.01	3.50
Variance 1			0.81	0.01	-1.25			-0.06	-1.16
Variance 2			0.09	0.01	2.18			-0.05	-5.15

Notes

Purge attempt #3  
Sampled at 1307

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 11:39:34

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 57.5 ft

Pump placement from TOC 57.5 ft

Well Information:

Well ID DGWA-70A  
Well diameter 2 in  
Well Total Depth 62.40 ft  
Screen Length 10 ft  
Depth to Water 39.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4716468 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.72 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:17:31	600.02	18.29	6.13	65.78	30.30	39.87	8.01	142.62
Last 5	11:22:31	900.02	18.24	6.01	63.34	13.00	39.87	8.32	141.82
Last 5	11:27:31	1200.02	18.23	5.94	62.25	9.21	39.87	8.35	142.37
Last 5	11:32:31	1500.88	18.32	5.88	61.39	5.18	39.88	8.25	143.28
Last 5	11:37:31	1800.88	18.32	5.86	61.18	3.94	39.88	8.28	143.48
Variance 0			-0.00	-0.07	-1.09			0.03	0.54
Variance 1			0.09	-0.06	-0.86			-0.10	0.91
Variance 2			0.00	-0.02	-0.21			0.02	0.21

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 14:55:24

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 42.75 ft

Pump placement from TOC 42.75 ft

Well Information:

Well ID DGWA-71  
Well diameter 2 in  
Well Total Depth 47.73 ft  
Screen Length 10 ft  
Depth to Water 28.10 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4058113 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:38:17	300.07	18.77	6.01	80.73	20.50	29.00	1.33	100.96
Last 5	14:43:17	600.02	18.68	5.97	78.88	6.22	29.01	1.04	104.22
Last 5	14:48:17	900.02	18.64	5.97	78.46	2.43	29.01	0.94	107.29
Last 5	14:53:18	1201.02	18.68	5.96	78.45	2.22	29.02	0.87	109.46
Last 5									
Variance 0			-0.08	-0.04	-1.85			-0.29	3.26
Variance 1			-0.04	-0.00	-0.42			-0.11	3.06
Variance 2			0.04	-0.01	-0.02			-0.07	2.17

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 13:23:58

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 33° 49' 55.2"  
Longitude -84° -28' -44.79"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 47.5 ft

Pump placement from TOC 47.5 ft

Well Information:

Well ID DGWC-2  
Well diameter 2 in  
Well Total Depth 52.41 ft  
Screen Length 10 ft  
Depth to Water 30.0 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4270126 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 13.44 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:02:14	300.03	19.57	6.02	387.24	5.93	31.13	0.91	106.36
Last 5	13:12:14	900.02	19.57	6.03	385.47	4.88	31.12	0.69	108.54
Last 5	13:17:14	1200.02	19.52	6.04	386.23	3.92	31.12	0.61	108.64
Last 5	13:22:15	1501.02	19.57	6.04	385.34	3.67	31.12	0.56	110.16
Last 5									
Variance 0			0.00	0.01	-1.77			-0.22	2.18
Variance 1			-0.05	0.01	0.76			-0.08	0.10
Variance 2			0.05	0.00	-0.89			-0.04	1.52

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-12 12:23:49

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 41 ft

Pump placement from TOC 41 ft

Well Information:

Well ID DGWC-4  
Well diameter 2 in  
Well Total Depth 46.71 ft  
Screen Length 10 ft  
Depth to Water 23.54 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3980004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.32 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:26:28	600.02	20.17	6.03	1642.07	0.79	24.15	0.37	149.42
Last 5	11:31:28	900.02	19.94	5.99	1682.56	1.82	24.15	0.22	139.86
Last 5	11:36:28	1200.02	19.97	5.95	1740.97	2.02	24.15	0.18	132.88
Last 5	11:41:28	1499.96	19.95	5.94	1736.77	2.13	24.15	0.17	127.72
Last 5	11:46:30	1801.96	19.94	5.93	1744.00	2.02	24.15	0.16	123.58
Variance 0			0.04	-0.04	58.41			-0.04	-6.98
Variance 1			-0.02	-0.01	-4.20			-0.01	-5.16
Variance 2			-0.01	-0.00	7.23			-0.01	-4.14

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-12 11:07:53

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID DGWC-5  
Well diameter 2 in  
Well Total Depth 33.23 ft  
Screen Length 10 ft  
Depth to Water 9.74 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3399758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.48 in  
Total Volume Pumped 13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:25:06	1502.81	19.77	4.83	883.07	0.75	10.28	0.79	373.49
Last 5	10:30:06	1802.81	19.70	4.84	891.08	0.56	10.28	0.78	400.21
Last 5	10:35:06	2102.81	19.86	4.83	894.11	0.42	10.28	0.76	426.35
Last 5	10:40:06	2402.81	19.84	4.84	899.85	0.40	10.28	0.74	445.03
Last 5	10:45:06	2702.81	19.73	4.84	911.17	0.45	10.28	0.72	380.02
Variance 0			0.16	-0.00	3.03			-0.02	26.14
Variance 1			-0.02	0.00	5.73			-0.01	18.68
Variance 2			-0.11	0.01	11.32			-0.02	-65.02

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-08-11 17:00:56

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 46.0 ft

Pump placement from TOC 46.0 ft

Well Information:

Well ID DGWC-8  
Well diameter 2 in  
Well Total Depth 51.33 ft  
Screen Length 10 ft  
Depth to Water 32.10 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4203174 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10.56 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:29:03	1200.02	20.09	5.51	489.86	1000.00	32.99	6.38	152.28
Last 5	16:34:03	1500.02	19.80	5.49	492.27	710.00	32.98	5.91	158.08
Last 5	16:39:03	1800.02	20.15	5.45	492.95	130.00	32.98	5.36	153.63
Last 5	16:44:03	2100.02	20.64	5.42	494.08	69.00	32.98	5.05	155.08
Last 5	16:49:03	2400.02	20.15	5.36	499.32	139.00	32.98	5.06	156.09
Variance 0			0.35	-0.04	0.68			-0.55	-4.45
Variance 1			0.49	-0.03	1.13			-0.31	1.45
Variance 2			-0.49	-0.05	5.24			0.00	1.01

Notes

Not sampled. High turbidity

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-12 10:15:16

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 46.0 ft

Pump placement from TOC 46.0 ft

Well Information:

Well ID DGWC-8  
Well diameter 2 in  
Well Total Depth 51.33 ft  
Screen Length 10 ft  
Depth to Water 32.39 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.4203174 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:53:11	900.02	20.64	5.44	497.06	29.30	32.40	4.67	147.22
Last 5	09:58:11	1200.02	20.65	5.35	496.64	18.30	32.40	4.51	149.22
Last 5	10:03:11	1500.02	20.51	5.32	495.58	10.30	32.40	4.58	150.46
Last 5	10:08:12	1801.02	20.59	5.30	495.83	6.33	32.40	4.72	151.84
Last 5	10:13:12	2101.02	20.68	5.30	494.90	4.94	32.40	4.97	152.95
Variance 0			-0.14	-0.03	-1.06			0.07	1.24
Variance 1			0.09	-0.02	0.24			0.14	1.37
Variance 2			0.09	0.00	-0.92			0.25	1.11

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 16:44:09

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID DGWC-9  
Well diameter 2 in  
Well Total Depth 33.70 ft  
Screen Length 10 ft  
Depth to Water 25.25 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3399758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.8 in  
Total Volume Pumped 13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:45:02	1500.22	20.59	4.01	679.94	2.00	25.93	1.26	128.96
Last 5	15:50:02	1800.22	20.86	4.01	687.91	1.50	25.95	0.67	127.36
Last 5	15:55:02	2100.22	20.84	4.01	685.50	2.76	25.98	0.77	125.75
Last 5	16:00:02	2400.22	20.89	4.00	684.49	2.40	25.98	0.73	124.42
Last 5	16:05:02	2700.22	20.93	4.00	675.81	1.80	25.98	0.84	123.69
Variance 0			-0.02	-0.00	-2.41			0.10	-1.62
Variance 1			0.05	-0.01	-1.01			-0.04	-1.33
Variance 2			0.04	0.01	-8.68			0.11	-0.73

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 16:33:34

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID DGWC-10  
Well diameter 2 in  
Well Total Depth 47.8 ft  
Screen Length 10 ft  
Depth to Water 32.49 ft

Pumping Information:

Final Pumping Rate 240 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.52 in  
Total Volume Pumped 9.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:10:46	1200.99	22.40	4.93	526.32	1.26	32.94	3.92	579.71
Last 5	16:15:46	1500.98	22.09	4.93	528.69	1.11	32.94	3.51	585.50
Last 5	16:20:46	1800.97	22.01	4.92	531.32	0.96	32.95	3.30	589.62
Last 5	16:25:46	2100.96	21.82	4.92	533.62	0.88	32.95	3.17	595.72
Last 5	16:30:46	2400.95	21.99	4.92	531.19	1.25	32.95	3.05	599.39
Variance 0			-0.08	-0.00	2.63			-0.21	4.12
Variance 1			-0.19	-0.00	2.30			-0.13	6.11
Variance 2			0.16	-0.00	-2.43			-0.13	3.67

Notes

FD-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 12:15:52

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 47 ft

Pump placement from TOC 47 ft

Well Information:

Well ID DGWC-11  
Well diameter 2 in  
Well Total Depth 51.72 ft  
Screen Length 10 ft  
Depth to Water 16.8 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2997809 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.48 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:03:58	300.02	22.16	5.69	585.87	4.93	17.32	0.08	231.94
Last 5	12:08:58	600.01	23.15	5.69	582.17	2.64	17.34	0.11	237.72
Last 5	12:13:58	900.00	23.37	5.68	582.43	2.79	17.34	0.11	250.74
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.99	-0.00	-3.70			0.02	5.78
Variance 2			0.21	-0.01	0.26			0.01	13.02

Notes

Previous purge file ended early. Purge began at 1140 w/ 200mL/min  
Sampled at 1215

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 14:52:37

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 23 ft

Pump placement from TOC 23 ft

Well Information:

Well ID DGWC-12  
Well diameter 2 in  
Well Total Depth 28.24 ft  
Screen Length 10 ft  
Depth to Water 10.29 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1926587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.48 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:28:39	1799.97	21.92	5.70	703.58	12.20	10.58	0.04	165.60
Last 5	14:33:39	2099.96	22.15	5.69	705.46	9.40	10.58	0.04	174.71
Last 5	14:38:39	2399.96	22.08	5.69	708.42	6.70	10.58	0.05	187.66
Last 5	14:43:39	2699.94	22.18	5.69	699.92	5.14	10.58	0.05	201.93
Last 5	14:48:39	2999.94	21.97	5.69	699.37	3.45	10.58	0.08	219.96
Variance 0			-0.06	0.01	2.96			0.01	12.94
Variance 1			0.10	0.00	-8.50			0.00	14.27
Variance 2			-0.21	-0.01	-0.55			0.02	18.03

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-12 11:41:13

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 41.50 ft

Pump placement from TOC 41.50 ft

Well Information:

Well ID DGWC-13  
Well diameter 2 in  
Well Total Depth 46.70 ft  
Screen Length 10 ft  
Depth to Water 33.56 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.400232 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:24:27	300.08	20.19	5.65	450.26	4.97	33.98	3.58	139.40
Last 5	11:29:27	600.02	20.11	5.66	448.57	2.48	34.01	3.58	137.22
Last 5	11:34:27	900.06	20.06	5.67	450.26	5.33	34.01	3.57	136.55
Last 5	11:39:27	1200.07	20.01	5.68	450.24	2.78	34.02	3.58	137.58
Last 5									
Variance 0			-0.09	0.01	-1.70			0.01	-2.18
Variance 1			-0.04	0.01	1.69			-0.01	-0.67
Variance 2			-0.05	0.01	-0.02			0.01	1.03

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 11:34:44

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID DGWC-14  
Well diameter 2 in  
Well Total Depth 37.97 ft  
Screen Length 10 ft  
Depth to Water 21.12 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.362293 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.4 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 0.5	pH +/- 0.1	SpCond $\mu$ S/cm +/- 5%	Turb NTU +/- 10	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 10
Stabilization									
Last 5	11:12:34	300.14	20.22	6.13	139.07	1.25	21.32	5.30	112.78
Last 5	11:17:33	600.02	19.83	5.86	137.90	1.27	21.32	5.65	106.85
Last 5	11:22:33	900.02	19.77	5.79	137.10	1.06	21.32	5.75	104.70
Last 5	11:27:33	1200.02	19.86	5.76	136.91	0.53	21.32	5.90	102.99
Last 5	11:32:33	1500.02	19.95	5.73	137.09	0.45	21.32	5.99	102.14
Variance 0			-0.05	-0.07	-0.80			0.11	-2.15
Variance 1			0.09	-0.03	-0.20			0.14	-1.71
Variance 2			0.09	-0.03	0.18			0.09	-0.85

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-08-13 10:40:20

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 65.75 ft

Pump placement from TOC 65.75 ft

Well Information:

Well ID DGWC-15  
Well diameter 2 in  
Well Total Depth 70.75 ft  
Screen Length 10 ft  
Depth to Water 39.55 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.5084701 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:13:28	300.00	27.88	6.64	452.80	18.40	39.60	9.20	92.58
Last 5	10:18:28	599.99	27.87	6.61	452.35	18.30	39.59	9.02	92.80
Last 5	10:23:28	899.95	28.05	6.59	452.93	17.20	39.60	9.01	92.99
Last 5	10:28:28	1199.95	28.13	6.60	453.10	17.20	39.61	8.93	92.86
Last 5	10:38:28	1799.95	28.36	6.58	453.61	4.70	39.60	8.70	93.86
Variance 0			0.18	-0.02	0.58			-0.01	0.20
Variance 1			0.08	0.01	0.17			-0.08	-0.13
Variance 2			0.23	-0.01	0.51			-0.23	1.00

Notes

Samples

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-14 10:16:26

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID DGWC-17  
Well diameter 2 in  
Well Total Depth 47.95 ft  
Screen Length 10 ft  
Depth to Water 32.21 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.68 in  
Total Volume Pumped 13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:55:01	1499.98	20.22	5.02	628.99	7.87	32.60	0.19	258.07
Last 5	10:00:01	1799.97	20.20	5.02	628.53	6.57	32.60	0.13	253.10
Last 5	10:05:01	2099.96	20.17	5.02	628.73	6.19	32.60	0.10	248.80
Last 5	10:10:01	2399.95	20.22	5.02	628.27	5.09	32.60	0.09	245.56
Last 5	10:15:01	2699.94	20.28	5.01	627.57	4.83	32.60	0.08	245.63
Variance 0			-0.03	-0.00	0.20			-0.03	-4.29
Variance 1			0.04	0.00	-0.46			-0.01	-3.25
Variance 2			0.06	-0.01	-0.69			-0.01	0.08

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-11 13:25:15

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID DGWC-19  
Well diameter 2 in  
Well Total Depth 43.15 ft  
Screen Length 10 ft  
Depth to Water 24.42 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3846101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.6 in  
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:40:17	900.02	21.02	4.91	750.83	3.90	24.72	0.35	270.64
Last 5	12:45:17	1200.02	20.97	4.91	749.69	4.45	24.72	0.26	282.17
Last 5	12:50:17	1500.02	20.95	4.91	751.26	4.50	24.72	0.27	297.36
Last 5	12:55:17	1800.02	20.93	4.91	745.68	4.39	24.72	0.23	302.22
Last 5	13:00:20	2103.02	20.96	4.90	751.93	4.35	24.72	0.22	306.53
Variance 0			-0.01	0.00	1.57			0.00	15.19
Variance 1			-0.02	-0.00	-5.59			-0.03	4.86
Variance 2			0.03	-0.00	6.26			-0.02	4.31

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-13 14:16:59

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID DGWC-20  
Well diameter 2 in  
Well Total Depth 43.30 ft  
Screen Length 10 ft  
Depth to Water 24.28 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3846101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 22.1 in  
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:55:04	1203.02	20.90	4.46	955.13	3.16	26.10	0.16	150.67
Last 5	13:00:06	1505.28	20.98	4.42	956.84	3.20	26.12	0.15	180.41
Last 5	13:05:06	1805.27	21.20	4.41	960.23	3.80	26.12	0.16	209.76
Last 5	13:10:06	2105.28	21.38	4.38	967.48	2.90	26.12	0.15	248.70
Last 5	13:15:06	2405.28	21.38	4.36	966.66	3.60	26.12	0.15	278.11
Variance 0			0.22	-0.02	3.40			0.01	29.35
Variance 1			0.18	-0.02	7.25			-0.01	38.94
Variance 2			-0.00	-0.02	-0.82			0.00	29.42

Notes

Previous attempt 08/12

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-14 10:55:06

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 67.5 ft

Pump placement from TOC 67.5 ft

Well Information:

Well ID DGWC-21  
Well diameter 2 in  
Well Total Depth 72.62 ft  
Screen Length 10 ft  
Depth to Water 19.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.391281 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.1 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:32:21	600.02	21.27	5.87	686.14	0.85	19.51	0.29	91.16
Last 5	10:37:21	900.02	21.31	5.75	685.81	0.91	19.53	0.21	91.03
Last 5	10:42:21	1200.02	21.35	5.70	686.60	0.64	19.54	0.22	91.59
Last 5	10:47:21	1500.02	21.38	5.68	687.01	0.59	19.55	0.47	92.19
Last 5	10:52:23	1801.15	21.31	5.66	687.98	0.66	19.55	0.32	92.90
Variance 0			0.05	-0.05	0.79			0.00	0.56
Variance 1			0.02	-0.03	0.40			0.26	0.60
Variance 2			-0.06	-0.01	0.97			-0.16	0.71

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-14 12:22:25

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID DGWC-22  
Well diameter 2 in  
Well Total Depth 63.45 ft  
Screen Length 10 ft  
Depth to Water 20.75 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4738785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.2 in  
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:33:47	900.02	20.40	5.77	639.23	0.61	21.17	2.96	126.82
Last 5	11:38:47	1200.02	20.54	5.77	636.80	0.59	21.18	2.42	127.65
Last 5	11:43:47	1500.02	20.53	5.77	640.87	0.36	21.18	0.24	128.57
Last 5	11:48:47	1800.02	20.55	5.76	641.78	0.38	21.18	0.26	129.26
Last 5	11:53:48	2100.70	20.53	5.76	640.79	0.22	21.18	0.27	129.73
Variance 0			-0.01	-0.00	4.07			-2.19	0.92
Variance 1			0.02	-0.00	0.90			0.03	0.69
Variance 2			-0.02	-0.00	-0.99			0.00	0.47

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-13 13:13:33

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 58.5 ft

Pump placement from TOC 58.5 ft

Well Information:

Well ID DGWC-23  
Well diameter 2 in  
Well Total Depth 63.44 ft  
Screen Length 10 ft  
Depth to Water 20.61 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3511102 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:46:47	1199.97	23.09	6.05	646.39	2.47	22.01	0.92	109.62
Last 5	12:51:48	1500.96	23.72	6.03	644.32	2.11	22.04	0.62	109.97
Last 5	12:56:48	1800.96	23.46	6.03	643.49	2.70	22.08	0.45	109.88
Last 5	13:01:49	2101.96	23.59	6.03	638.82	2.16	22.11	0.36	109.93
Last 5	13:11:50	2702.90	23.01	6.00	651.46	2.05	22.14	0.29	109.92
Variance 0			-0.26	-0.00	-0.83			-0.17	-0.09
Variance 1			0.13	0.00	-4.66			-0.09	0.05
Variance 2			-0.58	-0.03	12.64			-0.07	-0.01

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-13 15:15:22

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 47.50 ft

Pump placement from TOC 47.50 ft

Well Information:

Well ID DGWC-42  
Well diameter 2 in  
Well Total Depth 52.50 ft  
Screen Length 10 ft  
Depth to Water 32.41 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4270126 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 33.12 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:52:47	300.03	20.39	5.36	790.24	13.26	34.89	0.46	137.87
Last 5	14:57:47	600.02	20.33	5.39	791.87	11.36	35.04	0.52	132.14
Last 5	15:02:47	900.02	20.46	5.37	789.43	9.58	35.11	0.24	131.53
Last 5	15:07:48	1201.02	20.42	5.35	789.77	5.91	35.13	0.31	131.18
Last 5	15:12:48	1501.02	20.68	5.34	792.90	4.01	35.17	0.13	129.66
Variance 0			0.13	-0.02	-2.44			-0.28	-0.61
Variance 1			-0.04	-0.02	0.34			0.07	-0.35
Variance 2			0.26	-0.01	3.13			-0.18	-1.51

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-08-12 10:28:59

Project Information:

Operator Name K. Minkara  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 597519  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 27 ft

Pump placement from TOC 27 ft

Well Information:

Well ID DGWC-47  
Well diameter 2 in  
Well Total Depth 31.93 ft  
Screen Length 10 ft  
Depth to Water 20.36 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2105124 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 51 in  
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:05:31	2099.96	23.86	4.31	412.88	0.48	23.70	0.60	410.90
Last 5	10:10:31	2399.95	24.09	4.36	413.74	0.61	23.94	0.42	435.02
Last 5	10:15:33	2701.94	24.11	4.39	413.85	0.88	24.27	0.35	485.82
Last 5	10:20:33	3001.93	24.16	4.42	415.43	0.52	24.40	0.32	549.87
Last 5	10:25:34	3302.92	24.19	4.43	418.05	0.33	24.61	0.24	584.96
Variance 0			0.02	0.03	0.11			-0.07	50.80
Variance 1			0.05	0.03	1.58			-0.03	64.05
Variance 2			0.03	0.01	2.61			-0.08	35.08

Notes

30min @ 300mL/min, 25min @ 200mL/min. Extra rad here

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-13 10:23:14

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 28.5 ft

Pump placement from TOC 28.5 ft

Well Information:

Well ID DGWC-48  
Well diameter 2 in  
Well Total Depth 33.49 ft  
Screen Length 10 ft  
Depth to Water 16.80 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3422076 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 35.4 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:26:41	300.14	20.79	4.28	719.33	1.60	18.62	0.41	127.85
Last 5	09:31:41	600.02	20.57	4.25	724.20	1.20	19.17	0.32	118.21
Last 5	09:36:41	900.02	20.51	4.26	726.46	0.77	19.49	0.31	114.12
Last 5	09:41:41	1200.02	20.48	4.27	728.71	1.01	19.69	0.30	111.14
Last 5	09:46:42	1501.02	20.35	4.26	729.92	0.75	19.75	0.27	109.58
Variance 0			-0.06	0.00	2.26			-0.01	-4.09
Variance 1			-0.03	0.01	2.25			-0.01	-2.98
Variance 2			-0.13	-0.00	1.21			-0.03	-1.56

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-17 13:34:21

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID B-3  
Well diameter 2 in  
Well Total Depth 40.32 ft  
Screen Length 10 ft  
Depth to Water 34.92 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3846101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.5 in  
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:48:11	900.65	20.15	5.51	1166.33	1.69	35.35	0.20	149.79
Last 5	12:53:11	1200.65	20.00	5.51	1164.60	2.32	35.38	0.19	150.18
Last 5	12:58:11	1500.65	20.04	5.51	1168.58	2.52	35.38	0.19	150.50
Last 5	13:03:11	1800.65	20.11	5.51	1169.17	2.03	35.38	0.18	150.83
Last 5	13:08:11	2100.65	20.13	5.51	1166.75	1.72	35.38	0.17	151.17
Variance 0			0.04	-0.00	3.97			0.01	0.33
Variance 1			0.07	-0.00	0.59			-0.02	0.32
Variance 2			0.02	-0.00	-2.42			-0.01	0.34

Notes

Purge 3 well volumes per SOP

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-17 12:02:57

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 42.90 ft

Pump placement from TOC 42.90 ft

Well Information:

Well ID B-56  
Well diameter 2 in  
Well Total Depth 47.90 ft  
Screen Length 10 ft  
Depth to Water 29.21 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 0.2814808 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:44:55	300.03	23.12	4.94	472.38	11.70	29.51	0.73	142.84
Last 5	11:49:55	600.02	23.14	4.87	472.71	5.02	29.50	0.64	150.66
Last 5	11:54:55	900.02	23.13	4.84	475.79	5.83	29.51	0.59	157.94
Last 5	11:59:55	1200.02	22.96	4.82	478.16	4.38	29.52	0.52	160.32
Last 5									
Variance 0			0.02	-0.07	0.34			-0.09	7.83
Variance 1			-0.01	-0.04	3.08			-0.05	7.28
Variance 2			-0.17	-0.02	2.37			-0.07	2.39

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-13 16:58:05

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 36.50 ft

Pump placement from TOC 36.50 ft

Well Information:

Well ID B-77  
Well diameter 2 in  
Well Total Depth 41.55 ft  
Screen Length 10 ft  
Depth to Water 30.46 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.377915 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10 in  
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:35:43	1499.92	27.87	6.10	281.57	32.40	31.29	0.26	-34.40
Last 5	16:40:43	1799.92	28.80	6.09	277.39	20.80	31.30	0.23	-36.73
Last 5	16:45:44	2100.92	28.42	6.11	275.85	15.20	31.31	0.21	-38.14
Last 5	16:50:44	2400.98	27.90	6.12	276.43	9.35	31.32	0.20	-39.98
Last 5	16:55:44	2700.94	27.52	6.14	274.04	4.79	31.33	0.19	-40.91
Variance 0			-0.39	0.01	-1.54			-0.02	-1.41
Variance 1			-0.52	0.02	0.58			-0.01	-1.84
Variance 2			-0.38	0.02	-2.39			-0.01	-0.93

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-17 14:26:13

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 42.65 ft

Pump placement from TOC 42.65 ft

Well Information:

Well ID B-82  
Well diameter 2 in  
Well Total Depth 47.65 ft  
Screen Length 10 ft  
Depth to Water 18.35 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.280365 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17.16 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:13:03	300.58	21.94	5.48	598.53	6.20	19.45	0.24	118.09
Last 5	14:18:27	624.58	21.32	5.47	604.90	3.83	19.58	0.18	118.89
Last 5	14:23:27	924.58	21.22	5.48	605.45	3.55	19.78	0.15	119.86
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.62	-0.01	6.37			-0.06	0.80
Variance 2			-0.10	0.02	0.55			-0.03	0.97

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-14 13:03:13

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 44.0 ft

Pump placement from TOC 44.0 ft

Well Information:

Well ID B-83  
Well diameter 2 in  
Well Total Depth 49.0 ft  
Screen Length 10 ft  
Depth to Water 32.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4113906 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:41:05	3300.91	22.78	5.60	328.95	16.00	32.39	0.12	91.76
Last 5	12:46:05	3600.91	23.19	5.60	329.24	13.10	32.39	0.13	92.13
Last 5	12:51:05	3900.91	23.41	5.59	329.82	10.20	32.39	0.13	92.84
Last 5	12:56:05	4200.91	23.44	5.59	329.03	7.60	32.40	0.13	93.52
Last 5	13:01:05	4500.91	23.50	5.59	329.28	4.83	32.40	0.12	94.21
Variance 0			0.22	-0.01	0.58			0.00	0.70
Variance 1			0.03	0.01	-0.79			-0.01	0.69
Variance 2			0.07	-0.00	0.25			-0.00	0.69

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-17 10:44:25

Project Information:

Operator Name C. Tidwell  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type samplepro  
Tubing Type polyethelene  
Tubing Diameter .170 in  
Tubing Length 70.0 ft

Pump placement from TOC 70.0 ft

Well Information:

Well ID B-88  
Well diameter 2 in  
Well Total Depth 75.12 ft  
Screen Length 10 ft  
Depth to Water 32.39 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5274396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown .1 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:22:22	1500.02	20.40	5.78	968.31	15.60	32.39	0.23	83.55
Last 5	10:27:22	1800.08	20.55	5.77	969.28	15.40	32.40	0.21	83.72
Last 5	10:32:22	2100.08	20.27	5.77	971.76	13.30	32.40	0.20	83.80
Last 5	10:37:22	2400.08	20.46	5.76	983.74	8.76	32.40	0.19	83.66
Last 5	10:42:22	2700.08	20.64	5.76	976.72	4.58	32.40	0.19	83.26
Variance 0			-0.28	-0.00	2.48			-0.01	0.08
Variance 1			0.19	-0.01	11.98			-0.00	-0.14
Variance 2			0.18	-0.00	-7.02			-0.01	-0.39

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-08-19 13:02:59

Project Information:

Operator Name J. Waguespack  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 643819  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 24 ft

Pump placement from TOC 24 ft

Well Information:

Well ID B-93  
Well diameter 2 in  
Well Total Depth 29.0 ft  
Screen Length 10 ft  
Depth to Water 7.66 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3221222 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 12.24 in  
Total Volume Pumped 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:09:52	2101.02	19.50	4.76	917.67	12.50	8.69	0.58	149.00
Last 5	12:14:53	2402.02	19.64	4.77	916.68	9.80	8.66	0.57	155.85
Last 5	12:19:53	2702.02	19.77	4.77	914.93	9.10	8.67	0.56	164.35
Last 5	12:24:53	3002.02	19.62	4.77	913.27	6.83	8.67	0.57	176.17
Last 5	12:29:54	3302.45	19.68	4.78	913.09	4.52	8.68	0.56	189.97
Variance 0			0.13	0.00	-1.76			-0.01	8.50
Variance 1			-0.15	-0.00	-1.66			0.01	11.82
Variance 2			0.05	0.01	-0.17			-0.01	13.80

Notes

Grab Samples

**APPENDIX A**

**Field Data Forms  
September 2020**

Product Name: Low-Flow System

Date: 2020-09-22 10:35:20

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter .170 in  
Tubing Length 57.5 ft

Pump placement from TOC 57.5 ft

Well Information:

Well ID DGWA-70A  
Well diameter 2 in  
Well Total Depth 62.40 ft  
Screen Length 10 ft  
Depth to Water 40.35 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4716468 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9.48 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:05:41	300.07	17.65	6.30	59.17	17.00	41.00	4.74	96.04
Last 5	10:10:41	600.02	17.36	6.10	59.66	10.11	41.05	4.50	95.80
Last 5	10:15:41	900.02	17.36	6.04	59.26	5.91	41.09	4.43	96.88
Last 5	10:20:41	1200.02	17.36	6.01	59.57	3.67	41.14	4.43	97.45
Last 5									
Variance 0			-0.29	-0.20	0.49			-0.25	-0.23
Variance 1			0.00	-0.06	-0.40			-0.07	1.08
Variance 2			-0.00	-0.03	0.30			-0.00	0.57

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 11:52:45

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID DGWA-71  
Well diameter 2 in  
Well Total Depth 47.79 ft  
Screen Length 10 ft  
Depth to Water 28.55 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4024638 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.04 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:30:48	300.05	18.12	6.11	72.01	11.76	29.09	0.83	102.15
Last 5	11:35:48	600.02	17.90	6.07	72.11	6.02	29.19	0.73	99.15
Last 5	11:40:48	900.02	17.86	6.07	72.40	2.49	29.22	0.70	98.05
Last 5	11:45:48	1200.02	17.83	6.06	72.16	1.21	29.22	0.71	97.71
Last 5									
Variance 0			-0.22	-0.03	0.10			-0.10	-3.00
Variance 1			-0.04	-0.01	0.30			-0.03	-1.10
Variance 2			-0.03	-0.01	-0.24			0.01	-0.34

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-23 12:38:34

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 47 ft

Pump placement from TOC 47 ft

Well Information:

Well ID DGWC-2  
Well diameter 2 in  
Well Total Depth 52.41 ft  
Screen Length 10 ft  
Depth to Water 30.47 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4247809 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.16 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:25:06	300.05	19.63	6.00	380.49	4.87	30.82	0.98	52.99
Last 5	12:30:06	600.01	19.05	5.99	378.00	2.15	30.85	0.41	47.29
Last 5	12:35:06	900.00	19.21	5.99	377.01	2.44	30.90	0.20	44.65
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.58	-0.00	-2.48			-0.57	-5.69
Variance 2			0.15	-0.00	-0.99			-0.21	-2.64

Notes

Started purging at 1420  
Stopped purging and began sampling at 1235

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 09:51:13

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 41 ft

Pump placement from TOC 41 ft

Well Information:

Well ID DGWC-4  
Well diameter 2 in  
Well Total Depth 46.71 ft  
Screen Length 10 ft  
Depth to Water 23.40 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2730004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.64 in  
Total Volume Pumped 30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:37:55	300.04	17.58	5.91	1671.31	0.95	23.60	0.39	64.57
Last 5	09:42:55	600.00	17.72	5.89	1688.55	0.59	23.62	0.26	48.34
Last 5	09:47:55	899.99	17.64	5.88	1697.75	0.18	23.62	0.22	41.08
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.13	-0.02	17.23			-0.13	-16.23
Variance 2			-0.08	-0.00	9.20			-0.04	-7.25

Notes

Started purging at 0932  
Stopped purging and began sampling at 0950

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 11:09:34

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID DGWC-5  
Well diameter 2 in  
Well Total Depth 33.23 ft  
Screen Length 10 ft  
Depth to Water 8.95 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2149758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.37 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:46:37	300.01	19.62	4.44	556.81	0.61	9.21	0.88	432.83
Last 5	10:51:37	600.00	19.69	4.50	662.30	0.19	9.23	0.79	460.81
Last 5	10:56:37	899.99	19.65	4.82	892.58	0.15	9.23	0.35	519.33
Last 5	11:01:37	1199.98	19.41	4.82	896.70	0.16	9.23	0.34	526.10
Last 5	11:06:37	1499.97	19.52	4.83	894.26	0.15	9.23	0.33	528.79
Variance 0			-0.04	0.32	230.28			-0.44	58.52
Variance 1			-0.25	0.00	4.11			-0.01	6.77
Variance 2			0.11	0.01	-2.43			-0.01	2.69

Notes

Started purging at 1041  
Stopped purging and began samples at 1110

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-23 16:01:00

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 46 ft

Pump placement from TOC 46 ft

Well Information:

Well ID DGWC-8  
Well diameter 2 in  
Well Total Depth 51.33 ft  
Screen Length 10 ft  
Depth to Water 32.83 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4203174 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.04 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:37:47	1200.00	20.92	5.21	447.56	5.55	33.00	0.90	40.84
Last 5	15:42:47	1499.99	20.99	5.22	453.10	4.24	33.00	0.62	39.14
Last 5	15:47:47	1799.98	20.32	5.22	454.70	3.29	33.00	0.52	37.87
Last 5	15:52:47	2099.98	20.52	5.21	457.70	3.02	33.00	0.45	36.87
Last 5	15:57:47	2399.97	21.01	5.21	458.54	2.54	33.00	0.40	36.45
Variance 0			-0.67	0.00	1.60			-0.10	-1.27
Variance 1			0.20	-0.00	3.00			-0.07	-1.00
Variance 2			0.50	-0.00	0.84			-0.06	-0.42

Notes

Started purging at 1517  
Stopped purging and began sampling at 1600

Grab Samples



# Low-Flow Test Report:

Test Date / Time: 9/22/2020 9:41:54 AM

Project: Plant McDonough

Operator Name: Chris Tidwell

<b>Location Name: DGWC-9</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 23.7 ft</b> <b>Total Depth: 33.7 ft</b> <b>Initial Depth to Water: 24 ft</b>	<b>Pump Type: Alexis Peristaltic</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 29 ft</b> <b>Estimated Total Volume Pumped: 4323.333 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.34 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 5	
9/22/2020 9:41 AM	00:00	3.96 pH	16.19 °C	751.42 µS/cm	3.32 mg/L		167.7 mV	24.00 ft	200.00 ml/min
9/22/2020 9:46 AM	05:00	3.98 pH	17.33 °C	683.47 µS/cm	2.04 mg/L		199.7 mV	24.00 ft	200.00 ml/min
9/22/2020 9:47 AM	05:31	3.98 pH	17.37 °C	682.67 µS/cm	2.00 mg/L	7.42 NTU	196.5 mV	24.29 ft	200.00 ml/min
9/22/2020 9:48 AM	06:33	3.99 pH	17.46 °C	680.03 µS/cm	1.96 mg/L		192.9 mV	24.00 ft	200.00 ml/min
9/22/2020 9:51 AM	10:03	3.99 pH	17.59 °C	677.70 µS/cm	1.98 mg/L	12.04 NTU	177.9 mV	24.31 ft	200.00 ml/min
9/22/2020 9:56 AM	15:03	3.99 pH	17.64 °C	681.95 µS/cm	1.88 mg/L	2.44 NTU	111.4 mV	24.33 ft	200.00 ml/min
9/22/2020 10:01 AM	20:03	4.00 pH	17.74 °C	681.62 µS/cm	1.81 mg/L	1.39 NTU	107.1 mV	24.34 ft	200.00 ml/min
9/22/2020 10:03 AM	21:37	4.00 pH	17.77 °C	684.09 µS/cm	1.79 mg/L		148.7 mV	24.34 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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Product Name: Low-Flow System

Date: 2020-09-24 09:57:10

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID DGWC-10  
Well diameter 2 in  
Well Total Depth 47.8 ft  
Screen Length 10 ft  
Depth to Water 29.70 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.92 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:45:03	300.05	18.16	4.88	469.99	1.79	30.11	6.56	103.82
Last 5	09:50:03	600.01	18.14	4.89	469.56	1.28	30.11	6.47	93.67
Last 5	09:55:03	900.01	18.16	4.89	469.56	0.97	30.11	6.41	88.95
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.02	0.00	-0.43			-0.09	-10.14
Variance 2			0.02	-0.00	-0.00			-0.06	-4.72

Notes

Started purging at 0940  
Stopped purging and began sampling at 0955

Grab Samples

# Low-Flow Test Report:

Test Date / Time: 9/22/2020 10:47:25 AM

Project: Plant McDonough (2)

Operator Name: Chris Tidwell

<b>Location Name: DGWC-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 41.72 ft</b> <b>Total Depth: 51.72 ft</b> <b>Initial Depth to Water: 13.64 ft</b>	<b>Pump Type: Alexis Peristaltic</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 3000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.7 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 5	
9/22/2020 10:47 AM	00:00	5.55 pH	20.13 °C	633.91 µS/cm	2.14 mg/L		88.2 mV	13.64 ft	200.00 ml/min
9/22/2020 10:52 AM	05:00	5.53 pH	19.71 °C	662.52 µS/cm	0.31 mg/L	2.55 NTU	97.8 mV	14.32 ft	200.00 ml/min
9/22/2020 10:57 AM	10:00	5.53 pH	19.82 °C	663.10 µS/cm	0.25 mg/L	3.93 NTU	88.2 mV	14.35 ft	200.00 ml/min
9/22/2020 11:02 AM	15:00	5.53 pH	19.61 °C	659.28 µS/cm	0.22 mg/L	2.48 NTU	82.7 mV	14.34 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2020 2:51:42 PM

Project: Plant McDonough (4)

Operator Name: Chris Tidwell

<b>Location Name: DGWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.24 ft</b> <b>Total Depth: 28.24 ft</b> <b>Initial Depth to Water: 8.89 ft</b>	<b>Pump Type: Alexis Peristaltic</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 23 ft</b> <b>Estimated Total Volume Pumped: 10000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.15 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 5	
9/22/2020 2:51 PM	00:00	5.86 pH	23.36 °C	661.56 µS/cm	1.08 mg/L		40.5 mV	8.89 ft	200.00 ml/min
9/22/2020 2:56 PM	05:00	5.79 pH	21.70 °C	681.46 µS/cm	0.33 mg/L	17.30 NTU	45.8 mV	9.03 ft	200.00 ml/min
9/22/2020 3:01 PM	10:00	5.79 pH	21.34 °C	675.92 µS/cm	0.26 mg/L	20.90 NTU	59.2 mV	9.04 ft	200.00 ml/min
9/22/2020 3:06 PM	15:00	5.79 pH	20.98 °C	669.53 µS/cm	0.24 mg/L	22.00 NTU	47.1 mV	9.04 ft	200.00 ml/min
9/22/2020 3:11 PM	20:00	5.79 pH	21.05 °C	666.90 µS/cm	0.23 mg/L	16.20 NTU	47.4 mV	9.04 ft	200.00 ml/min
9/22/2020 3:16 PM	25:00	5.80 pH	20.89 °C	664.09 µS/cm	0.22 mg/L	13.30 NTU	59.7 mV	9.04 ft	200.00 ml/min
9/22/2020 3:21 PM	30:00	5.82 pH	20.84 °C	656.23 µS/cm	0.21 mg/L	7.23 NTU	46.8 mV	9.04 ft	200.00 ml/min
9/22/2020 3:26 PM	35:00	5.86 pH	20.96 °C	632.23 µS/cm	0.20 mg/L	7.99 NTU	52.9 mV	9.04 ft	200.00 ml/min
9/22/2020 3:31 PM	40:00	5.95 pH	21.03 °C	582.06 µS/cm	0.21 mg/L	8.55 NTU	36.7 mV	9.04 ft	200.00 ml/min
9/22/2020 3:36 PM	45:00	5.99 pH	21.33 °C	556.50 µS/cm	0.21 mg/L	5.66 NTU	33.9 mV	9.04 ft	200.00 ml/min
9/22/2020 3:41 PM	50:00	6.00 pH	21.60 °C	558.58 µS/cm	0.21 mg/L	4.91 NTU	38.1 mV	9.04 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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Product Name: Low-Flow System

Date: 2020-09-23 10:32:18

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 41 ft

Pump placement from TOC 41 ft

Well Information:

Well ID DGWC-13  
Well diameter 2 in  
Well Total Depth 46.70 ft  
Screen Length 10 ft  
Depth to Water 32.50 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3980004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.4 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:08:26	300.06	20.21	5.76	408.98	12.90	32.75	3.77	74.16
Last 5	10:13:26	600.01	20.43	5.73	407.41	8.66	32.75	3.72	66.20
Last 5	10:18:26	900.01	20.53	5.73	406.97	7.65	32.75	3.63	61.37
Last 5	10:23:26	1200.00	20.55	5.72	407.25	5.22	32.75	3.60	58.29
Last 5	10:28:26	1500.00	20.67	5.72	406.69	3.23	32.75	3.59	56.11
Variance 0			0.10	-0.00	-0.44			-0.09	-4.84
Variance 1			0.03	-0.00	0.28			-0.02	-3.08
Variance 2			0.12	-0.01	-0.56			-0.02	-2.18

Notes

Started purging at 1003  
Stopped purging and began sampling at 1030

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 14:29:09

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID DGWC-14  
Well diameter 2 in  
Well Total Depth 37.97 ft  
Screen Length 10 ft  
Depth to Water 21.04 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.237293 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.32 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:15:01	300.01	19.23	5.70	146.50	0.82	21.15	4.60	111.61
Last 5	14:20:01	600.00	19.22	5.70	146.93	1.31	21.15	4.60	96.17
Last 5	14:25:01	899.99	19.36	5.70	146.77	0.86	21.15	4.61	87.84
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.01	-0.00	0.44			-0.00	-15.44
Variance 2			0.14	-0.00	-0.17			0.01	-8.33

Notes

Started purging at 1410  
Stopped purging and began sampling at 1425 (FD-1 sampled here)

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-23 13:57:55

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 65 ft

Pump placement from TOC 65 ft

Well Information:

Well ID DGWC-15  
Well diameter 2 in  
Well Total Depth 70.75 ft  
Screen Length 10 ft  
Depth to Water 39.50 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5051225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 21.6 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:35:01	600.01	21.74	5.88	435.60	4.95	41.19	0.81	43.56
Last 5	13:40:01	900.00	22.08	5.87	436.47	3.41	41.23	0.67	39.39
Last 5	13:45:01	1199.98	22.26	5.85	435.63	2.31	41.27	0.57	36.75
Last 5	13:50:01	1499.99	22.11	5.85	441.96	1.74	41.30	0.43	34.33
Last 5	13:55:01	1799.98	21.81	5.85	439.52	1.35	41.30	0.26	32.89
Variance 0			0.18	-0.02	-0.84			-0.10	-2.64
Variance 1			-0.15	0.00	6.33			-0.15	-2.42
Variance 2			-0.29	-0.00	-2.44			-0.17	-1.43

Notes

Started purging at 1325  
Stopped purging and began sampling at 1355

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-24 14:05:18

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID DGWC-17  
Well diameter 2 in  
Well Total Depth 47.95 ft  
Screen Length 10 ft  
Depth to Water 32.55 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.6 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:46:46	300.05	18.87	5.12	613.12	10.27	32.85	0.17	28.71
Last 5	13:51:46	600.01	18.87	5.11	612.83	6.83	32.85	0.13	29.61
Last 5	13:56:46	900.01	18.86	5.10	613.28	5.20	32.85	0.11	29.88
Last 5	14:01:46	1200.00	18.87	5.10	612.09	4.04	32.85	0.10	30.28
Last 5									
Variance 0			-0.00	-0.01	-0.29			-0.04	0.90
Variance 1			-0.01	-0.01	0.44			-0.02	0.27
Variance 2			0.01	-0.01	-1.19			-0.01	0.40

Notes

Stopped purging and began sampling at 1405. FD-3 samples here

Grab Samples



Product Name: Low-Flow System

Date: 2020-09-22 16:12:33

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID DGWC-19  
Well diameter 2 in  
Well Total Depth 43.15 ft  
Screen Length 10 ft  
Depth to Water 24.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2596101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.48 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:55:02	300.02	20.59	4.92	755.03	11.40	24.50	0.21	450.40
Last 5	16:00:02	600.01	20.54	4.90	757.44	7.94	24.50	0.18	466.60
Last 5	16:05:02	899.99	20.50	4.90	752.07	7.31	24.50	0.18	471.89
Last 5	16:10:02	1199.98	20.30	4.91	749.02	3.42	24.50	0.20	472.72
Last 5									
Variance 0			-0.06	-0.01	2.42			-0.03	16.20
Variance 1			-0.04	0.00	-5.38			0.00	5.29
Variance 2			-0.20	0.01	-3.04			0.02	0.83

Notes

Started purging at 1550  
Stopped purging and began sampling at 1610

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 12:40:05

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID DGWC-20  
Well diameter 2 in  
Well Total Depth 43.30 ft  
Screen Length 10 ft  
Depth to Water 22.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2596101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.76 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:25:07	300.02	20.07	4.69	924.68	2.60	23.78	0.72	156.17
Last 5	12:30:07	600.00	19.70	4.68	927.65	1.44	23.80	0.35	128.15
Last 5	12:35:07	899.99	19.65	4.66	926.17	0.41	23.83	0.24	113.29
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.38	-0.01	2.97			-0.36	-28.03
Variance 2			-0.04	-0.01	-1.48			-0.11	-14.86

Notes

Started purging at 1220  
Stopped purging and began sampling at 1235

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-24 12:35:08

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 67 ft

Pump placement from TOC 67 ft

Well Information:

Well ID DGWC-21  
Well diameter 2 in  
Well Total Depth 72.62 ft  
Screen Length 10 ft  
Depth to Water 17.28 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3890494 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.96 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:18:23	300.05	19.26	5.64	667.81	0.42	17.61	0.33	79.64
Last 5	12:23:23	600.01	19.19	5.64	669.32	0.22	17.61	0.23	81.27
Last 5	12:28:23	900.01	19.23	5.64	672.70	0.10	17.61	0.19	78.50
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.06	0.00	1.51			-0.10	1.63
Variance 2			0.04	-0.00	3.38			-0.04	-2.76

Notes

Started purging at 1213  
Stopped purging and began sampling at 1230

Grab Samples

# Low-Flow Test Report:

Test Date / Time: 9/24/2020 12:06:18 PM

Project: Plant McDonough (9)

Operator Name: Chris Tidwell

<b>Location Name: DGWC-22</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.45 ft</b> <b>Total Depth: 63.45 ft</b> <b>Initial Depth to Water: 20.25 ft</b>	<b>Pump Type: Alexis Peristaltic</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 58.5 ft</b> <b>Estimated Total Volume Pumped: 3000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.16 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 5	
9/24/2020 12:06 PM	00:00	6.78 pH	19.42 °C	641.83 µS/cm	8.24 mg/L		90.5 mV	20.25 ft	200.00 ml/min
9/24/2020 12:11 PM	05:00	5.74 pH	19.51 °C	649.32 µS/cm	0.71 mg/L	1.16 NTU	83.8 mV	20.39 ft	200.00 ml/min
9/24/2020 12:16 PM	10:00	5.72 pH	19.46 °C	651.69 µS/cm	0.53 mg/L	0.18 NTU	110.6 mV	20.40 ft	200.00 ml/min
9/24/2020 12:21 PM	15:00	5.69 pH	19.43 °C	648.80 µS/cm	0.44 mg/L	0.16 NTU	85.8 mV	20.41 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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Product Name: Low-Flow System

Date: 2020-09-24 13:14:11

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 58.5 ft

Pump placement from TOC 58.5 ft

Well Information:

Well ID DGWC-23  
Well diameter 2 in  
Well Total Depth 63.44 ft  
Screen Length 10 ft  
Depth to Water 19.49 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.3511102 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 60.12 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:42:13	1200.02	18.30	6.22	713.95	0.55	23.52	0.21	94.83
Last 5	12:47:13	1500.02	18.32	6.22	712.11	0.69	24.00	0.21	96.20
Last 5	12:52:13	1800.02	18.30	6.20	706.73	0.51	24.25	0.22	97.29
Last 5	12:57:13	2100.02	18.26	6.20	703.62	0.32	24.40	0.24	98.88
Last 5	13:02:13	2400.02	18.30	6.19	701.78	0.35	24.50	0.26	100.38
Variance 0			-0.02	-0.01	-5.38			0.01	1.09
Variance 1			-0.04	-0.00	-3.11			0.02	1.59
Variance 2			0.04	-0.01	-1.84			0.01	1.50

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-22 16:37:42

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 47.5 ft

Pump placement from TOC 47.5 ft

Well Information:

Well ID DGWC-42  
Well diameter 2 in  
Well Total Depth 52.50 ft  
Screen Length 10 ft  
Depth to Water 31.42 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4270126 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 52.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:06:13	9311.98	20.24	5.77	759.10	17.60	31.50	8.07	142.23
Last 5	16:11:13	9611.98	19.99	5.76	759.27	14.20	31.50	7.74	142.08
Last 5	16:16:13	9911.98	19.99	5.76	759.46	12.10	31.50	7.90	141.92
Last 5	16:21:13	10211.98	20.03	5.76	758.96	8.40	31.50	7.84	141.75
Last 5	16:26:13	10511.98	19.99	5.76	758.94	4.20	31.50	7.93	141.79
Variance 0			-0.00	0.00	0.20			0.16	-0.16
Variance 1			0.05	0.00	-0.50			-0.06	-0.16
Variance 2			-0.04	-0.00	-0.02			0.08	0.04

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-23 12:51:33

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 27 ft

Pump placement from TOC 27 ft

Well Information:

Well ID DGWC-47  
Well diameter 2 in  
Well Total Depth 31.93 ft  
Screen Length 10 ft  
Depth to Water 16.75 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.2105124 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 83.4 in  
Total Volume Pumped 33 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:17:22	5400.03	21.58	4.39	334.83	0.57	23.35	0.55	140.06
Last 5	12:22:22	5700.01	21.60	4.39	321.65	0.32	23.42	0.93	140.03
Last 5	12:27:25	6003.01	21.64	4.39	312.49	0.38	23.50	1.12	140.07
Last 5	12:32:25	6303.01	21.68	4.39	313.85	0.22	23.60	1.25	140.71
Last 5	12:37:25	6603.01	21.76	4.40	318.81	0.34	23.70	1.14	141.35
Variance 0			0.04	0.01	-9.16			0.19	0.04
Variance 1			0.04	-0.00	1.37			0.13	0.64
Variance 2			0.08	0.01	4.95			-0.11	0.64

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-23 10:08:34

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 28.5 ft

Pump placement from TOC 28.5 ft

Well Information:

Well ID DGWC-48  
Well diameter 2 in  
Well Total Depth 33.49 ft  
Screen Length 10 ft  
Depth to Water 15.33 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.2172076 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 35.04 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:35:10	300.05	19.81	4.82	745.83	7.21	16.95	0.22	131.05
Last 5	09:40:10	600.02	19.68	4.76	737.44	3.14	17.62	0.14	133.44
Last 5	09:45:10	900.02	19.69	4.72	739.46	1.15	18.00	0.12	135.12
Last 5	09:50:10	1200.02	19.81	4.68	741.83	0.96	18.15	0.10	136.20
Last 5	09:55:11	1501.02	20.03	4.64	742.54	0.54	18.25	0.09	137.10
Variance 0			0.01	-0.04	2.03			-0.02	1.67
Variance 1			0.13	-0.04	2.36			-0.02	1.09
Variance 2			0.22	-0.04	0.71			-0.01	0.90

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-11-11 12:04:08

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Sample Pro Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID B-3  
Well diameter 2 in  
Well Total Depth 40.32 ft  
Screen Length 10 ft  
Depth to Water 35.22 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3890735 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.36 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:41:00	1500.49	19.76	5.41	1200.37	13.50	35.45	0.21	509.52
Last 5	11:46:00	1800.49	19.62	5.42	1195.68	8.76	35.47	0.20	502.40
Last 5	11:51:00	2100.48	19.59	5.42	1198.80	8.85	35.50	0.19	491.47
Last 5	11:56:01	2401.48	19.60	5.42	1202.34	7.43	35.50	0.18	504.30
Last 5	12:01:02	2702.48	19.54	5.42	1201.88	6.27	35.50	0.18	522.98
Variance 0			-0.03	0.00	3.11			-0.01	-10.94
Variance 1			0.00	0.00	3.55			-0.01	12.83
Variance 2			-0.05	0.00	-0.46			-0.01	18.68

Notes

Purged 3 well volumes before sampling

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-28 11:23:35

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID B-56  
Well diameter 2 in  
Well Total Depth 47.90 ft  
Screen Length 10 ft  
Depth to Water 27.75 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17.88 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:59:02	300.05	19.14	5.04	411.22	4.51	28.85	0.19	124.56
Last 5	11:04:02	600.02	18.92	4.98	415.10	4.19	29.10	0.11	124.86
Last 5	11:09:02	900.02	19.14	4.94	417.02	2.25	29.15	0.07	125.21
Last 5	11:14:02	1200.02	19.23	4.90	424.97	2.64	29.24	0.06	125.56
Last 5									
Variance 0			-0.23	-0.06	3.88			-0.08	0.31
Variance 1			0.22	-0.04	1.92			-0.04	0.34
Variance 2			0.09	-0.04	7.95			-0.01	0.35

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-24 14:30:39

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 36.5 ft

Pump placement from TOC 36.5 ft

Well Information:

Well ID B-77  
Well diameter 2 in  
Well Total Depth 41.55 ft  
Screen Length 10 ft  
Depth to Water 28.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.377915 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.36 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:59:06	600.02	20.43	6.28	415.90	16.50	29.48	0.38	76.07
Last 5	14:04:06	900.02	20.32	6.34	426.06	9.70	29.72	0.16	60.81
Last 5	14:09:06	1200.02	20.15	6.39	424.91	5.96	30.02	0.12	46.87
Last 5	14:14:06	1500.02	20.17	6.44	422.65	3.77	30.02	0.10	34.06
Last 5	14:19:07	1801.02	20.16	6.46	419.80	2.81	30.05	0.09	23.15
Variance 0			-0.18	0.05	-1.15			-0.04	-13.94
Variance 1			0.02	0.06	-2.27			-0.02	-12.81
Variance 2			-0.00	0.02	-2.84			-0.01	-10.91

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-28 10:28:10

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 42.5 ft

Pump placement from TOC 42.5 ft

Well Information:

Well ID B-82  
Well diameter 2 in  
Well Total Depth 47.65 ft  
Screen Length 10 ft  
Depth to Water 15.11 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.2796955 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.48 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:59:17	300.06	19.94	6.09	566.02	9.83	16.90	0.19	109.01
Last 5	10:04:17	600.02	19.68	5.93	568.51	6.68	17.21	0.15	110.20
Last 5	10:09:17	900.02	19.68	5.88	568.51	4.34	17.30	0.13	111.05
Last 5	10:14:17	1200.02	19.72	5.84	568.46	3.26	17.40	0.12	112.08
Last 5									
Variance 0			-0.26	-0.16	2.49			-0.04	1.19
Variance 1			-0.00	-0.05	0.01			-0.02	0.85
Variance 2			0.05	-0.04	-0.06			-0.01	1.03

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-25 09:52:57

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type  
Tubing Type poly  
Tubing Diameter .170 in  
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID B-83  
Well diameter 2 in  
Well Total Depth 49.0 ft  
Screen Length 10 ft  
Depth to Water 29.7 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4113906 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:20:01	600.02	20.66	6.11	429.58	12.50	29.85	0.77	98.84
Last 5	09:25:01	900.02	20.59	6.06	415.94	9.20	29.82	0.63	100.11
Last 5	09:30:01	1200.02	20.54	6.03	398.99	4.99	29.82	0.48	101.21
Last 5	09:35:01	1500.02	20.57	6.01	394.02	3.97	29.82	0.43	102.53
Last 5	09:40:01	1800.02	20.61	5.97	392.27	3.30	29.82	0.39	104.26
Variance 0			-0.06	-0.03	-16.95			-0.15	1.10
Variance 1			0.03	-0.02	-4.97			-0.05	1.32
Variance 2			0.04	-0.04	-1.75			-0.03	1.73

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-25 10:18:10

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Samplepro  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 70 ft

Pump placement from TOC 70 ft

Well Information:

Well ID B-88  
Well diameter 2 in  
Well Total Depth 75.12 ft  
Screen Length 10 ft  
Depth to Water 33.5 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5274396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.2 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:05:32	300.02	18.87	5.73	742.98	1.68	33.60	0.20	31.95
Last 5	10:10:32	600.01	18.95	5.75	755.41	1.47	33.60	0.17	29.74
Last 5	10:15:32	900.01	19.03	5.75	758.30	1.20	33.60	0.15	26.55
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.08	0.01	12.43			-0.03	-2.21
Variance 2			0.08	-0.00	2.90			-0.02	-3.19

Notes

Stopped purging and began sampling at 1015

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-28 09:52:29

Project Information:

Operator Name D.Thomas  
Company Name Golder Associates  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 24 ft

Pump placement from TOC 24 ft

Well Information:

Well ID B-93  
Well diameter 2 in  
Well Total Depth 29 ft  
Screen Length 10 ft  
Depth to Water 6.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1971222 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9.72 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:40:09	300.03	19.35	4.63	846.72	2.25	7.34	0.40	388.32
Last 5	09:45:09	600.00	19.24	4.67	860.76	1.82	7.36	0.34	423.21
Last 5	09:50:09	900.01	19.19	4.67	851.93	3.36	7.38	0.33	446.58
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.11	0.03	14.04			-0.06	34.89
Variance 2			-0.05	0.01	-8.83			-0.01	23.37

Notes

Started purging at 0935

Grab Samples

**APPENDIX A**

## Calibration Forms



Project Plant McDonough  
 Field Staff Karim Minkara, Chris Tidwell, Jude Waguespack

**Instrument Calibration**

Date: Time: 8/11 8/12 8/13 8/14

Parameter	Units	Standard	SmarTROLL SN <u>597519</u> iPad # <u>94</u>	SmarTROLL SN <u>597519</u> iPad # <u>94</u>	SmarTROLL SN <u>597519</u> iPad # <u>94</u>	SmarTROLL SN <u>597519</u> iPad # <u>94</u>
DO	% saturation	100	91.3	92.7	92.9	91.2
Conductivity	us/cm	4490	4566	4313	4420	4397
pH	S.U.	4.00	4.31	4.36	4.39	4.41
pH	S.U.	7.00	7.21	7.23	7.24	7.27
pH	S.U.	10.00	10.13	10.14	10.06	10.11
ORP	mV	228.00	209.6	207.5	210.1	207.6

Turbidity	Units	Standard	LaMotte SN <u>2952412</u>	LaMotte SN <u>2952412</u>	LaMotte SN <u>2952411</u>	LaMotte SN <u>2952413</u>
	NTU	0.0	0.0	0.0	0.0	0.0
	NTU	1.0	1.02	1.13	1.01	0.98
	NTU	10.0	10.11	10.12	10.09	9.92

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

Project Plant McDonough  
 Field Staff Karim Minkara, Chris Tidwell, Jude Waguespack

Instrument Calibration

Date: 8/11/20 Time: 8/11/20 8/12/20 8/13/20

Parameter	Units	Standard	SmarTROLL SN 647057 iPad # 91	SmarTROLL SN 647057 iPad # 91	SmarTROLL SN 647057 iPad # 91	SmarTROLL SN 647057 iPad # 91
DO	% saturation	100	101.8	or 99.0	100.4	104.8
Conductivity	us/cm	4490	4463	4516	4495	4484
pH	S.U.	4.00	4.83	4.82	4.88	4.92
pH	S.U.	7.00	7.51	7.68	7.55	7.57
pH	S.U.	10.00	10.13	10.31	10.22	10.20
ORP	mV	228.00	183.7	182.7	184.0	178.2

Turbidity	Units	Standard	LaMotte SN 1479-4011	LaMotte SN 1479-4011	LaMotte SN 1479-4011	LaMotte SN 1479-4011
	NTU	0.0	0.02	0.10	0.01	0.05
	NTU	1.0	1.05	1.27	1.01	1.29
	NTU	10.0	10.00	10.00	10.00	9.55

Date: Time:

Parameter	Units	Standard	SmarTROLL SN 647057 iPad # 91	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	97.9			
Conductivity	us/cm	4490	4536			
pH	S.U.	4.00	4.92			
pH	S.U.	7.00	7.47			
pH	S.U.	10.00	10.09			
ORP	mV	228.00	190.2			

Turbidity	Units	Standard	LaMotte SN 1479-4011	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.00			
	NTU	1.0	0.92			
	NTU	10.0	9.55			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough  
 Field Staff Karim Minkara, Chris Tidwell, Jude Waguespack

**Instrument Calibration**

Date: 8/11/20 Time: 0700      <sup>0655</sup> 08/12/20      <sup>0700</sup> 08/13/20      <sup>0702</sup> 08/14/20

Parameter	Units	Standard	SmarTROLL SN <u>643819</u> iPad # <u>92</u>	SmarTROLL SN <u>643819</u> iPad # <u>92</u>	SmarTROLL SN <u>643819</u> iPad # <u>92</u>	SmarTROLL SN <u>643819</u> iPad # <u>92</u>
DO	% saturation	100	97.1	99.8	101.5	100.8
Conductivity	us/cm	4490	4534	4441	4460	4577
pH	S.U.	4.00	4.31	4.32	4.34	4.36
pH	S.U.	7.00	7.11	7.13	7.10	7.09
pH	S.U.	10.00	10.06	10.07	10.00	10.01
ORP	mV	228.00	210.4	208.2	209.6	207.7

Turbidity	Units	Standard	LaMotte SN <u>1859-0412</u>	LaMotte SN <u>1859-0412</u>	LaMotte SN <u>1859-0412</u>	LaMotte SN <u>1859-0412</u>
	NTU	0.0	-0.03	0.0	0.0	0.0
	NTU	1.0	0.93	1.09	1.10	1.00
	NTU	10.0	10.98	9.10	9.64	9.91

Date: 08/17/20 Time: 0800      <sup>0815</sup> 08/19/20

Parameter	Units	Standard	SmarTROLL SN <u>643819</u> iPad # <u>92</u>	SmarTROLL SN <u>643819</u> iPad # <u>92</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	99.0	96.3		
Conductivity	us/cm	4490	4604	4608		
pH	S.U.	4.00	4.44	4.43		
pH	S.U.	7.00	7.09	7.08		
pH	S.U.	10.00	10.04	10.01		
ORP	mV	228.00	206.6	208.0		

Turbidity	Units	Standard	LaMotte SN <u>1859-0412</u>	LaMotte SN <u>1859-0412</u>	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.03	0.03		
	NTU	1.0	0.99	0.93		
	NTU	10.0	9.89	9.92		

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

# Low-Flow Test Report:

Test Date / Time: 9/22/2020 12:18:45 PM

Project: Plant McDonough (3)

Operator Name: Chris Tidwell

<b>Location Name: DGWA-53</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 26.84 ft</b> <b>Total Depth: 36.84 ft</b> <b>Initial Depth to Water: 14.1 ft</b>	<b>Pump Type: Alexis Peristaltic</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 32 ft</b> <b>Estimated Total Volume Pumped: 3000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 1.61 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 5	
9/22/2020 12:18 PM	00:00	5.51 pH	30.03 °C	0.00 µS/cm	6.88 mg/L		130.3 mV	14.10 ft	150.00 ml/min
9/22/2020 12:23 PM	05:00	6.29 pH	21.90 °C	207.42 µS/cm	1.18 mg/L	2.63 NTU	5.0 mV	14.59 ft	150.00 ml/min
9/22/2020 12:28 PM	10:00	6.38 pH	20.69 °C	213.28 µS/cm	0.62 mg/L	2.79 NTU	-12.1 mV	15.05 ft	150.00 ml/min
9/22/2020 12:33 PM	15:00	6.41 pH	21.03 °C	212.81 µS/cm	0.46 mg/L	4.11 NTU	-8.8 mV	15.49 ft	150.00 ml/min
9/22/2020 12:38 PM	20:00	6.43 pH	20.64 °C	210.82 µS/cm	0.42 mg/L	4.05 NTU	-21.2 mV	15.71 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

**Instrument Calibration**

Date: 9-22-20 Time: 0746

Parameter	Units	Standard	SmarTROLL SN 465016	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	90.3			
Conductivity	us/cm	4490	4512			
pH	S.U.	4.00	4.21			
pH	S.U.	7.00	7.02			
pH	S.U.	10.00	9.85			
ORP	mV	228.00	235.9			

Turbidity	Units	Standard	LaMotte SN 1601-4411	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Date: 9-23-20 Time: 0749

Parameter	Units	Standard	SmarTROLL SN 465016	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	91.2			
Conductivity	us/cm	4490	4571			
pH	S.U.	4.00	4.17			
pH	S.U.	7.00	7.01			
pH	S.U.	10.00	9.86			
ORP	mV	228.00	234.0			

Turbidity	Units	Standard	LaMotte SN 1601-4411	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated



Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

Instrument Calibration

Date: 9/24/20 Time: 0754

Parameter	Units	Standard	SmarTROLL SN <u>465016</u>	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	90.4			
Conductivity	us/cm	4490	4583			
pH	S.U.	4.00	4.16			
pH	S.U.	7.00	7.00			
pH	S.U.	10.00	9.87			
ORP	mV	228.00	228			

Turbidity	Units	Standard	LaMotte SN <u>1601-4411</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Date: 9/25/20 Time: 0800

Parameter	Units	Standard	SmarTROLL SN <u>1601-4444</u>	SmarTROLL SN <u>465016</u>	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100		90.7		
Conductivity	us/cm	4490		4655		
pH	S.U.	4.00		<del>4.13</del> 4.24		
pH	S.U.	7.00		6.97		
pH	S.U.	10.00		9.82		
ORP	mV	228.00		231.8		

Turbidity	Units	Standard	LaMotte SN <u>1601-4411</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

**Instrument Calibration**

Date: 9/28/20 Time: 0808

Parameter	Units	Standard	SmarTROLL SN <u>465016</u>	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	97.5			
Conductivity	us/cm	4490	4719			
pH	S.U.	4.00	4.18			
pH	S.U.	7.00	6.99			
pH	S.U.	10.00	9.84			
ORP	mV	228.00	224.9			

Turbidity	Units	Standard	LaMotte SN <u>162-4411</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Date: Time:

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
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 - Nephelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

Instrument Calibration *SmartTroll 400 / LaMotte 2020WE*

Date: *9-27-20* Time: *9/22 9/23 9/24 9/25*

Parameter	Units	Standard	SmartTROLL SN <i>728550</i>	SmartTROLL SN <i>728550</i>	SmartTROLL SN <i>728550</i>	SmartTROLL SN <i>728550</i>
DO	% saturation	100	<i>107.9</i>	<i>100.99</i>	<i>96.74</i>	<i>102.49</i>
Conductivity	us/cm	4490	<i>4173.6</i>	<i>4528.2</i>	<i>4568.2</i>	<i>4499.0</i> <i>4502.7</i>
pH	S.U.	4.00	<i>4.09</i>	<i>4.04</i>	<i>3.99</i>	<i>4.02</i>
pH	S.U.	7.00	<i>7.11</i>	<i>7.00</i>	<i>7.02</i>	<i>7.01</i>
pH	S.U.	10.00	<i>10.11</i>	<i>10.06</i>	<i>10.01</i>	<i>10.02</i>
ORP	mV	228.00	<i>235.2</i>	<i>236.4</i>	<i>226.2</i>	<i>225.7</i>

Turbidity	Units	Standard	LaMotte SN <i>6405-1416</i>	LaMotte SN <i>6405-1416</i>	LaMotte SN <i>6405-1416</i>	LaMotte SN <i>6405-1416</i>
	NTU	0.0	<i>0.01</i>	<i>0.00</i>	<i>0.13</i>	<i>0.02</i>
	NTU	1.0	<i>0.99</i>	<i>10.17<sup>93</sup></i>	<i>0.93</i>	<i>0.93</i>
	NTU	10.0	<i>10.00</i>	<i>10.17</i>	<i>10.00</i>	<i>10.00</i>

Date: Time:

Parameter	Units	Standard	SmartTROLL SN _____	SmartTROLL SN _____	SmartTROLL SN _____	SmartTROLL SN _____
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



Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

**Instrument Calibration**

Date: 09.22.20 Time: 08:03

Parameter	Units	Standard	SmarTROLL SN 642531			
			07:57 09/23/20	07:58 09/24/20	08:02 09/25/20	
DO	% saturation	100	93.2	91.1	90.8	92.0
Conductivity	us/cm	4490	4603	4379	4054	4318
pH	S.U.	4.00	4.55	4.49	4.48	4.50
pH	S.U.	7.00	6.99	7.01	7.01	6.97
pH	S.U.	10.00	9.47	9.53	9.54	9.43
ORP	mV	228.00	225.5	222.8	218.6	218.5

Turbidity	Units	Standard	LaMotte SN 2491-3312	LaMotte SN 2491-3312	LaMotte SN 2491-3312	LaMotte SN 2491-3312
	NTU	0.0	0.02	0.0	0.0	0.0
	NTU	1.0	1.02	1.10	1.05	0.99
	NTU	10.0	10.22	9.46	9.22	9.84

Date: 09.28.20 Time: 08:03

Parameter	Units	Standard	SmarTROLL SN 642531	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	91.9			
Conductivity	us/cm	4490	5163			
pH	S.U.	4.00	4.56			
pH	S.U.	7.00	7.05			
pH	S.U.	10.00	9.29			
ORP	mV	228.00	213.2			

Turbidity	Units	Standard	LaMotte SN 2491-3312	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	0.96			
	NTU	10.0	10.09			

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 Forms

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
AUGUST 2020**

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage? b. Is casing free of degradation or deterioration? c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
DGWA-53	↑	Y (a, b, c ["man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWA-70A	↑	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWA-71	↑	Y (a, b, d) ; N (c)	Y (b, c, d, e) ; N (a [cracked lid])	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-2	↓	Y (a, b, c ["man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-4	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-5	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-8	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-9	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	NA (b) ; N (a [may need 3 well vol. purge], c)
DGWC-10	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-11	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-12	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-13	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-14	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-15	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-17	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-19	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-20	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-21	↓	Y (b, d) ; N (a [area overgrown], c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, c, d, e, f) ; N (b [kink])	Y (a) ; NA (b) ; N (c)
DGWC-22	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-23	↓	Y (a, b, c ["man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-37	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-38	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-39	↓	Y (a [stream crossing], b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-40	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-42	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c [historic NTU issues])
DGWC-47	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	NA (b) ; N (a, c)
DGWC-48	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-67	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-68A	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)
DGWC-69	↓	Y (a, b, d) ; N (c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N (c)

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
AUGUST 2020**

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage? b. Is casing free of degradation or deterioration? c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
B-3	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-6	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-7	↓	Y (b, d) ; N ( a [ sampling from truck blocks road], c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-16	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-18	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-24	↓	Y (a, b, c [ "man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-25	↓	Y (a, b, c [ "man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-26	↓	Y (a, b, c [ "man on the ground"-Haul Road], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-28	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-29	↓	Y (a [ Southern Co Lab, check in at gate buzzer], b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-31	↓	Y (a [ Southern Co Lab, check in at gate buzzer], b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-41	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-50	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-51	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-52	↓	Y (a [ Southern Co Lab, check in at gate buzzer], b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-54	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-55	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-56	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-57	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-58	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-59	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-60	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-61	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-62	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-63	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-64	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (b, c, d, e) ; N (a [rings disconnected from pad])	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-65	↓	Y (a [parking lot of concrete plant, walk upstairs to check-in], b, d) ; N ( c )	Y (a, b, c, d) ; N (e [missing catcher for one screw])	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-66	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-68	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-76	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
AUGUST 2020**

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage? b. Is casing free of degradation or deterioration? c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
B-77	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-78	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-79	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-80	↓	Y (b, d) ; N (a [ sampling from truck blocks road], c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-81	↓	Y (b, d) ; N (a [ sampling from truck blocks road], c)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-82	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-83	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	NA (b) ; N (a, c)
B-84	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	NA (b) ; N (a, c)
B-85	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-86	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-87	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-88	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-89	↓	Y (a [ parking lot of concrete plant, walk upstairs to check-in], b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-90	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-91	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-92	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-93	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-94	↓	Y (a, b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-95	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-96	↓	Y (a, b, c [traffic control required], d)	Y (a, b, d, e) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-97	↓	Y (a, c [traffic control required], d) ; N (b [missing label])	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-98	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-99	↓	Y (a, b, c [traffic control required], d)	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
B-100	↓	Y (a [contractor parking lot], b, d) ; N ( c )	Y (a, b, c, d, e)	Y (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
AP-1-B-3	IW	Y (a [walk up access only], b, d) ; N ( c )	Y (a, b, c, d, e)	NA (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
AP-1-B-7	IW	Y (a [walk up access only], b, d) ; N ( c )	Y (a, b, c, d, e)	NA (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )
AP-1-B-8	IW	Y (a [walk up access only], b, d) ; N ( c )	Y (a, b, c, d, e)	NA (a, b, c, d, e)	Y (a, b, c, d, e, f)	Y (a) ; NA (b) ; N ( c )

NOTES:  
IW = Interstitial Well

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
SEPTEMBER 2020**

Well-ID	POSITION  ↑ or ↓	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	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 lock and in good condition	a. Pad & bollards 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	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. Sounded depth consistent with well log f. Stable/immobile	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
		(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below
DGWA-53	↑	S	S	S	S	Poor recharge, requires purge dry and returning to sample
DGWA-70A	↑	S	S	S	S	S
DGWA-71	↑	S	S	S	S	S
DGWC-2	↓	S	S	S	S	S
DGWC-4	↓	S	S	S	S	S
DGWC-5	↓	S	S	S	S	S
DGWC-8	↓	S	S	S	S	S
DGWC-9	↓	S	S	S	S	S
DGWC-10	↓	S	S	S	S	S
DGWC-11	↓	S	S	S	S	S
DGWC-12	↓	S	S	S	S	S
DGWC-13	↓	S	S	S	S	S
DGWC-14	↓	S	S	S	S	S
DGWC-15	↓	S	S	S	S	S
DGWC-17	↓	S	S	S	S	S
DGWC-19	↓	S	S	S	S	S
DGWC-20	↓	S	S	S	S	S
DGWC-21	↓	S	S	S	S	S
DGWC-22	↓	S	S	S	S	S
DGWC-23	↓	S	S	S	S	S
DGWC-37	↓	S	S	S	S	S
DGWC-38	↓	S	S	Bollard knocked down	S	S
DGWC-39	↓	Overgrown	S	S	S	S
DGWC-40	↓	S	S	S	S	S
DGWC-42	↓	S	S	S	S	S
DGWC-47	↓	S	S	S	S	S
DGWC-48	↓	S	S	S	S	S
DGWC-67	↓	S	S	S	S	S
DGWC-68A	↓	S	S	S	S	S
DGWC-69	↓	S	S	S	S	S

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
SEPTEMBER 2020**

Well-ID	POSITION  ↑ or ↓	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	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 lock and in good condition	a. Pad & bollards 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	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. Sounded depth consistent with well log f. Stable/immobile	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
		(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below
B-3	↓	S	S	S	S	S
B-6	↓	S	S	S	S	S
B-7	↓	S	S	S	S	S
B-16	↓	S	S	S	S	S
B-18	↓	S	S	S	S	S
B-24	↓	S	S	S	S	S
B-25	↓	S	S	S	S	S
B-26	↓	S	S	S	S	S
B-28	↓	S	S	S	S	S
B-29	↓	S	S	S	S	S
B-31	↓	S	S	S	S	S
B-41	↓	S	S	S	S	S
B-50	↓	S	S	S	S	S
B-51	↓	S	S	S	S	S
B-52	↓	S	S	S	S	S
B-54	↓	S	S	S	S	S
B-55	↓	S	S	S	S	S
B-56	↓	S	S	S	S	S
B-57	↓	S	S	S	S	S
B-58	↓	S	S	S	S	S
B-59	↓	S	S	S	S	S
B-60	↓	S	S	S	S	S
B-61	↓	S	S	S	S	S
B-62	↓	S	S	S	S	S
B-63	↓	S	Needs washers	S	S	S
B-64	↓	Requires traffic control	S	S	S	S
B-65	↓	Not labeled	S	S	S	S
B-66	↓	S	S	S	S	S
B-68	↓	S	S	S	S	S
B-76	↓	S	S	S	S	S

**WELL INSPECTION FORM  
PLANT MCDONOUGH  
SEPTEMBER 2020**

Well-ID	POSITION  ↑ or ↓	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	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 lock and in good condition	a. Pad & bollards 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	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. Sounded depth consistent with well log f. Stable/immobile	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
		(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below	(S) for Satisfactory Discrepancies identified below
B-77	↓	S	S	S	S	S
B-78	↓	S	S	S	S	S
B-79	↓	S	S	S	S	S
B-80	↓	S	S	S	S	S
B-81	↓	S	S	S	S	S
B-82	↓	S	S	S	S	S
B-83	↓	S	S	S	S	S
B-84	↓	Not labeled	S	S	S	S
B-85	↓	S	S	S	S	S
B-86	↓	S	S	S	S	S
B-87	↓	S	S	S	S	S
B-88	↓	S	S	S	S	S
B-89	↓	S	S	S	S	S
B-90	↓	Requires traffic control	S	S	S	S
B-91	↓	Requires traffic control	Annulus flooded, needs washers	S	S	S
B-92	↓	Requires traffic control	S	S	S	S
B-93	↓	Requires traffic control	S	S	S	S
B-94	↓	Requires traffic control	S	S	S	S
B-95	↓	Requires traffic control	S	S	S	S
B-96	↓	Requires traffic control	S	S	S	S
B-97	↓	Requires traffic control	S	S	S	S
B-98	↓	Requires traffic control	S	S	S	S
B-99	↓	S	S	S	S	S
B-100	↓	S	S	S	S	S
AP-1-B-3	IW	S	S	S	S	S
AP-1-B-7	IW	S	S	S	S	S
AP-1-B-8	IW	S	S	S	S	S

NOTES:  
IW = Interstitial Well



**APPENDIX A**

## Data Validation Summaries

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## Quality Control Review of Analytical Data- Ash Pond AP-2, 3/4 Submitted by Pace Analytical Services, LLC August Through November 2020

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 Plant McDonough CCR Ash Pond AP-2, 3/4 between August 11, 2020 and November 11, 2020. 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 assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma- Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (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

<b>Laboratory Precision:</b>	Laboratory goals for precision were met exception of total dissolved solids (TDS) as described in the qualifications sections below.
<b>Field Precision:</b>	Field goals for precision were met.
<b>Accuracy:</b>	Laboratory goals for accuracy were met with the exception of fluoride, chloride and sulfate as described in the qualification sections below.
<b>Detection Limits:</b>	Project goals for detection limits were met. Certain samples were diluted due to elevated concentrations 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.
<b>Completeness:</b>	There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** All holding time requirements were met in accordance with specific analytical methods.

## 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 during the data validation process.

- J** The analyte was reported above the method detection limit; however, the concentration reported is an estimated value.
- 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 92490488, 92490503, 92490963, 92496904, 92496907, 92496940, 92496941, 92497117, 92497125, and 92505380, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- The TDS result in sample B-89 from SDG 92497125 was qualified as estimated when the associated lab duplicate exceeded the relative percent difference criteria.
- Certain antimony, chromium, lead, and mercury results were qualified as non-detect (U) when the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, if the original sample results were below the reporting limit (RL), the results were qualified as non-detect (U) and the results were raised to the RL.
- Fluoride, chloride, and sulfate results in DGWA-53 from SDG 92496940 were qualified as estimated biased high (J+) as the associated matrix spike/matrix spike duplicate (MS/MSD) recoveries were above the QC criteria.

Golder reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-2, 3/4 between August 11, 2020 and November 11, 2020 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.

## REFERENCE

Paar, J.G. & Porterfield, D.R. *Evaluation of Radiochemical Data Usability*. United States Department of Energy, Office of Environmental Restoration and Waste Management, Oak Ridge National Laboratory, April 1997.

USEPA, January 2017, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

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, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data By Cold Vapor Atomic Absorption*, Revision 2.0.

TABLE 1

Sample Summary Table  
SCS Plant McDonough AP-2, 3/4

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Field pH	Analyses					Radium 226, Radium 228 (9315, 9320)
							Total Metals (EPA 6020B)	Calcium (EPA 6010D)	Mercury (EPA 7470A)	Anions (EPA 300.0)	TDS (SM 2540C)	
92490488	DGWA-70A	8/11/2020	92490488001	GW	-	X	X	-	X	X	-	X
92490488	DGWA-71	8/11/2020	92490488002	GW	-	X	X	-	X	X	-	X
92490488	EB-1	8/11/2020	92490488003	WQ	EB (DGWA-70A)	X	X	-	X	X	-	X
92490488	DGWA-53	8/13/2020	92490488004	GW	-	X	X	-	X	X	-	X
92490503	DGWC-2	8/11/2020	92490503001	GW	-	X	X	-	X	X	-	X
92490503	DGWC-9	8/11/2020	92490503002	GW	-	X	X	-	X	X	-	X
92490503	DGWC-10	8/11/2020	92490503003	GW	-	X	X	-	X	X	-	X
92490503	DGWC-11	8/11/2020	92490503004	GW	-	X	X	-	X	X	-	X
92490503	DGWC-12	8/11/2020	92490503005	GW	-	X	X	-	X	X	-	X
92490503	DGWC-14	8/11/2020	92490503006	GW	-	X	X	-	X	X	-	X
92490503	DGWC-19	8/11/2020	92490503007	GW	-	X	X	-	X	X	-	X
92490503	FD-1	8/11/2020	92490503009	GW	FD (DGWC-10)	X	X	-	X	X	-	X
92490503	DGWC-4	8/12/2020	92490503010	GW	-	X	X	-	X	X	-	X
92490503	DGWC-5	8/12/2020	92490503011	GW	-	X	X	-	X	X	-	X
92490503	DGWC-8	8/12/2020	92490503012	GW	-	X	X	-	X	X	-	X
92490503	DGWC-13	8/12/2020	92490503013	GW	-	X	X	-	X	X	-	X
92490503	DGWC-47	8/12/2020	92490503014	GW	-	X	X	-	X	X	-	X
92490503	FD-2	8/12/2020	92490503015	GW	FD (DGWC-8)	X	X	-	X	X	-	X
92490503	DGWC-15	8/13/2020	92490503016	GW	-	X	X	-	X	X	-	X
92490503	DGWC-20	8/13/2020	92490503017	GW	-	X	X	-	X	X	-	X
92490503	DGWC-23	8/13/2020	92490503018	GW	-	X	X	-	X	X	-	X
92490503	DGWC-42	8/13/2020	92490503019	GW	-	X	X	-	X	X	-	X
92490503	DGWC-48	8/13/2020	92490503020	GW	-	X	X	-	X	X	-	X
92490503	DGWC-17	8/14/2020	92490503022	GW	-	X	X	-	X	X	-	X
92490503	FB-3	8/14/2020	92490503025	WQ	FB	X	X	-	X	X	-	X
92490503	EB-3	8/14/2020	92490503026	WQ	EB	X	X	-	X	X	-	X
92490503	FB-1	8/11/2020	92490503008	WQ	FB (GWC-14)	X	X	-	X	X	-	X
92490503	FB-2	8/13/2020	92490503021	WQ	FB (GWC-15)	X	X	-	X	X	-	X
92490503	DGWC-21	8/14/2020	92490503023	GW	-	X	X	-	X	X	-	X
92490503	DGWC-22	8/14/2020	92490503024	GW	-	X	X	-	X	X	-	X
92490963	B-77	8/13/2020	92490963002	GW	-	X	X	-	X	X	-	X
92490963	B-74	8/14/2020	92490963003	GW	-	X	X	-	X	X	-	X
92490963	B-83	8/14/2020	92490963006	GW	-	X	X	-	X	X	-	X
92490963	FD-3	8/14/2020	92490963005	GW	FD (B-74)	X	X	-	X	X	-	X
92490963	B-89	8/14/2020	92490963004	GW	-	X	X	-	X	X	-	X
92490963	B-3	8/17/2020	92490963010	GW	-	X	X	-	X	X	-	X
92490963	B-56	8/17/2020	92490963009	GW	-	X	X	-	X	X	-	X
92490963	B-82	8/17/2020	92490963011	GW	-	X	X	-	X	X	-	X
92490963	B-88	8/17/2020	92490963007	GW	-	X	X	-	X	X	-	X
92490963	B-93	8/19/2020	92490963012	GW	-	X	X	-	X	X	-	X
92496904	DGWC-4	9/22/2020	92496904001	GW	-	-	-	-	-	-	-	X
92496904	DGWC-5	9/22/2020	92496904002	GW	-	-	-	-	-	-	-	X
92496904	DGWC-9	9/22/2020	92496904003	GW	-	-	-	-	-	-	-	X
92496904	DGWC-11	9/22/2020	92496904004	GW	-	-	-	-	-	-	-	X
92496904	DGWC-12	9/22/2020	92496904005	GW	-	-	-	-	-	-	-	X
92496904	DGWC-14	9/22/2020	92496904006	GW	-	-	-	-	-	-	-	X
92496904	DGWC-19	9/22/2020	92496904007	GW	-	-	-	-	-	-	-	X
92496904	DGWC-20	9/22/2020	92496904008	GW	-	-	-	-	-	-	-	X
92496904	DGWC-42	9/22/2020	92496904009	GW	-	-	-	-	-	-	-	X
92496904	FD-1	9/22/2020	92496904011	GW	FD (DGWC-14)	-	-	-	-	-	-	X
92496904	DGWC-2	9/23/2020	92496904012	GW	-	-	-	-	-	-	-	X
92496904	DGWC-8	9/23/2020	92496904013	GW	-	-	-	-	-	-	-	X
92496904	DGWC-13	9/23/2020	92496904014	GW	-	-	-	-	-	-	-	X
92496904	DGWC-15	9/23/2020	92496904015	GW	-	-	-	-	-	-	-	X
92496904	DGWC-47	9/23/2020	92496904016	GW	-	-	-	-	-	-	-	X
92496904	DGWC-48	9/23/2020	92496904017	GW	-	-	-	-	-	-	-	X
92496904	DGWC-10	9/24/2020	92496904020	GW	-	-	-	-	-	-	-	X
92496904	DGWC-17	9/24/2020	92496904021	GW	-	-	-	-	-	-	-	X
92496904	DGWC-21	9/24/2020	92496904022	GW	-	-	-	-	-	-	-	X
92496904	DGWC-22	9/24/2020	92496904023	GW	-	-	-	-	-	-	-	X
92496904	EB-2	9/23/2020	92496904018	WQ	EB (DGWC-15)	-	-	-	-	-	-	X
92496904	FB-2	9/23/2020	92496904019	WQ	FB (DGWC-48)	-	-	-	-	-	-	X
92496904	EB-3	9/24/2020	92496904026	WQ	EB (DGWC-22)	-	-	-	-	-	-	X
92496904	FB-1	9/22/2020	92496904010	WQ	FB (DGWC-9)	-	-	-	-	-	-	X
92496904	DGWC-23	9/24/2020	92496904024	GW	-	-	-	-	-	-	-	X
92496904	FD-3	9/24/2020	92496904025	GW	FD (DGWC-17)	-	-	-	-	-	-	X
92496907	DGWA-53	9/22/2020	92496907001	GW	-	-	-	-	-	-	-	X
92496907	DGWA-70A	9/22/2020	92496907002	GW	-	-	-	-	-	-	-	X
92496907	DGWA-71	9/22/2020	92496907003	GW	-	-	-	-	-	-	-	X
92496907	EB-1	9/22/2020	92496907004	WQ	EB (DGWA-70A)	-	-	-	-	-	-	X
92496940	DGWA-53	9/22/2020	92496940001	GW	-	X	X	X	X	X	X	-
92496940	DGWA-70A	9/22/2020	92496940002	GW	-	X	X	X	X	X	X	-

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Field pH	Total Metals (EPA 6020B)	Calcium (EPA 6010D)	Mercury (EPA 7470A)	Anions (EPA 300.0)	TDS (SM 2540C)	Radium 226, Radium 228 (9315, 9320)
92496940	DGWA-71	9/22/2020	92496940003	GW	-	X	X	X	X	X	X	-
92496940	EB-1	9/22/2020	92496940004	WQ	EB (DGWA-70A)	X	X	X	X	X	X	-
92496941	DGWC-4	9/22/2020	92496941001	GW	-	X	X	X	X	X	X	-
92496941	DGWC-5	9/22/2020	92496941002	GW	-	X	X	X	X	X	X	-
92496941	DGWC-9	9/22/2020	92496941003	GW	-	X	X	X	X	X	X	-
92496941	DGWC-11	9/22/2020	92496941004	GW	-	X	X	X	X	X	X	-
92496941	DGWC-12	9/22/2020	92496941005	GW	-	X	X	X	X	X	X	-
92496941	DGWC-14	9/22/2020	92496941006	GW	-	X	X	X	X	X	X	-
92496941	DGWC-19	9/22/2020	92496941007	GW	-	X	X	X	X	X	X	-
92496941	DGWC-20	9/22/2020	92496941008	GW	-	X	X	X	X	X	X	-
92496941	DGWC-42	9/22/2020	92496941009	GW	-	X	X	X	X	X	X	-
92496941	FB-1	9/22/2020	92496941010	WQ	FB (DGWC-9)	X	X	X	X	X	X	-
92496941	FD-1	9/22/2020	92496941011	GW	FD (DGWC-14)	X	X	X	X	X	X	-
92496941	DGWC-2	9/23/2020	92496941012	GW	-	X	X	X	X	X	X	-
92496941	DGWC-8	9/23/2020	92496941013	GW	-	X	X	X	X	X	X	-
92496941	DGWC-13	9/23/2020	92496941014	GW	-	X	X	X	X	X	X	-
92496941	DGWC-15	9/23/2020	92496941015	GW	-	X	X	X	X	X	X	-
92496941	DGWC-47	9/23/2020	92496941016	GW	-	X	X	X	X	X	X	-
92496941	DGWC-48	9/23/2020	92496941017	GW	-	X	X	X	X	X	X	-
92496941	EB-2	9/23/2020	92496941018	WQ	EB (DGWC-15)	X	X	X	X	X	X	-
92496941	FB-2	9/23/2020	92496941019	WQ	FB (DGWC-48)	X	X	X	X	X	X	-
92496941	DGWC-10	9/24/2020	92496941020	GW	-	X	X	X	X	X	X	-
92496941	DGWC-17	9/24/2020	92496941021	GW	-	X	X	X	X	X	X	-
92496941	DGWC-21	9/24/2020	92496941022	GW	-	X	X	X	X	X	X	-
92496941	DGWC-22	9/24/2020	92496941023	GW	-	X	X	X	X	X	X	-
92496941	DGWC-23	9/24/2020	92496941024	GW	-	X	X	X	X	X	X	-
92496941	FD-3	9/24/2020	92496941025	GW	FD (DGWC-17)	X	X	X	X	X	X	-
92496941	EB-3	9/24/2020	92496941026	WQ	EB (DGWC-22)	X	X	X	X	X	X	-
92497117	B-89	9/23/2020	92497117001	GW	-	-	-	-	-	-	-	X
92497117	B-88	9/25/2020	92497117007	GW	-	-	-	-	-	-	-	X
92497117	B-56	9/28/2020	92497117009	GW	-	-	-	-	-	-	-	X
92497117	B-82	9/28/2020	92497117010	GW	-	-	-	-	-	-	-	X
92497117	B-74	9/25/2020	92497117005	GW	-	-	-	-	-	-	-	X
92497117	B-83	9/25/2020	92497117006	GW	-	-	-	-	-	-	-	X
92497117	B-77	9/24/2020	92497117003	GW	-	-	-	-	-	-	-	X
92497117	B-93	9/28/2020	92497117011	GW	-	-	-	-	-	-	-	X
92497125	B-89	9/23/2020	92497125001	GW	-	X	X	X	X	X	X	-
92497125	B-88	9/25/2020	92497125007	GW	-	X	X	X	X	X	X	-
92497125	B-56	9/28/2020	92497125009	GW	-	X	X	X	X	X	X	-
92497125	B-82	9/28/2020	92497125010	GW	-	X	X	X	X	X	X	-
92497125	B-74	9/25/2020	92497125005	GW	-	X	X	X	X	X	X	-
92497125	B-83	9/25/2020	92497125006	GW	-	X	X	X	X	X	X	-
92497125	B-77	9/24/2020	92497125003	GW	-	X	X	X	X	X	X	-
92497125	B-93	9/28/2020	92497125011	GW	-	X	X	X	X	X	X	-
92505380	B-3	11/11/2020	92505380001	GW	-	X	X	X	X	-	-	-
92505380	DUP-1	11/11/2020	92505380002	GW	FD (B-3)	X	X	X	X	-	-	-
92505380	EB-1	11/11/2020	92505380003	WQ	EB (B-3)	X	X	X	X	-	-	-

**Abbreviations:**

SDG - Sample Delivery Group  
 EB - Equipment blank  
 FB - Field blank  
 FD - Field duplicate  
 GW - Groundwater  
 TDS - Total dissolved solids  
 WQ - Water quality control

**TABLE 2**  
**Qualifier Summary Table**  
**Plant McDonough AP-2, 3/4**

<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>
92490488	DGWA-70A	Chromium	0.01	-	U	Method blank contamination
92490488	DGWA-71	Chromium	0.01	-	U	Method blank contamination
92490488	DGWA-70A	Antimony	0.003	-	U	Equipment blank contamination
92490503	DGWC-2	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-9	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-10	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-11	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-12	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-19	Chromium	0.010	-	U	Method blank contamination
92490503	FD-1	Chromium	0.010	-	U	Method blank contamination
92490503	DGWC-15	Lead	0.005	-	U	Field blank contamination
92490963	B-88	Mercury	0.0002	-	U	Method blank contamination
92490963	B-56	Mercury	0.0002	-	U	Method blank contamination
92490963	B-3	Mercury	0.0002	-	U	Method blank contamination
92490963	B-82	Mercury	0.0002	-	U	Method blank contamination
92496940	DGWA-53	Chloride	-	-	J+	MS/MSD outside acceptance criteria
92496940	DGWA-53	Fluoride	-	-	J+	MS/MSD outside acceptance criteria
92496940	DGWA-53	Sulfate	-	-	J+	MS/MSD outside acceptance criteria
92496941	DGWC-17	Antimony	0.0030	-	U	Equipment blank contamination
92496941	DGWC-10	Mercury	0.00050	-	U	Method blank contamination
92496941	DGWC-17	Mercury	0.00050	-	U	Method blank contamination
92496941	DGWC-21	Mercury	0.00050	-	U	Method blank contamination
92496941	DGWC-23	Mercury	0.00050	-	U	Method blank contamination
92497125	B-89	TDS	-	-	J	Laboratory RPD exceedance
92497125	B-93	Mercury	0.0005	-	U	Method blank contamination

**Abbreviations:**

SDG : Sample delivery group

MDC : Minimum detectable concentration

RL : Reporting limit

MS/MSD: Matrix spike/matrix spike duplicate

TDS: Total Dissolved Solids

RPD: Relative Percent Difference

**Qualifiers:**

U : Non-detect result

J : Estimated value

J+: Estimated value, bias high

92496904011

**APPENDIX A**

# Laboratory Accreditation





**COMMONWEALTH of VIRGINIA**  
*Department of General Services*

*Division of Consolidated Laboratory Services*

*600 North 5th Street  
Richmond, Virginia 23219-3691  
(804) 648-4480  
FAX (804) 692-0416*

06/10/2020

Craig Tronzo  
Pace Analytical Services, LLC - Asheville NC  
2225 Riverside Drive  
Asheville NC 28804

VELAP ID: 460222

Dear Craig Tronzo:

The Division of Consolidated Laboratory Services (DCLS) has accredited Pace Analytical Services, LLC - Asheville NC pursuant to the provisions of 1VAC30-46 and The NELAC Institute (TNI) 2009 Standard. Certificate number 10807 and the corresponding Scope of Accreditation are enclosed. This certificate expires 06/14/2021. The certificate must be conspicuously displayed in the laboratory along with the associated Scope of Accreditation.

Please note that your laboratory is required to notify the Virginia Environmental Laboratory Accreditation Program (VELAP) in writing of any changes in key accreditation criteria within 30 calendar days of the change per 1VAC30-46-90 A. This requirement includes changes in ownership, location, key personnel, and major instrumentation.

To maintain accreditation, the laboratory must continue to comply with 1VAC30-46. This includes ongoing satisfactory proficiency testing. The method checklists used by VELAP in the on-site assessment process are available upon request as a supplement to internal audits.

Please direct all correspondences and questions regarding accreditation to your laboratory's lead assessor, Ila Meyer-Fritzsche, at [ila.meyer-fritzsche@dgs.virginia.gov](mailto:ila.meyer-fritzsche@dgs.virginia.gov) or (804) 648-4480 x306.

Sincerely yours,

Cathy Westerman  
Manager, Laboratory Certification Program

Enclosures  
cc: Felicia Grogan



**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF GENERAL SERVICES  
DIVISION OF CONSOLIDATED LABORATORY SERVICES**



**Certifies that**

**VA Laboratory ID#: 460222  
Pace Analytical Services, LLC - Asheville NC  
2225 Riverside Drive  
Asheville, NC 28804**

**Owner: PAS PARENT, LLC  
Operator: PACE ANALYTICAL SERVICES, LLC  
Responsible Official: FELICIA GROGAN**

Having met the requirements of 1 VAC 30-46 and  
having been found compliant with the 2009 TNI Standard approved by The NELAC Institute  
is hereby approved as an  
**Accredited Environmental Laboratory**

As more fully described in the attached Scope of Accreditation

**Effective Date: June 15, 2020  
Expiration Date: June 14, 2021  
Certificate # 10807**

A handwritten signature in black ink that reads 'Denise M. Toney'.

**Denise M. Toney, Ph.D., HCLD  
DGS Deputy Director for Laboratories**

Continued accreditation status depends on successful ongoing participation in the program.  
Certificate to be conspicuously displayed at the laboratory.  
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP)  
Scope of Accreditation.  
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation



**Commonwealth of Virginia**  
 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**DRINKING WATER**

METHOD	ANALYTE	PRIMARY
EPA 200.8 REV 5.4	COPPER	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA
SM 2320 B-2011	ALKALINITY AS CaCO <sub>3</sub>	VA
SM 9223 COLISURE®	TOTAL COLIFORMS	VA

METHOD	ANALYTE	PRIMARY
EPA 200.8 REV 5.4	LEAD	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA
SM 9223 COLISURE®	ESCHERICHIA COLI	VA

**NON-POTABLE WATER**

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	VA
EPA 160.4	RESIDUE-VOLATILE	VA
EPA 180.1 REV 2	TURBIDITY	VA
EPA 200.7 REV 4.4	ANTIMONY	VA
EPA 200.7 REV 4.4	BARIUM	VA
EPA 200.7 REV 4.4	BORON	VA
EPA 200.7 REV 4.4	CALCIUM	VA
EPA 200.7 REV 4.4	COBALT	VA
EPA 200.7 REV 4.4	IRON	VA
EPA 200.7 REV 4.4	MAGNESIUM	VA
EPA 200.7 REV 4.4	MOLYBDENUM	VA
EPA 200.7 REV 4.4	POTASSIUM	VA
EPA 200.7 REV 4.4	SILICA AS SiO <sub>2</sub>	VA
EPA 200.7 REV 4.4	SODIUM	VA
EPA 200.7 REV 4.4	TIN	VA
EPA 200.7 REV 4.4	VANADIUM	VA
EPA 200.8 REV 5.4	ALUMINUM	VA
EPA 200.8 REV 5.4	ARSENIC	VA
EPA 200.8 REV 5.4	BERYLLIUM	VA
EPA 200.8 REV 5.4	CHROMIUM	VA
EPA 200.8 REV 5.4	COPPER	VA
EPA 200.8 REV 5.4	MANGANESE	VA
EPA 200.8 REV 5.4	NICKEL	VA
EPA 200.8 REV 5.4	SILVER	VA
EPA 200.8 REV 5.4	VANADIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	BORON	VA
EPA 200.8 REV 5.4 - EXTENDED	IRON	VA
EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	VA

METHOD	ANALYTE	PRIMARY
EPA 120.1	CONDUCTIVITY	VA
EPA 1631 E	MERCURY	VA
EPA 200.7 REV 4.4	ALUMINUM	VA
EPA 200.7 REV 4.4	ARSENIC	VA
EPA 200.7 REV 4.4	BERYLLIUM	VA
EPA 200.7 REV 4.4	CADMIUM	VA
EPA 200.7 REV 4.4	CHROMIUM	VA
EPA 200.7 REV 4.4	COPPER	VA
EPA 200.7 REV 4.4	LEAD	VA
EPA 200.7 REV 4.4	MANGANESE	VA
EPA 200.7 REV 4.4	NICKEL	VA
EPA 200.7 REV 4.4	SELENIUM	VA
EPA 200.7 REV 4.4	SILVER	VA
EPA 200.7 REV 4.4	THALLIUM	VA
EPA 200.7 REV 4.4	TITANIUM	VA
EPA 200.7 REV 4.4	ZINC	VA
EPA 200.8 REV 5.4	ANTIMONY	VA
EPA 200.8 REV 5.4	BARIUM	VA
EPA 200.8 REV 5.4	CADMIUM	VA
EPA 200.8 REV 5.4	COBALT	VA
EPA 200.8 REV 5.4	LEAD	VA
EPA 200.8 REV 5.4	MOLYBDENUM	VA
EPA 200.8 REV 5.4	SELENIUM	VA
EPA 200.8 REV 5.4	THALLIUM	VA
EPA 200.8 REV 5.4	ZINC	VA
EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	SODIUM	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.





**Commonwealth of Virginia**  
 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**NON-POTABLE WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4 - EXTENDED	TIN	VA
EPA 218.6 REV 3.3	CHROMIUM VI	VA
EPA 300.0 REV 2.1	BROMIDE	VA
EPA 300.0 REV 2.1	FLUORIDE	VA
EPA 300.0 REV 2.1	NITRATE/NITRITE	VA
EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	VA
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	VA
EPA 350.1 REV 2	AMMONIA AS N	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA
EPA 420.4 REV 1 (AS LACHAT 10-210-00-1-X)	TOTAL PHENOLICS	VA
EPA 6010 D	ANTIMONY	VA
EPA 6010 D	BARIUM	VA
EPA 6010 D	BORON	VA
EPA 6010 D	CALCIUM	VA
EPA 6010 D	COBALT	VA
EPA 6010 D	IRON	VA
EPA 6010 D	LITHIUM	VA
EPA 6010 D	MANGANESE	VA
EPA 6010 D	NICKEL	VA
EPA 6010 D	SELENIUM	VA
EPA 6010 D	SILVER	VA
EPA 6010 D	STRONTIUM	VA
EPA 6010 D	TIN	VA
EPA 6010 D	VANADIUM	VA
EPA 6010 D - EXTENDED	SILICON	VA
EPA 6020 B	ANTIMONY	VA
EPA 6020 B	BARIUM	VA
EPA 6020 B	CADMIUM	VA
EPA 6020 B	CHROMIUM	VA
EPA 6020 B	COPPER	VA
EPA 6020 B	LEAD	VA
EPA 6020 B	MANGANESE	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	VA
EPA 245.1 REV 3	MERCURY	VA
EPA 300.0 REV 2.1	CHLORIDE	VA
EPA 300.0 REV 2.1	NITRATE AS N	VA
EPA 300.0 REV 2.1	NITRITE AS N	VA
EPA 300.0 REV 2.1	SULFATE	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 351.2 REV 2 (AS LACHAT 10-107-06-2-D)	KJELDAHL NITROGEN - TOTAL (TKN)	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRATE/NITRITE	VA
EPA 365.1 REV 2 (AS LACHAT 10-115-01-1-E)	PHOSPHORUS, TOTAL	VA
EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ARSENIC	VA
EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	CADMIUM	VA
EPA 6010 D	CHROMIUM	VA
EPA 6010 D	COPPER	VA
EPA 6010 D	LEAD	VA
EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SILICA AS SIO2	VA
EPA 6010 D	SODIUM	VA
EPA 6010 D	THALLIUM	VA
EPA 6010 D	TITANIUM	VA
EPA 6010 D	ZINC	VA
EPA 6020 B	ALUMINUM	VA
EPA 6020 B	ARSENIC	VA
EPA 6020 B	BERYLLIUM	VA
EPA 6020 B	CALCIUM	VA
EPA 6020 B	COBALT	VA
EPA 6020 B	IRON	VA
EPA 6020 B	MAGNESIUM	VA
EPA 6020 B	MOLYBDENUM	VA

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**Commonwealth of Virginia**  
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 Division of Consolidated Laboratory Services



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 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**NON-POTABLE WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	NICKEL	VA
EPA 6020 B	SELENIUM	VA
EPA 6020 B	SODIUM	VA
EPA 6020 B	TIN	VA
EPA 6020 B	ZINC	VA
EPA 6020 B - EXTENDED	BORON	VA
EPA 6020 B - EXTENDED	STRONTIUM	VA
EPA 6020 B - EXTENDED	URANIUM	VA
EPA 7470 A	MERCURY	VA
EPA 9012 B	TOTAL CYANIDE	VA
EPA 9056 A	BROMIDE	VA
EPA 9056 A	FLUORIDE	VA
EPA 9056 A	NITRITE AS N	VA
EPA 9056 A	SULFATE	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA
LACHAT QUIKCHEM 10-204-00-1-X	CYANIDE	VA
SM 2340 B-2011	TOTAL HARDNESS AS CaCO3	VA
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	VA
SM 2540 F-2011	RESIDUE-SETTLABLE	VA
SM 4500-CL <sup>-</sup> E-2011	CHLORIDE	VA
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	VA
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND (BOD)	VA
SM 5220 D-2011	CHEMICAL OXYGEN DEMAND (COD)	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	POTASSIUM	VA
EPA 6020 B	SILVER	VA
EPA 6020 B	THALLIUM	VA
EPA 6020 B	VANADIUM	VA
EPA 6020 B - EXTENDED	BISMUTH	VA
EPA 6020 B - EXTENDED	LITHIUM	VA
EPA 6020 B - EXTENDED	TITANIUM	VA
EPA 7196 A	CHROMIUM VI	VA
EPA 9010 C	PREP: CYANIDE DISTILLATION	VA
EPA 9040 C	PH	VA
EPA 9056 A	CHLORIDE	VA
EPA 9056 A	NITRATE AS N	VA
EPA 9056 A	ORTHOPHOSPHATE AS P	VA
EPA 9056 A - EXTENDED	NITRATE/NITRITE	VA
EPA 9095 B	FREE LIQUID	VA
SM 2320 B-2011	ALKALINITY AS CaCO3	VA
SM 2540 B-2011	RESIDUE-TOTAL (TS)	VA
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	VA
SM 3500-CR B-2011	CHROMIUM VI	VA
SM 4500-CN <sup>-</sup> E-2011	CYANIDE	VA
SM 4500-S2 <sup>-</sup> D-2011	SULFIDE	VA
SM 5210 B-2011	CARBONACEOUS BOD (CBOD)	VA
SM 5310 B-2011	TOTAL ORGANIC CARBON (TOC)	VA

**SOLID AND CHEMICAL MATERIALS**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1010 A	FLASHPOINT	VA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	VA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	VA
EPA 6010 D	ANTIMONY	VA
EPA 6010 D	BARIUM	VA
EPA 6010 D	BORON	VA
EPA 6010 D	CALCIUM	VA
EPA 6010 D	COBALT	VA
EPA 6010 D	IRON	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ARSENIC	VA
EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	CADMIUM	VA
EPA 6010 D	CHROMIUM	VA
EPA 6010 D	COPPER	VA
EPA 6010 D	LEAD	VA

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**Commonwealth of Virginia**  
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**SOLID AND CHEMICAL MATERIALS**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SILVER	VA
EPA 6010 D	STRONTIUM	VA
EPA 6010 D	TITANIUM	VA
EPA 6010 D	ZINC	VA
EPA 7471 B	MERCURY	VA
EPA 9060	TOTAL ORGANIC CARBON (TOC)	VA
EPA 9065	TOTAL PHENOLICS	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	MANGANESE	VA
EPA 6010 D	NICKEL	VA
EPA 6010 D	SELENIUM	VA
EPA 6010 D	SODIUM	VA
EPA 6010 D	THALLIUM	VA
EPA 6010 D	VANADIUM	VA
EPA 6010 D - EXTENDED	SILICON	VA
EPA 9045 D	PH	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA
EPA 9095 B	FREE LIQUID	VA





State of Florida  
Department of Health, Bureau of Public Health Laboratories  
This is to certify that



E87315

PACE ANALYTICAL SERVICES, LLC- ATLANTA GA  
110 TECHNOLOGY PARKWAY  
PEACHTREE CORNERS, GA 30092

has complied with Florida Administrative Code 64E-1,  
for the examination of environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - MICROBIOLOGY

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: October 06, 2020      Expiration Date: June 30, 2021



A handwritten signature in blue ink.

Patty A. Lewandowski, MBA, MT(ASCP)  
Chief Bureau of Public Health Laboratories  
DH Form 1697, 7/04

NON-TRANSFERABLE E87315-49-10/06/2020  
Supersedes all previously issued certificates



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

State Laboratory ID: **E87315**                      EPA Lab Code: **GA00051**                      (770) 734-4200

**E87315**  
**Pace Analytical Services, LLC- Atlanta GA**  
**110 Technology Parkway**  
**Peachtree Corners, GA 30092**

Matrix: **Drinking Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Color	SM 2120 B	Secondary Inorganic Contaminants	NELAP	4/10/2002
Escherichia coli	SM 9223 B	Microbiology	NELAP	4/10/2002
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Nitrate	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	4/10/2002
pH	SM 4500-H+-B	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	4/10/2002
Residual free chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Total coliforms	SM 9223 B	Microbiology	NELAP	4/10/2002
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	4/10/2002





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**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 200.7	Metals	NELAP	4/10/2002
Aluminum	EPA 200.8	Metals	NELAP	8/30/2004
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	8/30/2004
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN- G	General Chemistry	NELAP	10/15/2007
Antimony	EPA 200.7	Metals	NELAP	4/10/2002
Antimony	EPA 200.8	Metals	NELAP	8/30/2004
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	8/30/2004
Arsenic	EPA 200.7	Metals	NELAP	4/10/2002
Arsenic	EPA 200.8	Metals	NELAP	8/30/2004
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6020	Metals	NELAP	8/30/2004
Barium	EPA 200.7	Metals	NELAP	4/10/2002
Barium	EPA 200.8	Metals	NELAP	8/30/2004
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	8/30/2004
Beryllium	EPA 200.7	Metals	NELAP	4/10/2002
Beryllium	EPA 200.8	Metals	NELAP	8/30/2004
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	8/30/2004
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	4/10/2002
Boron	EPA 200.7	Metals	NELAP	4/10/2002
Boron	EPA 200.8	Metals	NELAP	11/6/2014
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	8/30/2004
Cadmium	EPA 200.7	Metals	NELAP	4/10/2002
Cadmium	EPA 200.8	Metals	NELAP	8/30/2004
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6020	Metals	NELAP	8/30/2004
Calcium	EPA 200.7	Metals	NELAP	4/10/2002
Calcium	EPA 200.8	Metals	NELAP	11/6/2014
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	8/30/2004
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	4/10/2002

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**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

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EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chromium	EPA 200.7	Metals	NELAP	4/10/2002
Chromium	EPA 200.8	Metals	NELAP	8/30/2004
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	8/30/2004
Chromium VI	SM 3500-Cr B (20th/21st/22nd Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Cobalt	EPA 200.7	Metals	NELAP	4/10/2002
Cobalt	EPA 200.8	Metals	NELAP	8/30/2004
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	8/30/2004
Color	SM 2120 B	General Chemistry	NELAP	4/10/2002
Copper	EPA 200.7	Metals	NELAP	4/10/2002
Copper	EPA 200.8	Metals	NELAP	8/30/2004
Copper	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6020	Metals	NELAP	8/30/2004
Corrosivity (pH)	EPA 9040	General Chemistry	NELAP	7/1/2003
Cyanide	SM 4500-CN E	General Chemistry	NELAP	10/15/2007
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Fecal coliforms	COLILERT®-18 (Fecal Coliforms)	Microbiology	NELAP	11/6/2014
Fecal coliforms	SM 9222 D	Microbiology	NELAP	2/21/2002
Hardness	SM 2340 B	General Chemistry	NELAP	7/28/2009
Hardness (calc.)	EPA 200.7	Metals	NELAP	6/6/2002
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Iron	EPA 200.7	Metals	NELAP	4/10/2002
Iron	EPA 200.8	Metals	NELAP	11/6/2014
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	8/30/2004
Iron	SM 3500-Fe D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	2/5/2002
Iron-(II) (Ferrous Iron)	SM 3500-Fe B (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Lead	EPA 200.7	Metals	NELAP	4/10/2002
Lead	EPA 200.8	Metals	NELAP	8/30/2004
Lead	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6020	Metals	NELAP	8/30/2004
Lithium	EPA 200.8	Metals	NELAP	10/6/2016

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EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Lithium	EPA 6020	Metals	NELAP	10/6/2016
Magnesium	EPA 200.7	Metals	NELAP	4/10/2002
Magnesium	EPA 200.8	Metals	NELAP	11/6/2014
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	8/30/2004
Manganese	EPA 200.7	Metals	NELAP	4/10/2002
Manganese	EPA 200.8	Metals	NELAP	8/30/2004
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	8/30/2004
Mercury	EPA 245.1	Metals	NELAP	4/10/2002
Mercury	EPA 7470	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.7	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.8	Metals	NELAP	8/30/2004
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Molybdenum	EPA 6020	Metals	NELAP	8/30/2004
Nickel	EPA 200.7	Metals	NELAP	4/10/2002
Nickel	EPA 200.8	Metals	NELAP	8/30/2004
Nickel	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6020	Metals	NELAP	8/30/2004
Nitrate as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrite as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	General Chemistry	NELAP	4/10/2002
Oxygen, dissolved	ASTM D888-09C	General Chemistry	NELAP	11/6/2014
Oxygen, dissolved	SM 4500-O G	General Chemistry	NELAP	4/10/2002
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	10/15/2007
Phosphorus, total	EPA 200.7	Metals	NELAP	9/27/2002
Phosphorus, total	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	4/10/2002
Potassium	EPA 200.8	Metals	NELAP	11/6/2014
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6020	Metals	NELAP	8/30/2004
Residual free chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	10/15/2007
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	10/15/2007

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**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Residue-settleable	SM 2540 F	General Chemistry	NELAP	10/15/2007
Residue-total	SM 2540 B	General Chemistry	NELAP	10/15/2007
Residue-volatile	SM 2540 E	General Chemistry	NELAP	10/6/2016
Selenium	EPA 200.7	Metals	NELAP	4/10/2002
Selenium	EPA 200.8	Metals	NELAP	8/30/2004
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Selenium	EPA 6020	Metals	NELAP	8/30/2004
Silicon	EPA 200.7	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 200.7	Metals	NELAP	4/10/2002
Silver	EPA 200.8	Metals	NELAP	8/30/2004
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	8/30/2004
Sodium	EPA 200.7	Metals	NELAP	4/10/2002
Sodium	EPA 200.8	Metals	NELAP	11/6/2014
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	8/30/2004
Strontium	EPA 200.7	Metals	NELAP	9/27/2002
Strontium	EPA 6010	Metals	NELAP	7/1/2003
Strontium	EPA 6020	Metals	NELAP	8/30/2004
Thallium	EPA 200.7	Metals	NELAP	4/10/2002
Thallium	EPA 200.8	Metals	NELAP	8/30/2004
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	8/30/2004
Tin	EPA 200.7	Metals	NELAP	4/10/2002
Tin	EPA 200.8	Metals	NELAP	11/6/2014
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	8/30/2004
Titanium	EPA 200.7	Metals	NELAP	4/10/2002
Titanium	EPA 200.8	Metals	NELAP	11/6/2014
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	8/30/2004
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Total, fixed, and volatile residue	SM 2540 G	General Chemistry	NELAP	9/27/2002

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**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



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**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Turbidity	EPA 180.1	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 200.7	Metals	NELAP	4/10/2002
Vanadium	EPA 200.8	Metals	NELAP	8/30/2004
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	8/30/2004
Zinc	EPA 200.7	Metals	NELAP	4/10/2002
Zinc	EPA 200.8	Metals	NELAP	8/30/2004
Zinc	EPA 6010	Metals	NELAP	4/10/2002
Zinc	EPA 6020	Metals	NELAP	8/30/2004



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**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 6010	Metals	NELAP	4/10/2002
Antimony	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Barium	EPA 6010	Metals	NELAP	4/10/2002
Beryllium	EPA 6010	Metals	NELAP	4/10/2002
Boron	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Calcium	EPA 6010	Metals	NELAP	4/10/2002
Chromium	EPA 6010	Metals	NELAP	4/10/2002
Cobalt	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6010	Metals	NELAP	4/10/2002
Fecal coliforms	SM 9222 D	Microbiology	NELAP	7/28/2009
Fixed Residue	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Iron	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6010	Metals	NELAP	4/10/2002
Magnesium	EPA 6010	Metals	NELAP	4/10/2002
Manganese	EPA 6010	Metals	NELAP	4/10/2002
Mercury	EPA 7471	Metals	NELAP	4/10/2002
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6010	Metals	NELAP	4/10/2002
pH	EPA 9045	General Chemistry	NELAP	4/10/2002
Phosphorus, total	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Residue-total	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Residue-volatile	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	4/10/2002
Silver	EPA 6010	Metals	NELAP	4/10/2002
Sodium	EPA 6010	Metals	NELAP	7/9/2002
Strontium	EPA 6010	Metals	NELAP	4/10/2002
Thallium	EPA 6010	Metals	NELAP	4/10/2002
Tin	EPA 6010	Metals	NELAP	4/10/2002
Titanium	EPA 6010	Metals	NELAP	9/27/2002
Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 6010	Metals	NELAP	4/10/2002
Zinc	EPA 6010	Metals	NELAP	4/10/2002

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**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



**APPENDIX B**

## Well Installation Reports



November 23, 2020

Project No. 166849618

**Mr. Joju Abraham, PG**

Southern Company Services  
241 Ralph McGill Blvd NE  
Atlanta, GA 30308  
jabraham@southernco.com

**PIEZOMETER INSTALLATION REPORT (B-99 THROUGH B-100)  
GEORGIA POWER COMPANY – PLANT MCDONOUGH, SMYRNA, GEORGIA**

Dear Mr. Abraham,

Golder Associates Inc. (Golder) is submitting this *Piezometer Installation Report* to Southern Company Services, Inc. (SCS) and Georgia Power Company (GPC), which documents the construction of piezometers at Plant McDonough in Smyrna, Georgia (Site). Piezometer construction activities were performed in general accordance with the standards described in the Resource Conservation and Recovery Act (RCRA) Technical Enforcement Guidance Document (1986) and the Georgia Water Wells Standards Act of 1985. The installation of the piezometers was conducted under the oversight and direction of Timothy I. Richards, a Georgia Registered Professional Geologist (PG).

The field activities for this investigation were performed in July 2020. The field work consisted of the installation and development of two (2) piezometers. Metro conducted a survey of the installed piezometers between June and July 2020. A summary of the activities is presented below. Figure 1, Site Plan and Piezometer Location Map, presents the location of each of the newly installed piezometers.

**Piezometer Drilling and Construction Activities**

Piezometers B-99 and B-100 were drilled and installed by SCS at the Site in July 2020. SCS had a current and valid bond with the Water Wells Standards Advisory Council for the state of Georgia at the time of drilling and well installation. A copy of SCS's bond is included in Appendix A and the driller's name is provided on the boring/construction diagrams presented in Appendix B.

An experienced Golder geologist was present on site to oversee and record the drilling and piezometer construction under the supervision of a professional geologist registered to practice in Georgia (Timothy I. Richards). Drilling methods employed for borehole advancement were 4.25' Hollow Stem auger drilling techniques with split-spoon sampling for soil borings where applicable. The drilling equipment consisted of a full-sized CME 550 ATV-mounted drilling rig and 4.25-inch hollow stem augers (HSAs). Prior to use, and between boreholes, downhole equipment was steam cleaned.

As both piezometers were installed above bedrock, rock cores were not collected. Due to the shallow depth of the water table, B-99 was advanced to depth using only 4.25-inch HSAs. B-100 was advanced by 4.25-inch HSA, with

2-foot split spoon samples collected on 5-foot centers. Boring logs and piezometer construction records for the newly installed piezometers are included in Appendix B. The construction data are summarized in Table 1 and the locations of the piezometers are provided on Figure 1.

Piezometers were constructed within the boreholes using factory-cleaned and sealed Schedule 40 poly-vinyl chloride (PVC) products with flush-threaded fittings. Specifically, piezometer B-99 was constructed with a 5-foot section of 3-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC U-Pack screens. Piezometer B-100 was constructed with a 10-foot section of 3-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC U-Pack screens. The drillers filled the annulus of each U-Pack screen section with No. 1 filter sand. In each case, the screen was placed near the bottom of the borehole, with the remainder of the piezometer constructed from 10-foot sections of 2-inch ID, flush-threaded, PVC casing riser. A flush-threaded PVC end cap was placed on the bottom of each piezometer to provide a 0.4-foot sump/sediment trap. Piezometers B-99 was installed as a flush-mounted wells and extends approximately 2.52 inches above grade; B-100 was completed as a “stick-up” and extends approximately 31.44 inches above grade. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF)-rated.

Following placement of the screen and casing, the annular space in each borehole adjacent to the screen was filled with U.S. Standard Sieve size No. 1 filter pack sand as appropriate for the formation. The filter pack sand was placed into each borehole and extends approximately 2 feet above the depth of the top of the screen. Immediately following placement of the filter pack, each piezometer was pumped using a portable submersible pump until visibly clear water was discharged. If settling occurred during pumping, additional sand was placed so that the filter sand thickness was no less than 2 feet above the screen. A filter pack seal, composed of 2 to 3 feet of hydrated time-release 3/8” coated bentonite pellets, was then placed on top of the filter pack by slowly pouring the material down the boreholes tamping it into place. The bentonite was hydrated using potable water and allowed to cure for at least two hours prior to grouting the piezometers.

Following hydration of the bentonite, the remaining annular space was grouted with an AquaGuard® bentonite grout mixture to approximately 2 feet below ground surface using a tremie method. Based on information provided by the product manufacturer, AquaGuard® is a bentonite grout consisting of bentonite and additives that allow for a mixture of 30% solids by weight to facilitate grouting via tremie pipe, with additives that slow the bentonite curing so that proper placement can be achieved. B-99 surface piezometer surface completion consists of an 8-inch round flush mount with a 2-foot by 2-foot concrete pad. B-100 piezometer surface completion consists of a locked, aluminum protective casing and a 4-foot by 4-foot by 4-inch concrete pad with bollards. The annular space of the aluminum protective casing was filled with gravel to approximately 2 inches from top of PVC.

### **Piezometer Development Activities**

The newly installed piezometers were developed in July 2020 in accordance with the Monitoring Well Development Procedures, dated March 2016, prepared by SCS. The piezometer screen intervals were surged and then pumped using a Reclaimer pump system. During development, water quality measurements of pH, temperature, specific conductance, and turbidity were periodically collected using field-calibrated water quality equipment after the piezometer responded to improving conditions. Development activities were conducted utilizing a SmarTroll® multimeter and a Lamotte 2020 turbidimeter, and for monitoring water quality measurements. Equipment calibration forms and development forms are included in Appendix B with development details summarized in Table 2.

As presented in Table 2, between approximately 290 gallons were removed from B-99 and approximately 600 gallons were removed from B-100 during development. During development, attempts were made for each piezometer to achieve a turbidity value below approximately 10 nephelometric turbidity units (NTUs). Water level measurements were collected using a decontaminated electronic water level indicator, referenced to a notch (or permanent marking) at the top of the casing and recorded to within 0.01 foot.

### **Piezometer Survey**

The newly installed piezometers were surveyed in July 2020 by Metro Engineering & Surveying Co., Inc. (James R. Green). Surveyed locations and elevations are presented on the boring/construction diagrams and a site map showing the locations of the newly installed piezometers is presented on Figure 1. The certified well survey is attached as Appendix C.

We appreciate the opportunity to assist SCS and GPC with this project. Should you have any questions or require additional information, please contact the undersigned at (770) 496-1893.

Sincerely,

**Golder Associates Inc.**



Brian A. Steele, PG  
*Senior Project Geologist*



Timothy I. Richards, PG  
*Associate, Senior Consultant*



BAS/TIR

CC: Georgia Power Company - Plant McDonough  
Ben Hodges, Geologist, Georgia Power Company  
Dawn L. Prell - Golder  
Rachel P. Kirkman, PG - Golder

Attachments: Figure 1 - Site Plan and Piezometer Location Map  
Table 1 - Summary of Piezometer Construction Details  
Table 2 - Summary of Piezometer Development Data  
Appendix A - SCS Drilling Bond  
Appendix B - Boring Logs/Construction Diagrams, Development Forms, and Calibration Logs  
Appendix C – Survey Data

[https://golderassociates.sharepoint.com/sites/11950g/Shared Documents/200\\_Reports\\_Technical Work/Well Installation Reports/B99-B100 Piezometer Installation 7.2020/Plant McDonough Piezometer\\_B-99-B-100\\_Install Report - Final.docx](https://golderassociates.sharepoint.com/sites/11950g/Shared Documents/200_Reports_Technical Work/Well Installation Reports/B99-B100 Piezometer Installation 7.2020/Plant McDonough Piezometer_B-99-B-100_Install Report - Final.docx)




**FIGURE 1**

**SITE PLAN AND PIEZOMETER  
LOCATION MAP**





**LEGEND**

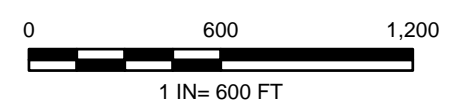
-  PIEZOMETER
-  PROPERTY BOUNDARY
-  PERMIT BOUNDARY

**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE

**REFERENCE**

1. SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT MCDONOUGH  
 PROJECT  
 B-99 THROUGH B-100 PIEZOMETER INSTALLATION

**TITLE**  
**SITE PLAN AND PIEZOMETER LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2020-09-22
	PREPARED	BAS
	DESIGN	BAS
	REVIEW	DP/RK
	APPROVED	

Path: C:\Users\steele\Desktop\McDonough\_GIS - Other\Well Reports\B-99 to B-100.mxd

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



**TABLE 1**

**SUMMARY OF PIEZOMETER  
CONSTRUCTION DETAILS**

**TABLE 1**  
**SUMMARY OF PIEZOMETER CONSTRUCTION DETAILS**  
 Georgia Power Company - Plant McDonough  
 Smyrna, Georgia

Borehole ID	LATITUDE	LONGITUDE	NAD 83 NORTHING	NAD 83 EASTING	ELEVATION TOP OF PVC (feet NAVD88)	ELEVATION GROUND SURFACE (feet NAVD88)	Rock Type	Total Depth (feet bgs)	Depth to Bedrock (feet bgs)	Screened Interval (feet bgs)	Core Available	Water Level (feet bTOC)	Date Installed
B-99	33.833247	-84.474573	1394524.2	2203084.5	782.39	782.6	NA	12.30	NA	7.3-12.3	NA	5.93	7/7/2020
B-100	33.821507	-84.477304	1390254.8	2202242.1	777.95	775.3	NA	45.00	NA	34.8-44.8	NA	34.78	7/8/2020

**Notes:**

NAD - North American Datum  
 NAVD88 - North American Vertical Datum 1988  
 NA - Not Available  
 bgs - Below ground surface  
 bTOC - Below Top of Casing

**TABLE 2**

**SUMMARY OF PIEZOMETER  
DEVELOPMENT DATA**



**Table 2**  
**Summary of Piezometer Development**  
**Georgia Power Company - Plant McDonough**  
**Smyrna, Georgia**

Piezometer ID	Date Started	Time Started (hr:min)	Development Method	Measured Total Depth of Well (ft bTOC)	Initial Water level (ft bTOC)	Final Water Level (ft bTOC)	Volume of Casing (gal)	Total Volume Removed (gal)	pH (SU)	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)
B-99	7/16/2020	17:45	Reclaimer Pump	11.93	3.55	6.40	1.4	291.6	6.06	1.052	21.71	2.11	65.28	4.53
B-100	7/14/2020	13:50	Reclaimer Pump	47.58	34.65	36.40	2.1	603.3	5.42	0.968	23.41	5.78	89.19	1.88

**Notes:**

hr:min - hours:minutes  
ft bTOC - feet below Top of Casing  
gal - gallons  
SU - Standard Units  
mS/cm - millisiemens per centimeter  
°C - degrees Celcius  
NTU - nephelometric turbidity units  
mV - millivolts  
mg/L - milligrams per liter  
ORP - oxygen reduction potential  
DO - dissolved oxygen

**APPENDIX A**

# SCS DRILLING BONDS

CONTINUATION  
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987  
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.  
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2019  
(MONTH-DAY-YEAR)

and ending on June 30, 2020  
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

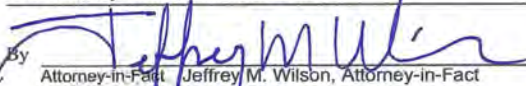
Description of bond Water Well Contractors & Drillers

Premium: \$100.00

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

Signed and dated on 11/10/2020  
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America  
175 Berkeley Street, Boston, MA 02116

By   
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff, Seibels & Williams, Inc.  
Agent

2211 7th Avenue South, Birmingham, AL 35233  
Address of Agent

(205) 252-9871  
Telephone Number of Agent



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: 8201221-016032

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American States Insurance Company is a corporation duly organized under the laws of the State of Indiana, that First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Anna Childress; Richard H. Mitchell; Sam Audia; Mark W. Edwards, II; Alisa B. Ferris; Robert R. Freel; William M. Smith; Jeffrey M. Wilson

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 8th day of May, 2019.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: David M. Carey, Assistant Secretary



State of PENNSYLVANIA ss
County of MONTGOMERY

On this 8th day of May, 2019 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notaral Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 10th day of November, 2020.



By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CONTINUATION  
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987  
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.  
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2020  
(MONTH-DAY-YEAR)

and ending on June 30, 2021  
(MONTH-DAY-YEAR)

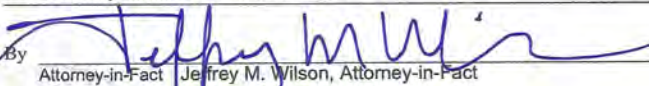
Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

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

Signed and dated on 11/10/2020  
(MONTH-DAY-YEAR)  
SAFECO Insurance Company of America  
175 Berkeley Street, Boston, MA 02116

By   
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff, Seibels & Williams, Inc.  
Agent  
2211-7th Avenue South, Birmingham, AL 35233  
Address of Agent  
(205) 252-9871  
Telephone Number of Agent





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

Certificate No: 8201221-016032

POWER OF ATTORNEY

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all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 8th day of May, 2019.

American States Insurance Company
First National Insurance Company of America
General Insurance Company of America
Safeco Insurance Company of America

By: [Signature]
David M. Carey, Assistant Secretary



State of PENNSYLVANIA
County of MONTGOMERY ss

On this 8th day of May, 2019 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: [Signature]
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 10th day of November, 2020.



By: [Signature]
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

**APPENDIX B**

**BORING LOGS/CONSTRUCTION  
DIAGRAMS, DEVELOPMENT  
FORMS AND CALIBRATION LOGS**

**RECORD OF BOREHOLE B-99**


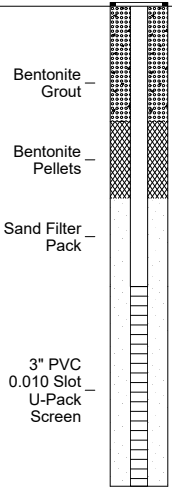

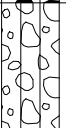
SHEET 1 of 1

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 12.30 ft  
 LOCATION: Smyrna, GA

DRILL RIG: CME 550X  
 DATE STARTED: 7/7/20  
 DATE COMPLETED: 7/7/20

NORTHING: 1,394,524.2  
 EASTING: 2,203,084.5  
 GS ELEVATION: 782.6  
 TOC ELEVATION: 782.39 ft

DEPTH W.L.: 5.93  
 ELEVATION W.L.: 776.46  
 DATE W.L.: 7/7/20  
 TIME W.L.: 16:10

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE			REC
0	780	0.00 - 5.00 GRAVEL WITH SILT; non-native, brown to brown-tan with some red, silty, poorly graded gravel with some concrete fill, some organics, slightly weathered, non-cohesive, moist to wet, loose to compact (fill)	GW-GM		777.6	R1		1.03	 <p>Flush Mount -</p> <p>Bentonite Grout</p> <p>Bentonite Pellets</p> <p>Sand Filter Pack</p> <p>3" PVC 0.010 Slot U-Pack Screen</p>	<p><b>WELL CASING</b>                      Interval: 0'-12'3"                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam</p> <p><b>WELL SCREEN</b>                      Interval: 7'3"-12'3"                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: 0.010"                      End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b>                      Interval: 5'-12'3"                      Type: Filtersil std61                      Quantity: 6 bags (50 lbs/bag)</p> <p><b>FILTER PACK SEAL</b>                      Interval: 3'-5'                      Type: 3/8" Coated Pel-Plug                      Quantity: 1 bucket</p> <p><b>ANNULUS SEAL</b>                      Interval: 0'-3'                      Type: Aquagard Bentonite Grout                      Quantity: 8 bags ~90 gal H2O</p> <p><b>WELL COMPLETION</b>                      Pad: 4'x4'x4"                      Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b>                      Soil Drill: 4.25-inch ID Hollow Stem Augers                      Rock Drill: N/A</p>
5	775	5.00 - 9.00 GRAVEL WITH SILT; non-native, brown to brown tan with red, silty, poorly graded gravel with some concrete fill, some organics, slightly weathered, non-cohesive, wet, loose to compact (fill)	GW-GM		773.6					
10	770	9.00 - 12.30 SILTY GRAVEL; brown, tan and red, non-cohesive, wet, loose to compact (mix of fill and saprolite)	GM		770.3					
12.30		Boring completed at 12.30 ft								

BOREHOLE RECORD\_MCDONOUGH MASTER LIST\_BACKUP\_SURVEY UPDATED (5).GPJ\_PIEDMONT.GDT\_10/22/20

LOG SCALE: 1 in = 5 ft  
 DRILLING COMPANY: SCS CFS  
 DRILLER: S. Deuty

GA INSPECTOR: Chris Tidwell  
 CHECKED BY: Brian Steele, PG  
 DATE: 8/24/20





**RECORD OF BOREHOLE B-100**

SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 45.00 ft  
 LOCATION: Smyrna, GA

DRILL RIG: CME 550X  
 DATE STARTED: 7/8/20  
 DATE COMPLETED: 7/8/20

NORTHING: 1,390,254.8  
 EASTING: 2,202,242.1  
 GS ELEVATION: 775.3  
 TOC ELEVATION: 777.95 ft

DEPTH W.L.: 34.78  
 ELEVATION W.L.: 743.17  
 DATE W.L.: 7/8/20  
 TIME W.L.: 15:50

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES				MONITORING WELL DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop			N-VALUE	REC
0	775	0.00 - 13.50 SILT-SILTY GRAVEL; mix of topsoil, residuum, fill, rip-rap boulders, soil; clayey silt, red-brown, micaceous, moist, moderately weathered, non-cohesive, moist, (backfilled cuttings)	ML-GM		761.8 13.50	R1	AUGER		0.00 11.00		Stick Up - Bentonite Grout  Bentonite Pellets  Sand Filter Pack  3" PVC 0.010 Slot	<b>WELL CASING</b> Interval: 0'-44'8" Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b> Interval: 34'8"-44'8" Material: Schedule 40 PVC Diameter: 2" Slot Size: 0.010" End Cap: Schedule 40 PVC  <b>FILTER PACK</b> Interval: 32'2"-44'8" Type: Filtersil std61 Quantity: 6 bags (50 lbs/bag)  <b>FILTER PACK SEAL</b> Interval: 30'-32'2" Type: 3/8" Coated Pel-Plug Quantity: 1 bucket  <b>ANNULUS SEAL</b> Interval: 2'-30" Type: Aquagaurd Bentonite Grout Quantity: 8 bags ~90 gal H2O  <b>WELL COMPLETION</b> Pad: 4'x4'x4" Protective Casing: Aluminum  <b>DRILLING METHODS</b> Soil Drill: Auger Rock Drill: N/A
5	770											
10	765											
15	760	13.50 - 18.50 SILT; with sand, gravel and trace clay, red-brown, highly weathered, non-cohesive, dry to moist, loose to compact	ML		756.8 18.50	R2	SS	3-3-2	1.45 1.50			
20	755	18.50 - 23.50 SILTY SAND; heavy organic matter (wood), red-brown with black organic matter, moderately weathered, non-cohesive, dry, loose	SM		751.8 23.50	R3	SS	3-3-2	0.60 1.50			
25	750	23.50 - 28.50 CLAYEY SAND; some organic matter, brown, slightly weathered, cohesive, w<PL, soft	SC		746.8 28.50	R4	SS	2-1-2	1.60 1.50			
30	745	28.50 - 33.50 CLAYEY SAND WITH SILT; trace organic matter, brown with some red, micaceous, moderately weathered, cohesive, w>PL, firm to soft, moist to wet	SC-SM		741.8 33.50	R5	SS	1-2-1	1.50 1.50			
35	740	33.50 - 38.50 CLAYEY SAND; some silt, red with some brown, highly weathered trace mica, cohesive, w>PL, wet, soft to very soft, trace gravel	SC		736.8 38.50	R6	SS	WH-WH-2	1.40 1.50			
40		Log continued on next page	SC			R7	SS	2-6-22	1.30 1.50			

BOREHOLE RECORD: MCDONOUGH MASTER LIST\_BACKUP\_SURVEY\_UPDATED (5).GPJ\_PIEDMONT\_GDT\_10/28/20

LOG SCALE: 1 in = 5 ft  
 DRILLING COMPANY: SCS CFS  
 DRILLER: S. Deuty

GA INSPECTOR: Chris Tidwell  
 CHECKED BY: Brian Steele, PG  
 DATE: 8/24/20





WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY J WAGUESPACK  
 STARTED DEVEL 07/16/20 17:45  
 DATE TIME  
 WL BEFORE DEVEL 3.55 07/16/17:30  
 WL DATE TIME  
 WELL DEPTH BEFORE DEVEL 11.93  
 STANDING WATER COLUMN (FT) 8.38  
 SCREEN LENGTH 6.93-11.93

WELL ID: B-99  
 WELL DIA (in) 2  
 DATE OF INSTALL 07/21 17:20  
 COMPLETED DEVEL 07/21 17:20  
 DATE TIME  
 WL AFTER DEVEL 6.40 07/21 17:13  
 WL DATE TIME  
 WELL DEPTH AFTER DEVEL 11.93  
 STANDING WELL VOLUME 1.37 gal  
 DRILLING WATER LOSS          gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS							PUMP FROM BOTTOM REMARKS
				pH (S.U.)	Sp Cond (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)	
07/16/17:50	3.5		9.55	6.12	1100.3	21.80	>1000	GRAY	2.26	90.9	3" SURGING
17:55	5		TOP	6.16	1190.2	20.82	>1000	GRAY	3.82	77.1	RECHARGING
18:20	5		4.35								SURGING
18:25	7.5		9.1	6.23	1093.1	20.93	>1000	GRAY	5.54	78.4	
18:30	10		TOP	6.22	1099.5	20.68	>1000	GRAY	5.72	73.2	
07/17	-		3.75								
09:20	10		3.75	7.46	1051.6	22.33	>1000	GRAY	4.09	57.6	3" SURGING
09:25	15		TOP	6.40	1063.7	20.99	>1000	GRAY	5.08	77.0	RECHARGING
09:40	15		4.5	6.13	1040.5	22.51	>1000	GRAY	4.37	77.5	SURGING
09:47	20		TOP	6.13	1063.4	20.88	>1000	GRAY	5.64	73.0	RECHARGING
10:00	20		4.5	6.10	1062.4	20.90	>1000	GRAY	5.52	72.7	
10:07	25		TOP	6.08	1064.1	20.95	>1000	GRAY	5.33	72.6	RECHARGE
10:20			4.5	6.05	1056.4	22.46	>1000	GRAY	5.32	70.8	SURGING
10:27	30		TOP	6.09	1050.1	20.98	>1000	GRAY	5.25	75.2	RECHARGE
10:38			4.5	6.12	1048.4	21.89	>1000	GRAY	5.53	74.4	SURGING
10:45	35		TOP	6.08	1049.4	20.90	>1000	GRAY	5.39	75.2	RECHARGE
10:57			4.5	6.08	1042.7	21.44	>1000	GRAY	4.90	74.5	SURGING
11:05	40		TOP	6.08	1046.2	20.86	>1000	GRAY	5.30	75.2	RECHARGE
11:17			4.5	6.10	1044.5	21.36	>1000	GRAY	4.98	74.4	SURGING
11:26	45		TOP	6.09	1061.6	20.64	>1000	GRAY	5.31	70.1	RECHARGE
11:40			4.5	6.12	1051.5	21.18	>1000	GRAY	4.37	67.9	SURGING
11:48	50		TOP	6.13	1046.4	20.82	>1000	GRAY	5.31	72.1	R
11:57			4.5	6.14	1038.5	21.26	>1000	GRAY	4.98	72.4	S
12:06	55		TOP	6.11	1048.4	20.80	>1000	GRAY	5.50	72.6	R
12:17			4.5	6.12	1043.5	21.44	>1000	GRAY	5.37	73.0	S
12:24	60		TOP	6.18	1049.9	20.88	>1000	GRAY	6.10	69.5	R
12:37			4.5	6.22	1044.9	21.80	>1000	GRAY	5.03	62.6	S
12:47	65		TOP	6.18	1058.9	20.78	>1000	GRAY	5.41	63.1	R
13:01			4.5	6.13	1058.7	21.67	>1000	GRAY	5.12	64.5	S
13:09	70		TOP	6.22	1053.9	21.17	>1000	GRAY	6.20	62.1	R
13:20			4.5	6.27	1040.5	22.89	>1000	GRAY	4.36	66.9	S
13:29	75		TOP	6.17	1056.9	21.06	>1000	GRAY	5.90	63.0	R
13:41			4.5	6.21	1039.7	22.79	>1000	GRAY	4.98	69.7	S
13:50	80		TOP	6.16	1068.2	20.91	>1000	GRAY	5.79	62.1	R

= TOTAL VOLUME REMOVED (gal)

DEVELOPMENT METHOD: RECLAIMER + SURGING

NOTES: TOP = TOP OF PUMP



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY J WAGUESPACK  
 STARTED DEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 W.L. BEFORE DEVEL \_\_\_\_\_  
 WL / DATE / TIME \_\_\_\_\_  
 WELL DEPTH: BEFORE DEVEL \_\_\_\_\_  
 STANDING WATER COLUMN (FT) \_\_\_\_\_  
 SCREEN LENGTH \_\_\_\_\_

WELL ID: B-99  
 WELL DIA (in) 2  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED DEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 WL AFTER DEVEL \_\_\_\_\_  
 WL / DATE / TIME \_\_\_\_\_  
 WELL DEPTH: AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS								PUMP FROM BOTTOM REMARKS
				pH (s.u.)	Sp Cond (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
07/17 14:06	80		4.5	6.15	1059.5	21.40	71000	GRAY	4.95	59.7	3" SURGING	
14:15	85		TOP	6.20	1062.4	20.91	71000	GRAY	6.07	56.2	RECHARGE	
14:30			4.5	6.22	1047.4	22.15	71000	GRAY	5.10	64.5	SURGING	
14:40	90		TOP	6.22	1060.0	21.09	71000	GRAY	6.32	56.7	R	
14:56			4.5	6.18	1051.1	21.47	71000	GRAY	5.47	57.2	S	
15:05	95		TOP	6.22	1067.0	20.95	71000	GRAY	6.22	52.8	R	
15:21			4.5	6.29	1048.6	22.38	71000	GRAY	4.96	61.1	S	
15:30	100		TOP	6.25	1053.9	21.00	71000	GRAY	6.42	56.8	R	
15:42			4.5	6.27	1056.6	21.28	71000	GRAY	5.62	58.0	S	
15:52	105		TOP	6.22	1072.1	20.77	71000	GRAY	6.01	53.3	R	
16:04		Dev	PAUSED - EQUIP ISSUES									
16:42			3.7	6.22	1052.8	22.29	71000	GRAY	5.32	45.9	S	
16:50	110		TOP	6.28	1057.0	20.98	71000	GRAY	6.36	46.2	R	
17:07			4.1	6.28	1057.0	21.67	71000	GRAY	4.94	46.6	S	
17:17	115		TOP	6.29	1066.4	20.86	71000	GRAY	6.34	45.6	R	
17:22			4.5	6.28	1064.5	21.46	71000	GRAY	5.15	45.4	S	
17:40	120		TOP	6.29	1060.6	20.86	71000	GRAY	6.34	45.7	R	
17:53			4.5	6.29	1061.4	21.49	71000	GRAY	5.23	45.9	S	
18:08	125		TOP	6.33	1064.4	21.35	71000	GRAY	6.47	42.0	R	
07/20 08:57	125		3.80	-	-	-	71000	GRAY	-	-	SURGING	
09:06	130		TOP	-	-	-	71000	GRAY	-	-	RECHARGE	
09:17			4.5	6.18	1092.0	21.73	71000	GRAY	4.32	60.0	S	
09:28	135		TOP	6.14	1083.4	21.22	71000	GRAY	6.21	55.1	R	
09:50			3.7	6.15	1050.0	22.38	71000	GRAY	4.90	52.2	S	
10:02	140		TOP	6.14	1077.0	21.36	71000	GRAY	6.14	50.1	R	
10:18			4.5	6.16	1053.8	22.30	71000	GRAY	5.04	49.9	S	
10:28	145		TOP	6.17	1079.6	21.27	71000	GRAY	6.33	45.6	R	
10:47			4.5	6.19	1078.9	23.30	71000	GRAY	5.16	44.7	S	
10:56	150		TOP	6.15	1079.6	21.08	71000	GRAY	6.43	45.4	R	
11:13			4.5	6.19	1047.3	23.32	71000	GRAY	6.49	42.8		
11:23	155		TOP	6.17	1061.2	21.17	71000	GRAY	6.56	47.3	R	
11:41			4.5	6.21	1049.5	22.20	71000	GRAY	4.80	44.0		
11:50	160		TOP	6.21	1066.0	21.18	71000	GRAY	6.53	44.1	R	
12:05			4.5	6.21	1050.1	22.69	71000	GRAY	4.68	43.0		
		= TOTAL VOLUME REMOVED (gal)										

DEVELOPMENT METHOD: RECLAIMEN + SURGING  
 NOTES: TOP = TOP OF PUMP

WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY J WAGUESPACIC  
 STARTED LEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 WL BEFORE DEVEL \_\_\_\_\_  
 WL DATE TIME \_\_\_\_\_  
 WELL DEPTH BEFORE DEVEL \_\_\_\_\_  
 STANDING WATER COLUMN (FT) \_\_\_\_\_  
 SCREEN LENGTH \_\_\_\_\_

WELL ID: B-99  
 WELL DIA (in) 2  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED LEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 WL AFTER DEVEL \_\_\_\_\_  
 WL DATE TIME \_\_\_\_\_  
 WELL DEPTH AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS								PUMP FROM BOTTOM REMARKS
				pH (u)	Sp Cond (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
07/20 12:13	165		TOP	6.19	1058.7	21.08	33.7	murky	6.30	46.1	3", RECLAIMING	
12:29			4.5	6.20	1051.6	22.42	7.14	CLR	7.77	46.9	SURGING	
12:40	170		TOP	6.21	1061.7	21.25	71000	GRAY	6.73	46.3	RECLAIMING	
12:57			4.5	6.23	1040.8	22.17	71000	GRAY	5.20	49.1	SURGING	
13:07	175		TOP	6.22	1061.9	21.22	71000	GRAY	6.91	46.9	R	
13:33			4.5	6.25	1044.7	22.34	71000	GRAY	4.66	45.2		
13:42	180		TOP	6.23	1067.8	20.91	71000	GRAY	6.87	43.8	R	
14:05			4.5	6.24	1055.4	21.31	71000	GRAY	5.00	45.8		
14:15	185		TOP	6.26	1067.7	20.92	51.6	murky	7.04	42.2	R	
14:40			4.5	6.25	1054.2	21.44	71000	GRAY	5.95	44.7	SURGING	
14:51	190		TOP	6.30	1066.0	21.08	71000	GRAY	7.28	39.3	R	
15:19			4.5	6.32	1050.2	22.65	21.0	murky	6.71	41.9	S	
15:28	195		TOP	6.26	1061.5	20.96	71000	GRAY	7.32	40.6	R	
15:55			4.5	6.31	1050.8	21.62	71000	GRAY	6.18	39.0	S	
16:02	200		TOP	6.27	1063.1	21.17	71000	GRAY	6.78	41.0	R	
16:27			4.5	6.30	1053.0	21.23	18.0	murky	6.60	51.5	SURGING	
16:37	205		TOP	6.28	1067.5	22.15	71000	GRAY	7.01	42.3	R	
17:01			4.5	6.28	1063.9	22.30	71000	GRAY	6.89	45.5		
17:09	210		TOP	6.27	1059.0	21.53	71000	GRAY	6.81	43.3	R	
17:33			4.5	6.50	1027.3	22.82	71000	GRAY	5.38	52.5	S	
17:42	215		TOP	6.29	1062.0	21.22	70000	GRAY	6.89	47.6	R	
18:10			4.5	6.31	1046.6	22.78	71000	GRAY	5.46	43.0	S	
18:18	220		TOP	6.28	1060.8	21.08	71000	GRAY	6.85	44.8	R	
07/21-08:30			3.82				71000	GRAY			SURGING	
08:39	225		TOP				71000	GRAY			RECLAIMING	
09:01			4.5	7.20	1043.6	21.79	71000	GRAY	5.39	57.3	S	
09:08	230		TOP	6.43	1062.2	20.91	71000	GRAY	6.76	63.4	R	
09:31			4.5	6.08	1051.2	35.6	21.23	murky	6.35	66.6	SURGING	
09:40	235		TOP	6.08	1066.1	21.37	71000	GRAY	6.77	59.5	R	
10:04			4.5	6.12	1039.1	22.19	75.7	murky	5.35	58.0	S	
10:14	240		TOP	6.13	1062.7	21.40	71000	GRAY	6.87	53.8	R	
10:41			4.5	6.14	1042.5	22.29	26.1	murky	6.17	50.8	S	
10:53	245		TOP	6.18	1058.6	21.62	70000	GRAY	7.10	47.5	R	
11:19			4.5	6.29	1017.8	22.65	13.7	CLR	5.67	56.5	S	
				= TOTAL VOLUME REMOVED (gal)								

DEVELOPMENT METHOD: RECLAIMER + SURGING

NOTES: TOP = TOP OF PUMP



166849618  
J WAGNERPACK

B-99

PAGE 4/4

	Vol REM.	DTW	pH	SP. COND.	TEMP	NTU	COLOR	RDO	ORP	PUMP FROM BOTTOM + NOTES
07/21/20 11:30	250	TOP	6.19	1056.0	21.75	7100	GRAY	6.95	49.9	3', SURGING RECHARGE
11:55		4.5	6.28	1001.1	23.16	15.5	CLR	5.12	62.9	SURGING
12:07	255	TOP	6.14	1051.9	21.80	42.2	GRAY	6.54	56.1	RECHARGE
12:32		4.5	6.28	1007.4	23.10	15.3	CLR	5.15	66.2	S
12:41	260	TOP	6.14	1049.7	21.63	40.0	MURKY	6.64	59.9	R
13:04		4.5	6.25	1016.6	22.88	28.4	MURKY	5.41	63.6	S
13:14	265	TOP	6.14	1049.0	21.39	26	MURKY	6.66	60.6	R
13:41		4.5	6.16	1035.7	22.24	32.5	MURKY	5.73	57.6	S
13:50	270	TOP	6.18	1050.0	21.97	19	MURKY	7.02	53.9	R
14:18		4.5	6.40	1018.0	23.93	45.7	MURKY	4.77	62.7	
14:27	275	TOP	6.18	1048.1	21.43	20.7	MURKY	6.76	58.7	R
14:54		4.5	6.35	1020.1	22.52	14.7	CLR	5.50	67.5	
15:05	280	TOP	6.24	1050.4	21.35	23.4	MURKY	7.12	55.8	R
15:33		4.5	6.39	1014.9	22.83	23.0	MURKY	4.94	67.6	
15:43	285	TOP	6.24	1049.6	21.28	13.0	CLR	7.07	58.5	R
16:12		4.5	6.23	1038.7	21.98	9.2	CLR	5.13	55.3	
16:21	290	TOP	6.20	1048.4	21.51	4.3	CLR	6.86	55.0	R
16:50		4.5								RECHARGED. BEGIN LOW FLOW DEV
17:20	DEV									COMPLETE + 1.6 GAL
										291.6 GAL PURGED TOTAL

Product Name: Low-Flow System

Date: 2020-07-21 17:14:48

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type LDPE  
Tubing Diameter .5 in  
Tubing Length 9.5 ft

Pump placement from TOC 9.5 ft

Well Information:

Well ID B-99  
Well diameter 2 in  
Well Total Depth 11.93 ft  
Screen Length 5 ft  
Depth to Water 3.8 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4568038 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 31.2 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:58:41	300.10	22.10	6.16	1050.54	4.34	5.80	5.32	55.10
Last 5	17:03:41	600.02	21.84	6.10	1051.73	2.58	6.10	4.67	59.72
Last 5	17:08:41	900.01	21.73	6.07	1052.59	2.38	6.20	4.52	62.97
Last 5	17:13:41	1200.00	21.71	6.06	1052.17	2.11	6.40	4.53	65.28
Last 5									
Variance 0			-0.26	-0.06	1.20			-0.65	4.62
Variance 1			-0.12	-0.03	0.86			-0.14	3.25
Variance 2			-0.01	-0.01	-0.43			0.00	2.30

Notes

Development

Grab Samples

# MONITORING WELL INSTALLATION LOG

JOB NO. <u>106549618</u>	PROJECT <u>Plant McDonough B99-B100 Justice</u>	WELL NO. <u>B-100</u>	SHEET <u>1</u> OF <u>1</u>
GA INSP. <u>CAT</u>	DRILLING METHOD <u>Auger + Split Spoon</u>	GROUND ELEV. <u>TBD</u>	WATER DEPTH _____
WEATHER <u>Sunny ~85°F</u>	DRILLING COMPANY <u>SES CFS</u>	COLLAR ELEV. <u>TBD</u>	DATE/TIME _____
TEMP. _____	DRILL RIG <u>ONE SSSX</u>	DRILLER <u>S. Rini</u>	STARTED <u>08:10/7-8-20</u>
			COMPLETED <u>11:10/7-8-20</u>

MATERIALS INVENTORY			
WELL CASING <u>2</u> in. dia. I.F.	WELL SCREEN <u>2</u> in. dia. <u>10</u> I.F.	BENTONITE SEAL <u>3/8" coated Pol-Plug</u>	
CASING TYPE <u>Schedule 40 PVC</u>	SCREEN TYPE <u>Schedule 40 PVC</u>	INSTALLATION METHOD <u>tremie</u>	
JOINT TYPE <u>screw fit w/ rubber gaskets</u>	SLOT SIZE <u>0.010 in</u>	FILTER PACK QTY <u>6 bags (50 lbs/bag)</u>	
GROUT QUANTITY <u>8 bags + ~90 gals H<sub>2</sub>O</u>	CENTRALIZERS <u>not used</u>	FILTER PACK TYPE <u>Filter-Sil Grk Sand</u>	
GROUT TYPE <u>Auger grout Bentonite Grout</u>	DRILLING MUD TYPE <u>NA</u>	INSTALLATION METHOD <u>manure</u>	

ELEV./DEPTH	SOIL/ROCK DESCRIPTION	WELL SKETCH	INSTALLATION NOTES
5			
0.0	GROUND SURFACE		Shack up: ~3'
5			GROUT: 8 bags Auger grout + ~90 gals H <sub>2</sub> O from surface to 30' BGS
10			
15			Bentonite Seal: 1 bucket Pol Plug 3/8" coated pellets from 32'2" to 30' BGS
20			
25			
30			SAND 6 bags (50 lbs/bag) Filter-Sil Grk Sand from 44'8" to 32'2" BGS
35			
40			Screen: 44'8" to 34'8" BGS
45			
	Blk Limestone ~ 44'8"	<p>The well sketch is a vertical cross-section of the well. It shows a casing labeled 'PVC' extending from the ground surface down to approximately 44 feet. Below the casing, there is a screen labeled 'Screen' from 44'8" to 34'8" BGS. Below the screen is a filter pack labeled 'Filter Sand' from 44'8" to 32'2" BGS. Below the filter pack is a bentonite seal labeled 'Bentonite Seal' from 32'2" to 30' BGS. The area below 30' BGS is labeled 'Grout'. The soil/rock description on the left indicates 'Blk Limestone ~ 44'8"'. The installation notes on the right describe the materials and methods used at various depths.</p>	
			WELL DEVELOPMENT NOTES



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY J. WAGUESPACK  
 STARTED DEVEL 07/14/20 13:55  
 DATE TIME  
 W.L. BEFORE DEVEL 31.65 07/14 13:05  
 WL DATE TIME  
 WELL DEPTH BEFORE DEVEL 47.58  
 STANDING WATER COLUMN (FT.) 12.93  
 SCREEN LENGTH 37 - 47

WELL ID: B-100  
 WELL DIA (in) 2  
 DATE OF INSTALL  
 COMPLETED DEVEL 07/16 16:55  
 DATE TIME  
 WL AFTER DEVEL 36.4 07/16 16:55  
 WL DATE TIME  
 WELL DEPTH AFTER DEVEL 47.58  
 STANDING WELL VOLUME 2.11 gal  
 DRILLING WATER LOSS          gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS							PUMP FROM BOTTOM - ft	REMARKS
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
07/14/14:00	-	24 min	37.50	5.53	1011.5	23.45	21000	BR0	3.16	71.5	3"	SURGING
14:05	5	0.5 min	38.00	5.37	1012.5	21.87	71000	BR0	0.76	71.3		
14:10	7.5		38.6	5.37	1002.9	21.76	71000	BR0	0.64	72.7		SURGING
14:20	12.5		39.0	5.38	988.3	21.69	71000	BR0	0.61	70.5		
14:30	17.5		39.3	5.39	978.7	21.46	70.9	TAN	0.55	68.6		SURGING
14:40	22.5		39.4	5.40	1003.8	21.46	78.2	TAN	0.54	66.6		SURGING
14:50	27.5		39.4	5.41	987.6	21.49	65.9	TAN	0.59	66.3		SURGING
15:00	32.5		39.7	5.41	975.1	21.49	71000	BR0	0.89	67.7		SURGING
15:10	37.5		39.7	5.41	967.7	21.44	71000	BR0	0.59	67.3		
15:20	42.5		39.7	5.41	964.9	21.44	71000	BR0	0.55	68.2		
15:30	47.5		39.5	5.41	973.4	21.44	76.3	TAN	0.56	66.6		
15:40	52.5		39.6	5.41	970.7	21.46	78.2	TAN	0.59	66.7		
15:50	57.5		39.6	5.42	970.8	21.41	72.2	TAN	0.86	66.9		
16:00	62.5		38.8	5.42	973.4	21.44	65.4	TAN	0.61	66.3		
16:10	67.5		39.0	5.43	972.5	21.35	68.5	CLR	0.93	65.2		→ 5' SURGING
16:20	72.5		39.9	5.72	993.2	21.53	71000	BR0	6.66	57.8		SURGING
16:30	77.5		40.6	5.78	968.3	21.62	71000	BR0	7.06	58.7		
16:40	82.5		40.6	5.81	966.7	21.40	83.6	TAN	7.19	59.6		
16:50	87.5		40.3	5.81	969.5	21.53	84.9	TAN	7.78	55.8		PASING FOR RECHARGE
16:55	-		35.0	RESUME DEV	-	SURGE ENTIRE SCREEN						
17:00	90		38.6	5.81	976.2	21.81	71000	BR0	7.15	59.9		SURGING
17:10	95		36.6	5.70	976.6	22.24	71000	BR0	7.00	57.8		REG. → 40/20 CYCLE
17:20	100		35.6	5.71	975.3	22.42	71000	BR0	6.90	58.0		SURGING
17:30	105		35.5	5.90	977.2	22.74	71000	BR0	6.75	58.5		
17:40	110		36.0	5.89	980.0	22.96	71000	BR0	6.55	60.0		
17:50	115		35.7	5.82	974.4	23.12	71000	BR0	6.15	65.1		
18:00	120		35.7	5.93	983.0	22.12	71000	BR0	6.51	59.2		
18:10	125		35.85	5.91	981.5	22.73	71000	BR0	6.67	59.3		
18:20	130		35.8	5.90	981.7	23.05	71000	BR0	6.66	59.0		
18:30	135		35.8	5.92	981.0	23.14	71000	BR0	6.80	58.1		
18:40	140		35.8	5.92	981.3	23.18	71000	BR0	6.83	57.3		
18:50	145		35.8	5.92	980.4	23.14	71000	BR0	6.82	57.2		
CONTINUED ON NEXT PAGE												
* TOTAL VOLUME REMOVED (gal)												

DEVELOPMENT METHOD: RECLAIMER + SURGING

NOTES:

WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY J. WAGUESPACK  
 STARTED DEVEL 07/14/20 13:58  
 DATE TIME  
 W.L. BEFORE DEVEL 39.65 07-14 13:05  
 WL DATE TIME  
 WELL DEPTH BEFORE DEVEL 47.58  
 STANDING WATER COLUMN (FT) 12.93  
 SCREEN LENGTH 37 - 47

WELL ID: B-100  
 WELL DIA (in) 2  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED DEVEL \_\_\_\_\_  
 DATE TIME  
 WL AFTER DEVEL \_\_\_\_\_  
 WL DATE TIME  
 WELL DEPTH AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME 2.11 gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS							PUMP FROM BOTTOM (ft) REMARKS	
				pH (s.u.)	Sp Cond (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
07/15 - 09:10	-	0.5	34.68		BEGIN DEV	07/15						surge ENTIRE SCREEN
09:15	145		35.3	6.06	1114.8	22.78	21000	BR0	5.94	51.3		5' SURGING
09:25	150		34.9	5.82	1150.5	21.71	21000	BR0	6.62	43.0		surging
09:35	155		35.4	5.80	1140.2	21.91	21000	BR0	6.61	42.7		
09:45	160		35.2	5.81	1139.4	22.74	21000	BR0	6.59	43.3		
09:55	165		35.5	5.82	1135.4	23.01	21000	BR0	6.58	42.7		
10:05	170		35.0	5.83	1129.4	23.05	21000	BR0	6.44	42.7		
10:15	175		35.2	5.86	1114.6	22.11	21000	BR0	6.60	41.9		
10:25	180		34.9	5.85	1104.2	21.71	21000	BR0	6.43	41.9		
10:35	185		34.85	5.87	1102.2	21.81	21000	BR0	6.47	42.9		
10:45	190		34.8	5.88	1102.0	22.47	21000	BR0	6.52	43.0		
10:55	195		34.8	5.88	1100.3	22.65	21000	BR0	6.55	43.1		
11:05	200		35.3	5.89	1097.9	22.76	21000	BR0	6.41	42.3		
11:15	205		35.0	5.89	1093.4	22.98	21000	BR0	6.41	43.2		
11:25	210		35.0	5.86	1092.2	23.05	21000	BR0	6.01	46.2		
11:35	215		35.1	5.80	1091.8	23.14	21000	BR0	5.62	51.7		
11:45	220		35.4	5.95	1088.7	22.25	21000	BR0	6.72	41.1		
11:55	225		35.0	5.93	1089.6	22.90	21000	BR0	6.50	41.7		
12:05	230		35.2	5.92	1088.0	23.32	21000	BR0	6.40	41.8		
12:15	235		34.9	5.92	1085.7	23.36	21000	BR0	6.33	42.7		
12:25	240		34.8	5.90	1087.0	23.43	21000	BR0	6.22	44.2		
12:35	245		35.0	5.99	1080.3	22.56	21000	BR0	6.78	38.8		
12:45	250		34.8	5.97	1081.0	22.54	21000	BR0	6.46	38.2		
12:55	255		35.5	5.96	1077.7	23.01	21000	BR0	6.54	40.9		
13:05	270		34.9	5.96	1075.3	23.13	67	TAN	6.52	41.7		
13:15	275		34.7	5.99	1073.6	22.88	82.2	TAN	6.69	39.6		
13:25	280		35.0	5.98	1073.4	23.41	46.5	CLR	6.41	39.5		
13:35	285		35.0	5.96	1071.2	23.55	33.4	CLR	6.22	41.1		pump → 8' SURGING
13:45	290		35.6	6.05	1081.4	23.19	21000	BR0	6.79	34.3		SURGING
13:55	295		35.5	6.06	1076.5	23.50	21000	BR0	6.84	32.8		
14:05	300		35.1	6.07	1073.7	23.45	107.9	TAN	6.93	33.0		
14:15	305		35.0	6.07	1070.7	23.14	57.1	TAN	6.95	32.1		
14:25	310		34.9	6.10	1068.7	22.89	35.0	murky	7.07	32.6		
14:35	315		35.1	6.10	1068.7	23.08	64.8	TAN	7.07	31.9		
= TOTAL VOLUME REMOVED (gal)												

DEVELOPMENT METHOD RECLAIMER + SURGING

NOTES \_\_\_\_\_



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY JWAGUESPACK  
 STARTED LEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 W.L. BEFORE DEVEL \_\_\_\_\_  
 WL DATE TIME \_\_\_\_\_  
 WELL DEPTH BEFORE DEVEL \_\_\_\_\_  
 STANDING WATER COLUMN (FT) \_\_\_\_\_  
 SCREEN LENGTH \_\_\_\_\_

WELL ID: B-100  
 WELL DIA (in) 2  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED LEVEL \_\_\_\_\_  
 DATE / TIME \_\_\_\_\_  
 WL AFTER DEVEL \_\_\_\_\_  
 WL DATE TIME \_\_\_\_\_  
 WELL DEPTH AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft)	FIELD PARAMETERS								REMARKS
				pH (s.u.)	Sp Cond (mS/cm)	TEMP (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
07/15-14:45	320	0.5	35.4	6.08	1082.5	22.69	110	TAN	6.96	32.4	8'	
14:55	325		35.2	6.10	1073.0	22.78	65.6	TAN	6.93	31.4		
15:05	330		35.5	6.03	1070.8	23.19	43.8	Murky	6.36	36.6	pump -> 3", surging	
15:15	335		35.5	6.00	1057.1	23.50	>1000	BRO	6.33	40.9		
15:25	340		35.7	5.94	1065.7	23.21	>1000	BRO	6.09	47.4	REG -> 20/10 clog	
15:35	345		35.8	5.85	1077.7	22.48	>1000	BRO	5.64	53.6		
15:45	350		35.8	5.87	1097.4	21.89	>1000	BRO	6.15	53.8		
15:55	355		35.7	5.90	1091.8	22.20	69.3	TAN	6.11	51.8		
16:05	360		36.0	5.92	1092.2	22.07	90.3	TAN	6.23	49.4	SURGING	
16:10	DEV	PAUSED	EQUIPMENT ISSUES									
16:30	360		34.80	DEV	RESUMED						SURGING	
16:40	365		35.80	5.83	1088.0	23.07	>1000	BRO	5.65	62.3		
16:50	370		35.70	5.83	1089.5	22.40	>1000	BRO	5.63	61.6		
17:00	375		36.20	5.82	1089.3	22.08	>1000	BRO	5.58	61.9		
17:10	380		36.00	5.81	1089.3	22.07	>1000	BRO	5.42	62.2		
17:20	385		35.40	5.79	1084.7	21.89	>1000	BRO	5.21	63.7	SURGING	
17:30	390		36.55	5.80	1087.1	21.22	>1000	BRO	5.40	64.7		
17:40	395		35.9	5.82	1078.1	21.30	29.1	CLR	5.60	64.1		
17:50	400		36.2	5.77	1074.7	21.09	30.1	CLR	5.32	66.4		
18:00	405		36.3	5.82	1074.8	21.18	30.3	CLR	5.63	64.2		
18:10	410		36.2	5.83	1071.3	21.26	27.1	CLR	5.59	63.7		
18:20	415		35.8	5.85	1069.5	21.40	14.2	CLR	5.74	62.9	SURGING	
18:30	420		36.2	5.83	1071.7	21.44	90.4	TAN	5.50	65.1		
18:40	425		36.0	5.85	1075.7	21.21	40.4	Murky	5.79	62.9		
07/16-09:55	425	—	33.82	—	BEGIN DEV	07/16	—	—	—	—	SURGING, 3"	
10:05	430	0.5	35.2	5.60	1010.4	21.54	>1000	BRO	5.81	95.9		
10:25	440		35.15	5.68	1005.5	21.46	37.4	Murky	6.40	71.1		
10:45	450		35.10	5.75	1005.1	21.89	20.1	CLR	6.33	62.3		
11:05	460		35.20	5.75	998.7	22.07	20.0	CLR	6.08	62.5	-> 5' SURGING	
11:25	470		35.5	5.81	1000.6	22.47	47.9	TAN	6.41	60.6	SURGING	
11:45	480		35.8	5.85	995.4	22.69	42.9	TAN	6.41	58.9		
12:05	490		35.8	5.87	992.9	22.72	18.1	CLR	6.46	57.4		
12:25	500		35.8	5.86	989.0	22.77	9.28	CLR	6.32	58.1	SURGING	
12:45	510		35.8	5.87	985.4	22.73	68.6	TAN	6.57	60.0	SURGING	
= TOTAL VOLUME REMOVED (gal)												

DEVELOPMENT METHOD: \_\_\_\_\_

NOTES: \_\_\_\_\_



Product Name: Low-Flow System

Date: 2020-07-16 16:55:13

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type polyethylene  
Tubing Diameter .500 in  
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID B-100  
Well diameter 2 in  
Well Total Depth 47.58 ft  
Screen Length 10 ft  
Depth to Water 34.8 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 1.711659 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.2 in  
Total Volume Pumped 12.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:34:05	300.09	22.96	5.52	963.99	5.91	35.40	3.23	83.70
Last 5	16:39:05	600.02	23.15	5.46	965.93	7.37	35.40	2.34	86.30
Last 5	16:44:05	900.01	23.14	5.45	966.96	5.26	35.40	2.23	87.18
Last 5	16:49:05	1200.00	23.29	5.43	968.46	4.55	35.40	2.01	88.41
Last 5	16:54:05	1500.00	23.41	5.42	968.97	5.78	35.40	1.88	89.19
Variance 0			-0.01	-0.01	1.04			-0.11	0.89
Variance 1			0.15	-0.02	1.50			-0.22	1.23
Variance 2			0.12	-0.01	0.51			-0.13	0.78

Notes

Development complete

Grab Samples

Calibration Report: Conductivity Calibration Report  
2020-07-14 12:36:47  
Probe: 647057  
Cell Constant: 1.0477  
Stability: Full

Calibration Report: Conductivity Calibration Report  
2020-07-15 08:27:55  
Probe: 647057  
Cell Constant: 1.1573  
Stability: Full

Calibration Report: Conductivity Calibration Report  
2020-07-16 08:23:59  
Probe: 647057  
Cell Constant: 1.0632  
Stability: Full



Calibration Report: Conductivity Calibration Report  
2020-07-17 08:46:48  
Probe: 647057  
Cell Constant: 1.0496  
Stability: Full

Calibration Report: ORP Calibration Report  
2020-07-14 12:54:48  
Probe: 647057  
User Defined: 228.0 mV  
Offset: 33.9 mV  
Stability: Full

Calibration Report: ORP Calibration Report  
2020-07-15 08:51:02  
Probe: 647057  
User Defined: 228.0 mV  
Offset: 34.8 mV  
Stability: Full

Calibration Report: ORP Calibration Report  
2020-07-16 08:44:30  
Probe: 647057  
ZoBell's  
Offset: 35.7 mV  
Stability: Full

Calibration Report: ORP Calibration Report  
2020-07-17 09:06:27  
Probe: 647057  
User Defined: 228.0 mV  
Offset: 39.4 mV  
Stability: Full

Calibration Report: pH Calibration Report  
2020-07-14 12:51:50  
Probe: 647057  
4.00 to 7.00 pH  
Slope: -53.81 mV/pH  
Offset: 6.63 pH  
7.00 to 10.00 pH  
Slope: -55.07 mV/pH  
Offset: 6.64 pH  
Stability: Full

Calibration Report: pH Calibration Report  
2020-07-15 08:47:00  
Probe: 647057  
4.00 to 7.00 pH  
Slope: -54.18 mV/pH  
Offset: 6.62 pH  
7.00 to 10.00 pH  
Slope: -55.99 mV/pH  
Offset: 6.63 pH  
Stability: Full

Calibration Report: pH Calibration Report  
2020-07-16 08:40:54  
Probe: 647057  
4.00 to 7.00 pH  
Slope: -53.54 mV/pH  
Offset: 6.60 pH  
7.00 to 10.00 pH  
Slope: -53.64 mV/pH  
Offset: 6.60 pH  
Stability: Full



Calibration Report: pH Calibration Report  
2020-07-17 09:03:54  
Probe: 647057  
4.00 to 7.00 pH  
Slope: -53.47 mV/pH  
Offset: 6.63 pH  
7.00 to 10.00 pH  
Slope: -53.92 mV/pH  
Offset: 6.63 pH  
Stability: Full

Calibration Report: RDO Calibration Report  
2020-07-17 09:14:43  
Probe: 647057  
Slope: 1.0475  
Offset: -0.0000  
Stability: Full

Calibration Report: RDO Calibration Report  
2020-07-14 13:03:38  
Probe: 647057  
Slope: 1.1023  
Offset: -0.0000  
Stability: Full

Calibration Report: RDO Calibration Report  
2020-07-15 09:03:31  
Probe: 647057  
Slope: 1.0505  
Offset: -0.0000  
Stability: Nominal

Calibration Report: RDO Calibration Report  
2020-07-16 09:08:35  
Probe: 647057  
Slope: 1.1033  
Offset: -0.0000  
Stability: Nominal

**APPENDIX C**

# CERTIFIED WELL SURVEY



1469 HIGHWAY 20 WEST • McDONOUGH, GA 30253  
phone: 770-707-0777 fax: 770.707-0755  
WWW.METRO-ENGINEERING.COM

## SURVEYOR'S REPORT

### SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

### EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver  
Leica TS16 Total Station  
Leica DNA10 Digital Level

### CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.

  
James R. Green R.L.S. No. 2543



Date: 8/10/20

Plant McDonough  
Monitoring Well Locations  
August 7, 2020

Well ID	LATITUDE	LONGITUDE	NAIL NORTHING	NAIL EASTING	NAIL ELEV	PVC NORTHING	PVC EASTING	TOP PVC ELEV	ELEV AT BASE
B-100	N33.821507	W84.477304	1390255.7	2202241.1	775.32	1390254.8	2202242.1	777.95	775.3
B-16	N33.827948	W84.473793	1392595.3	2203314.4	823.54	1392595.1	2203315.4	826.47	823.6
B-18	N33.827740	W84.475241	1392520.2	2202876.1	823.89	1392521.0	2202875.5	826.56	823.9
B-24	N33.827616	W84.479935	1392479.7	2201451.1	819.19	1392479.9	2201450.0	822.11	819.3
B-25	N33.828532	W84.479765	1392813.0	2201503.9	833.41	1392813.3	2201502.7	836.54	833.5
B-26	N33.829336	W84.479610	1393105.5	2201551.4	850.61	1393105.6	2201550.4	853.60	850.6
B-28	N33.826209	W84.479175	1391968.5	2201678.9	813.28	1391967.4	2201679.2	816.08	813.3
B-29	N33.825994	W84.480021	1391891.0	2201421.4	813.47	1391890.0	2201422.0	816.43	813.5
B-3	N33.831925	W84.476784	1394044.3	2202412.0	834.86	1394045.1	2202411.5	837.78	835.0
B-31	N33.826387	W84.481648	1392034.9	2200928.0	794.84	1392034.3	2200928.5	797.47	794.9
B-41	N33.823333	W84.478925	1390921.5	2201751.1	792.40	1390920.8	2201751.9	795.20	792.4
B-50	N33.825358	W84.478639	1391656.0	2201840.9	806.49	1391657.1	2201841.0	809.67	809.2
B-51	N33.822173	W84.481705	1390500.7	2200905.6	763.29	1390501.2	2200906.5	765.92	763.3
B-52	N33.827143	W84.480378	1392307.3	2201314.3	820.18	1392308.3	2201314.8	822.89	820.3
B-54	N33.832971	W84.474387	1394422.3	2203141.2	782.54	1394423.5	2203140.7	785.46	782.6
B-55	N33.832207	W84.471067	1394142.2	2204146.8	822.86	1394142.6	2204147.9	825.12	822.9
B-56	N33.831700	W84.470934	1393957.6	2204186.8	820.95	1393957.9	2204187.8	823.59	821.0
B-57	N33.824649	W84.475687	1391397.5	2202736.1	786.03	1391396.3	2202736.9	789.04	786.0
B-58	N33.823902	W84.476706	1391126.5	2202426.0	785.20	1391125.7	2202426.5	788.17	785.2
B-59	N33.832766	W84.474846	1394348.1	2203001.5	785.41	1394349.1	2203001.1	788.00	785.5
B-6	N33.832961	W84.473972	1394420.5	2203266.5	786.45	1394419.5	2203266.5	789.47	786.5
B-60	N33.823839	W84.475205	1391101.4	2202882.2	779.25	1391100.7	2202881.6	782.13	779.2
B-61	N33.823442	W84.476443	1390958.4	2202506.9	778.95	1390957.8	2202505.8	782.09	779.0
B-62	N33.820331	W84.478719	N.A.	N.A.	N.A.	1389828.1	2201811.2	760.08	760.4
B-63	N33.823559	W84.474888	1390998.7	2202977.5	777.37	1390999.1	2202978.1	777.10	777.3
B-64	N33.832856	W84.474746	1394382.3	2203030.6	785.98	1394381.9	2203031.3	785.83	786.1
B-65	N33.832862	W84.471389	N.A.	N.A.	N.A.	1394381.2	2204050.8	821.95	822.3
B-66	N33.831427	W84.470638	1393859.2	2204277.7	813.33	1393858.2	2204277.5	815.90	813.3



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B-68	N33.824362	W84.482346	1391298.8	2200715.2	759.05	1391298.2	2200714.2	758.68	759.0
B-7	N33.832841	W84.472887	1394375.6	2203596.0	806.04	1394374.6	2203596.1	809.16	806.1
B-76	N33.822783	W84.475614	1390716.5	2202756.0	760.87	1390717.4	2202756.9	760.53	766.5
B-77	N33.823420	W84.475007	1390949.4	2202941.4	777.12	1390948.7	2202942.0	776.86	777.1
B-78	N33.832708	W84.474987	1394327.3	2202958.7	787.79	1394328.2	2202958.2	790.75	788.0
B-79	N33.833068	W84.474116	1394457.8	2203223.6	785.84	1394458.6	2203223.0	788.66	785.9
B-80	N33.832834	W84.473091	1394373.5	2203533.9	801.73	1394372.6	2203533.9	804.47	801.8
B-81	N33.832815	W84.472409	1394365.8	2203741.3	817.64	1394364.9	2203741.1	820.56	817.7
B-82	N33.831129	W84.470701	1393750.1	2204256.8	807.55	1393750.0	2204258.1	810.07	807.5
B-83	N33.822832	W84.475816	1390735.9	2202695.1	777.17	1390735.5	2202695.6	776.98	777.1
B-84	N33.821939	W84.477307	1390411.2	2202242.5	776.52	1390411.9	2202241.9	776.34	776.6
B-85	N33.832998	W84.474407	1394432.8	2203134.8	782.71	1394433.4	2203134.5	782.54	782.7
B-86	N33.833127	W84.474170	1394479.5	2203207.0	784.52	1394480.0	2203206.6	784.29	784.6
B-87	N33.832915	W84.473100	1394400.8	2203531.3	800.32	1394401.9	2203531.3	803.37	800.4
B-88	N33.832914	W84.472419	1394399.9	2203738.1	816.80	1394401.1	2203738.3	820.07	817.0
B-89	N33.832910	W84.471394	1394398.7	2204048.6	822.53	1394398.4	2204049.4	822.36	822.6
B-90	N33.833185	W84.474151	1394500.4	2203212.8	784.16	1394501.0	2203212.6	784.00	784.2
B-91	N33.833036	W84.474442	N.A.	N.A.	N.A.	1394447.1	2203123.9	782.98	783.1
B-92	N33.832887	W84.474761	1394393.2	2203026.4	785.30	1394392.7	2203026.7	785.08	785.3
B-93	N33.832763	W84.475024	1394348.1	2202947.0	789.19	1394348.7	2202946.7	789.07	789.2
B-94	N33.832915	W84.473158	1394400.9	2203513.8	799.12	1394402.0	2203513.7	801.74	799.2
B-95	N33.833233	W84.474299	1394519.5	2203167.2	784.18	1394518.6	2203167.7	784.00	784.3
B-96	N33.833122	W84.474524	1394479.4	2203098.8	785.19	1394478.7	2203099.3	784.92	785.3
B-97	N33.832988	W84.474823	1394430.6	2203008.0	786.50	1394430.0	2203008.3	786.29	786.6
B-98	N33.832883	W84.475066	1394392.7	2202934.6	789.81	1394392.5	2202934.0	789.67	789.8
B-99	N33.833247	W84.474573	1394524.7	2203084.9	782.57	1394524.2	2203084.5	782.39	782.6
DGWA-53	N33.830346	W84.479224	1393473.5	2201667.7	841.37	1393472.8	2201668.8	844.26	841.3
DGWA-70A	N33.822116	W84.482741	1390480.2	2200591.7	805.67	1390481.4	2200591.6	808.52	805.8
DGWA-71	N33.831695	W84.479078	1393964.3	2201714.7	861.22	1393963.3	2201714.8	863.84	861.2
DGWC-8	N33.832699	W84.471944	1394323.0	2203882.3	824.02	1394322.2	2203882.1	826.38	824.1

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DGWC-37	N33.822121	W84.481661	1390483.0	2200920.7	763.64	1390482.2	2200919.8	766.21	763.7
DGWC-10	N33.831317	W84.470889	1393818.1	2204200.0	820.82	1393818.3	2204201.1	823.55	820.9
DGWC-11	N33.830571	W84.471001	1393546.9	2204167.3	797.99	1393547.1	2204166.2	800.57	798.1
DGWC-12	N33.829478	W84.471122	1393149.8	2204127.3	771.10	1393149.4	2204128.3	773.86	771.2
DGWC-13	N33.828740	W84.471263	1392880.8	2204085.7	791.20	1392881.1	2204084.6	794.10	791.3
DGWC-14	N33.827896	W84.471495	1392574.5	2204014.4	789.69	1392574.2	2204013.3	792.40	789.8
DGWC-15	N33.827810	W84.472595	1392544.2	2203677.9	821.43	1392544.1	2203679.0	824.50	821.5
DGWC-17	N33.828084	W84.474664	1392645.0	2203050.2	834.14	1392645.6	2203051.0	837.05	834.2
DGWC-19	N33.827248	W84.476143	1392341.8	2202601.5	822.87	1392342.6	2202601.0	825.46	822.9
DGWC-2	N33.831683	W84.477745	1393957.1	2202119.4	848.17	1393958.0	2202119.5	850.88	848.3
DGWC-20	N33.826754	W84.477079	1392163.7	2202316.3	819.66	1392164.5	2202315.6	822.14	819.8
DGWC-21	N33.826487	W84.477911	1392066.4	2202063.3	813.47	1392067.5	2202063.5	816.28	813.5
DGWC-22	N33.826647	W84.478805	1392125.2	2201791.7	813.69	1392126.3	2201791.9	816.59	813.7
DGWC-23	N33.826957	W84.479498	1392240.4	2201582.8	815.63	1392239.7	2201582.0	818.37	815.7
DGWC-38	N33.821795	W84.480906	1390363.6	2201149.0	754.67	1390362.7	2201148.6	757.43	754.7
DGWC-39	N33.821635	W84.479616	1390302.5	2201539.8	756.93	1390303.6	2201540.1	759.89	757.0
DGWC-4	N33.832275	W84.475959	1394170.6	2202662.7	812.06	1394171.5	2202662.4	814.85	812.1
DGWC-40	N33.822523	W84.478678	1390625.1	2201826.7	776.12	1390625.7	2201825.9	779.06	776.2
DGWC-42	N33.824453	W84.478540	1391327.4	2201869.1	801.98	1391327.8	2201870.2	804.68	802.0
DGWC-47	N33.825080	W84.476104	1391553.1	2202611.3	794.35	1391553.8	2202610.5	797.45	794.3
DGWC-48	N33.824420	W84.477157	1391314.2	2202289.2	785.21	1391314.6	2202290.2	788.33	785.2
DGWC-5	N33.832647	W84.474964	1394305.3	2202965.3	788.64	1394306.3	2202965.1	791.75	788.7
DGWC-67	N33.823417	W84.481959	1390953.6	2200830.0	766.80	1390953.8	2200830.7	766.70	767.0
DGWC-68A	N33.824370	W84.482278	1391300.9	2200733.4	765.06	1391301.2	2200734.9	765.33	765.4
DGWC-69	N33.825150	W84.482537	1391583.9	2200657.2	763.99	1391585.0	2200657.1	763.75	764.0
DGWC-9	N33.831969	W84.470993	1394055.6	2204168.9	821.86	1394055.9	2204170.0	824.35	821.8



**[golder.com](http://golder.com)**

February 12, 2021

Project No. 166849618

**Mr. Joju Abraham, PG**

Southern Company Services  
241 Ralph McGill Blvd NE  
Atlanta, GA 30308  
jabraham@southernco.com

**PIEZOMETER INSTALLATION REPORT (B-101D THROUGH B-111D)  
GEORGIA POWER COMPANY – PLANT MCDONOUGH, SMYRNA, GEORGIA**

Dear Mr. Abraham,

Golder Associates Inc. (Golder) is submitting this *Piezometer Installation Report* to Southern Company Services, Inc. (SCS) and Georgia Power Company (Georgia Power), which documents the construction of piezometers at Plant McDonough in Smyrna, Georgia (Site). Piezometer construction activities were performed in general accordance with the standards described in the Resource Conservation and Recovery Act (RCRA) Technical Enforcement Guidance Document (1986) and the Georgia Water Wells Standards Act of 1985. The installation of the piezometers was conducted under the oversight and direction of Timothy I. Richards, a Georgia Registered Professional Geologist (PG).

The field activities for this investigation were performed in October 2020 through December 2020. The field work consisted of the installation and development of eleven (11) piezometers installed for purposes of vertical delineation of target constituents for Coal Combustion Residuals (CCR) compliance monitoring in groundwater. Metro Engineering & Surveying (Metro) conducted a survey of the installed piezometers in November 2020. A summary of the activities is presented below. Figure 1 presents the location of each of the newly installed piezometers.

### **Drilling and Construction Activities**

Piezometers B-101D through B-111D were drilled and installed by Cascade at the site between October and November 2020. Cascade had a current and valid bond with the Water Wells Standards Advisory Council for the state of Georgia at the time of drilling and piezometer installation. A copy of Cascade's bond is included in Appendix A and the driller's name is provided on the boring/construction diagrams presented in Appendix B.

An experienced and licensed Golder geologist (Michael Boatman) was present on site to oversee and record the drilling and piezometer construction under the supervision of a professional geologist registered to practice in Georgia (Timothy I. Richards). Drilling methods employed for borehole advancement were 4"/6" sonic drilling technique. SCS – Civil Field Services (CFS) used air knife methodology to clear the first 10 feet of the subsurface for any utilities. The drilling equipment consisted of a Geoprobe 8140LC roto-sonic drill rig. Prior to use, and between boreholes, downhole equipment was steam cleaned.

The piezometers were installed in bedrock, and rock cores were collected. Boring logs and construction records for the newly installed piezometers are included in Appendix B. The construction data are summarized in Table 1 and the locations of the piezometers are provided on Figure 1.

Piezometers were constructed within the boreholes using factory-cleaned and sealed Schedule 40 poly-vinyl chloride (PVC) products with flush-threaded fittings. Piezometers B-101D through B-111D were constructed with a 10-foot section of 4-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC U-Pack screens. The drillers filled the annulus of each U-Pack screen section with No. 1 filter sand. In each case, the screen was placed near the bottom of the borehole, with the remainder of the piezometer constructed from 10-foot sections of 2-inch ID, flush-threaded, PVC casing riser. A flush-threaded PVC end cap was placed on the bottom of each piezometer to provide a 0.4-foot sump/sediment trap. Piezometers were completed as “stick-ups” extending approximately 31 inches above grade, except B-110D which was completed as a flush mount. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF)-rated.

Following placement of the screen and casing, the annular space in each borehole adjacent to the screen was filled with U.S. Standard Sieve size No. 1 filter pack sand as appropriate for the formation. The filter pack sand was placed into each borehole extending approximately 2 feet above the depth of the top of the screen. Immediately following placement of the filter pack, each piezometer was pumped using a portable submersible pump until visibly clear water was discharged. If settling occurred during pumping, additional sand was placed so that the filter sand thickness was no less than 2 feet above the screen. A filter pack seal, composed of 2 to 5 feet of hydrated time-release 3/8” coated bentonite pellets, was then placed on top of the filter pack by slowly pouring the material down the boreholes tamping it into place. The bentonite was hydrated using potable water and allowed to cure for at least two hours prior to grouting the piezometers.

Following hydration of the bentonite, the remaining annular space was grouted with an AquaGuard® bentonite grout mixture to approximately 2 feet below ground surface using a tremie method. Based on information provided by the product manufacturer, AquaGuard® is a bentonite grout consisting of bentonite and additives that allow for a mixture of 30% solids by weight to facilitate grouting via tremie pipe, with additives that slow the bentonite curing so that proper placement can be achieved. The surface completion for piezometers B-101D through B-109D and B-111D consists of a locked, aluminum protective casing and a 4-foot by 4-foot by 4-inch concrete pad with bollards. The surface completion for piezometer B-110D consists of a secure 8-inch flush mount road-box set in a 4-foot by 4-foot by 4-inch concrete pad. The annular space of the aluminum protective casings and flush mount were filled with pea gravel to approximately 2 inches from top of PVC.

## **Development Activities**

The newly installed piezometers (B-101D through B-111D) were developed between October and December 2020 in accordance with the Monitoring Well Development Procedures, dated March 2016, prepared by SCS. Additionally, the piezometer screen intervals were surged and then pumped using a pneumatic Geotech Reclaimer® pump system. During development, water quality measurements of pH, temperature, specific conductance, and turbidity were periodically collected using field-calibrated water quality equipment after the piezometer responded to improving conditions. Due to poor recharge, B-109D and B-110D were surged by adding 15 gallons of deionized (DI) water in each well during development. The volume of DI water added was removed in addition to recharged groundwater in the piezometer, as recorded on the development logs. Similarly, B-103D did not recharge sufficiently during development. Development at B-103D was discontinued and is

incomplete due to low recovery and elevated turbidity. Prior to any sampling, this well will be further developed. Development activities were conducted utilizing a SmarTroll® multimeter and a Lamotte 2020 turbidimeter, and for monitoring water quality measurements. Equipment calibration forms and development forms are included in Appendix B with development details summarized in Table 2.

As presented in Table 2, between approximately 36 and 153 gallons were removed from each piezometer. During development, attempts were made for each piezometer to achieve a turbidity value below 10 nephelometric turbidity units (NTUs). Water level measurements were collected using a decontaminated electronic water level indicator, referenced to a notch (or permanent marking) at the top of the casing and recorded to within 0.01 foot.

### Piezometer Survey

The newly installed piezometers were surveyed in November 2020 by Metro Engineering & Surveying Co., Inc. (James R. Green). Surveyed locations and elevations are presented on the boring/construction diagrams and a site map showing the locations of the newly installed piezometers is presented on Figure 1. The certified piezometer survey is attached as Appendix C.

### Closing

We appreciate the opportunity to assist SCS and GPC with this project. Should you have any questions or require additional information, please contact the undersigned at (770) 496-1893.

Sincerely,

**Golder Associates Inc.**



Dawn L. Prell  
Senior Consultant



Timothy I. Richards, PG  
Associate, Senior Consultant



BAS/TIR

CC: Georgia Power Company - Plant McDonough  
Ben Hodges, Geologist, Georgia Power Company  
Dawn L. Prell - Golder  
Rachel P. Kirkman, PG - Golder

Attachments: Figure 1 - Site Plan and Piezometer Location Map  
Table 1 - Summary of Piezometer Construction Details  
Table 2 - Summary of Piezometer Development Data  
Appendix A – Driller's Bond  
Appendix B - Boring Logs/Construction Diagrams, Development Forms, and Calibration Logs  
Appendix C – Certified Survey Data




**FIGURE 1**

**SITE PLAN AND PIEZOMETER  
LOCATION MAP**





**LEGEND**

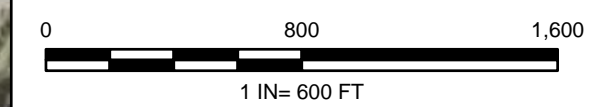
-  PIEZOMETER
-  PROPERTY BOUNDARY
-  PERMIT BOUNDARY

**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE

**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 PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC. (JANUARY 2021).




CLIENT  
**SOUTHERN COMPANY SERVICES, INC.**  
 PLANT MCDONOUGH



PROJECT  
**PIEZOMETER INSTALLATION REPORT (B-101D THROUGH B-111D)**

TITLE  
**SITE PLAN AND PIEZOMETER LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2020-09-22
	PREPARED	BAS
	DESIGN	BAS
	REVIEW	DP/RK
	APPROVED	TIR

Path: C:\Users\bsteele\Desktop\McDonough GIS - Other\Figure 1 - Site Plan and Piezometer Location Map.mxd

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



**TABLE 1**

**SUMMARY OF PIEZOMETER  
CONSTRUCTION DETAILS**

**TABLE 1**  
**Summary of Piezometer Construction Details**  
**Georgia Power Company - Plant McDonough**  
**Smyrna, Georgia**

Borehole ID	Latitude	Longitude	NAD83 Northing	NAD83 Easting	Elevation Top of PVC (feet NAVD88)	Elevation Ground Surface (feet NAVD88)	Rock Type at Screen Interval	Total Depth (feet bgs)	Depth to Bedrock (feet bgs)	Screened Interval (feet bgs)	Water Level (feet bTOC)	Date Installed
B-101D	33.831990	-84.470999	1394063.6	2204168.2	824.29	821.2	Schist	75.00	60.0	64.9-74.9	34.0	11/12/2020
B-102D	33.831344	-84.470891	1393828.4	2204200.4	823.42	820.6	Schist	85.00	70.0	75.4-84.4	34.0	11/10/2020
B-103D	33.825052	-84.476091	1391543.5	2202614.4	795.96	793.8	Gneiss	70.00	18.0	60-70	12.0	10/15/2020
B-104D	33.824431	-84.477129	1391318.3	2202298.5	787.90	785.3	Gneiss	60.00	35.0	50-60	12.0	10/20/2020
B-105D	33.822547	-84.478659	1390634.5	2201831.9	779.01	776.0	Gneiss	70.00	55.0	60-70	22.5	10/19/2020
B-106D	33.832712	-84.471987	1394327.1	2203869.2	826.21	823.5	Gneiss	80.00	60.0	69.4-79.4	37.0	11/13/2020
B-107D	33.827226	-84.476158	1392334.5	2202596.4	823.38	820.6	Gneiss	85.75	67.0	75.1-85.1	21.8	10/28/2020
B-108D	33.826733	-84.477091	1392156.1	2202312.5	821.13	818.4	Gneiss	80.00	57.5	69-79	17.7	10/27/2020
B-109D	33.831682	-84.477720	1393957.5	2202127.0	850.73	847.8	Gneiss	100.00	45.0	88.4-99.4	23.5	10/31/2020
B-110D	33.824352	-84.482274	1391294.4	2200736.0	764.61	764.7	Gneiss	65.00	35.0	53-63	9.4	11/17/2020
B-111D	33.832640	-84.474992	1394303.4	2202956.4	791.87	789.1	Gneiss	85.00	27.0	74.15-84.15	8.9	11/3/2020

**Notes:**

NAD83 - North American Datum 1983

NAVD88 - North American Vertical Datum 1988

NA - Not Available

bgs - Below ground surface

bTOC - Below Top of Casing

**TABLE 2**

**SUMMARY OF PIEZOMETER  
DEVELOPMENT DATA**

**Table 2**  
**Summary of Piezometer Development Data**  
**Georgia Power Company - Plant McDonough**  
**Smyrna, Georgia**

Piezometer ID	Date Completed	Development Method	Measured Total Depth of Well (feet bTOC)	Initial Water level (feet bTOC)	Final Water Level (feet bTOC)	Volume of Casing (gal)	Total Volume Removed (gal)	pH (SU)	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)
B-101D	12/16/2020	Reclaimer Pump	77.8	26.16	35.28	8.4	51	6.02	0.558	14.06	2.19	93.51	1.20
B-102D	12/8/2020	Reclaimer Pump	87.5	32.36	38.86	9.0	45	5.48	0.629	15.91	1.46	-7.38	0.22
B-103D <sup>[1]</sup>	10/30/2020	Reclaimer Pump	74.6	28.15	35.95	7.6	36	6.63	1.790	12.92	934	123.3	2.28
B-104D	10/29/2020	Reclaimer Pump	63.5	6.25	26.60	9.3	36	6.06	1.059	19.81	0.19	272.2	1.33
B-105D	11/4/2020	Reclaimer Pump	72.9	16.20	40.40	9.2	124	6.10	0.647	20.37	0.28	1184.21	1.54
B-106D	12/8/2020	Reclaimer Pump	82.2	35.33	37.19	7.6	87	5.93	0.512	16.92	4.94	84.61	0.13
B-107D	11/2/2020	Reclaimer Pump	85.3	18.35	18.83	10.9	103	5.86	0.710	18.42	3.56	215.20	0.13
B-108D	11/5/2020	Reclaimer Pump	81.9	20.25	22.60	10.1	123	6.08	0.791	18.39	4.70	-11.69	1.06
B-109D	12/16/2020	Reclaimer Pump	100.9	37.20	95.70	10.4	94 <sup>[2]</sup>	6.46	0.420	13.12	2.49	95.30	8.48
B-110D	12/10/2020	Reclaimer Pump	63.1	8.34	62.05	8.9	41 <sup>[3]</sup>	7.45	0.395	16.25	1.20	-342.70	0.93
B-111D	11/9/2020	Reclaimer Pump	85.8	9.58	14.35	12.4	153	6.88	0.827	20.03	1.16	-384.27	0.12

**Notes:**

bTOC - feet below Top of Casing  
gal - gallons  
SU - Standard Units  
mS/cm - millisiemens per centimeter  
°C - degrees Celsius  
NTU - nephelometric turbidity units  
mV - millivolts  
mg/L - milligrams per liter  
ORP - oxygen reduction potential  
DO - dissolved oxygen

[1]: Development at B-103D discontinued/incomplete due to low recovery and elevated turbidity

[2]: 94 gallons of water were removed from B-109D, which includes approximately 15 gallons of deionized water that was added to facilitate development

[3]: 41 gallons of water were removed from B-110D, which includes approximately 15 gallons of deionized water that was added to facilitate development

**APPENDIX A**

# DRILLER'S BOND

**COPY**

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. **800031223**

dated effective June 30, 2017  
(MONTH-DAY-YEAR)

on behalf of Michael C. Rice and Cascade Drilling, L.P., any and all employees, officers and partners  
(PRINCIPAL)

and in favor of State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2019  
(MONTH-DAY-YEAR)

and ending on June 30, 2021  
(MONTH-DAY-YEAR)

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

Description of bond Water Well Contractor Performance Bond

Premium: \$1,200.00

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

Signed and dated on May 9, 2019  
(MONTH-DAY-YEAR)  
Atlantic Specialty Insurance Company

By \_\_\_\_\_  
Attorney-in-Fact Elizabeth R. Hahn

Parker, Smith & Feek, Inc.  
Agent

2233 112th Ave NE Bellevue, WA 98004  
Address of Agent

(425) 709-3600  
Telephone Number of Agent

## Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **sixty million dollars (\$60,000,000)** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the

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

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

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

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

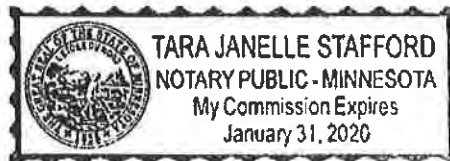
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-sixth day of October, 2017.




By   
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA  
HENNEPIN COUNTY

On this twenty-sixth day of October, 2017, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.



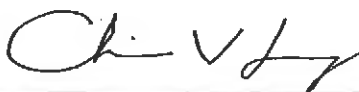
  
Notary Public

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

Signed and sealed. Dated 9 day of May, 2019

This Power of Attorney expires  
October 1, 2019



  
Christopher V. Jerry, Secretary

**APPENDIX B**

**BORING LOGS/CONSTRUCTION  
DIAGRAMS, DEVELOPMENT  
FORMS AND CALIBRATION LOGS**



# RECORD OF BOREHOLE B-101D


SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 75.00 ft  
 LOCATION: Next to DGWC-9

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/11/20  
 DATE COMPLETED: 11/12/20

NORTHING: 1394063.6  
 EASTING: 2204168.2  
 GS ELEVATION: 821.2 ft  
 TOC ELEVATION: 824.29 ft

DEPTH W.L.: 34.0  
 ELEVATION W.L.: 790.3  
 DATE W.L.: 11/12/20  
 TIME W.L.: 0954

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL	[Cross-hatched pattern]					Stick-up - 	<b>B-101D</b> Borehole Diameter: 4" <b>WELL CASING</b> Interval: 0-75' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam <b>WELL SCREEN</b> Interval: 64.9'-74.9' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC <b>FILTER PACK</b> Interval: 62.5'-75.0' Type: FilterSil Quantity: 4-50 lbs bags <b>FILTER PACK SEAL</b> Interval: 59.0'-62.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket <b>ANNULUS SEAL</b> Interval: 0'-59.0' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons  <b>NOTES</b>
5										
10		10.00 - 15.00 (SM), SILTY SAND; tannish brown to reddish brown, low plasticity, w<pl, dry, loose to soft	SM	[Dotted pattern]	10.00					
15		15.00 - 16.00 (TWR), TRANSITIONALLY WEATHERED ROCK; dark gray, deeply weathered, fine to medium, poorly jointed	TWR	[Blue triangles]	15.00	1	ROTO SONIC	8.00 10.00		
16		16.00 - 20.00 (CL), CLAY; some sand, reddish brown, fine to coarse, low plasticity, w<PL, soft, moist to wet	CL	[Diagonal lines]	16.00					
20		20.00 - 23.00 (ML), SILT; trace to some gravels, reddish brown, low plasticity, w<PL, very soft, wet	ML	[Vertical lines]	20.00	2	ROTO SONIC	4.00 5.00		
23		23.00 - 25.00 (SM), SILTY SAND; trace gravels, tannish brown to gray, non-plastic, w<PL, loose, dry, TWR	TWR	[Blue triangles]	23.00					
25		25.00 - 35.00 NO RECOVERY; material washed out of core barrel after switching to rock coring methods based on the TWR at the 23-25' interval.	NR		25.00	3	ROTO SONIC	0.00 10.00		
30										
35		35.00 - 40.00 NO RECOVERY; The core barrel was able to be advanced to depth, but casing was not able to advance to depth. Material was lost while extracting core barrel.	NR		35.00	4	ROTO SONIC	0.00 5.00		
40		40.00 - 50.00 NO RECOVERY; The core barrel was able to be advanced to depth, but casing was not able to advance to depth. Material was lost while extracting core barrel.	NR		40.00	5	ROTO SONIC	0.00 10.00		
45										
50		Log continued on next page								

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-102D

SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.00 ft  
 LOCATION: Next to DGWC-10

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/9/20  
 DATE COMPLETED: 11/10/20

NORTHING: 1393828.4  
 EASTING: 2204200.4  
 GS ELEVATION: 820.6 ft  
 TOC ELEVATION: 823.42 ft

DEPTH W.L.: 34.0  
 ELEVATION W.L.: 789.4  
 DATE W.L.: 11/10/2020  
 TIME W.L.: 1444

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL						Stick-up -	<p><b>B-102D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-85'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 75.4'-84.4'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 72.0'-75.4'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 67'-72'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-67'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 120 gallons</p> <p><b>NOTES</b></p>
5										
10		10.00 - 15.50 (CL), CLAY; red brown, trace to some sand, fine grain, w~PL, low plasticity, soft, moist	CL		10.00	1	ROTO SONIC	6.50 10.00		
15		15.50 - 17.50 (ML), SILT; red brown, trace gravels, non-plastic to low plasticity, w<PL, soft, moist	ML		15.50					
20		17.50 - 20.00 (ML), SILT; tanish-orange brown to silver, nonplastic to low plasticity, soft to loose	ML		17.50					
25		20.00 - 26.00 (SM), SILTY SAND; bronze, some coarse sand, nonplastic, dry to moist	SM		20.00	2	ROTO SONIC	10.00 10.00		
30		26.00 - 30.00 (SM), SILTY SAND; gray, some coarse sand, nonplastic, non-cohesive, compact, dry to moist	SM		26.00					
35		30.00 - 40.00 (SM), SILTY SAND; gray and orange-brown, non-plastic to low plasticity, firm to compact, dry to moist, soft to firm, contains muscovite	SM		30.00	3	ROTO SONIC	9.00 10.00	AquaGuard Bentonite - Grout	
40		40.00 - 44.00 (SM), SILTY SAND; gray and orange-brown, non-plastic to low plasticity, firm to compact, dry to moist, soft to firm	SM		40.00					
45		44.00 - 46.00 (ML), SILT; gray, non-plastic to lows plasticity, soft, moist,	ML		44.00	4	ROTO SONIC	7.00 10.00		
50		46.00 - 50.00 (SM), SILTY SAND; reddish brown, non-plastic to low plasticity, very soft, wet	SM		46.00					
		Log continued on next page								

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-102D

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.00 ft  
 LOCATION: Next to DGWC-10

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/9/20  
 DATE COMPLETED: 11/10/20

NORTHING: 1393828.4  
 EASTING: 2204200.4  
 GS ELEVATION: 820.6 ft  
 TOC ELEVATION: 823.42 ft

DEPTH W.L.: 34.0  
 ELEVATION W.L.: 789.4  
 DATE W.L.: 11/10/2020  
 TIME W.L.: 1444

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC				
50		50.00 - 51.00 (SM), SILTY SAND; reddish brown, non-plastic to low plasticity, very soft, wet	SM	[Pattern]	50.00	5	ROTO SONIC	5.00 5.00		<p><b>B-102D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-85'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 75.4'-84.4'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 72.0'-75.4'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 67'-72'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-67'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 120 gallons</p> <p><b>NOTES</b></p>		
		51.00 - 55.00 (SM), SILTY SAND; gray, w<PL, fine to compact, dry to moist, contains muscovite	SM	[Pattern]	51.00							
55		55.00 - 60.00 (SM), SILTY SAND; gray to yellow orange, w<PL, fine to stiff, dry to moist, saprolitic	SM	[Pattern]	55.00	6	ROTO SONIC	5.00 5.00				
60		60.00 - 65.00 (ML), SILT; gray to light brown, w<PL, dense, dry	ML	[Pattern]	60.00	7	ROTO SONIC	4.00 5.00				
65		65.00 - 70.00 (TWR), TRANSITIONALLY WEATHERED ROCK; silty sand, gray, low plasticity, w<PL, stiff to hard, dry, saprolitic	TWR	[Pattern]	65.00	8	ROTO SONIC	5.00 5.00				
70		70.00 - 75.00 (SCHIST), BEDROCK, dark gray to black, fine to medium grain, moderately foliated, poorly jointed, high crenulated, weak to strong rock, slightly to moderately weathered, feldspar, muscovite, schist.	BR	[Pattern]	70.00	9	ROTO SONIC	5.00 5.00				
75		75.00 - 85.00 (SCHIST), BEDROCK; dark gray to black, moderately foliated, poorly jointed, high crenulated, weak to strong rock, slightly to moderately weathered, feldspar, muscovite, schist	BR	[Pattern]	75.00	10	ROTO SONIC	7.00 10.00				
85		Boring completed at 85.00 ft										

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-103D

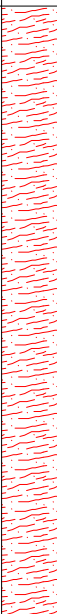
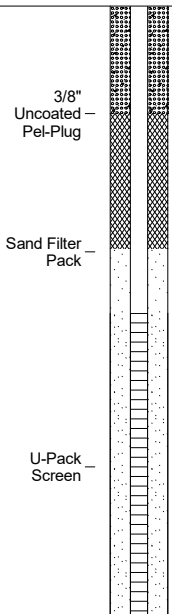
SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 70.00 ft  
 LOCATION: East of DGWC-47

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/14/20  
 DATE COMPLETED: 10/15/20

NORTHING: 1391543.5  
 EASTING: 2202614.4  
 GS ELEVATION: 793.8 ft  
 TOC ELEVATION: 795.96 ft

DEPTH W.L.: 12.0  
 ELEVATION W.L.: 783.9  
 DATE W.L.: 10/15/2020  
 TIME W.L.: 0740

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
50		40.00 - 70.00 (GNEISS), BEDROCK; light gray-green to dark gray; well foliated, poorly jointed, muscovite, biotite, feldspar, quartz (Continued)	BR							<p><b>B-103D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-70'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 60'-70'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 57.9'-70.0'                      Type: FilterSil                      Quantity: 3.5-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 53.5'-57.9'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-53.5'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 40 gallons</p> <p><b>NOTES</b></p>
55					7	ROTO SONIC	7.50 10.00			
60								Sand Filter Pack		
65					8	ROTO SONIC	9.65 10.00	U-Pack Screen		
70		Boring completed at 70.00 ft								
75										
80										
85										
90										
95										
100										

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-104D

SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 60.00 ft  
 LOCATION: East of DGWC-48

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/20/20  
 DATE COMPLETED: 10/20/20

NORTHING: 1391318.3  
 EASTING: 2202298.5  
 GS ELEVATION: 785.3 ft  
 TOC ELEVATION: 787.90 ft

DEPTH W.L.: 12.0  
 ELEVATION W.L.: 775.9  
 DATE W.L.: 10/20/2020  
 TIME W.L.: 1818

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL						Stick-up -	<p><b>B-104D</b> Borehole Diameter: 4"  <b>WELL CASING</b> Interval: 0'-60' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b> Interval: 50'-60' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC  <b>FILTER PACK</b> Interval: 47.15'-60.0' Type: FilterSil Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b> Interval: 44'-47.15' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b> Interval: 0'-44' Type: AquaGuard Bentonite Grout Quantity: Approximately 40 gallons</p> <p><b>NOTES</b></p>
5										
10		10.00 - 12.00 (CL), CLAY; red brown; moist, soft, low plasticity, w<PL, FILL	CL		10.00					
15		12.00 - 22.00 (ML), SILT; dark brown to gray; non-plastic to low plasticity, dry to moist, w<PL, soft to firm	ML		12.00	1	ROTO SONIC	8.00 8.00		
20						2	ROTO SONIC	4.00 4.00		
25		22.00 - 30.00 (ML), SILT; dark brown; w~PL, moist to wet, soft to firm, contains gravels of biotite gneiss (trace)	ML		22.00	3	ROTO SONIC	8.00 8.00	AquaGuard Bentonite - Grout	
30		30.00 - 35.00 (TWR), TRANSITIONALLY WEATHERED ROCK; rust brown to gray; deeply weathered biotite gneiss, poorly foliated, poorly jointed, iron staining	TWR		30.00					
35		35.00 - 55.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, light to dark gray, strong to medium strong, fresh to slightly weathered, locally contains iron staining and garnets	BR		35.00	4	ROTO SONIC	6.55 10.00		
40						5	ROTO SONIC	2.10 5.00	3/8" Uncoated Pel-Plug	
45						6	ROTO SONIC	4.35 7.50		
50		Log continued on next page							Sand Filter -	

BOREHOLE RECORD - MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-104D

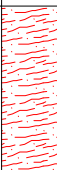
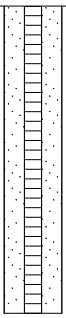

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 60.00 ft  
 LOCATION: East of DGWC-48

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/20/20  
 DATE COMPLETED: 10/20/20

NORTHING: 1391318.3  
 EASTING: 2202298.5  
 GS ELEVATION: 785.3 ft  
 TOC ELEVATION: 787.90 ft

DEPTH W.L.: 12.0  
 ELEVATION W.L.: 775.9  
 DATE W.L.: 10/20/2020  
 TIME W.L.: 1818

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE		
50		35.00 - 55.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, light to dark gray, strong to medium strong, fresh to slightly weathered, locally contains iron staining and garnets ( <i>Continued</i> )	BR					Pack	
	6					4.35 7.50			
55		55.50 - 60.00 (SCHIST), BEDROCK; quartz, muscovite, gray to silver, medium grain, medium strong, fresh to moderately weathered	BR		55.50	7	ROTO SONIC	U-Pack Screen	
60		Boring completed at 60.00 ft							
65									
70									
75									
80									
85									
90									
95									
100									

**B-104D**  
 Borehole Diameter: 4"  
**WELL CASING**  
 Interval: 0'-60'  
 Material: Schedule 40 PVC  
 Diameter: 2"  
 Joint Type: Screw fit with rubber seam  
**WELL SCREEN**  
 Interval: 50'-60'  
 Material: Schedule 40 PVC  
 Diameter: 2"  
 Slot Size: .010"  
 End Cap: Schedule 40 PVC  
**FILTER PACK**  
 Interval: 47.15'-60.0'  
 Type: FilterSil  
 Quantity: 4-50 lbs bags  
**FILTER PACK SEAL**  
 Interval: 44'-47.15'  
 Type: 3/8" Uncoated Pel-Plug  
 Quantity: 1-5 gallon bucket  
**ANNULUS SEAL**  
 Interval: 0'-44'  
 Type: AquaGuard Bentonite Grout  
 Quantity: Approximately 40 gallons

**NOTES**

BOREHOLE RECORD - MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21







# RECORD OF BOREHOLE B-105D

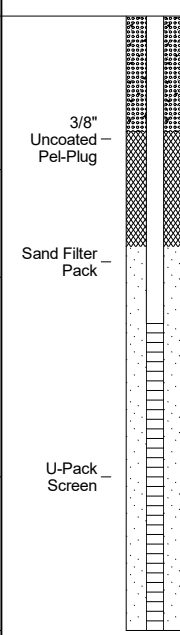
SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 70.00 ft  
 LOCATION: East of DGWC-40

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/18/20  
 DATE COMPLETED: 10/19/20

NORTHING: 1390634.5  
 EASTING: 2201831.9  
 GS ELEVATION: 776.0 ft  
 TOC ELEVATION: 779.01 ft

DEPTH W.L.: 22.50  
 ELEVATION W.L.: 756.5  
 DATE W.L.: 10/19/2020  
 TIME W.L.: 0950

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE			REC
50		50.00 - 55.00 (SM), SILTY SAND; brown to black, low to medium plasticity, moist to dry, w<PL, loose/soft, materials is from gneiss (relief structure), TWR	SM	[Graphic Log: Dotted pattern]	50.00	7	ROTO SONIC	5.00 5.00	 <p style="font-size: small;">3/8" Uncoated Pel-Plug</p> <p style="font-size: small;">Sand Filter Pack</p> <p style="font-size: small;">U-Pack Screen</p>	<p><b>B-105D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-70'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 60'-70'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 57.5'-60.0'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 53.75'-57.5'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-53.75'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>
55		55.00 - 70.00 (GNEISS), BEDROCK; light to dark gray, fine to medium grain, well foliated, poorly jointed, fresh to slightly weathered, strong to medium strong	BR	[Graphic Log: Red wavy lines]	55.00	8	ROTO SONIC	2.75 3.50		
60						9	ROTO SONIC	4.80 6.50		
65						10	ROTO SONIC	4.25 5.00		
70		Boring completed at 70.00 ft								
75										
80										
85										
90										
95										
100										

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-106D


SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 80.00 ft  
 LOCATION: North of DGWC-8

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/12/20  
 DATE COMPLETED: 11/13/20

NORTHING: 1394327.1  
 EASTING: 2203869.2  
 GS ELEVATION: 823.5 ft  
 TOC ELEVATION: 826.21 ft

DEPTH W.L.: 37.0  
 ELEVATION W.L.: 789.2  
 DATE W.L.: 11/13/2020  
 TIME W.L.: 1652

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL						Stick-up - 	<b>B-106D</b> Borehole Diameter: 4" <b>WELL CASING</b> Interval: 0'-80' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam <b>WELL SCREEN</b> Interval: 69.4'-79.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC <b>FILTER PACK</b> Interval: 66.61'-80' Type: FilterSil Quantity: 4-50 lbs bags <b>FILTER PACK SEAL</b> Interval: 62.85'-66.61' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket <b>ANNULUS SEAL</b> Interval: 0'-62.85' Type: AquaGuard Bentonite Grout Quantity: <b>NOTES</b>
10		10.00 - 16.75 (ML), SILT; some fine to medium sand, some gravel, moist, firm, w<PL, low to medium plasticity	ML		10.00	1	ROTO SONIC	8.20 10.00		
16.75		16.75 - 18.10 (ML), SILT; some coarse sand, moist, stiff, w<PL	ML		16.75					
18.10		18.10 - 20.00 (CL), CLAY; red to red-brown, some coarse sand, dry to moist, w<PL, soft, some muscovite, Fill	CL		18.10					
20		20.00 - 28.00 (ML), SILT; brown, some fines, very fine to coarse sand, wet, soft to very soft, w<PL, medium plasticity,	ML		20.00	2	ROTO SONIC	10.00 10.00		
28		28.00 - 30.00 (SP), SAND; uniformly graded, some silt, non-cohesive, loose, moist, non-plastic	SP		28.00					
30		30.00 - 32.00 (SM), SILTY SAND; brown, trace gravel, dry to moist, cohesive, firm to stiff, w<PL, low plasticity, some crenulations, saprolitic	SM		30.00	3	ROTO SONIC	5.00 5.00		
32		32.00 - 35.00 (SM), SILTY SAND; dry to moist, cohesive, firm to stiff, w~PL, low to medium plasticity	SM		32.00					
35		35.00 - 40.00 (ML), SANDY SILT; brown, fine to coarse sand, micas, firm to stiff, w>PL, dry to wet	ML		35.00	4	ROTO SONIC	5.00 5.00		
40		40.00 - 45.00 (SM), SILTY SAND; brown, fine to coarse sand, some gravel, schist, quartz vein fragments, micas, firm to stiff, w<PL, moist, medium plasticity	SM		40.00	5	ROTO SONIC	5.00 5.00		
45		45.00 - 47.00 (SM), SILTY SAND; brown, fine to coarse sand, some gravel, schist, quartz vein fragments, micas, stiff to very stiff, w>PL, moist, medium plasticity, saprolitic	SM		45.00	6	ROTO SONIC	2.00		
47		47.00 - 60.00 NO RECOVERY; material too loose and continues to fall out of core barrel	NR		47.00	7	ROTO SONIC	0.00 13.00		

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



Log continued on next page

# RECORD OF BOREHOLE B-106D

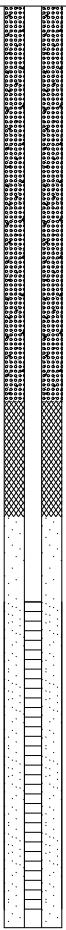
SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 80.00 ft  
 LOCATION: North of DGWC-8

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/12/20  
 DATE COMPLETED: 11/13/20

NORTHING: 1394327.1  
 EASTING: 2203869.2  
 GS ELEVATION: 823.5 ft  
 TOC ELEVATION: 826.21 ft

DEPTH W.L.: 37.0  
 ELEVATION W.L.: 789.2  
 DATE W.L.: 11/13/2020  
 TIME W.L.: 1652

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
50		47.00 - 60.00 NO RECOVERY; material too loose and continues to fall out of core barrel (Continued)	NR			7	ROTO SONIC	0.00 13.00	 <p style="font-size: small; text-align: center;">3/8" Uncoated - Pel-Plug</p> <p style="font-size: small; text-align: center;">Sand Filter Pack</p> <p style="font-size: small; text-align: center;">U-Pack Screen</p>	<p><b>B-106D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-80'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 69.4'-79.4'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 66.61'-80'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 62.85'-66.61'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-62.85'                      Type: AquaGuard Bentonite Grout                      Quantity:</p> <p><b>NOTES</b></p>
55										
60		60.00 - 65.00 (SCHIST), BEDROCK; silvery blue, well foliated, poorly jointed, moderate to deeply weathered, weak to medium strong rock, iron staining	BR	[Graphic Log]	60.00	8	ROTO SONIC	1.60 5.00		
65		65.00 - 75.00 (BIOTITE GNEISS), BEDROCK; light gray to dark gray, zones of muscovite schistosity, very fine grain, moderate to poor foliation, poorly jointed, fresh to moderately weathered, medium strong, iron staining, feldspar, quartz, muscovite	BR	[Graphic Log]	65.00	9	ROTO SONIC	5.20 10.00		
70										
75		75.00 - 80.00 (BIOTITE GNEISS), BEDROCK; light gray to dark gray, zones of muscovite schistosity, very fine grain, moderate to poor foliation, poorly jointed, fresh to moderately weathered, medium strong, iron staining, feldspar, quartz	BR	[Graphic Log]	75.00	10	ROTO SONIC	3.40 5.00		
80		Boring completed at 80.00 ft								
85										
90										
95										
100										

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-107D

SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.75 ft  
 LOCATION: Southwest of DGWC-19

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/28/20  
 DATE COMPLETED: 10/28/20

NORTHING: 1392334.5  
 EASTING: 2202596.4  
 GS ELEVATION: 820.6 ft  
 TOC ELEVATION: 823.38 ft

DEPTH W.L.: 21.8  
 ELEVATION W.L.: 801.6  
 DATE W.L.: 10/28/2020  
 TIME W.L.: 1440

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL						Stick-up -	<p><b>B-107D</b> Borehole Diameter: 4"  <b>WELL CASING</b> Interval: 0'-85.1' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b> Interval: 75.1'-85.1' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC  <b>FILTER PACK</b> Interval: 72.25'-85.5' Type: FilterSil Quantity: 4, 5-50 lbs bags  <b>FILTER PACK SEAL</b> Interval: 68.8'-72.25' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon  <b>ANNULUS SEAL</b> Interval: 0'-68.8' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>
10		10.00 - 20.00 (CL-ML), SILTY and CLAY; red brown to brown, trace sand, low to medium plasticity, soft to firm, moist, contains muscovite	CL-ML		10.00	1	ROTO SONIC	7.00 10.00		
20		20.00 - 38.00 (SM), SILTY SAND; brown to tannish brown, trace sand, w<PL, low plasticity, loose to compact, large grains of muscovite	SM		20.00	2	ROTO SONIC	4.30 10.00		
35		38.00 - 40.00 (SM), SILTY SAND; black and silverish gray, fine to medium, non-plastic, w<PL, loose sand, moist,	SM		38.00	3	ROTO SONIC	10.00 10.00	AquaGuard Bentonite - Grout	
40		40.00 - 50.00 (SM-ML), SILTY SAND to SILT; brown to silverish brown, moist to wet, w<PL, soft to stiff	SM		40.00	4	ROTO SONIC	9.00 10.00		
50		Log continued on next page								

BOREHOLE RECORD - MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-107D

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.75 ft  
 LOCATION: Southwest of DGWC-19

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/28/20  
 DATE COMPLETED: 10/28/20

NORTHING: 1392334.5  
 EASTING: 2202596.4  
 GS ELEVATION: 820.6 ft  
 TOC ELEVATION: 823.38 ft

DEPTH W.L.: 21.8  
 ELEVATION W.L.: 801.6  
 DATE W.L.: 10/28/2020  
 TIME W.L.: 1440

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
50		50.00 - 60.00 (SM-ML), SILTY SAND to SILT; brown to silverish brown, moist to wet, w<PL, soft to stiff	SM	[Graphic Log: Dotted pattern]	50.00	5	ROTO SONIC	6.00 10.00		<p><b>B-107D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-85.1'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 75.1'-85.1'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 72.25'-85.5'                      Type: FilterSil                      Quantity: 4.5-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 68.8'-72.25'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon  <b>ANNULUS SEAL</b>                      Interval: 0'-68.8'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>
55										
60		60.00 - 67.00 NO RECOVERY; material was washed away by coring methods. Material from 63' to 67' is inferred as TWR.	NR	[Graphic Log: Blank]	60.00	6	ROTO SONIC	0.00 7.00		
65										
70		67.00 - 75.00 (GNEISS), BEDROCK; dark gray to black, well foliated, poorly jointed, slightly to deeply weathered, weak to medium strong, feldspar, quartz, muscovite,	BR	[Graphic Log: Red wavy lines]	67.00	7	ROTO SONIC	6.70 8.00	3/8" Uncoated Pel-Plug	
75								Sand Filter Pack		
80		75.00 - 85.75 (GNEISS), BEDROCK; dark gray to black, well foliated, poorly jointed, slightly to deeply weathered, weak to medium strong, feldspar, quartz, muscovite,	BR	[Graphic Log: Red wavy lines]	75.00	8	ROTO SONIC	6.80 10.75	U-Pack Screen	
85		Boring completed at 85.75 ft			85.75					
90										
95										
100										

BOREHOLE RECORD - MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-108D

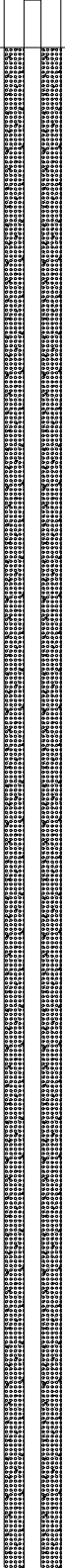
SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 80.00 ft  
 LOCATION: Next to DGWC-20

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/26/20  
 DATE COMPLETED: 10/27/20

NORTHING: 1392156.1  
 EASTING: 2202312.5  
 GS ELEVATION: 818.4 ft  
 TOC ELEVATION: 821.13 ft

DEPTH W.L.: 17.7  
 ELEVATION W.L.: 803.43  
 DATE W.L.: 10/27/2020  
 TIME W.L.: 0915

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL						Stick-up - 	<b>B-108D</b> Borehole Diameter: 4" <b>WELL CASING</b> Interval: 0'-80.0' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam <b>WELL SCREEN</b> Interval: 69'-79' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC <b>FILTER PACK</b> Interval: 65.85'-79' Type: FilterSil Quantity: 4-50 lbs bags <b>FILTER PACK SEAL</b> Interval: 62.5'-65.85' Type: 3/8" Uncoated Pel-Plug Quantity: 1- 5 gallon bucket <b>ANNULUS SEAL</b> Interval: 0'-62.5' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons  <b>NOTES</b>
10		10.00 - 12.00 (CL), CLAY;w<PL, low plasticity, moist to wet, Fill	CL		10.00					
15		12.00 - 20.00 (ML), SILT; tannish brown with black spots, trace fine sand, w<PL, non-plastic to low plasticity, compact to firm, moist	ML		12.00	1	ROTO SONIC	10.00 10.00		
20		20.00 - 30.00 (ML), SILT; tannish brown with black/silver spots, trace to some fine sand, w<PL, low plasticity, dry to moist, firm, saprolite, deeply weather biotite gneiss	ML		20.00	2	ROTO SONIC	9.50 10.00		
30		30.00 - 40.00 (ML-SM), SILT and SILTY SAND; silverish brown, trace clay, w<PL, nonplastic to low plasticity, moist, firm to stiff, contains muscovite, saprolite	SM		30.00	3	ROTO SONIC	8.00 10.00		
40		40.00 - 50.00 (ML-SM), SILT and SILTY SAND; silverish brown, trace clay, w<PL, nonplastic to low plasticity, moist, soft to firm, contains muscovite, saprolite	SM		40.00	4	ROTO SONIC	6.75 10.00		
50		Log continued on next page								

BOREHOLE RECORD\_MCDONOUGH MASTER LIST (2).GPJ\_PIEDMONT.GDT\_2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-108D

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 80.00 ft  
 LOCATION: Next to DGWC-20

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 10/26/20  
 DATE COMPLETED: 10/27/20

NORTHING: 1392156.1  
 EASTING: 2202312.5  
 GS ELEVATION: 818.4 ft  
 TOC ELEVATION: 821.13 ft

DEPTH W.L.: 17.7  
 ELEVATION W.L.: 803.43  
 DATE W.L.: 10/27/2020  
 TIME W.L.: 0915

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC			
50		50.00 - 51.00 (SP), SAND; black to dark gray, w<PL, non-plastic, firm, loose, wet	SP	50.00	5	ROTO SONIC	7.50	7.50		<p><b>B-108D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-80.0'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 69'-79'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 65.85'-79'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 62.5'-65.85'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1- 5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-62.5'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>	
55		51.00 - 57.50 (ML), SILT; gray to brown, w<PL, low plasticity, firm to stiff, moist, saprolite	ML	51.00							
60		57.50 - 65.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, deeply weathered, weak rock, iron staining	BR	57.50	6	ROTO SONIC	1.25	7.50			
65		65.00 - 75.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong rock, iron staining	BR	65.00	7	ROTO SONIC	6.55	10.00			
70		75.00 - 80.00 (GNEISS), BEDROCK; dark brown to gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong rock, iron staining	BR	75.00	8	ROTO SONIC	4.80	5.00			
75		Boring completed at 80.00 ft									Sand Filter Pack
80											U-Pack Screen
85											
90											
95											
100											

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-109D

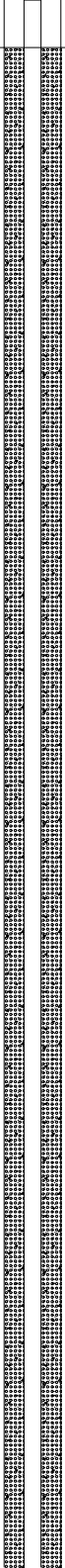
SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 100.00 ft  
 LOCATION: Next to DGWC-2

DRILL RIG: Geoprobe 8140LS  
 DATE STARTED: 10/30/20  
 DATE COMPLETED: 10/31/20

NORTHING: 1393957.5  
 EASTING: 2202127  
 GS ELEVATION: 847.8 ft  
 TOC ELEVATION: 850.73 ft

DEPTH W.L.: 23.50  
 ELEVATION W.L.: 827.2  
 DATE W.L.: 10/31/2020  
 TIME W.L.: 1157

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air knife; FILL	FILL	[Cross-hatched pattern]					Stick-up - 	<b>B-109D</b> Borehole Diameter: 4" <b>WELL CASING</b> Interval: 0'-100' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam <b>WELL SCREEN</b> Interval: 86.4'-99.4' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC <b>FILTER PACK</b> Interval: 86.5'-99.4' Type: FilterSil Quantity: 4-50 lbs bags <b>FILTER PACK SEAL</b> Interval: 83.9'-86.5' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket <b>ANNULUS SEAL</b> Interval: 0'-83.9' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons  <b>NOTES</b>
10		10.00 - 13.50 (ML). SILT; brown, soft,	ML	[Vertical lines pattern]	10.00					
15		13.50 - 20.00 (CL). CLAY; red to red brown, trace sand, medium plasticity, w<PL, firm, moist to dry,	CL	[Diagonal lines pattern]	13.50	1	ROTO SONIC	10.00 10.00		
20		20.00 - 30.00 (SM). SILTY SAND; gray to reddish gray, fine to medium, loose to soft, dry to moist, w<PL, low plasticity, quartz, biotite, feldspar	SM	[Dotted pattern]	20.00	2	ROTO SONIC	3.70 10.00		
30		30.00 - 36.00 (SM). SILTY SAND; gray to reddish gray, some clay, fine to medium, loose to soft, dry to moist, w<PL, low plasticity, quartz, biotite, feldspar	SM	[Dotted pattern]	30.00	3	ROTO SONIC	6.00 6.00		
35		36.00 - 40.00 (CL). CLAY; black to dark gray, low plasticity, w<PL, very soft to hard, dry to moist, saprolite, biotite gneiss, saprolite,	CL	[Diagonal lines pattern]	36.00	4	ROTO SONIC	4.00 4.00		
40		40.00 - 45.00 (TWR). TRANSITIONALLY WEATHERED ROCK; black to dark gray, silt with some fine sand, trace gravels, low plasticity, w<PL, soft, moist to wet, biotite gneiss fragments	TWR	[Triangle pattern]	40.00	5	ROTO SONIC	2.20 5.00		
45		45.00 - 46.00 (GRANITE). BEDROCK; biotite, feldspar, quartz, white to light gray, fine grain, quartz veins, weakly foliated, poorly jointed, fresh to slightly weathered, medium strong	BR	[Pink pattern]	45.00	6	ROTO SONIC	4.20 10.00		
50		46.00 - 55.00 (GNEISS). BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining	BR	[Red pattern]	46.00					

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



Log continued on next page

# RECORD OF BOREHOLE B-109D

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 100.00 ft  
 LOCATION: Next to DGWC-2

DRILL RIG: Geoprobe 8140LS  
 DATE STARTED: 10/30/20  
 DATE COMPLETED: 10/31/20

NORTHING: 1393957.5  
 EASTING: 2202127  
 GS ELEVATION: 847.8 ft  
 TOC ELEVATION: 850.73 ft

DEPTH W.L.: 23.50  
 ELEVATION W.L.: 827.2  
 DATE W.L.: 10/31/2020  
 TIME W.L.: 1157

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
50		46.00 - 55.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining ( <i>Continued</i> )	BR	[Red wavy lines]		6	ROTO SONIC	4.20 10.00		<p><b>B-109D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-100'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 88.4'-99.4'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 86.5'-99.4'                      Type: FilterSil                      Quantity: 4-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 83.9'-86.5'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-83.9'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>
55		55.00 - 65.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong to weak, iron staining. Pegmatitic zone 57.75' - 58.75' bgs (biotite, quartz, feldspar).	BR	[Red wavy lines]	55.00	7	ROTO SONIC	8.25 10.00		
60			BR	[Red wavy lines]		8	ROTO SONIC	10.00 10.00		
65		65.00 - 80.00 (GNEISS), BEDROCK; quartz, feldspar, biotite, black to dark gray, well foliated, poorly jointed fresh to slightly weathered, medium strong to weak, iron staining.	BR	[Red wavy lines]	65.00	9	ROTO SONIC	5.00 5.00		
70			BR	[Red wavy lines]		10	ROTO SONIC	4.25 5.00		
75		80.00 - 85.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, black to dark gray, well foliated, poorly jointed, fresh, fine to medium grain, medium strong, iron staining, locally contains chlorite	BR	[Red wavy lines]	80.00	11	ROTO SONIC	5.00 5.00		
80		85.00 - 100.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, green when dry and dark gray to black when wet, well foliated, poorly jointed fresh, fine to medium grain, medium strong, iron staining, locally contains chlorite and epidote	BR	[Red wavy lines]	85.00	12	ROTO SONIC	8.40 10.00		
85			BR	[Red wavy lines]				3/8" Uncoated Pel-Plug		
90			BR	[Red wavy lines]				Sand Filter Pack		
95			BR	[Red wavy lines]				U-Pack Screen		
100		Boring completed at 100.00 ft								

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





# RECORD OF BOREHOLE B-110D

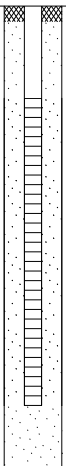
SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 65.00 ft  
 LOCATION: Next to DGWC-68A

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/14/20  
 DATE COMPLETED: 11/17/20

NORTHING: 1391294.4  
 EASTING: 2200736  
 GS ELEVATION: 764.7 ft  
 TOC ELEVATION: 764.61 ft

DEPTH W.L.: 9.35  
 ELEVATION W.L.: 755.3  
 DATE W.L.: 11/17/2020  
 TIME W.L.: 1110

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
50		45.00 - 55.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine to medium-grained, fresh to slightly weathered, strong rock, zones of fine-grained biotite <i>(Continued)</i>	BR			6	ROTO SONIC	8.70 10.00		<p><b>B-110D</b>                      Borehole Diameter: 4"  <b>WELL CASING</b>                      Interval: 0'-65'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 53'-63'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 50.5'-63'                      Type: FilterSil                      Quantity: 3.5-50 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 46'-50.5'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-46'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 85 gallons</p> <p><b>NOTES</b></p>
55		55.00 - 60.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine to medium grain, fresh to slightly weathered, strong rock, local zones of fine-grained biotite	BR		55.00	7	ROTO SONIC	5.00 5.00		
60		60.00 - 65.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, light gray to white, well foliated, poorly jointed, veing quartz, fine-to medium-grained, fresh to slightly weathered, strong rock, local zones of fine grained biotite	BR		60.00	8	ROTO SONIC	4.00 5.00		
65		Boring completed at 65.00 ft								
70										
75										
80										
85										
90										
95										
100										

BOREHOLE RECORD MCDONOUGH MASTER LIST (2).GPJ - PIEDMONT.GDT 2/3/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-111D


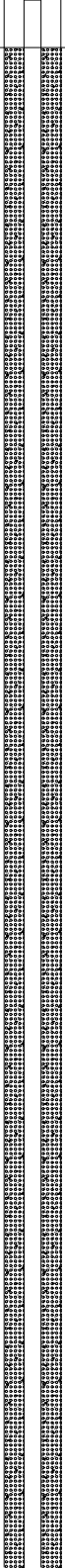




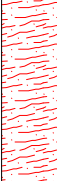
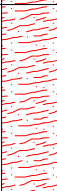
SHEET 1 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.00 ft  
 LOCATION: West of DGWC-5

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/1/20  
 DATE COMPLETED: 11/3/20

NORTHING: 1394303.4  
 EASTING: 2202956.4  
 GS ELEVATION: 789.1 ft  
 TOC ELEVATION: 791.87 ft

DEPTH W.L.: 8.9  
 ELEVATION W.L.: 755.30  
 DATE W.L.: 11/3/2020  
 TIME W.L.: 0815

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE	REC		
0		0.00 - 10.00 Air Knife; Fill	FILL						Stick-up - 	<b>B-111D</b> Borehole Diameter: 6" <b>WELL CASING</b> Interval: 0'-85' Material: Schedule 40 PVC Diameter: 2" Joint Type: Screw fit with rubber seam <b>WELL SCREEN</b> Interval: 74.15'-84.15' Material: Schedule 40 PVC Diameter: 2" Slot Size: .010" End Cap: Schedule 40 PVC <b>FILTER PACK</b> Interval: 72.1'-84.15' Type: FilterSil Quantity: 3-50 lbs bags <b>FILTER PACK SEAL</b> Interval: 68.7'-72.1' Type: 3/8" Uncoated Pel-Plug Quantity: 1-5 gallon bucket <b>ANNULUS SEAL</b> Interval: 0'-68.7' Type: AquaGuard Bentonite Grout Quantity: Approximately 80 gallons  <b>NOTES</b>
10		10.00 - 15.00 (ML), SILT; tan to brown, trace fine to coarse sand, moist to wet, soft, low plasticity, w<PI, saprolite	ML		10.00	1	ROTO SONIC	10.00 10.00		
15		15.00 - 20.00 (ML), SILT; gray and green to brown, low plasticity, w<PL, moist, soft to firm	ML		15.00					
20		20.00 - 26.00 (ML), SILT; gray and green to brown, low plasticity, w<PL, moist, soft to firm, more saprolitic	ML		20.00	2	ROTO SONIC	8.00 8.00		
26		26.00 - 27.00 (TWR), TRANSITIONALLY WEATHERED ROCK; silt, gray and green to brown, low plasticity, w<PL, moist, soft to firm, saprolitic, locally contains gravels of augen biotite gneiss	TWR		26.00					
27		27.00 - 34.00 (GNEISS), BEDROCK; quartz, feldspar, biotite, white to dark gray, moderately weathered, medium strong, iron staining, locally contains augened feldspars	BR		27.00	3	ROTO SONIC	1.00 2.00		
34		34.00 - 51.50 (GNEISS), BEDROCK; biotite, quartz, feldspar, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong, iron staining, locally contains K-spar augens	BR		34.00	4	ROTO SONIC	2.20 4.00		
35						5	ROTO SONIC	1.70 6.00	AquaGuard Bentonite Grout	
45						6	ROTO SONIC	10.00 10.00		
50		Log continued on next page								

BOREHOLE RECORD: MCDONOUGH MASTER LIST (2) (3) (1).GPJ PIEDMONT.GDT 2/10/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21



# RECORD OF BOREHOLE B-111D

SHEET 2 of 2

PROJECT: Plant McDonough  
 PROJECT NUMBER: 1668496.18  
 DRILLED DEPTH: 85.00 ft  
 LOCATION: West of DGWC-5

DRILL RIG: Geoprobe 8140LC  
 DATE STARTED: 11/1/20  
 DATE COMPLETED: 11/3/20

NORTHING: 1394303.4  
 EASTING: 2202956.4  
 GS ELEVATION: 789.1 ft  
 TOC ELEVATION: 791.87 ft

DEPTH W.L.: 8.9  
 ELEVATION W.L.: 755.30  
 DATE W.L.: 11/3/2020  
 TIME W.L.: 0815

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES			MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	SAMPLE NO.	TYPE		
50			BR		51.50				<p><b>B-111D</b>                      Borehole Diameter: 6"  <b>WELL CASING</b>                      Interval: 0'-85'                      Material: Schedule 40 PVC                      Diameter: 2"                      Joint Type: Screw fit with rubber seam  <b>WELL SCREEN</b>                      Interval: 74.15'-84.15'                      Material: Schedule 40 PVC                      Diameter: 2"                      Slot Size: .010"                      End Cap: Schedule 40 PVC  <b>FILTER PACK</b>                      Interval: 72.1'-84.15'                      Type: FilterSil                      Quantity: 3-5 lbs bags  <b>FILTER PACK SEAL</b>                      Interval: 68.7'-72.1'                      Type: 3/8" Uncoated Pel-Plug                      Quantity: 1-5 gallon bucket  <b>ANNULUS SEAL</b>                      Interval: 0'-68.7'                      Type: AquaGuard Bentonite Grout                      Quantity: Approximately 80 gallons</p> <p><b>NOTES</b></p>
55		51.50 - 58.00 (GNEISS), BEDROCK; feldspar, quartz, biotite, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium strong, locally contains epidote	BR			7	ROTO SONIC 7.00 10.00		
60		58.00 - 85.00 (GNEISS), BEDROCK; biotite, feldspar, quartz, white to light gray, well foliated, poorly jointed, fresh to slightly weathered, medium to strong,	BR		58.00				
65						8	ROTO SONIC 5.00 5.00		
70						9	ROTO SONIC 5.00 5.00		
75						10	ROTO SONIC 5.00 5.00		
80						11	ROTO SONIC 10.00 10.00		
85		Boring completed at 85.00 ft							
90									
95									
100									

BOREHOLE RECORD MCDONOUGH MASTER LIST (2) (3) (1).GPJ PIEDMONT.GDT 2/10/21

LOG SCALE: 1 in = 6.5 ft  
 DRILLING COMPANY: Cascade Drilling  
 DRILLER: Fred Dorse

GA INSPECTOR: Michael Boatman, PG  
 CHECKED BY: Timothy Richards, PG  
 DATE: 2/3/21





WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 2 Plant McDonough  
 WELL DIA (in) \_\_\_\_\_  
 DEVELOPED BY Yong Cheng So  
 STARTED LEVEL 12/7/20 3:10 pm  
DATE TIME  
 W.L. BEFORE DEVEL 26.16 12/7 2:51 pm  
WL DATE TIME  
 WELL DEPTH BEFORE DEVEL 77.8  
DATE TIME  
 STANDING WATER COLUMN (FT.) 51.64  
 SCREEN LENGTH 10

WELL ID: B-101 D  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED LEVEL \_\_\_\_\_  
DATE TIME  
 W.L. AFTER DEVEL \_\_\_\_\_  
WL DATE TIME  
 WELL DEPTH AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
12/7/20 3:10 pm	-	0.5	54.48									pump @ 75'
3:20 pm	5	0										stop pump for 2 1/2 mins
3:44 pm	.	0.5	64.02	7.44	0.28	9.63	14.3		11.24	96.2		getting dry, air trapped in tube
3:55 pm		0.38	71.5									
4:11 pm		"	72									
4:19 pm		0	69.51									
4:27 pm		0	67.6									
4:38 pm		0.5	67.7									
4:45 pm		"	71.8									
4:48	10	0	72									stop pumping.
				= TOTAL VOLUME REMOVED (gal)								

DEVELOPMENT METHOD: surging and reclaimer pump

NOTES: stop development to allow recharge.





WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER Plant McDonough  
 WELL DIA (in) 2  
 DEVELOPED BY Yongcheng Suo  
 STARTED LEVEL 12/8/2020, 8:50  
 W.L. BEFORE DEVEL 26.22 12/8, 8:46  
 WELL DEPTH: BEFORE DEVEL \_\_\_\_\_  
 STANDING WATER COLUMN (FT.) 10  
 SCREEN LENGTH \_\_\_\_\_

WELL ID: B-101D  
 DATE OF INSTALL \_\_\_\_\_  
 COMPLETED LEVEL \_\_\_\_\_  
 WL AFTER DEVEL \_\_\_\_\_  
 WELL DEPTH: AFTER DEVEL \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal  
 DRILLING WATER LOSS \_\_\_\_\_ gal

12/8/20

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
15:10		-	49.20									
15:15	0.25	48.48										
15:20	0.25	55.50										
15:25	0.25	63.36	6.38	0.52	14.62	19.9			3.34	80.8		pump @ 68'
15:30	0.25	65.30	6.26	0.52	14.28	14.5			3.28	80.5		
15:35	0.25	65.30	6.19	0.52	14.52	5			4.06	80.5		
15:50	0.25											
16:05	0.25											
16:20	0.25											
16:45												

drop pump to 68' & purge dry  
 400 mL/min

purge dry.

= TOTAL VOLUME REMOVED (gal.)

DEVELOPMENT METHOD: surging and reclaimer pump

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER Plant McDonough

WELL ID: B-101D

WELL DIA (in) 2  
DEVELOPED BY Yong Cheng Soo

DATE OF INSTALL. \_\_\_\_\_

STARTED DEVEL. 12/15/2020  
DATE TIME  
12/15, 1226  
WL DATE TIME

COMPLETED DEVEL. \_\_\_\_\_  
DATE TIME

WELL DEPTH: BEFORE DEVEL \_\_\_\_\_

WL AFTER DEVEL \_\_\_\_\_  
WL DATE TIME

STANDING WATER COLUMN (FT.) \_\_\_\_\_

WELL DEPTH: AFTER DEVEL \_\_\_\_\_

SCREEN LENGTH 10

STANDING WELL VOLUME \_\_\_\_\_ gal

DRILLING WATER LOSS \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS
				pH (a.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)	
12/15/20 1230	0	400 ml/min	26.12	REBEGIN DEVELOPMENT						@ 2' above well bottom	
1240		"	24.12	6.51	0.26	15.42	71.2		7.68	212.4	
1300			25.86	6.37	0.60	16.81	48.2		4.12	141.0	
1315			38.14	6.50	0.62	14.60	45.2		9.49	162.3	
1330			40.10	6.26	0.60	15.02	53.5		4.04	144.90	
1340			41.83	6.50	0.60	15.82	48.9		4.30	166.0	
1350			42.65	6.41	0.57	18.76	62.3		3.52	159.9	
1400			42.60	6.33	0.58	17.01	46.7		4.09	134.5	turbidity = 41.8
1410			42.80	6.33	0.58	16.01	49.9		3.85	149.9	
1420			42.80	6.34	0.57	19.34	49.6		3.72	133.3	@ 5' from bottom
1430			45.18	6.40	0.57	16.36	67.8		3.90	151.6	
1440	2.8 L		47.12	6.19	0.55	17.16	73.6		3.69	132.2	
1450	3.2 L	250	49.48	6.14	0.55	17.49	71.0		3.75	120.1	
1500		250	49.71	6.19	0.55	16.96	71.2		4.24	126.4	turbidity = 41.0
1510		250	49.92	6.25	0.54	17.70	71.7		4.00	123.6	turbidity = 63.2
1520			51.18	6.25	0.56	15.37	74.6		3.66	109.2	
1530			50.46	6.18	0.55	14.97	63.5		3.47	109.7	
1540			50.68	6.21	0.56	13.95	63.4		3.66	117.7	
1550	4.7 L		50.92	6.17	0.57	13.58	71.9		4.04	104.6	
1600			50.60	6.12	0.55	14.20	62.2		3.19	94.9	
1610			50.15	6.13	0.55	13.88	36.5		3.11	101.0	
1620			49.70	6.14	0.56	12.87	19.1		3.97	107.6	
1630			49.88	6.06	0.54	14.11	9.65		3.92	113.4	@ 8' from bottom
1640			49.10	6.10	0.55	12.99	28.2		3.67	117.4	
1650			49.42	6.05	0.55	14.00	39.8		3.11	122.9	
1805	50L	1000	49.50	6.14	0.56	12.93	61.1		4.04	137.7	@ 5' purge day
= TOTAL VOLUME REMOVED (gal)											

DEVELOPMENT METHOD: surging and reclaimer pump

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





Product Name: Low-Flow System

Date: 2020-12-16 10:47:29

Project Information:

Operator Name Yong Cheng SoCo  
Company Name Golder Associates Inc  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type polyethylene  
Tubing Diameter .5 in  
Tubing Length 72 ft

Pump placement from TOC 72 ft

Well Information:

Well ID B-101D  
Well diameter 2 in  
Well Total Depth 77.8 ft  
Screen Length 10 ft  
Depth to Water 34.56 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 2.869987 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 110.8 in  
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 10
Last 5	10:25:58	300.11	14.02	6.06	558.69	2.11	34.92	1.43	109.94
Last 5	10:30:58	600.02	14.29	6.04	559.33	1.41	35.06	1.34	103.54
Last 5	10:35:58	900.02	14.19	6.04	556.50	1.43	35.20	1.30	99.33
Last 5	10:41:02	1204.02	14.11	6.03	555.47	2.19	35.28	1.25	96.40
Last 5	10:46:02	1504.02	14.06	6.02	558.00	--	--	1.20	93.51
Variance 0			-0.10	-0.00	-2.83			-0.05	-4.21
Variance 1			-0.08	-0.01	-1.03			-0.05	-2.93
Variance 2			-0.05	-0.01	2.54			-0.05	-2.89

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-12-08 11:39:07

Project Information:

Operator Name K. Minkara  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type polyethylene  
Tubing Diameter 0.50 in  
Tubing Length 82 ft

Pump placement from TOC 82 ft

Well Information:

Well ID B-102D  
Well diameter 2 in  
Well Total Depth 87.45 ft  
Screen Length 10 ft  
Depth to Water 40.24 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 3.256096 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:27:32	300.10	15.72	5.48	627.75	1.75	39.11	0.20	-102.06
Last 5	11:32:32	600.02	15.64	5.47	628.60	1.39	38.95	0.22	-25.16
Last 5	11:37:32	900.02	15.91	5.48	628.92	1.46	38.86	0.22	-7.38
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.08	-0.01	0.84			0.02	76.89
Variance 2			0.27	0.01	0.33			-0.00	17.78

Notes

Development low flow began after 32.5gal purged  
Completed development at 1138

Grab Samples



## WELL DEVELOPMENT FIELD RECORD

JOB NAME McDonough  
 DEVELOPED BY S. Bradic  
 STARTED DEVEL. 10/30/2010 10:30  
DATE TIME  
 W.L. BEFORE DEVEL. 28.15 10/30/09:52  
DEPTH DATE TIME  
 WELL DEPTH: BEFORE DEVEL. 74.6  
 STANDING WATER COLUMN (FT.) \_\_\_\_\_  
 SCREEN LENGTH 10

JOB NO. \_\_\_\_\_ WELL NO. B-103D  
 DATE OF INSTALL. \_\_\_\_\_ SHEET 1 OF 3  
 COMPLETED DEVEL. \_\_\_\_\_ / \_\_\_\_\_  
DATE TIME  
 AFTER DEVEL. \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
DEPTH DATE TIME  
 AFTER DEVEL. \_\_\_\_\_ WELL DIA. (In) 2  
 STANDING WELL VOLUME \_\_\_\_\_ gal.  
 DRILLING WATER LOSS \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS				REMARKS	
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)	Pump rate	DTW
10/30 10:30	0	883.5	17.99	8.42	13.2	0.25 gal/min	46.1 pump @ 1
10/30 10:40	2.5	855.1	15.20	8.88	10.13	600 mL/min	51.7 pump @ 1
10/30 10:45	3.25	854.1	16.82	8.91	8.65	600 mL/min	56.3 pump @ 1
10/30 11:00	5.5	822.4	17.61	8.84	8.7	600 mL/min	63.5 pump @ 1
10/30 11:15	7.75	903.1	18.06	8.70	61.5	400 mL/min	66.7 pump @ 1
10/30 11:30	9.25	1099.1	16.78	8.53	30.8	400 mL/min	67.8 pump @ 1
10/30 11:45	10.75	1256.2	16.70	8.14	18.7	400 mL/min	68.5 pump @ 1
		paused to test recharge					
		= TOTAL VOLUME REMOVED (gal.)					

DEVELOPMENT METHOD: surging and reclaimer pump  
1045 - pump surged, 3' from bottom

NOTES: Work stopped development to allow recharge



## WELL DEVELOPMENT FIELD RECORD

JOB NAME NES DEVELOPMENT  
 DEVELOPED BY J. WAGUESPACK  
 STARTED DEVEL.           /          /            
                     DATE    TIME  
 W.L. BEFORE DEVEL. 45.60 / 11.04.20 / 16:38  
                             DEPTH  DATE  TIME  
 WELL DEPTH: BEFORE DEVEL. 74.6  
 STANDING WATER COLUMN (FT.) 29  
 SCREEN LENGTH 10' : 64.6 - 74.6

JOB NO. 166849618                    WELL NO. B-1030  
 DATE OF INSTALL.           /          /                              SHEET 2 OF 7  
 COMPLETED DEVEL.           /          /            
   DATE    TIME  
 AFTER DEVEL.           /          /            
   DEPTH  DATE  TIME  
 AFTER DEVEL.           /          /                              WELL DIA. (In)             
 STANDING WELL VOLUME 4.72 gal.  
 DRILLING WATER LOSS            gal.

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS						Do	ORP	REMARKS DTW	PUMP DEPTH FROM BOTTOM / NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)						
11.04.20 / 16:45	0	RE BEGIN	DEVELOPMENT						45.60	3" surging	
16:51	5	1649.1	19.73	7.27	47.8	6.79	162.4	71		RECHARGING	
11/05 / 09:05	5	RESUME DEV							64.28	1' SURGE SCREEN	
09:10	7.5	1963.7	17.18	7.69	>1000	9.34	163.8	70.3		RECHARGING	
11/09 / 13:40	7.5	RESUME DEV @ 14:05							55.18	6"	
14:05	7.5								55.18	SURGE WHOLE SCREEN	
14:10	12.5	2123.5	20.56	8.02	84.0	8.83	38.2	69.0		RECHARGING	
16:30	15	2171.5	22.83	8.12	7100	8.6	248.8	66.6		SURGE	
11-10 / 16:05	15	RESUME DEV							66.9	SURGE SCREEN	
16:13	17.5	1905.1	19.85	7.96	914	8.29	-18.3	71		RECHARGING	
11-11 / 0854	17.5								68.30		
1325	17.5	1808.9	24.78	8.02	27.0	8.26	-139.0	67.90		Surged screen	
1337	19.0	1800.1	24.70	8.07	500	8.19	-120	76.50		Well went dry/recharge	
11-17 / 1007			17		696			48.50		Surged whole screen	
1050		1936.3	17.80	6.99	696	10.34	151.44	48.50			
1100	240	2097.2	17.61	7.42	75	9.97	155.13	370P		Surged	
1105	250	Well Went dry. Will let well recharge & return									
		= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: surging and reclaimer pump

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NOTES:



WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER 166849618  
 WELL DIA (in) 2  
 DEVELOPED BY Young Chung So  
 STARTED LEVEL 12/7 1 pm  
 W.L. BEFORE DEVEL. 19.60, 12/7, 1054.  
 WELL DEPTH BEFORE DEVEL. 74.19  
 STANDING WATER COLUMN (FT.) 54.59.  
 SCREEN LENGTH 10

WELL ID: B-103D  
 DATE OF INSTALL. \_\_\_\_\_  
 COMPLETED LEVEL. \_\_\_\_\_  
 W.L. AFTER DEVEL. \_\_\_\_\_  
 WELL DEPTH AFTER DEVEL. \_\_\_\_\_  
 STANDING WELL VOLUME \_\_\_\_\_ gal.  
 DRILLING WATER LOSS \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS
				pH (a.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)	
12/7/20 1:14pm 1:30pm	10	0.5		6.53	1.55	15.37	15.5		235	128	pump @ 7'
12/8 1405	by Jde.		64.55								SOME WHOLE SCREEN (~4')
14 10 14 11	~500ml purged		69								BEGIN PUMPING END PUMPING - DRY
12/9 0856 1449			62.52 60.90								
12-10/1600			54.98								
12-14/1810			37.23								
12-15/1530			34.41								
12-16/1030			32.19								
12/16 1145 1213			33.32 36.95	6.63	1.79	10.92	934	MU Black	2.28	123.3	
36		= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: surging and reclaimer pump

NOTES: pump to dry (12/7)  
" " (12/8)



## WELL DEVELOPMENT FIELD RECORD

<p>JOB NAME <u>McDonough</u></p> <p>DEVELOPED BY <u>S. Ondrej</u></p> <p>STARTED DEVEL <u>10/29/20 14:06</u></p> <p>DATE TIME</p> <p>W.L. BEFORE DEVEL. <u>6.25 10/29/14:11</u></p> <p>DEPTH DATE TIME</p> <p>WELL DEPTH: BEFORE DEVEL. <u>63.45</u></p> <p>AFTER DEVEL. _____</p> <p>STANDING WATER COLUMN (FT.) <u>57.2</u></p> <p>AFTER DEVEL. _____</p> <p>SCREEN LENGTH <u>10 feet</u></p>	<p>JOB NO. _____</p> <p>DATE OF INSTALL. <u>10/29/20</u></p> <p>COMPLETED DEVEL. <u>10/29/20 18:36</u></p> <p>DATE TIME</p> <p>AFTER DEVEL. <u>63.45 10/29/18:36</u></p> <p>DEPTH DATE TIME</p> <p>AFTER DEVEL. _____</p> <p>STANDING WELL VOLUME <u>9.32</u> gal.</p> <p>DRILLING WATER LOSS _____ gal.</p> <p>WELL NO. <u>B-104D</u></p> <p>SHEET <u>1</u> OF <u>1</u></p>
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DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS				Pump Rate	REMARKS DTW	
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)			
1445	0	819.8	22.81	6.22	30.0	1/2 g/min	28.9	
1500	7.5	paused to recheck measurement						
1505	7.5	pagan pump again 0 ft recheck						
1515	12.5	570.1	20.44	6.35	19.0	0.5 gal/min	41.8 feet	
1520	13.75	FLOW reduced to 0.25 gal/min						
1530	15.25	1009.3	20.27	6.18	3.76	600 ml/min	54.21	
1545	17.5	1091.1	22.09	6.50	72.5	600 ml/min	50.3	
1600	19.75	1047.0	21.04	6.11	15.9	600 ml/min	47.35	
1615	22	1050.8	20.91	6.11	3.40	600 ml/min	45.76	
1630	24.25	1048.3	20.57	6.11	4.61	600 ml/min	46.0	
1645	26.5	1090.6	20.42	6.11	2.12	600 ml/min	46.1	
1700	28.75	1045.6	20.36	6.11	10.7	600 ml/min	47.2	
1715	31	1051.0	20.30	6.12	3.62	600 ml/min	47.7	
1730	33.25	1037.8	20.26	6.17	20.4	600 ml/min	47.2	
1735		1054.5	20.09	6.11	4.10	60 ml/min	47.2	
	36	TOTAL VOLUME REMOVED (gal.)						

DEVELOPMENT METHOD: pump surged @ 1530, moved 3 feet up in screen

pump surged @ 1615, moved 2 feet up in screen

pump surged @ 1645, moved to 1 foot up in screen

surged @ 1715, moved to 1 foot above bottom

NOTES:

# PURGING AND SAMPLING FORM

October

Project #: 166849618	Project Name/Site Name: Plant McDonough <del>Advanced Solenium Facility</del>		Page: <u>1</u> of <u>1</u>
Well ID #: <u>B-104D</u>	Date: <u>10/29/20</u>	Water Level (ft): <u>37.89</u>	Time (WL): <u>1759</u>
Physical Condition of Well: <u>good</u>		Weather: <u>25.56</u>	
Well Diameter (in): <u>2</u>	Well Depth (ft): <u>63.45</u>	Water Column (ft): <u>34.80</u>	Well Volume (gal): <u>4.2</u>
Start Purge: <u>1754</u>	End Purge: <u>1836</u>	Top of Pump (ft): <u>68.45</u>	
Evacuation Method: <u>Low-Flow</u>		Volume Removed (L): <u>9.6 L</u>	
Evacuation Equipment: <u>Reclaimer</u>		Purging Personnel: <u>S. Brodrick</u>	
SmarTroll serial #: <u>512733</u>		Lamotte serial #: <u>1386 - 3811</u>	

## Purge Data/Field Parameters

Time	Color & Appearance	Odor	pH (S.U.)	Cond. (uS/cm)	DO (mg/L)	Temp (C)	ORP (mV)	Turbidity (NTU)	DTW (ft BTOC)	Pumping Rate
1836	clear		6.06	1059.5	1.33	19.81	272.2	0.19	26.6	240 ml

Stabilization Criteria: pH ± 0.1 S.U, Conductivity ± 5%, Dissolved Oxygen ± 10% or 0.2mg/L (whichever is greater; for DO < 0.5mg/L, record only, no stabilization criteria), Turbidity ≤ 5 NTU; Purge volume ≥ 3L purge water, water level ≤ 0.3 ft; Temp and ORP record only

## Sample Description

Sample ID: \_\_\_\_\_ Sample Date/Time: \_\_\_\_\_ Metals Date/Time: \_\_\_\_\_  
 Duplicate: \_\_\_\_\_ Dup Date/Time: \_\_\_\_\_ Final Turbidity NTU: \_\_\_\_\_  
 Field Blank: \_\_\_\_\_ Blank Date/Time: \_\_\_\_\_ Turbidity Date/Time: \_\_\_\_\_

# Sample Bottles	Container	Preservative	Analyte(s)
1	250 mL plastic	HNO <sub>3</sub>	B, Be, Co, Al, Mg, Mn, K, Na, Si, Ca
1	250 mL plastic	--	Alkalinity
1	250 mL plastic	--	Chloride + Sulfate
1	250 mL plastic	--	Ferrous + Ferric Iron

Signature: [Signature]

Product Name: Low-Flow System

Date: 2020-10-29 18:38:20

Project Information:

Operator Name S. Brodie  
Company Name Golder  
Project Name B-104D  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type reclaimer  
Tubing Type LPDE  
Tubing Diameter .5 in  
Tubing Length 63.45 ft

Pump placement from TOC 68.45 ft

Well Information:

Well ID B-104D  
Well diameter 2 in  
Well Total Depth 63.45 ft  
Screen Length 10 ft  
Depth to Water 36.89 ft

Pumping Information:

Final Pumping Rate 240 mL/min  
Total System Volume 2.539863 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 10.08 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	18:14:26	1200.02	20.61	6.06	1059.22	0.33	28.65	1.08	431.96
Last 5	18:19:26	1500.02	20.42	6.06	1058.94	0.39	28.90	1.83	381.05
Last 5	18:24:27	1801.02	20.30	6.06	1058.49	0.32	27.30	0.72	342.24
Last 5	18:29:28	2102.02	19.93	6.06	1058.80	0.25	26.90	1.14	304.71
Last 5	18:34:28	2402.02	19.81	6.06	1059.46	0.19	26.60	1.33	272.23
Variance 0			-0.12	0.00	-0.45			-1.11	-38.81
Variance 1			-0.37	0.00	0.31			0.41	-37.53
Variance 2			-0.12	-0.00	0.66			0.19	-32.48

Notes

Grab Samples





## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>McDonough</u> DEVELOPED BY <u>S. Brodieu</u> STARTED DEVEL. <u>10/30/20 / 1510</u> DATE      TIME W.L. BEFORE DEVEL. <u>16.2 110/30/1350</u> DEPTH DATE    TIME WELL DEPTH: BEFORE DEVEL. <u>74.35</u> STANDING WATER COLUMN (FT.) <u>58.15 9.5gal</u> SCREEN LENGTH <u>10</u>	JOB NO. _____ WELL NO. <u>B-10SD</u> DATE OF INSTALL. _____ SHEET _____ OF _____ COMPLETED DEVEL. _____ / _____ DATE      TIME AFTER DEVEL. _____ / _____ DEPTH DATE    TIME AFTER DEVEL. _____ WELL DIA. (in) _____ STANDING WELL VOLUME <u>9.</u> gal. DRILLING WATER LOSS _____ gal.
--	---

1525

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS				FLOW rate	REMARKS	DTW	pump feet from bottom
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)				
10/30 1510	0	576.0	19.91	7.01	52.8	0.25 gal/min	24.49	1'	
<del>10/30 1520</del>		592.0	19.55	6.70	31.6	0.25 gal/min	28.7	1'	
10/30 1530		604.2	19.47	6.51	11.9	0.25 gal/min	33.45	1'	
10/30 1545		602.5	19.33	6.36	54.6	0.25 gal/min	37.4	3'	
10/30 1600		606.9	19.41	6.26	46.3	0.25 gal/min	39.2	3'	
10/30 1615		611.4	19.28	6.18	17.1	0.25 gal/min	40.29	3'	
10/30 1630		613.6	19.41	6.13	12.1	0.25 gal/min	40.79	3'	
10/30 1645		601.5	19.03	6.24	81	0.25 gal/min	42.1	6'	
10/30 1700		615.4	18.97	6.07	33.6	0.25 gal/min	44.21	6'	
10/30 1715	31.25	617.9	19.04	6.04	17.9	0.25 gal/min	40.2	6'	
generator ran out of fuel									
10/30 1730	31.25	650.1	18.61	6.66	18.5	0.5 gal/min	42.5	6'	
10/30 1745	38.75	578.9	18.83	6.53		0.5 gal/min	62		
10/30 1800	46.25	642.3	18.39	6.22	22.1	0.25 gal/min	60.9	9'	
10/30 1815		635.8	18.47	6.10	26.8	0.25 gal/min	63.4	9'	
10/30 1830		628.2	18.15	6.18	14.5	0.25 gal/min	64.0	9'	
10/30 1830	53.75	635.7	18.10	6.12	9.84	0.25 gal/min	64.1	9'	
		= TOTAL VOLUME REMOVED (gal.)							

DEVELOPMENT METHOD: surging and reclaimer pump

1530 - pump surged, moved to 3' from bottom

1630 - pump surged, moved to 6' from bottom

1730 - pump surged, moved to 9' from bottom

NOTES: development complete, no time for LOW flow due to late hour of day and loss of light

## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>NES DEVELOPMENT</u>	JOB NO. <u>166849618</u>	WELL NO. <u>B-1050</u>
DEVELOPED BY <u>J. WAGUESPACK</u>	DATE OF INSTALL. _____	SHEET <u>1</u> OF <u>2</u>
STARTED DEVEL. <u>11.02.20 / 16:35</u>	COMPLETED DEVEL. <u>11.04.20 / 15:20</u>	
DATE      TIME	DATE      TIME	
W.L. BEFORE DEVEL. <u>16.40 / 11.02.20 / 16:31</u>	AFTER DEVEL. <u>40.4 / 11.04 / 15:20</u>	
DEPTH   DATE   TIME	DEPTH   DATE   TIME	
WELL DEPTH: BEFORE DEVEL. <u>72.90</u>	AFTER DEVEL. <u>72.90</u> WELL DIA. (In) <u>2</u>	
STANDING WATER COLUMN (FT.) <u>56.5</u>	STANDING WELL VOLUME <u>9.21</u> gal.	
SCREEN LENGTH <u>10' : 62.90 - 72.90</u>	DRILLING WATER LOSS _____ gal.	

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS					Do	ORP	REMARKS DTW	Pump From Bottom
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (S.U.)	Turbidity (NTU)					
<u>11.02.20 / 16:40</u>	<u>0</u>	<u>641.0</u>	<u>19.11</u>	<u>6.33</u>	<u>71000</u>	<u>0.77</u>	<u>37.2</u>	<u>22.8</u>	<u>3" SURGING</u>	
<u>16:52</u>	<u>5</u>	<u>639.2</u>	<u>18.86</u>	<u>6.78</u>	<u>210000</u>	<u>9.37</u>	<u>83.2</u>	<u>61.0</u>		
<u>17:00</u>	<u>10</u>	<u>260.5</u>	<u>18.50</u>	<u>7.32</u>	<u>88.7</u>	<u>8.45</u>	<u>-67.5</u>	<u>68.5</u>	<u>RECHARGING</u>	
<u>17:10</u>	<u>-</u>							<u>59.5</u>	<u>RECHARGING</u>	
<u>17:19</u>	<u>-</u>							<u>49.5</u>	<u>RECHARGING</u>	
<u>11.04.20 / 09:05</u>	<u>-</u>	<u>RESUME DEVELOPMENT</u>							<u>16.42</u>	<u>3" SWAGE WHEEL</u>
<u>09:15</u>	<u>15</u>	<u>668.6</u>	<u>17.72</u>	<u>6.53</u>	<u>21000</u>	<u>3.34</u>	<u>26.1</u>	<u>45.88</u>	<u>0.5 gpm</u>	
<u>09:25</u>	<u>20</u>	<u>662.6</u>	<u>17.99</u>	<u>6.19</u>	<u>42.0</u>	<u>2.79</u>	<u>83.5</u>	<u>59.10</u>	<u>5" SURGING</u>	
<u>09:30</u>	<u>22.5</u>	<u>661.9</u>	<u>18.32</u>	<u>6.19</u>	<u>30.2</u>	<u>4.53</u>	<u>113.5</u>	<u>66.5</u>	<u>RECHARGING</u>	
<u>09:50</u>	<u>22.5</u>	<u>661.0</u>	<u>19.20</u>	<u>6.34</u>	<u>92.9</u>	<u>6.21</u>	<u>235.9</u>	<u>46.5</u>	<u>SWAGE SCREEN</u>	
<u>10:00</u>	<u>27.5</u>	<u>658.4</u>	<u>18.48</u>	<u>6.44</u>	<u>41.4</u>	<u>7.84</u>	<u>316.5</u>	<u>62.7</u>	<u>3"</u>	
<u>10:05</u>	<u>30</u>	<u>661.6</u>	<u>18.52</u>	<u>6.45</u>	<u>84.2</u>	<u>7.91</u>	<u>217.3</u>	<u>67.0</u>	<u>RECHARGING</u>	
<u>10:30</u>	<u>30</u>	<u>655.8</u>	<u>19.83</u>	<u>6.56</u>	<u>47.6</u>	<u>7.93</u>	<u>268.2</u>	<u>45.0</u>	<u>SWAGE SCREEN</u>	
<u>10:40</u>	<u>34</u>	<u>661.3</u>	<u>18.80</u>	<u>6.37</u>	<u>25.5</u>	<u>5.15</u>	<u>274.3</u>	<u>62.7</u>		
<u>10:45</u>	<u>36</u>	<u>658.7</u>	<u>18.88</u>	<u>6.26</u>	<u>27.5</u>	<u>4.04</u>	<u>316.4</u>	<u>66.9</u>	<u>RECHARGING</u>	
<u>11:10</u>	<u>36</u>	<u>656.1</u>	<u>19.48</u>	<u>6.23</u>	<u>54.2</u>	<u>3.11</u>	<u>414.7</u>	<u>43.40</u>	<u>SWAGE SCREEN</u>	
<u>11:20</u>	<u>38.5</u>	<u>656.4</u>	<u>19.32</u>	<u>6.21</u>	<u>87.5</u>	<u>3.12</u>	<u>438.5</u>	<u>52.95</u>		
<u>11:30</u>	<u>41</u>	<u>652.9</u>	<u>19.33</u>	<u>6.15</u>	<u>22.3</u>	<u>2.54</u>	<u>452.9</u>	<u>57.65</u>		
		= TOTAL VOLUME REMOVED (gal.)								

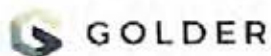
DEVELOPMENT METHOD: RECLAIMED + SURGING

10:30: FLOW RATE DECREASED FROM 0.5 gpm - 0.4 gpm

11:10: FLOW RATE FROM 0.4 - 0.25 gpm

NOTES:





## WELL DEVELOPMENT FIELD RECORD

JOB NAME NES DEVELOPMENT  
 DEVELOPED BY J. WAGUESPACK  
 STARTED LEVEL 11.02.20 / 16:35  
DATE TIME  
 W.L. BEFORE DEVEL. 16.40 / 11/02 / 16:31  
DEPTH DATE TIME  
 WELL DEPTH: BEFORE DEVEL. 72.90  
 STANDING WATER COLUMN (FT.) 56.5  
 SCREEN LENGTH 10

JOB NO. 166849618 WELL NO. B-105D  
 DATE OF INSTALL. \_\_\_\_\_ SHEET 2 OF 2  
 COMPLETED LEVEL 11.04.20 / 15:20  
DATE TIME  
 AFTER DEVEL. 40.4 / 11.04 / 15:20  
DEPTH DATE TIME  
 AFTER DEVEL. 72.90 WELL DIA. (In) 2  
 STANDING WELL VOLUME 9.21 gal.  
 DRILLING WATER LOSS \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS						DO	ORP	REMARKS DTW	PUMP FROM BOTTOM / NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)						
11.04.20 / 11:40	43.5	650.4	19.41	6.12	5.79	2.15	490.4	62.20	3'		
11:50	46	648.9	19.50	6.11	6.01	1.96	529.5	64.3	RECHARGING		
12:10	46	649.4	20.04	6.14	50.2	2.04	596.2	43.2	SURGING SCREEN		
12:20	48.5	647.7	20.04	6.13	51	2.00	607.8	50.49			
12:30	51	646.9	19.77	6.11	28.5	1.67	633.8	57.3	SURGING		
12:40	53.5	650.4	19.72	6.10	14.3	1.59	650.7	62.45	SURGING		
12:50	56	644.2	19.73	6.12	10.61	1.61	681.2	64.4	-> 5' RECHARGE		
13:15	56	654.4	20.44	6.14	7.14	2.05	442.1	43.9	SURGING SCREEN		
13:25	58.5	650.2	19.93	6.09	11.7	1.71	611.2	56.0	SURGING		
13:35	61	650.0	19.68	6.08	9.29	1.56	753.3	63.8			
13:45	63.5	649.4	19.81	6.09	4.03	1.80	871.4	63.9	-> 3' RECHARGE		
14:05	63.5	649.0	20.5	6.11	5.21	1.94	1063.5	44.20			
14:15	66	649.2	20.02	6.09	2.11	1.75	1111.8	53.8	-> 5'		
14:25	68.5	648.9	19.72	6.08	0.89	1.59	1135.5	63.25	RECHARGING		
14:50	68.5	BEGIN LOW FLOW DEVELOPMENT						40.0			
15:05		FLOW RATE FROM 400 ml/min -> 200 ml/min									
15:20	+2.4	647.20	20.37	6.10	0.28	1.54	1184.20	40.4			
	70.5	DEVELOPMENT COMPLETE									
	124.25	= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: RECLAIMER + SURGING

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NOTES:

Product Name: Low-Flow System

Date: 2020-11-04 15:27:00

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type LDPE  
Tubing Diameter .250 in  
Tubing Length 68 ft

Pump placement from TOC 68 ft

Well Information:

Well ID B-105D  
Well diameter 2 in  
Well Total Depth 72.90 ft  
Screen Length 10 ft  
Depth to Water 40 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 2.186386 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.8 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:01:21	600.02	20.22	6.09	647.87	0.52	43.65	1.64	1175.88
Last 5	15:06:21	900.02	20.21	6.08	647.04	0.43	45.40	1.49	1180.15
Last 5	15:11:21	1200.02	20.18	6.10	647.69	0.40	43.60	1.52	1181.51
Last 5	15:16:21	1500.02	20.26	6.09	647.84	0.37	41.80	1.56	1183.04
Last 5	15:21:21	1800.02	20.37	6.10	647.21	0.28	40.40	1.54	1184.21
Variance 0			-0.02	0.01	0.64			0.03	1.36
Variance 1			0.08	-0.00	0.16			0.04	1.53
Variance 2			0.11	0.00	-0.64			-0.01	1.17

Notes

@15:05 purge rate decreased from 400 to 200 mL/min

Grab Samples





Product Name: Low-Flow System

Date: 2020-12-08 12:58:13

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name NES Development  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 646777  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type polyethylene  
Tubing Diameter .5 in  
Tubing Length 77 ft

Pump placement from TOC 77 ft

Well Information:

Well ID B-106D  
Well diameter 2 in  
Well Total Depth 82.22 ft  
Screen Length 10 ft  
Depth to Water 37.0 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 3.063041 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.28 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:40:19	300.05	17.67	6.05	511.79	1.35	37.60	0.93	87.75
Last 5	12:45:19	600.02	16.87	5.99	502.22	8.78	37.35	0.22	85.86
Last 5	12:50:19	900.02	16.65	5.94	508.84	6.04	37.20	0.14	85.57
Last 5	12:55:19	1200.02	16.92	5.93	512.15	4.94	37.19	0.13	84.61
Last 5									
Variance 0			-0.81	-0.06	-9.57			-0.71	-1.89
Variance 1			-0.22	-0.04	6.62			-0.08	-0.29
Variance 2			0.27	-0.01	3.31			-0.01	-0.96

Notes

Grab Samples

## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>166849618 NES DEVELOPMENT</u>	JOB NO. _____	WELL NO. <u>B-107D</u>
DEVELOPED BY <u>JUDE WAGUESPACK</u>	DATE OF INSTALL. _____	SHEET <u>1</u> OF <u>2</u>
STARTED DEVEL. <u>11.02.20 / 10:05</u>	COMPLETED DEVEL. <u>11.02.20 / 15:11</u>	
W.L. BEFORE DEVEL. <u>18.35</u> <u>11.02 / 09:30</u>	AFTER DEVEL. <u>18.83</u> <u>11.02 / 15:11</u>	
<u>BTOC</u> DEPTH DATE TIME	DEPTH DATE TIME	
WELL DEPTH: BEFORE DEVEL. <u>85.25</u>	AFTER DEVEL. <u>85.25</u> WELL DIA. (In) <u>2</u>	
STANDING WATER COLUMN (FT.) <u>66.9</u>	STANDING WELL VOLUME <u>10.9</u> gal.	
SCREEN LENGTH <u>10' 75.25 - 85.25</u>	DRILLING WATER LOSS _____ gal.	

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS					DO	OAP	REMARKS DTW	Pump From BOTTOM
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)					
11.02.20/10:15	5	643.8	15.13	6.13	7100	10.10	-78.4	19.55	3" SURGING	
10:27	10	714.6	15.93	6.01	21000	8.06	-76.7	19.75	3" SURGING	
10:38	15	707.9	16.73	5.95	58.7	8.50	-27.5	19.60	3" SURB	
10:50	20	705.5	16.41	6.02	70.0	7.51	5.5	19.80	"	
11:02	25	716.6	16.38	5.99	53.3	7.59	6.9	19.75	-> 4' SURGE	
11:16	30	421.7	16.02	5.98	47.1	8.53	15.5	19.95	4' SURGING	
11:28	35	724.0	16.49	6.00	48.7	10.10	42.8	19.95	"	
11:40	40	718.1	16.65	5.97	50.4	9.13	43.5	19.95		
11:52	45	722.1	16.33	5.95	34.6	8.29	35.9	19.90		
12:04	50	666.6	16.82	5.95	14.9	10.04	32.2	19.95	-> 8' SURGING	
12:16	55	726.1	16.74	5.94	23.3	8.41	43.8	20.0	SURGING	
12:28	60	398.4	16.37	5.96	13.8	7.32	61.9	19.95	SURGING	
12:40	65	711.1	17.05	5.97	6.5	7.71	75.0	19.95	-> 3" SURG	
12:52	70	708.1	16.69	6.00	34.6	8.87	105.4	19.90		
13:04	75	640.0	16.38	5.96	16.7	8.05	84.1	19.95	3" SURGING	
13:16	80	716.1	16.77	5.99	17.8	6.59	82.4	19.90		
13:28	85	719.1	17.20	5.97	5.7	8.13	86.1	19.90	-> 5' SURB	
13:40	90	721.3	17.17	5.95	20.3	9.57	88.8	19.90		
11.02.20 15:11	102.6	= TOTAL VOLUME REMOVED (gal.)								

DEVELOPMENT METHOD: RECLAIMER + SURGING  
Flow RATE = 1600 m<sup>3</sup>/min = 0.42 gal/min  
NO WELL PAD INSTALLED; DTW FROM TOC

NOTES:

## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>NES DEVELOPMENT</u> DEVELOPED BY <u>J. WAQUESPAK</u> STARTED DEVEL. <u>11.02.20 / 10:05</u> <small>DATE TIME</small> W.L. BEFORE DEVEL. <u>18.35 / 11.02 / 09:30</u> <small>DEPTH DATE TIME</small> WELL DEPTH: BEFORE DEVEL. <u>85.25</u> STANDING WATER COLUMN (FT.) <u>66.9</u> SCREEN LENGTH <u>10' ; 75.25 - 85.25</u>	JOB NO. <u>166849618</u> WELL NO. <u>B-107D</u> DATE OF INSTALL. _____ SHEET <u>2</u> OF <u>2</u> COMPLETED DEVEL. <u>11.02.20 / 15:11</u> <small>DATE TIME</small> AFTER DEVEL. <u>18.83 / 11.02 / 15:11</u> <small>DEPTH DATE TIME</small> AFTER DEVEL. <u>85.25</u> WELL DIA. (In) <u>2</u> STANDING WELL VOLUME <u>10.9</u> gal. DRILLING WATER LOSS _____ gal.
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DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS						DO	OAP	REMARKS DTW	Pump From Bottom
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)						
11.02.20 / 13:52	95	724.0	17.23	5.95	9.04	6.88	85.8	19.90	5'		
14:04	100	735.0	17.59	5.97	4.5	7.38	105.2	19.90			
		BEGIN LOW FLOW DEV @ 14:44									
15:11	102.6	710.20	18.42	5.86	3.56	0.13	215.20	18.83			
		DEV COMPLETE @ 15:11									
102.6		= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: RECLAIMER + SURGING  
 Flow RATE = 1600 ml/min ≈ 0.42 gal/min  
14:04: STOPPED FLOW TO GET GAS FOR GENERATOR

NOTES:

Product Name: Low-Flow System

Date: 2020-11-02 15:13:51

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type LDPE  
Tubing Diameter .250 in  
Tubing Length 80 ft

Pump placement from TOC 80 ft

Well Information:

Well ID B-107D  
Well diameter 2 in  
Well Total Depth 85.25 ft  
Screen Length 10 ft  
Depth to Water 18.60 ft

Pumping Information:

Final Pumping Rate 400 mL/min  
Total System Volume 2.302218 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.76 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:49:37	300.15	18.88	5.86	708.59	1.74	18.80	1.15	228.78
Last 5	14:54:37	600.09	18.39	5.86	716.44	6.02	18.83	0.26	233.19
Last 5	14:59:37	900.09	18.43	5.86	714.89	7.21	18.83	0.14	222.19
Last 5	15:04:37	1200.07	18.51	5.86	712.79	4.72	18.83	0.12	217.21
Last 5	15:09:38	1501.07	18.42	5.86	710.17	3.56	18.83	0.13	215.20
Variance 0			0.04	-0.00	-1.56			-0.11	-11.00
Variance 1			0.08	0.00	-2.10			-0.02	-4.98
Variance 2			-0.09	0.01	-2.61			0.00	-2.01

Notes

Grab Samples



## WELL DEVELOPMENT FIELD RECORD

JOB NAME NES DEVELOPMENT  
 DEVELOPED BY J. WAGUESPACK  
 STARTED DEVEL. 11/05/20 12:00  
DATE TIME  
 W.L. BEFORE DEVEL. 20.25 11/05 10:45  
DEPTH DATE TIME  
 WELL DEPTH: BEFORE DEVEL. 81.91  
 STANDING WATER COLUMN (FT.) 61.66  
 SCREEN LENGTH 10' : 71.91 - 81.91

JOB NO. 166849618 WELL NO. B-108D  
 DATE OF INSTALL. \_\_\_\_\_ SHEET 1 OF 2  
 COMPLETED DEVEL. 11.05.20 16:58  
DATE TIME  
 AFTER DEVEL. 22.16 11.05 16:58  
DEPTH DATE TIME  
 AFTER DEVEL. 81.91 WELL DIA. (in) 2  
 STANDING WELL VOLUME 10.05 gal.  
 DRILLING WATER LOSS \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS					DO	ORP	REMARKS DTW	PUMP FROM BOT. NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)					
11/05/20/12:00	0	BEGIN	DEV	ELONGMENT				20.25	6" SURGING	
12:09	5	901.5	19.50	6.87	71000	1.16	-461.2	26.7	SURGE SCREEN	
12:17	10	838.2	19.41	6.35	71000	1.46	-153.9	27.2	"	
12:26	15	818.7	19.25	6.24	71000	1.51	-50.4	27.5	"	
12:36	20	804.4	19.09	6.16	71000	1.29	-40.9	27.6	"	
12:46	25	801.8	19.03	6.14	98	1.11	-75.2	27.6		
12:56	30	797.4	18.97	6.11	42.3	1.08	-58.7	27.6	SURGING	
13:06	35	794.9	19.01	6.10	46.1	1.05	-81.0	27.5		
13:16	40	793.0	19.02	6.08	20.9	1.05	-63.6	27.5	→ 3' SURGE SCREEN	
13:26	45	805.6	18.98	6.15	886	1.41	-93.6	29.5	SURGING	
13:36	50	794.3	18.95	6.09	117	1.36	-68.1	29.7		
13:46	55	789.5	18.88	6.06	18.0	1.37	-58.8	29.8	SURGING	
13:56	60	788.1	18.82	6.05	18.7	1.37	-74.9	29.6	→ 6' SURGE SCREEN	
14:06	65	788.2	18.76	6.05	21.4	1.44	-56.3	30.9		
14:16	70	787.6	18.76	6.04	15.3	1.47	-61.6	30.5	SURGE	
14:26	75	787.0	18.74	6.04	14.0	1.46	-62.0	31.3		
14:36	80	786.4	18.72	6.03	8.93	1.47	-43.7	31.3	→ 9' SURGE	
14:46	85	789.6	18.74	6.06	7.87	1.46	-52.8	32.3	SURGING	
		= TOTAL VOLUME REMOVED (gal.)								

DEVELOPMENT METHOD:

RECLAIMER + SURGING

NOTES:

## WELL DEVELOPMENT FIELD RECORD

JOB NAME NES DEVELOPMENT  
 DEVELOPED BY J. WAGUESPACK  
 STARTED DEVEL. 11/05/20 / 12:00  
DATE TIME  
 W.L. BEFORE DEVEL. 20.25 / 11/05 / 10:45  
DEPTH DATE TIME  
 WELL DEPTH: BEFORE DEVEL. 81.91  
 STANDING WATER COLUMN (FT.) 61.66  
 SCREEN LENGTH 10' - 71.91 - 81.91

JOB NO. 166849618 WELL NO. B-108D  
 DATE OF INSTALL. \_\_\_\_\_ SHEET 2 OF 2  
 COMPLETED DEVEL. 11.05.20 / 16:58  
DATE TIME  
 AFTER DEVEL. 22.16 / 11.05 / 16:58  
DEPTH DATE TIME  
 AFTER DEVEL. 81.91 WELL DIA. (In) 2  
 STANDING WELL VOLUME 10.05 gal.  
 DRILLING WATER LOSS \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS						DO	ORP	REMARKS DTW	PUMP FROM BOTTOM + NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)						
11/05/20/14:56	90	787.0	18.71	6.04	8.37	1.47	-59.7	32.2	→ 6" SURGE	SURGE	
15:06	95	788.8	18.70	6.06	9.0	1.29	-155.3	29.7		SURGING	
15:16	100	785.8	18.66	6.03	9.07	1.22	-110.9	29.4			
15:26	105	784.8	18.63	6.02	4.38	1.22	-66.2	29.1	→ 3' SURGE		
15:36	110	783.4	18.61	6.03	5.49	1.28	-62.7	30.1	→ 6' SURGE		
15:46	115	783.2	18.61	6.02	8.25	1.35	-7.5	31.0	→ 5'		
15:56	120	783.3	18.61	6.02	3.89	1.38	-18.1	30.4	RECHARGE		
16:23		BEGW	Low Flow DEV					21.15			
16:58			791.30	18.39	6.08	4.7	1.06	-11.70	22.6	300 <sup>ML</sup> /min	
		END	Low Flow DEV - COMPLETE								
	120	= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: RECLAIMER + SURGING  
2.77 gallons purged during low flow

NOTES:

Product Name: Low-Flow System

Date: 2020-11-05 17:01:11

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type LDPE  
Tubing Diameter .250 in  
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID B-108D  
Well diameter 2 in  
Well Total Depth 81.91 ft  
Screen Length 10 ft  
Depth to Water 21.15 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 2.16708 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17.4 in  
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:38:28	899.90	18.44	6.07	787.55	9.44	22.55	1.67	68.33
Last 5	16:43:28	1199.90	18.43	6.06	788.94	8.71	22.60	1.43	-3.16
Last 5	16:48:35	1506.90	18.43	6.07	789.63	8.20	22.60	1.32	-16.70
Last 5	16:53:35	1806.89	18.40	6.07	790.32	7.20	22.60	1.16	-20.00
Last 5	16:58:35	2106.90	18.39	6.08	791.28	4.70	22.60	1.06	-11.69
Variance 0			0.00	0.00	0.70			-0.11	-13.54
Variance 1			-0.03	0.00	0.69			-0.16	-3.30
Variance 2			-0.01	0.01	0.96			-0.09	8.31

Notes

Grab Samples



## WELL DEVELOPMENT FIELD RECORD

<p>JOB NAME <u>Plant McDonough</u></p> <p>DEVELOPED BY <u>D. Thomas</u></p> <p>STARTED LEVEL. <u>11-9-20 / 1235</u></p> <p style="margin-left: 40px;">DATE      TIME</p> <p>W.L. BEFORE DEVEL. <u>37.20 / 11-9-20 / 1202</u></p> <p style="margin-left: 40px;">DEPTH    DATE    TIME</p> <p>WELL DEPTH: BEFORE DEVEL. <u>100.85</u></p> <p>STANDING WATER COLUMN (FT.) <u>63.65</u></p> <p>SCREEN LENGTH <u>10</u></p>	<p>JOB NO. <u>166849618</u></p> <p>DATE OF INSTALL. _____</p> <p>COMPLETED LEVEL. _____</p> <p style="margin-left: 40px;">DATE      TIME</p> <p>AFTER DEVEL. _____</p> <p style="margin-left: 40px;">DEPTH    DATE    TIME</p> <p>AFTER DEVEL. _____</p> <p style="margin-left: 40px;">WELL DIA. (In) _____</p> <p>STANDING WELL VOLUME _____ gal.</p> <p>DRILLING WATER LOSS _____ gal.</p>
WELL NO. <u>B-107D</u>	SHEET <u>1</u> OF <u>5</u>
	km

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS				REMARKS
		SPEC. COND. (µS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)	
<u>11-9-20/1235</u>	<u>0</u>	<u>444.85</u>	<u>22.38</u>	<u>6.62</u>	<u>71000</u>	<u>1' foot from bottom surge screen</u>
<u>1245</u>	<u>5</u>	<u>339.95</u>	<u>22.52</u>	<u>6.72</u>	<u>12.2</u>	<u>3' after surging / DTW = 61.40</u>
<u>1255</u>	<u>10</u>	<u>321.16</u>	<u>20.77</u>	<u>7.04</u>	<u>59.6</u>	<u>DTW = 91.70</u>
		<u>Well went dry waiting for well to recharge</u>				
		<u>Drillers grinding hole will resume development after</u>				
<u>1337</u>						<u>DTW = 91.37</u>
<u>1400</u>		<u>325.08</u>				<u>DTW = 90.80</u>
<u>1405</u>	<u>15.10</u>	<u>265.08</u>	<u>25.15</u>	<u>7.35</u>	<u>44.9</u>	<u>DTW = BTOP</u>
		<u>Well went dry wait for recharge</u>				
<u>1430</u>						<u>DTW = 92.80</u>
<u>1509</u>						<u>DTW = 91.30</u>
<u>1530</u>						<u>DTW = 90.40</u>
<u>1610</u>	<u>0</u>	<u>349.44</u>	<u>24.38</u>	<u>9.66</u>	<u>38.10</u>	<u>DTW = 87.10</u>
<u>1620</u>	<u>18.20</u>	<u>388.50</u>	<u>21.91</u>	<u>6.88</u>	<u>32.20</u>	<u>surged, 5' DTW = BTOP</u>
		<u>Well went dry return tomorrow</u>				
		= TOTAL VOLUME REMOVED (gal.)				

DTW 61.4

DEVELOPMENT METHOD:

0.5 gal/min surging and reclaimer pump

NOTES:





WELL DEVELOPMENT FIELD RECORD

3 of 5  
Page 1 of 3

PROJECT NAME / NUMBER: \_\_\_\_\_  
 WELL DIA (in): 2  
 DEVELOPED BY: K.M. Khan  
 STARTED LEVEL: 12-14-2011 1545  
 W.L. BEFORE DEVEL: DATE 12-14-11 TIME 1520  
 WL: WL DATE TIME  
 WELL DEPTH: BEFORE DEVEL: 102.12  
 STANDING WATER COLUMN (FT): 10.36 gal (well vol)  
 SCREEN LENGTH: 92-102

WELL ID: B-109D  
 DATE OF INSTALL: \_\_\_\_\_  
 COMPLETED LEVEL: \_\_\_\_\_  
 WL AFTER DEVEL: \_\_\_\_\_  
 WELL DEPTH: AFTER DEVEL: \_\_\_\_\_  
 STANDING WELL VOLUME: \_\_\_\_\_ gal  
 DRILLING WATER LOSS: \_\_\_\_\_ gal

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS	
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)		
12-14/1545	-	-	78.56									Pump 10 gal
1550	2.5	0.5	53.80	5.82	0.49	16.68	>1000	Gray	1.34	65.6		
1555	5	0.5	73.88	6.09	0.49	15.84	25.1	cloudy	10.04	49.2		
1600	7.5	0.5	89.05	6.28	0.48	16.74	36.7	cloudy	10.22	49.9		
1610	10		77.00									W/L below pump DRAIN FOR THE DAY
1625			97.81									
1630			92.50									0.31 / 5 min = 0.062' per min
12/15 - 9:00			91.26									
9:15				6.31	0.46	15.48	75.5	cloudy	7.49	110.2		Begin Pumping
0950	2.5	0.5	69.59	6.32	0.45	16.35	33.5	red	9.90	68.6		air lift
1000			94.91									Pause dev
1005												ADD Seal DI
1025							193					5 min for 20 min, remove pump
1037			95.26									air lift
1035			91.31									
1040	~10		95.10	6.92	0.08	13.30	105.0	red	11.17	-21		DI Flush cont.
1044			77.00									DRY / PAUSE DEV
1102			96.44									
1545			82.16									
1600			81.81	6.56	0.37	14.96	192	gray	9.26	27.9		Resume DEV
1613	~4		77.00									DRY
1620			77.00									ADD Seal DI
1630			89.33									
1635			88.03									
1640			82.70	6.98	0.05	14.50	90.4	cloudy	15.54	-25.7		Resume DEV
1650	9		98.72									Flushes DI
1700	11		77.00									DRY / END OPER
12/11/16			56.93									surge at
9:35	0.3		58.96									
1000												MP-50 returned broken well shut dev work performed
	~31											

12-14-20  
 10 gal removed  
 0.062' per min  
 224 gal pumped  
 equipment & materials lost

DEVELOPMENT METHOD: surging and reclaimer pump  
 NOTES: 12/14/20-12/15/20:  
10gal Type I DI water added to assist with surging (slow recharge).  
31gal purge total - 10gal DI addition = 21gal removed







WELL DEVELOPMENT FIELD RECORD

PROJECT NAME / NUMBER: 166894618 / McDonough  
 WELL DIA (in): 2  
 DEVELOPED BY: K. Minkem  
 STARTED DEVEL: 12-8-20 / 1300  
 WL BEFORE DEVEL: 8.34, 12-8, 1303  
 WELL DEPTH BEFORE DEVEL: 63.06  
 STANDING WATER COLUMN (FT.): 54.72  
 SCREEN LENGTH: 57-63

WELL ID: B-110D  
 DATE OF INSTALL: 12-10-20/1524  
 COMPLETED DEVEL: 12-10-20/1524  
 WL AFTER DEVEL: 62.05, U.10 1524  
 WELL DEPTH AFTER DEVEL: 63.05  
 STANDING WELL VOLUME: \_\_\_\_\_ gal.  
 DRILLING WATER LOSS: \_\_\_\_\_ gal.

DATE/TIME	VOLUME REMOVED (gal)	PUMPING RATE (gpm)	DTW (ft bgs)	FIELD PARAMETERS							REMARKS
				pH (s.u.)	Sp. Cond. (mS/cm)	TEMP. (°C)	Turbidity (NTU)	Color	RDO (mg/L)	ORP (mV)	
12-8/1325	0	-	-	6.48	0.28	13.70	70.6	cloudy	1.75	-304	Pump @ 61'
1336	5	0.5	52.95	7.25	0.17	13.42	33	cloudy	12.07	57.5	
1345	10	0.5	57.20	7.49	0.39	14.20	31.6	cloudy	11.23	133.8	
1345	-	-	Decreased	yield, air lift decreased							PAUSE DEVEL
1445	-	-	53.23								
1545	-	-	47.16								
1600	10	0.7	45.84								Resume DEVEL
1605	11.6	0.7	54.72	7.78	0.43	13.97	34.5	white	4.77	-96.1	
1610	1015.3	0.7	58.00	7.91	0.53	12.19	51.5	cloudy	12.21	100.5	
			Ar lift, well dry								END for today
12-9/911			11.56								well 200'
915 917											Begin pumping
920	2.6	0.3	73.19	7.15	0.41	14.06	20.1	white	3.36	-304.6	
930	5	0.7	94.07	7.50	0.39	14.71	33.8		10.26	77.7	
940	7.5	0.25	56.96	7.74	0.41	14.31	31.1		4.71	-21	PAUSE DEVEL, add in screen
955-91000	-	-	Surge w/o pumping while WL stabilizes								ADD Seal DIA
1015			29.85								RESUME DEVEL
1030	4.47		57.80					clear			DRY, WL in screen (PAUSE)
1035											ADD Seal DIA
1051			45.05								ADD Seal DIA
1115			52.90								Surge, no pumping
1117											RESUME DEVEL
1120											Pump @ 56'
1130											Pump @ 61'
1140			770P								PRV
1155			PULL In 6								PUMP WILL DEVELOP tomorrow w/ bladder pump
1200			61.71								
1337			9.56								Pump @ 58' (bladder)
1355		1024L		6.57	36.94	15.87					
1420		400.16									
1440											pump pulled, cure w/ biote

= TOTAL VOLUME REMOVED (gal)

DEVELOPMENT METHOD: surging and reclaimer pump

NOTES:

Evacuated well 4X (3X w/ Type I PI water).  
 12/10 - Used bladder pump for low-flow to avoid excessive drawdown  
 - Partial cure w/ bladder pump, then biote

1741-1445  
 ~3.97 ft  
 per hour  
 1443-1545  
 6.07 ft  
 exchange

well STOP

ADD Seal DIA

(PAUSE)

3.52 + 4/c

133

7.5

12/10





Product Name: Low-Flow System

Date: 2020-12-10 14:43:29

Project Information:

Operator Name K. Minkara  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 647057  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro  
Tubing Type polyethylene  
Tubing Diameter .170 in  
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID B-110D  
Well diameter 2 in  
Well Total Depth 63.06 ft  
Screen Length 10 ft  
Depth to Water 9.56 ft

Pumping Information:

Final Pumping Rate 400 mL/min  
Total System Volume 0.4738785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:20:23	1502.02	16.83	7.42	396.91	--	--	1.23	-274.34
Last 5	14:25:23	1802.02	16.99	7.44	397.72	1.36	12.73	1.19	-273.39
Last 5	14:30:24	2102.87	16.58	7.44	396.49	--	--	1.70	-259.67
Last 5	14:35:24	2402.87	16.27	7.45	395.95	1.30	16.42	1.07	-329.97
Last 5	14:40:24	2702.87	16.25	7.45	395.18	1.20	18.89	0.93	-342.70
Variance 0			-0.40	0.00	-1.23			0.52	13.72
Variance 1			-0.31	0.00	-0.54			-0.63	-70.30
Variance 2			-0.02	0.01	-0.77			-0.14	-12.73

Notes

Well in process of development. Previously evacuated 4x 12/8 and 12/9. Will resume evacuation 12/10 with bailer.

Grab Samples



## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>NES DEVELOPMENT</u> DEVELOPED BY <u>J. WAGUESTACK</u> STARTED DEVEL. <u>11/06/20 / 11:40</u> <small>DATE TIME</small> W.L. BEFORE DEVEL. <u>9.58 / 11/06 / 11:00</u> <small>DEPTH DATE TIME</small> WELL DEPTH: BEFORE DEVEL. <u>85.80' STOC</u> STANDING WATER COLUMN (FT.) <u>76.22'</u> SCREEN LENGTH <u>10' : 75.80 - 85.80'</u>	JOB NO. <u>166849618</u> WELL NO. <u>13-111D</u> DATE OF INSTALL. _____ SHEET <u>1</u> OF <u>2</u> COMPLETED DEVEL. <u>11.07.20 / 11:41</u> <small>DATE TIME</small> AFTER DEVEL. <u>14.35 / 11.07 / 11:41</u> <small>DEPTH DATE TIME</small> AFTER DEVEL. <u>85.80</u> WELL DIA. (In) <u>2</u> STANDING WELL VOLUME <u>12.4</u> gal. DRILLING WATER LOSS _____ gal.
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DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS						DO	ORP	REMARKS OTW	PUMP FROM BOTTOM + NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)						
<u>11/06 / 11:40</u>	<u>0</u>	<u>BEGIN</u>	<u>DEVELOPMENT</u>						<u>9.58</u>	<u>SURGE SCREEN</u>	
<u>11:50</u>	<u>5</u>	<u>693.3</u>	<u>18.41</u>	<u>7.08</u>	<u>34.7</u>	<u>1.28</u>	<u>-418.2</u>	<u>22.8</u>	<u>6"</u>	<u>SURGE SCREEN</u>	
<u>12:00</u>	<u>10</u>	<u>710.5</u>	<u>18.43</u>	<u>7.07</u>	<u>970</u>	<u>1.37</u>	<u>-385.7</u>	<u>26.4</u>		<u>SURGE</u>	
<u>12:10</u>	<u>15</u>	<u>706.9</u>	<u>18.35</u>	<u>7.04</u>	<u>32.0</u>	<u>1.17</u>	<u>-374.6</u>	<u>29.9</u>		<u>SURGE</u>	
<u>12:20</u>	<u>20</u>	<u>736.4</u>	<u>18.26</u>	<u>6.99</u>	<u>17.3</u>	<u>1.16</u>	<u>-352.6</u>	<u>32.1</u>		<u>SURGE SCREEN</u>	
<u>12:30</u>	<u>25</u>	<u>786.7</u>	<u>17.90</u>	<u>6.91</u>	<u>31.0</u>	<u>1.14</u>	<u>-283.8</u>	<u>34.45</u>		<u>SURGE</u>	
<u>12:40</u>	<u>30</u>	<u>794.0</u>	<u>17.89</u>	<u>6.87</u>	<u>27.8</u>	<u>1.12</u>	<u>-255.1</u>	<u>35.9</u>			
<u>12:50</u>	<u>35</u>	<u>798.2</u>	<u>17.88</u>	<u>6.86</u>	<u>17.4</u>	<u>1.09</u>	<u>-225.5</u>	<u>35.7</u>		<u>SURGE</u>	
<u>13:00</u>	<u>40</u>	<u>801.2</u>	<u>17.92</u>	<u>6.85</u>	<u>16.2</u>	<u>1.13</u>	<u>-199.6</u>	<u>36.9</u>			
<u>13:10</u>	<u>45</u>	<u>805.7</u>	<u>17.85</u>	<u>6.84</u>	<u>14.7</u>	<u>1.13</u>	<u>-195.3</u>	<u>37.1</u>		<u>SURGE SCREEN</u>	
<u>13:20</u>	<u>50</u>	<u>811.8</u>	<u>17.85</u>	<u>6.83</u>	<u>23.2</u>	<u>1.17</u>	<u>-186.0</u>	<u>38.0</u>			
<u>13:30</u>	<u>55</u>	<u>815.3</u>	<u>17.85</u>	<u>6.82</u>	<u>22.6</u>	<u>1.16</u>	<u>-176.8</u>	<u>38.2</u>			
<u>13:40</u>	<u>60</u>	<u>815.8</u>	<u>18.01</u>	<u>6.82</u>	<u>12.4</u>	<u>1.25</u>	<u>-80.2</u>	<u>38.7</u>		<u>→ 3', SURGE</u>	
<u>13:50</u>	<u>65</u>	<u>814.2</u>	<u>18.03</u>	<u>6.82</u>	<u>21.3</u>	<u>1.33</u>	<u>-92.4</u>	<u>40.35</u>		<u>SURGE</u>	
<u>14:00</u>	<u>70</u>	<u>818.5</u>	<u>18.03</u>	<u>6.81</u>	<u>19.9</u>	<u>1.39</u>	<u>-77.8</u>	<u>40.8</u>			
<u>14:10</u>	<u>75</u>	<u>822.5</u>	<u>17.99</u>	<u>6.80</u>	<u>7.15</u>	<u>1.46</u>	<u>-85.5</u>	<u>41.2</u>		<u>→ 6', SURGE</u>	
<u>14:20</u>	<u>80</u>	<u>814.1</u>	<u>17.81</u>	<u>6.82</u>	<u>12.0</u>	<u>1.40</u>	<u>-116.2</u>	<u>43.1</u>		<u>SURGE</u>	
<u>14:30</u>	<u>85</u>	<u>820.5</u>	<u>17.74</u>	<u>6.80</u>	<u>8.6</u>	<u>1.43</u>	<u>-72.9</u>	<u>44.4</u>		<u>→ 9', SURGE</u>	
		= TOTAL VOLUME REMOVED (gal.)									

DEVELOPMENT METHOD: RECLAIMER + SURGING  
Flow RATE = 0.5 gpm

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NOTES: WELL PAD TO BE INSTALLED, DEPTHS MEASURED FROM TOC

## WELL DEVELOPMENT FIELD RECORD

JOB NAME <u>NES DEVELOPMENT</u>	JOB NO. <u>166849618</u>	WELL NO. <u>B-111D</u>
DEVELOPED BY <u>J. WAGUESPACK</u>	DATE OF INSTALL. _____	SHEET <u>2</u> OF <u>2</u>
STARTED DEVEL. <u>11/06/20 / 11:40</u>	COMPLETED DEVEL. <u>11.09.20 / 11:41</u>	
DATE TIME	DATE TIME	
W.L. BEFORE DEVEL. <u>9.58 / 11/06 / 11:00</u>	AFTER DEVEL. <u>14.35 / 11.09 / 11:41</u>	
DEPTH DATE TIME	DEPTH DATE TIME	
WELL DEPTH: BEFORE DEVEL. <u>85.80' BTOL</u>	AFTER DEVEL. <u>85.80'</u> WELL DIA. (in) <u>2</u>	
STANDING WATER COLUMN (FT.) <u>76.22'</u>	STANDING WELL VOLUME <u>12.4</u> gal.	
SCREEN LENGTH <u>10' : 75.80 - 85.80'</u>	DRILLING WATER LOSS _____ gal.	

DATE/TIME	VOLUME REMOVED (GALS)	FIELD PARAMETERS					DO	ORP	REMARKS DTW	PUMP FROM BOTTOM + NOTES
		SPEC. COND. (mS/cm)	TEMP. (°C)	pH (s.u.)	Turbidity (NTU)					
11/06/14:40	90	820.3	17.72	6.81	9.86	1.61	-95.5	47.1	9', SURGE	
14:50	95	825.8	17.72	6.79	9.1	1.58	-77.2	48.8	-> 6', SURGE	
15:00	100	842.2	17.71	6.74	59.0	1.20	-113.2	44.9		
15:10	105	839.0	17.65	6.73	90.5	1.10	-132.8	43.1		
15:20	110	809.3	17.63	6.67	104.7	1.03	-123.6	42.7		
15:30	115	808.4	17.61	6.68	50.8	1.07	-103.3	42.8	SURGE	
15:40	120	809.9	17.59	6.68	37.1	1.10	-106.1	42.8		
15:50	125	811.3	17.59	6.67	37.9	1.14	-55.6	42.6		
16:00	130	813.5	17.56	6.68	31.1	1.18	-63.1	42.7		
16:10	135	813.6	17.57	6.68	10.27	1.20	-60.1	42.3		
16:20	140	817.9	17.54	6.67	5.08	1.20	-48.4	41.8	-> 5', RECHARGE	
11/09/10:25	140	RESUME DEV						8.65	6', SURGE	
10:35	145	871.6	19.26	6.77	7.74	2.62	-265.3	19.50	-> 5'	
10:45	150	806.7	18.65	6.89	7.40	1.26	-213.4	24.7		
		RECHARGING FOR LOW FLOW DEV - 0861N @ 11:06								
11:06		792.7	21.78	7.06	7.2	1.48	-26	13.00	5', 300 ML/min	
11:41	+2.7 gal	826.8	20.03	6.88	1.16	0.12	-384.30	14.35		
		LOW FLOW DEV COMPLETE								
	152.7								= TOTAL VOLUME REMOVED (gal.)	

DEVELOPMENT METHOD: RECLAIMER + SURGING  
 Flow Rate = 0.5 gpm

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NOTES:

Product Name: Low-Flow System

Date: 2020-11-09 11:44:45

Project Information:

Operator Name Jude Waguespack  
Company Name Golder  
Project Name 166849618  
Site Name Plant McDonough  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 512733  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Reclaimer  
Tubing Type LDPE  
Tubing Diameter .250 in  
Tubing Length 80 ft

Pump placement from TOC 80 ft

Well Information:

Well ID B-111D  
Well diameter 2 in  
Well Total Depth 85.80 ft  
Screen Length 10 ft  
Depth to Water 13.00 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 2.302218 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16.2 in  
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:21:36	900.58	20.17	6.88	815.91	2.19	14.45	0.18	-426.21
Last 5	11:26:36	1200.58	19.72	6.89	817.90	1.26	14.35	0.15	-415.17
Last 5	11:31:36	1500.58	19.68	6.89	820.50	1.33	14.35	0.14	-374.46
Last 5	11:36:36	1800.58	19.89	6.88	822.11	0.89	14.35	0.13	-374.89
Last 5	11:41:36	2100.59	20.03	6.88	826.81	1.16	14.35	0.12	-384.27
Variance 0			-0.04	0.00	2.60			-0.02	40.71
Variance 1			0.21	-0.00	1.61			-0.01	-0.43
Variance 2			0.14	-0.00	4.70			-0.01	-9.38

Notes

Skipped reading at 600s

Grab Samples



Oct 2020

October 2019

### Daily Calibration Log

166849618

Project Plant McDonough  
Field Staff *Stephanie Brodie*

#### Instrument Calibration

Date: *10/29/20* Time: *10:22*

Parameter	Units	Standard	SmarTROLL SN <i>512733</i>	SmarTROLL SN <i>512733</i>	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	<i>93.1 %</i>	<del>93.1</del> <i>93.1</i>		
Conductivity	ms/cm	<del>1413</del>	<i>4615</i>	<i>4484</i>		
pH	S.U.	4.00	<i>4.11</i>	<i>4.31</i>		
pH	S.U.	7.00	<i>7.06</i>	<i>7.10</i>		
pH	S.U.	10.00	<i>9.95</i>	<i>9.90</i>		
ORP	mV	<i>228</i>	<i>223.6</i>	<i>196.8</i>		

*1386-3811*

Turbidity Standard	Units	LaMotte SN <i>1386-3811</i>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
0.0	NTU	<i>0.02</i>	<i>0.00</i>		
1.0	NTU	<i>1.00</i>	<i>1.01</i>		
10.0	NTU	<i>9.94</i>	<i>10.00</i>		

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

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100				
Conductivity	ms/cm	1.413				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV					

Turbidity Standard	Units	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
0.0	NTU				
1.0	NTU				
10.0	NTU				

Notes: DO - Dissolved Oxygen; ms/cm - millisiemens/second; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units

October 2019  
Nov 2020

Daily Calibration Log

166849618

Project Plant McDonough  
Field Staff JUDE WAGUESPACK

Instrument Calibration

Date: 11/02/20 Time: 08:30 11/03/20 08:00 11/04/20 07:02 11/05/20 08:19

Parameter	Units	Standard	SmarTROLL SN 512733	SmarTROLL SN 512733	SmarTROLL SN 512733	SmarTROLL SN 512733
DO	% saturation	100	94.4	94.9	95.3	93.3
Conductivity	ms/cm	1413490	4549	4461	4440	4419
pH	S.U.	4.00	4.46	4.49	4.46	4.43
pH	S.U.	7.00	7.10	7.06	7.03	6.97
pH	S.U.	10.00	9.76	9.72	9.74	9.71
ORP	mV	228.0	246.8	244.0	243.2	217.6

Turbidity Standard	Units	LaMotte SN 1386-3811	LaMotte SN 1386-3811	LaMotte SN 1386-3811	LaMotte SN
0.0	NTU	0.01	0.06	0.00	
1.0	NTU	0.82	0.93	1.08	
10.0	NTU	12.1	10.65	9.71	

Date: 11/06/20 Time: 08:45 11/09/20 09:12 11/10/20 08:57 11/11/20 07:59

Parameter	Units	Standard	SmarTROLL SN 512733	SmarTROLL SN 512733	SmarTROLL SN 512733	SmarTROLL SN 512733
DO	% saturation	100	94.9	93.2	94.2	92.5
Conductivity	ms/cm	1413490	4363	4292	4406	4367
pH	S.U.	4.00	4.36	4.33	4.34	4.28 4.35
pH	S.U.	7.00	6.91	6.88	7.14	7.12
pH	S.U.	10.00	9.70	9.72	9.95	9.97
ORP	mV	228.0	233.9	225.9	227.2	221.7

Turbidity Standard	Units	LaMotte SN 1386-3811	LaMotte SN 1386-3811	LaMotte SN 1386-3811	LaMotte SN 1386-3811
0.0	NTU	0.0	0.01	0.0	0.01
1.0	NTU	0.83	0.82	0.86	1.05
10.0	NTU	11.46	12.08	11.73	9.23

Notes: DO - Dissolved Oxygen; ms/cm - millisiemens/second; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units





Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

**Instrument Calibration**

Date: 11-9-20 Time: 0750

Parameter	Units	Standard	SmarTROLL SN 728623	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	100			
Conductivity	us/cm	4490	4327			
pH	S.U.	4.00	3.89			
pH	S.U.	7.00	7.09			
pH	S.U.	10.00	9.97			
ORP	mV	228.00	223.0			

Turbidity	Units	Standard	LaMotte SN 6405-1416	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Date: 11-11-20 Time: 0735

Parameter	Units	Standard	SmarTROLL SN 728623	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	100			
Conductivity	us/cm	4490	4087			
pH	S.U.	4.00	4.01			
pH	S.U.	7.00	6.66			
pH	S.U.	10.00	9.67			
ORP	mV	228.00	226.8			

Turbidity	Units	Standard	LaMotte SN 6405-1416	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough  
 Field Staff C. Tidwell/D. Thomas/J. Waguespack

**Instrument Calibration**

Date: 11-12-20 Time: 0814

Parameter	Units	Standard	SmarTROLL SN 728623	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100	98.91			
Conductivity	us/cm	4490	4330			
pH	S.U.	4.00	3.99			
pH	S.U.	7.00	7.34			
pH	S.U.	10.00	10.35			
ORP	mV	228.00	231.3			

Turbidity	Units	Standard	LaMotte SN 6405-1416	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Date: 11-13-20 Time: 0739 11-17-20/0915

Parameter	Units	Standard	SmarTROLL SN 728623	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN 728623
DO	% saturation	100	99.41			100
Conductivity	us/cm	4490	4355			4495
pH	S.U.	4.00	3.97			4.05
pH	S.U.	7.00	7.04			7.11
pH	S.U.	10.00	9.96			10.31
ORP	mV	228.00	238.3			237

Turbidity	Units	Standard	LaMotte SN 6405-1416	LaMotte SN _____	LaMotte SN _____	LaMotte SN 6405-1416
	NTU	0.0	0.0			
	NTU	1.0	1.0			
	NTU	10.0	10.0			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant McDonough  
Field Staff K. Minkara / J. Waguespack / Y.C. Soo

## Instrument Calibration

		Date	12/8/20	12/9/20		
		Time	06:38	06:30		
Parameter	Units	Standard	SmarTROLL SN <u>646777</u> iPad # <u>074</u>	SmarTROLL SN <u>646777</u> iPad # <u>074</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	93.2	96.0		
Conductivity	us/cm	4490	4448	4401		
pH	S.U.	4.00	4.31	4.32		
pH	S.U.	7.00	7.10	7.09		
pH	S.U.	10.00	9.87	9.88		
ORP	mV	228.00	235.3	234.1		

Turbidity	Units	Standard	LaMotte SN <u>1438-3911</u>	LaMotte SN <u>1438-3111</u>	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	0.01	-0.02		
	NTU	1.0	1.24	1.13		
	NTU	10.0	9.12	8.17		

		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 - Nephelometric Turbidity Units; NC - Not calibrated



Dec 2020

166849618

November 2019

Daily Calibration Log

49132523

Project Plant McDonough  
 Field Staff K. Minkara / J. Waguespack / Y.C. Soo

Instrument Calibration

		Date	12/8/20	12/9/20	12/10/20	12/11/20
		Time	0630	0615	1300	1030
Parameter	Units	Standard	SmarTROLL SN 647057 iPad # 93	SmarTROLL SN 647057 iPad # 93	SmarTROLL SN 647057 iPad # 97	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	93.5	95.3	92.7	
Conductivity	us/cm	4490	4377	4341	4204	
pH	S.U.	4.00	4.19	4.21	4.12	
pH	S.U.	7.00	6.78	6.98	6.96	
pH	S.U.	10.00	9.81	9.83	9.88	
ORP	mV	228.00	227.4	225.3	225.8	

B<sub>2</sub> AIR. see pdf's

Turbidity	Units	Standard	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN 7007-1416
	NTU	0.0	0.0	0.01	0.01	0.05
NTU	1.0	1.0	0.81	0.92	1.03	1.11
NTU	10.0	10.0	10.11	10.01	9.88	9.89

		Date	12-15-20	12-16-20	12-17-20	
		Time	0600	0630	0630	
Parameter	Units	Standard	SmarTROLL SN 646777 iPad # 94	SmarTROLL SN 646777 iPad # 94	SmarTROLL SN 646777 iPad # 94	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	92.4	93.1	94.0	
Conductivity	us/cm	4490	4332	4288	4249	
pH	S.U.	4.00	4.22	4.25	4.23	
pH	S.U.	7.00	6.99	6.99	6.98	
pH	S.U.	10.00	9.78	9.76	9.75	
ORP	mV	228.00	238.2	239.1	238.4	

Turbidity	Units	Standard	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN _____
	NTU	0.0	0.0	0.01	0.10	0.00
NTU	1.0	1.0	0.85	0.91	1.01	
NTU	10.0	10.0	10.15	10.01	10.00	

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Dec 2020

November 2019

Daily Calibration Log

786 548618  
19132523

Project Plant McDonough  
Field Staff K. Minkara / J. Waguespack / Y.C. Soo

Instrument Calibration

			Date	12/7/20	12/8/20	12/9/20	
			Time	1115	0640	0630	
Parameter	Units	Standard	SmarTROLL SN 642531 iPad # 110	SmarTROLL SN 642531 iPad # 110	SmarTROLL SN 642531 iPad # 110	SmarTROLL SN iPad #	
DO	% saturation	100	95.9	95.9	100		
Conductivity	us/cm	4490	6188	4500	4414		
pH	S.U.	4.00	4.24	4.34	4.40		
pH	S.U.	7.00	6.88	6.85	6.56		
pH	S.U.	10.00	10.28	9.49	9.56		
ORP	mV	228.00	2114	202	252.3		

Turbidity	Units	Standard	LaMotte SN 2289-2612	LaMotte SN 2289-2612	LaMotte SN 2289-2612	LaMotte SN
	NTU	0.0	0.05	0.02	0.02	
	NTU	1.0	0.75	0.80	1.09	
	NTU	10.0	10.40	10.03	10.08	

			Date	12-15-20	12-16-20	12-17-20	
			Time	0600	0645	0637	
Parameter	Units	Standard	SmarTROLL SN 647057 iPad # 90	SmarTROLL SN 647057 iPad # 90	SmarTROLL SN 647057 iPad # 90	SmarTROLL SN iPad #	
DO	% saturation	100	92.0	93.3	93.0		
Conductivity	us/cm	4490	4466	4305	4443		
pH	S.U.	4.00	4.23	4.39	4.42		
pH	S.U.	7.00	7.05	7.02	7.09		
pH	S.U.	10.00	9.88	9.78	9.66		
ORP	mV	228.00	227.2	229.2	246.1		

Turbidity	Units	Standard	LaMotte SN	LaMotte SN 26862 12-16-20	LaMotte SN 26862	LaMotte SN
	NTU	0.0		0.0	0.05	
	NTU	1.0		1.05	1.03	
	NTU	10.0		10.09	10.02	

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

**APPENDIX C**

# CERTIFIED SURVEY DATA



1469 HIGHWAY 20 WEST • McDONOUGH, GA 30253  
phone: 770-707-0777 fax: 770.707-0755  
WWW.METRO-ENGINEERING.COM

## SURVEYOR'S REPORT

### SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

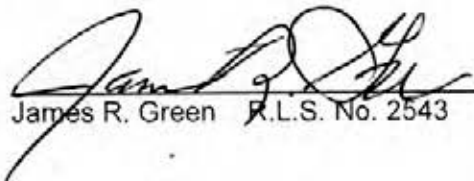
Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

### EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver  
Leica TS16 Total Station  
Leica DNA10 Digital Level

### CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.

  
James R. Green R.L.S. No. 2543

Date: 1/6/21





Plant McDonough  
Monitoring Well Locations  
January 6, 2021

Well ID	LATITUDE	LONGITUDE	NAIL		NAIL ELEV	PVC		TOP PVC ELEV	ELEV AT BASE
			NORTHING	EASTING		NORTHING	EASTING		
B-101D	N33.831990	W84.470999	1394063.3	2204167.1	821.24	1394063.6	2204168.2	824.29	821.2
B-102D	N33.831344	W84.470891	1393828.2	2204199.0	820.64	1393828.4	2204200.4	823.42	820.6
B-103D	N33.825052	W84.476091	1391542.8	2202615.0	793.77	1391543.5	2202614.4	795.96	793.8
B-104D	N33.824431	W84.477129	1391317.9	2202297.4	785.31	1391318.3	2202298.5	787.90	785.3
B-105D	N33.822547	W84.478659	1390633.9	2201832.7	776.03	1390634.5	2201831.9	779.01	776.0
B-106D	N33.832712	W84.471987	1394328.3	2203869.6	823.39	1394327.1	2203869.2	826.21	823.5
B-107D	N33.827226	W84.476158	1392333.6	2202597.0	820.44	1392334.5	2202596.4	823.38	820.6
B-108D	N33.826733	W84.477091	1392155.6	2202313.1	818.33	1392156.1	2202312.5	821.13	818.4
B-109D	N33.831682	W84.477720	1393956.4	2202127.0	847.78	1393957.5	2202127.0	850.73	847.8
B-110D	N33.824352	W84.482274	1391294.0	2200734.6	764.55	1391294.4	2200736.0	764.61	764.7
B-111D	N33.832640	W84.474992	1394302.6	2202956.5	789.04	1394303.4	2202956.4	791.87	789.1
B-72	N33.824206	W84.482307	1391241.2	2200724.9	758.45	1391241.4	2200725.9	758.46	758.5
B-73	N33.824509	W84.482395	1391351.5	2200698.5	759.16	1391351.8	2200699.4	759.21	759.2
B-74	N33.824311	W84.482504	1391278.9	2200666.3	759.18	1391279.9	2200666.1	759.06	759.2
DW-D1	N33.832657	W84.474840	NA	NA	NA	1394309.5	2203002.8	786.78	786.2
DW-D2	N33.832842	W84.473838	NA	NA	NA	1394375.8	2203307.1	788.53	788.3
DW-D3	N33.832812	W84.472368	NA	NA	NA	1394363.7	2203753.5	817.50	817.2
DW-D4	N33.831941	W84.470988	NA	NA	NA	1394045.5	2204171.7	820.68	820.4

STAFF GAGE	LATITUDE	LONGITUDE	T/POST		TOP T/POST ELEV	TOP GAGE ELEV @ 8'	ELEV AT GRD
			NORTHING	EASTING			
WT-1	N33.825586	W84.482522	1391743.6	2200662.1	759.85	759.32	755.3
WT-3	N33.824028	W84.482353	1391176.9	2200711.8	757.80	756.92	752.6
WT-4	N33.822014	W84.481690	1390443.3	2200910.8	754.13	753.21	749.2
WT-5	N33.821283	W84.480144	1390175.9	2201379.5	749.01	749.07	744.9
ET-1	N33.832761	W84.474439	1394347.0	2203124.5	NA	779.94	775.9

**APPENDIX C**

# Certified Well Survey Report



1469 HIGHWAY 20 WEST • McDONOUGH, GA 30253  
phone: 770-707-0777 fax: 770-707-0755  
WWW.METRO-ENGINEERING.COM

## SURVEYOR'S REPORT

### SCOPE OF WORK:

Field survey of existing monitoring wells at Georgia Power Company, Plant McDonough in Smyrna, GA.

Horizontal and vertical datum was derived from RTK GPS observations with corrections from the eGPS network and conventional surveying equipment. Horizontal datum is Georgia State Plane, West Zone, NAD83(2011) and vertical datum is NAVD88.

### EQUIPMENT USED TO ESTABLISH THE MONITORING WELL LOCATIONS:

Trimble R8 Dual Frequency GPS Receiver  
Leica TS16 Total Station  
Leica DNA10 Digital Level

### CERTIFICATION:

I hereby certify that the center of well casing (PVC) has a horizontal accuracy of 0.5+/- feet or better using a Trimble R8 Dual Frequency RTK (survey-grade) global positioning system receiver referencing the Georgia State Plane, west zone, NAD83(2011) coordinate system in US survey feet. The top of well casing (PVC) elevation data was determined in feet above mean sea level based on the NAVD88 vertical datum. Vertical data was confirmed to be accurate within 0.01 foot through establishment of a closed level check loop with a Leica DNA10 digital level having a published accuracy of 0.9mm per dual-traverse kilometer.

  
James R. Green R.L.S. No. 2543



Date: 8/10/20

Plant McDonough  
Monitoring Well Locations  
August 7, 2020

Well ID	LATITUDE	LONGITUDE	NAIL NORTHING	NAIL EASTING	NAIL ELEV	PVC NORTHING	PVC EASTING	TOP PVC ELEV	ELEV AT BASE
B-100	N33.821507	W84.477304	1390255.7	2202241.1	775.32	1390254.8	2202242.1	777.95	775.3
B-16	N33.827948	W84.473793	1392595.3	2203314.4	823.54	1392595.1	2203315.4	826.47	823.6
B-18	N33.827740	W84.475241	1392520.2	2202876.1	823.89	1392521.0	2202875.5	826.56	823.9
B-24	N33.827616	W84.479935	1392479.7	2201451.1	819.19	1392479.9	2201450.0	822.11	819.3
B-25	N33.828532	W84.479765	1392813.0	2201503.9	833.41	1392813.3	2201502.7	836.54	833.5
B-26	N33.829336	W84.479610	1393105.5	2201551.4	850.61	1393105.6	2201550.4	853.60	850.6
B-28	N33.826209	W84.479175	1391968.5	2201678.9	813.28	1391967.4	2201679.2	816.08	813.3
B-29	N33.825994	W84.480021	1391891.0	2201421.4	813.47	1391890.0	2201422.0	816.43	813.5
B-3	N33.831925	W84.476784	1394044.3	2202412.0	834.86	1394045.1	2202411.5	837.78	835.0
B-31	N33.826387	W84.481648	1392034.9	2200928.0	794.84	1392034.3	2200928.5	797.47	794.9
B-41	N33.823333	W84.478925	1390921.5	2201751.1	792.40	1390920.8	2201751.9	795.20	792.4
B-50	N33.825358	W84.478639	1391656.0	2201840.9	806.49	1391657.1	2201841.0	809.67	809.2
B-51	N33.822173	W84.481705	1390500.7	2200905.6	763.29	1390501.2	2200906.5	765.92	763.3
B-52	N33.827143	W84.480378	1392307.3	2201314.3	820.18	1392308.3	2201314.8	822.89	820.3
B-54	N33.832971	W84.474387	1394422.3	2203141.2	782.54	1394423.5	2203140.7	785.46	782.6
B-55	N33.832207	W84.471067	1394142.2	2204146.8	822.86	1394142.6	2204147.9	825.12	822.9
B-56	N33.831700	W84.470934	1393957.6	2204186.8	820.95	1393957.9	2204187.8	823.59	821.0
B-57	N33.824649	W84.475687	1391397.5	2202736.1	786.03	1391396.3	2202736.9	789.04	786.0
B-58	N33.823902	W84.476706	1391126.5	2202426.0	785.20	1391125.7	2202426.5	788.17	785.2
B-59	N33.832766	W84.474846	1394348.1	2203001.5	785.41	1394349.1	2203001.1	788.00	785.5
B-6	N33.832961	W84.473972	1394420.5	2203266.5	786.45	1394419.5	2203266.5	789.47	786.5
B-60	N33.823839	W84.475205	1391101.4	2202882.2	779.25	1391100.7	2202881.6	782.13	779.2
B-61	N33.823442	W84.476443	1390958.4	2202506.9	778.95	1390957.8	2202505.8	782.09	779.0
B-62	N33.820331	W84.478719	N.A.	N.A.	N.A.	1389828.1	2201811.2	760.08	760.4
B-63	N33.823559	W84.474888	1390998.7	2202977.5	777.37	1390999.1	2202978.1	777.10	777.3
B-64	N33.832856	W84.474746	1394382.3	2203030.6	785.98	1394381.9	2203031.3	785.83	786.1
B-65	N33.832862	W84.471389	N.A.	N.A.	N.A.	1394381.2	2204050.8	821.95	822.3
B-66	N33.831427	W84.470638	1393859.2	2204277.7	813.33	1393858.2	2204277.5	815.90	813.3



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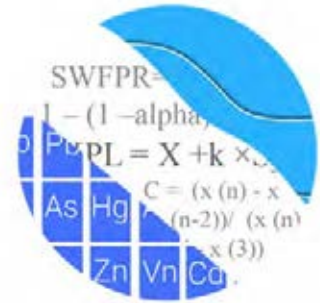
B-68	N33.824362	W84.482346	1391298.8	2200715.2	759.05	1391298.2	2200714.2	758.68	759.0
B-7	N33.832841	W84.472887	1394375.6	2203596.0	806.04	1394374.6	2203596.1	809.16	806.1
B-76	N33.822783	W84.475614	1390716.5	2202756.0	760.87	1390717.4	2202756.9	760.53	766.5
B-77	N33.823420	W84.475007	1390949.4	2202941.4	777.12	1390948.7	2202942.0	776.86	777.1
B-78	N33.832708	W84.474987	1394327.3	2202958.7	787.79	1394328.2	2202958.2	790.75	788.0
B-79	N33.833068	W84.474116	1394457.8	2203223.6	785.84	1394458.6	2203223.0	788.66	785.9
B-80	N33.832834	W84.473091	1394373.5	2203533.9	801.73	1394372.6	2203533.9	804.47	801.8
B-81	N33.832815	W84.472409	1394365.8	2203741.3	817.64	1394364.9	2203741.1	820.56	817.7
B-82	N33.831129	W84.470701	1393750.1	2204256.8	807.55	1393750.0	2204258.1	810.07	807.5
B-83	N33.822832	W84.475816	1390735.9	2202695.1	777.17	1390735.5	2202695.6	776.98	777.1
B-84	N33.821939	W84.477307	1390411.2	2202242.5	776.52	1390411.9	2202241.9	776.34	776.6
B-85	N33.832998	W84.474407	1394432.8	2203134.8	782.71	1394433.4	2203134.5	782.54	782.7
B-86	N33.833127	W84.474170	1394479.5	2203207.0	784.52	1394480.0	2203206.6	784.29	784.6
B-87	N33.832915	W84.473100	1394400.8	2203531.3	800.32	1394401.9	2203531.3	803.37	800.4
B-88	N33.832914	W84.472419	1394399.9	2203738.1	816.80	1394401.1	2203738.3	820.07	817.0
B-89	N33.832910	W84.471394	1394398.7	2204048.6	822.53	1394398.4	2204049.4	822.36	822.6
B-90	N33.833185	W84.474151	1394500.4	2203212.8	784.16	1394501.0	2203212.6	784.00	784.2
B-91	N33.833036	W84.474442	N.A.	N.A.	N.A.	1394447.1	2203123.9	782.98	783.1
B-92	N33.832887	W84.474761	1394393.2	2203026.4	785.30	1394392.7	2203026.7	785.08	785.3
B-93	N33.832763	W84.475024	1394348.1	2202947.0	789.19	1394348.7	2202946.7	789.07	789.2
B-94	N33.832915	W84.473158	1394400.9	2203513.8	799.12	1394402.0	2203513.7	801.74	799.2
B-95	N33.833233	W84.474299	1394519.5	2203167.2	784.18	1394518.6	2203167.7	784.00	784.3
B-96	N33.833122	W84.474524	1394479.4	2203098.8	785.19	1394478.7	2203099.3	784.92	785.3
B-97	N33.832988	W84.474823	1394430.6	2203008.0	786.50	1394430.0	2203008.3	786.29	786.6
B-98	N33.832883	W84.475066	1394392.7	2202934.6	789.81	1394392.5	2202934.0	789.67	789.8
B-99	N33.833247	W84.474573	1394524.7	2203084.9	782.57	1394524.2	2203084.5	782.39	782.6
DGWA-53	N33.830346	W84.479224	1393473.5	2201667.7	841.37	1393472.8	2201668.8	844.26	841.3
DGWA-70A	N33.822116	W84.482741	1390480.2	2200591.7	805.67	1390481.4	2200591.6	808.52	805.8
DGWA-71	N33.831695	W84.479078	1393964.3	2201714.7	861.22	1393963.3	2201714.8	863.84	861.2
DGWC-8	N33.832699	W84.471944	1394323.0	2203882.3	824.02	1394322.2	2203882.1	826.38	824.1

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DGWC-37	N33.822121	W84.481661	1390483.0	2200920.7	763.64	1390482.2	2200919.8	766.21	763.7
DGWC-10	N33.831317	W84.470889	1393818.1	2204200.0	820.82	1393818.3	2204201.1	823.55	820.9
DGWC-11	N33.830571	W84.471001	1393546.9	2204167.3	797.99	1393547.1	2204166.2	800.57	798.1
DGWC-12	N33.829478	W84.471122	1393149.8	2204127.3	771.10	1393149.4	2204128.3	773.86	771.2
DGWC-13	N33.828740	W84.471263	1392880.8	2204085.7	791.20	1392881.1	2204084.6	794.10	791.3
DGWC-14	N33.827896	W84.471495	1392574.5	2204014.4	789.69	1392574.2	2204013.3	792.40	789.8
DGWC-15	N33.827810	W84.472595	1392544.2	2203677.9	821.43	1392544.1	2203679.0	824.50	821.5
DGWC-17	N33.828084	W84.474664	1392645.0	2203050.2	834.14	1392645.6	2203051.0	837.05	834.2
DGWC-19	N33.827248	W84.476143	1392341.8	2202601.5	822.87	1392342.6	2202601.0	825.46	822.9
DGWC-2	N33.831683	W84.477745	1393957.1	2202119.4	848.17	1393958.0	2202119.5	850.88	848.3
DGWC-20	N33.826754	W84.477079	1392163.7	2202316.3	819.66	1392164.5	2202315.6	822.14	819.8
DGWC-21	N33.826487	W84.477911	1392066.4	2202063.3	813.47	1392067.5	2202063.5	816.28	813.5
DGWC-22	N33.826647	W84.478805	1392125.2	2201791.7	813.69	1392126.3	2201791.9	816.59	813.7
DGWC-23	N33.826957	W84.479498	1392240.4	2201582.8	815.63	1392239.7	2201582.0	818.37	815.7
DGWC-38	N33.821795	W84.480906	1390363.6	2201149.0	754.67	1390362.7	2201148.6	757.43	754.7
DGWC-39	N33.821635	W84.479616	1390302.5	2201539.8	756.93	1390303.6	2201540.1	759.89	757.0
DGWC-4	N33.832275	W84.475959	1394170.6	2202662.7	812.06	1394171.5	2202662.4	814.85	812.1
DGWC-40	N33.822523	W84.478678	1390625.1	2201826.7	776.12	1390625.7	2201825.9	779.06	776.2
DGWC-42	N33.824453	W84.478540	1391327.4	2201869.1	801.98	1391327.8	2201870.2	804.68	802.0
DGWC-47	N33.825080	W84.476104	1391553.1	2202611.3	794.35	1391553.8	2202610.5	797.45	794.3
DGWC-48	N33.824420	W84.477157	1391314.2	2202289.2	785.21	1391314.6	2202290.2	788.33	785.2
DGWC-5	N33.832647	W84.474964	1394305.3	2202965.3	788.64	1394306.3	2202965.1	791.75	788.7
DGWC-67	N33.823417	W84.481959	1390953.6	2200830.0	766.80	1390953.8	2200830.7	766.70	767.0
DGWC-68A	N33.824370	W84.482278	1391300.9	2200733.4	765.06	1391301.2	2200734.9	765.33	765.4
DGWC-69	N33.825150	W84.482537	1391583.9	2200657.2	763.99	1391585.0	2200657.1	763.75	764.0
DGWC-9	N33.831969	W84.470993	1394055.6	2204168.9	821.86	1394055.9	2204170.0	824.35	821.8

**APPENDIX D**  
**Statistical Analyses**

## GROUNDWATER STATS CONSULTING



February 23, 2021

Southern Company Services  
Attn: Mr. Joju Abraham  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308-3374

Re: Plant McDonough Ash Pond (AP-2,3,4)  
September 2020 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant McDonough AP-2,3,4. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for 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 wells:** DGWA-53, DGWA-70A, DGWA-71
- **Downgradient wells:** DGWC-2, DGWC-4, DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-42, DGWC-47, DGWC-48
- **Delineation wells:** B-3, B-56, B-77, B-82, B-83, B-88, B-93

Delineation wells were installed during 2020 and have limited data which are included only on the time series and box plots in this report.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The analysis is prepared according to the recommended statistical methodology prepared in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance.

The CCR program consists of the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

- **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 well/constituent pairs with 100% nondetects 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 to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

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

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

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, earlier 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 and Trend Testing

Time series plots are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified. In cases where the most recent value was identified as an outlier, values were not flagged in the database as they may represent a possible 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 laboratory's 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.

Of the outliers identified by Tukey's method, only a few of these values were flagged in the database as all other values are similar to other measurements.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

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.

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported

concentrations and will be deselected as necessary. When any 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 were included with the previous screening and showed two statistically significant decreasing trends for the Appendix III parameters. The only trend identified in the upgradient wells was a statistically significant decreasing trend for sulfate in well DGWA-71. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

### Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; 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, which would indicate intrawell analyses may be most appropriate for these parameters. 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.

### **Statistical Analysis of Appendix III Parameters – September 2020**

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2020 (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 most recent 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 a resample confirms 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. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter.

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 for all parameters found to exceed their prediction limit in downgradient wells 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. Statistically significant trends were noted for the following well/constituent pairs:

#### Increasing trends

- Boron: DGWC-4, DGWC-11, and DGWC-17
- Calcium: DGWC-11, and DGWC-19
- Chloride: DGWC-5, DGWC-11, DGWC-15, and DGWC-20
- pH: DGWC-19
- Sulfate: DGWC-19
- TDS: DGWC-4, DGWC-5, and DGWC-11

#### Decreasing trends

- Boron: DGWC-2, DGWC-8, DGWC-9, DGWC-10, DGWC-13, DGWC-20, DGWC-47 and DGWC-48
- Calcium: DGWC-2, DGWC-48, DGWC-53 (upgradient), and DGWC-71 (upgradient)
- Chloride: DGWC-4, DGWC-19, DGWC-21, DGWC-22, DGWC-23, DGWC-42, and DGWC-48
- pH: DGWC-9
- Sulfate: DGWC-2, DGWC-8, DGWC-20, DGWC-47, DGWC-48, DGWA-70 (upgradient), and DGWA-71 (upgradient)
- TDS: DGWC-8, DGWC-20, DGWC-48, and DGWA-53 (upgradient)

A summary of the trend test results follows this letter.

## Statistical Analysis of Appendix IV Parameters – September 2020

Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis and no new outliers were flagged. Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. Note that in order to maintain conservative limits from a regulatory perspective, non-parametric tolerance limits were used for cobalt. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified levels have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). 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 2020 sample event for the federal and state rules (Figure G).

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in accordance with the federal and state requirements in each downgradient well (Figures H and I, respectively). 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 CCR Rules for the federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. 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. A summary of the confidence intervals follows this letter. Exceedances were noted for the following well/constituent pairs:

Federal:

- Arsenic: DGWC-9
- Beryllium: DGWC-5, DGWC-9, DGWC-10, DGWC-47, and DGWC-48
- Cobalt: DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47, and DGWC-48
- Lithium: DGWC-47 and DGWC-48

State:

- Arsenic: DGWC-9
- Beryllium: DGWC-5, DGWC-9, DGWC-10, DGWC-47, and DGWC-48
- Cobalt: DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47, and DGWC-48
- Lithium: DGWC-47, and DGWC-48

While selenium at well DGWC-9 appears as significant in both the federal and state confidence interval summary tables, the limit is not exceeded when the lower confidence limit is rounded to three significant digits—in which case the lower confidence limit is equal to the GWPS.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McDonough AP-2,3,4. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina L. Rayner  
Groundwater Statistician

# 100% Non-Detects

Analysis Run 10/29/2020 2:07 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

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Antimony (mg/L)

DGWC-10, DGWC-11, DGWC-13, DGWC-20, DGWC-22, DGWC-42, DGWC-8, DGWC-9, B-3, B-56, B-82, B-83, B-88

Arsenic (mg/L)

DGWC-11, DGWC-13, DGWC-21, DGWC-23, B-3, B-82, B-83, B-88

Beryllium (mg/L)

DGWA-53, DGWC-14, DGWC-2

Cadmium (mg/L)

DGWA-71, DGWC-14, B-77

Chromium (mg/L)

DGWA-53, DGWC-14, B-3, B-82

Cobalt (mg/L)

DGWC-14

Fluoride (mg/L)

B-77, B-82, B-88

Lead (mg/L)

DGWA-53, DGWC-22, B-3

Mercury (mg/L)

DGWC-47, B-77, B-83

Molybdenum (mg/L)

DGWA-70A, DGWC-10, DGWC-11, DGWC-12, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9, B-56, B-77, B-82, B-83, B-93

Selenium (mg/L)

DGWA-53, DGWA-70A, DGWA-71, DGWC-11, DGWC-21, DGWC-23, DGWC-42, B-77

Thallium (mg/L)

DGWA-53, DGWC-11, DGWC-13, DGWC-14, DGWC-15, DGWC-2, DGWC-21, DGWC-23, B-3, B-77, B-82, B-83, B-88, B-93

# Interwell Prediction Limit Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	9/24/2020	0.45	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	9/22/2020	1.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	9/22/2020	4.2	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	9/23/2020	1.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	9/24/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	9/22/2020	2.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	9/22/2020	4.9	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	9/24/2020	6.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-22	0.13	n/a	9/24/2020	4.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	9/24/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	9/22/2020	4.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	9/22/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	9/23/2020	0.21	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	9/23/2020	0.65	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	9/22/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	9/23/2020	1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	9/22/2020	0.78	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40	n/a	9/24/2020	53.1	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40	n/a	9/22/2020	72.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40	n/a	9/22/2020	55.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40	n/a	9/22/2020	103	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40	n/a	9/23/2020	44.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40	n/a	9/22/2020	79.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40	n/a	9/24/2020	80	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-22	40	n/a	9/24/2020	62.6	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40	n/a	9/24/2020	73.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40	n/a	9/22/2020	263	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40	n/a	9/22/2020	43.8	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40	n/a	9/23/2020	72.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40	n/a	9/22/2020	99.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40	n/a	9/22/2020	54.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.5	n/a	9/24/2020	5.9	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.5	n/a	9/22/2020	16	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.5	n/a	9/22/2020	10.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.5	n/a	9/23/2020	12.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.5	n/a	9/23/2020	22.4	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.5	n/a	9/24/2020	22.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.5	n/a	9/22/2020	27.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.5	n/a	9/22/2020	25.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.5	n/a	9/24/2020	20	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-22	4.5	n/a	9/24/2020	21.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.5	n/a	9/24/2020	13.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.5	n/a	9/22/2020	17	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.5	n/a	9/22/2020	22.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.5	n/a	9/23/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.5	n/a	9/22/2020	10.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.5	n/a	9/23/2020	9.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.5	n/a	9/22/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	DGWC-10	0.42	n/a	9/24/2020	0.97	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	0.42	n/a	9/22/2020	0.99	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.6	5.2	9/24/2020	4.89	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-17	6.6	5.2	9/24/2020	5.1	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-19	6.6	5.2	9/22/2020	4.91	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-20	6.6	5.2	9/22/2020	4.66	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-47	6.6	5.2	9/23/2020	4.4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-48	6.6	5.2	9/23/2020	4.64	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-5	6.6	5.2	9/22/2020	4.83	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-9	6.6	5.2	9/22/2020	4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-10	36	n/a	9/24/2020	204	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36	n/a	9/22/2020	267	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36	n/a	9/22/2020	183	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36	n/a	9/23/2020	134	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36	n/a	9/22/2020	40.2	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36	n/a	9/23/2020	146	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36	n/a	9/24/2020	259	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36	n/a	9/22/2020	310	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36	n/a	9/23/2020	122	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36	n/a	9/22/2020	408	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36	n/a	9/24/2020	269	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	36	n/a	9/24/2020	262	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36	n/a	9/24/2020	215	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36	n/a	9/22/2020	800	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36	n/a	9/22/2020	320	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36	n/a	9/23/2020	111	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36	n/a	9/23/2020	313	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36	n/a	9/22/2020	423	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36	n/a	9/23/2020	178	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36	n/a	9/22/2020	282	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	320	n/a	9/22/2020	481	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	320	n/a	9/22/2020	338	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	320	n/a	9/24/2020	411	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	320	n/a	9/22/2020	513	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	320	n/a	9/22/2020	724	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	320	n/a	9/24/2020	494	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	320	n/a	9/24/2020	455	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	320	n/a	9/24/2020	456	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	320	n/a	9/22/2020	1400	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	320	n/a	9/22/2020	547	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	320	n/a	9/23/2020	575	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	320	n/a	9/22/2020	716	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	320	n/a	9/23/2020	333	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	320	n/a	9/22/2020	461	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	9/24/2020	0.45	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	9/22/2020	1.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	9/22/2020	4.2	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	9/22/2020	0.086J	No	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	9/23/2020	1.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	9/24/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	9/22/2020	2.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	9/22/2020	4.9	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	9/24/2020	6.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-22	0.13	n/a	9/24/2020	4.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	9/24/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	9/22/2020	4.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	9/22/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	9/23/2020	0.21	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	9/23/2020	0.65	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	9/22/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	9/23/2020	1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	9/22/2020	0.78	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40	n/a	9/24/2020	53.1	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40	n/a	9/22/2020	72.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40	n/a	9/22/2020	55.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40	n/a	9/23/2020	39	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-14	40	n/a	9/22/2020	11.6	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-15	40	n/a	9/23/2020	35.6	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-17	40	n/a	9/24/2020	12.7	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40	n/a	9/22/2020	103	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40	n/a	9/23/2020	44.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40	n/a	9/22/2020	79.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40	n/a	9/24/2020	80	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-22	40	n/a	9/24/2020	62.6	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40	n/a	9/24/2020	73.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40	n/a	9/22/2020	263	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40	n/a	9/22/2020	43.8	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-47	40	n/a	9/23/2020	22.3	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40	n/a	9/23/2020	72.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40	n/a	9/22/2020	99.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40	n/a	9/23/2020	39.3	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40	n/a	9/22/2020	54.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.5	n/a	9/24/2020	5.9	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.5	n/a	9/22/2020	16	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.5	n/a	9/22/2020	10.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.5	n/a	9/23/2020	12.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.5	n/a	9/22/2020	3.2	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.5	n/a	9/23/2020	22.4	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.5	n/a	9/24/2020	22.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.5	n/a	9/22/2020	27.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.5	n/a	9/23/2020	2.1	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.5	n/a	9/22/2020	25.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	DGWC-21	4.5	n/a	9/24/2020	20	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-22	4.5	n/a	9/24/2020	21.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.5	n/a	9/24/2020	13.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.5	n/a	9/22/2020	17	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.5	n/a	9/22/2020	22.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.5	n/a	9/23/2020	3.3	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.5	n/a	9/23/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.5	n/a	9/22/2020	10.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.5	n/a	9/23/2020	9.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.5	n/a	9/22/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	0.42	n/a	9/24/2020	0.97	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-11	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-12	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-13	0.42	n/a	9/23/2020	0.058J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-14	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-15	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-17	0.42	n/a	9/24/2020	0.056J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-19	0.42	n/a	9/22/2020	0.084J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-2	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	0.42	n/a	9/22/2020	0.15	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-21	0.42	n/a	9/24/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-22	0.42	n/a	9/24/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-23	0.42	n/a	9/24/2020	0.075J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-4	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-42	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-47	0.42	n/a	9/23/2020	0.11	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-48	0.42	n/a	9/23/2020	0.32	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-5	0.42	n/a	9/22/2020	0.12	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-8	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	0.42	n/a	9/22/2020	0.99	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.6	5.2	9/24/2020	4.89	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-11	6.6	5.2	9/22/2020	5.54	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-12	6.6	5.2	9/22/2020	6	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-13	6.6	5.2	9/23/2020	5.72	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-14	6.6	5.2	9/22/2020	5.7	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-15	6.6	5.2	9/23/2020	5.85	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-17	6.6	5.2	9/24/2020	5.1	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-19	6.6	5.2	9/22/2020	4.91	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-2	6.6	5.2	9/23/2020	5.99	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-20	6.6	5.2	9/22/2020	4.66	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-21	6.6	5.2	9/24/2020	5.64	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-22	6.6	5.2	9/24/2020	5.69	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-23	6.6	5.2	9/24/2020	6.19	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-4	6.6	5.2	9/22/2020	5.88	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-42	6.6	5.2	9/22/2020	5.76	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-47	6.6	5.2	9/23/2020	4.4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-48	6.6	5.2	9/23/2020	4.64	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-5	6.6	5.2	9/22/2020	4.83	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-8	6.6	5.2	9/23/2020	5.21	No	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-9	6.6	5.2	9/22/2020	4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2



# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	DGWC-10	36	n/a	9/24/2020	204	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36	n/a	9/22/2020	267	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36	n/a	9/22/2020	183	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36	n/a	9/23/2020	134	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36	n/a	9/22/2020	40.2	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36	n/a	9/23/2020	146	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36	n/a	9/24/2020	259	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36	n/a	9/22/2020	310	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36	n/a	9/23/2020	122	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36	n/a	9/22/2020	408	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36	n/a	9/24/2020	269	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	36	n/a	9/24/2020	262	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36	n/a	9/24/2020	215	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36	n/a	9/22/2020	800	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36	n/a	9/22/2020	320	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36	n/a	9/23/2020	111	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36	n/a	9/23/2020	313	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36	n/a	9/22/2020	423	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36	n/a	9/23/2020	178	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36	n/a	9/22/2020	282	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	320	n/a	9/24/2020	283	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	320	n/a	9/22/2020	481	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	320	n/a	9/22/2020	338	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-13	320	n/a	9/23/2020	278	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-14	320	n/a	9/22/2020	105	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-15	320	n/a	9/23/2020	317	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	320	n/a	9/24/2020	411	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	320	n/a	9/22/2020	513	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-2	320	n/a	9/23/2020	267	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	320	n/a	9/22/2020	724	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	320	n/a	9/24/2020	494	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	320	n/a	9/24/2020	455	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	320	n/a	9/24/2020	456	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	320	n/a	9/22/2020	1400	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	320	n/a	9/22/2020	547	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	320	n/a	9/23/2020	229	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	320	n/a	9/23/2020	575	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	320	n/a	9/22/2020	716	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	320	n/a	9/23/2020	333	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	320	n/a	9/22/2020	461	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2

# Trend Test Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWC-10	-0.7875	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-11	0.05321	44	34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.105	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-17	0.04907	40	38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3228	-60	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-20	-0.7622	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5082	38	34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02874	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-48	-0.07167	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5023	-46	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2724	-55	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-53 (bg)	-5.213	-40	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.9849	-35	-34	Yes	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	6.164	47	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.938	54	38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-19.32	-62	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.742	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.372	43	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.8116	46	38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-19	-2.92	-44	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.214	62	38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.347	-48	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-22	-2.105	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-0.9328	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.348	-60	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.859	-54	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.563	-66	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.7327	40	34	Yes	11	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.07026	68	48	Yes	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-9	-0.02468	-49	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3438	-40	-38	Yes	12	25	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.262	-49	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-19	17.35	39	38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-76.21	-58	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-54.31	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-72.08	-58	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-57.99	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-81.75	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-53 (bg)	-26.46	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	40.18	45	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-67.11	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	117.2	45	38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-65.67	-56	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	47.26	37	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-92.7	-49	-34	Yes	11	0	n/a	n/a	0.01	NP

# Trend Test Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWA-53 (bg)	-0.0003249	-5	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-70A (bg)	0	1	38	No	12	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	-0.00009656	-1	-34	No	11	18.18	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-10</b>	<b>-0.7875</b>	<b>-41</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-11</b>	<b>0.05321</b>	<b>44</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-12	-1.012	-38	-43	No	13	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-13</b>	<b>-0.105</b>	<b>-39</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-15	0.03879	20	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-17</b>	<b>0.04907</b>	<b>40</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-19	-0.2025	-27	-38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-2</b>	<b>-0.3228</b>	<b>-60</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-20</b>	<b>-0.7622</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-21	0.5429	26	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-22	0.1245	13	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-23	0.1754	25	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-4</b>	<b>0.5082</b>	<b>38</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-42	-0.0129	-15	-38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-47</b>	<b>-0.02874</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-48</b>	<b>-0.07167</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-5	-0.2739	-14	-34	No	11	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-8</b>	<b>-0.5023</b>	<b>-46</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-9</b>	<b>-0.2724</b>	<b>-55</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>DGWA-53 (bg)</b>	<b>-5.213</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWA-70A (bg)	-0.1112	-19	-38	No	12	8.333	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWA-71 (bg)</b>	<b>-0.9849</b>	<b>-35</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>9.091</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-10	-3.185	-13	-34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-11</b>	<b>6.164</b>	<b>47</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-12	-9.372	-30	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-19</b>	<b>6.938</b>	<b>54</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>DGWC-2</b>	<b>-19.32</b>	<b>-62</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-20	-3.238	-18	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-21	3.106	38	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-22	0.5145	12	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-23	1.123	22	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	25.63	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-42	-0.5495	-12	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-48</b>	<b>-7.742</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-5	10.45	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-9	-0.4432	0	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-53 (bg)	-0.2527	-40	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-70A (bg)	-0.08248	-13	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-71 (bg)	-0.07123	-11	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-10	-0.4055	-14	-38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-11</b>	<b>1.372</b>	<b>43</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-12	-0.6308	-34	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-13	-0.4371	-7	-34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-15</b>	<b>0.8116</b>	<b>46</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-17	1.012	36	38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-19</b>	<b>-2.92</b>	<b>-44</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-20</b>	<b>3.214</b>	<b>62</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-21</b>	<b>-1.347</b>	<b>-48</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-22</b>	<b>-2.105</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-23</b>	<b>-0.9328</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-4</b>	<b>-3.348</b>	<b>-60</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-42</b>	<b>-2.859</b>	<b>-54</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Trend Test Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Chloride (mg/L)</b>	<b>DGWC-48</b>	<b>-2.563</b>	<b>-66</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-5</b>	<b>0.7327</b>	<b>40</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-8	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-9	0.9794	31	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-53 (bg)	0	-1	-53	No	15	13.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-70A (bg)	0.01815	38	43	No	13	61.54	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-71 (bg)	0	26	48	No	14	78.57	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-10	0	-7	-48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-9	0.03493	11	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-53 (bg)	0.031	4	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-70A (bg)	0.004574	2	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-71 (bg)	0.06107	33	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-10	0.05117	18	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-17	-0.005267	-14	-53	No	15	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>DGWC-19</b>	<b>0.07026</b>	<b>68</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	DGWC-20	-0.02415	-38	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-47	-0.2068	-37	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-48	-0.02253	-17	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-5	0.1155	48	48	No	14	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>DGWC-9</b>	<b>-0.02468</b>	<b>-49</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWA-53 (bg)	-2.258	-20	-43	No	13	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWA-70A (bg)</b>	<b>-0.3438</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWA-71 (bg)</b>	<b>-2.262</b>	<b>-49</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-10	-46.42	-33	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-11	21.85	33	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-12	-43.07	-35	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-13	-3.786	-17	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-14	-0.653	-16	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-15	-9.472	-37	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-17	1.086	3	38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-19</b>	<b>17.35</b>	<b>39</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-2</b>	<b>-76.21</b>	<b>-58</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-20</b>	<b>-54.31</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-21	-4.361	-20	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-22	0.2633	1	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-23	0	-4	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-4	66.54	29	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-42	-10.69	-20	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-47</b>	<b>-72.08</b>	<b>-58</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-48</b>	<b>-57.99</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-5	12.32	11	34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-8</b>	<b>-81.75</b>	<b>-49</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-9	4.346	6	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWA-53 (bg)</b>	<b>-26.46</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWA-70A (bg)	0	0	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-71 (bg)	-5.475	-26	-38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-11</b>	<b>40.18</b>	<b>45</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-12	-52.08	-33	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-17	16.77	27	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-19	34.48	38	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-20</b>	<b>-67.11</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-21	7.717	26	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-22	-4.029	-12	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-23	1.483	4	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-4</b>	<b>117.2</b>	<b>45</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Trend Test Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:41 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	DGWC-42	0.1608	1	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-48</b>	<b>-65.67</b>	<b>-56</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>TDS (mg/L)</b>	<b>DGWC-5</b>	<b>47.26</b>	<b>37</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>TDS (mg/L)</b>	<b>DGWC-8</b>	<b>-92.7</b>	<b>-49</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-9	17.89	18	38	No	12	0	n/a	n/a	0.01	NP

# Tolerance Limit Summary Table

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/18/2020, 10:01 AM

<u>Constituent</u>	<u>Well</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)	n/a	0.0030	38	n/a	n/a	81.58	n/a	n/a	0.1424	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0050	38	n/a	n/a	78.95	n/a	n/a	0.1424	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	38	n/a	n/a	0	n/a	n/a	0.1424	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0030	38	n/a	n/a	73.68	n/a	n/a	0.1424	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0025	38	n/a	n/a	92.11	n/a	n/a	0.1424	NP Inter(NDs)
Chromium (mg/L)	n/a	0.010	37	n/a	n/a	54.05	n/a	n/a	0.1499	NP Inter(normality)
Cobalt (mg/L)	n/a	0.032	38	n/a	n/a	31.58	n/a	n/a	0.1424	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	5.9	40	1.062	0.3514	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	42	n/a	n/a	50	n/a	n/a	0.116	NP Inter(normality)
Lead (mg/L)	n/a	0.0050	38	n/a	n/a	76.32	n/a	n/a	0.1424	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	38	n/a	n/a	36.84	n/a	n/a	0.1424	NP Inter(normality)
Mercury (mg/L)	n/a	0.00050	38	n/a	n/a	89.47	n/a	n/a	0.1424	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.041	38	n/a	n/a	63.16	n/a	n/a	0.1424	NP Inter(normality)
Selenium (mg/L)	n/a	0.010	38	n/a	n/a	100	n/a	n/a	0.1424	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	38	n/a	n/a	94.74	n/a	n/a	0.1424	NP Inter(NDs)

<b>MCDONOUGH AP-1 GWPS TABLE</b>					
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>Federal GWPS</b>	<b>State GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01	0.01
Barium, Total (mg/L)	2		0.19	2	2
Beryllium, Total (mg/L)	0.004		0.003	0.004	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.032	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.92	5.92	5.92
Fluoride, Total (mg/L)	4		0.42	4	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015	0.005
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.041	0.1	0.041
Selenium, Total (mg/L)	0.05		0.01	0.05	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002	0.002

*\*Highlighted cells indicated Background is higher than MCLs or CCR-Rule Specified levels.*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

# Federal Confidence Interval Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.03066	0.01584	0.01	Yes 13	0.02325	0.009966	7.692	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.009456	0.005244	0.004	Yes 12	0.00735	0.002684	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01338	0.009172	0.004	Yes 13	0.01128	0.002831	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009497	0.007719	0.004	Yes 13	0.008608	0.001195	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.009007	0.00606	0.004	Yes 12	0.007533	0.001878	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006036	0.004933	0.004	Yes 13	0.005485	0.0007414	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.194	0.1479	0.032	Yes 12	0.1671	0.03784	0	None	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05328	0.04876	0.032	Yes 13	0.05102	0.003039	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6453	0.4536	0.032	Yes 13	0.5495	0.1289	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4062	0.2647	0.032	Yes 13	0.3355	0.09515	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5235	0.415	0.032	Yes 13	0.4692	0.07295	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.09482	0.04891	0.032	Yes 12	0.07187	0.02925	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2018	0.136	0.032	Yes 13	0.1689	0.04419	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.0771	0.06002	0.04	Yes 13	0.06856	0.01149	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.13	0.1093	0.04	Yes 13	0.1197	0.01391	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-9	0.1415	0.05002	0.05	Yes 13	0.09574	0.06149	0	None	No	0.01	Param.



# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	DGWC-12	0.003	0.0003	0.006	No 14	0.002807	0.0007216	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-14	0.003	0.0011	0.006	No 13	0.002854	0.000527	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.00073	0.006	No 13	0.00262	0.0009312	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-17	0.003	0.00045	0.006	No 13	0.002804	0.0007072	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-19	0.003	0.00036	0.006	No 13	0.002797	0.0007322	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.0006	0.006	No 13	0.002815	0.0006656	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.0013	0.006	No 13	0.002869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.0007	0.006	No 13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No 12	0.002615	0.0009004	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-47	0.003	0.0012	0.006	No 13	0.002862	0.0004992	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-48	0.003	0.00039	0.006	No 13	0.002799	0.0007239	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.00032	0.006	No 12	0.002777	0.0007736	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.00722	0.00308	0.01	No 12	0.00515	0.002638	8.333	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No 14	0.004374	0.001592	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.00039	0.01	No 13	0.004645	0.001279	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No 13	0.004042	0.001828	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No 13	0.003148	0.00209	53.85	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-19	0.005	0.00049	0.01	No 13	0.002365	0.001645	23.08	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No 13	0.004499	0.001261	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01699	0.006683	0.01	No 13	0.01184	0.006934	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-22	0.005	0.001	0.01	No 13	0.004692	0.001109	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No 12	0.0039	0.001991	75	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No 13	0.004369	0.001542	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003855	0.001418	0.01	No 13	0.002523	0.001439	15.38	Cohen's	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No 13	0.00293	0.002018	46.15	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-5	0.0203	0.0032	0.01	No 12	0.009483	0.01044	16.67	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No 12	0.003472	0.001906	58.33	None	No	0.01	NP (normality)
<b>Arsenic (mg/L)</b>	<b>DGWC-9</b>	<b>0.03066</b>	<b>0.01584</b>	<b>0.01</b>	<b>Yes 13</b>	<b>0.02325</b>	<b>0.009966</b>	<b>7.692</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Barium (mg/L)	DGWC-10	0.03055	0.02357	2	No 12	0.02706	0.004448	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06805	0.05751	2	No 12	0.06278	0.006717	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.03036	0.02319	2	No 14	0.02691	0.005363	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	DGWC-13	0.03355	0.02707	2	No 12	0.02917	0.007981	8.333	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06272	0.05738	2	No 13	0.06005	0.003589	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05171	0.04502	2	No 13	0.04836	0.0045	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.05844	0.04436	2	No 13	0.0514	0.009465	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02536	0.02124	2	No 13	0.0233	0.002771	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02269	0.02115	2	No 13	0.02192	0.001038	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01488	0.008707	2	No 13	0.01179	0.004149	7.692	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No 13	0.02634	0.001198	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-22	0.03853	0.03293	2	No 13	0.03573	0.003765	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02432	0.01814	2	No 13	0.02131	0.004373	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.0363	0.03	2	No 12	0.03397	0.002586	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-42	0.02101	0.01682	2	No 13	0.01895	0.002948	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-47	0.01952	0.01539	2	No 13	0.01745	0.00278	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.0145	0.0129	2	No 13	0.0137	0.001075	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01858	0.01676	2	No 11	0.01767	0.001092	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.03968	0.02782	2	No 12	0.03375	0.007562	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01623	0.01485	2	No 13	0.01554	0.0009287	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-10</b>	<b>0.009456</b>	<b>0.005244</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.00735</b>	<b>0.002684</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-11	0.003	0.00012	0.004	No 12	0.001807	0.001475	58.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-12	0.00049	0.00017	0.004	No 14	0.0006153	0.001014	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.00007	0.004	No 12	0.002268	0.001324	75	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-15	0.003	0.00022	0.004	No 13	0.00256	0.001075	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.00071	0.0005	0.004	No 13	0.0009623	0.0009065	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No 13	0.002077	0.0004304	15.38	None	No	0.01	NP (normality)

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-20	0.0063	0.0026	0.004	No 13	0.003808	0.001906	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No 13	0.0005969	0.001067	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-22	0.003	0.00014	0.004	No 13	0.0006054	0.001063	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-23	0.00077	0.00038	0.004	No 13	0.0008285	0.0009694	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No 12	0.0006617	0.001093	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002873	0.002173	0.004	No 13	0.002523	0.0004711	7.692	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-47</b>	<b>0.01338</b>	<b>0.009172</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.01128</b>	<b>0.002831</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-48</b>	<b>0.009497</b>	<b>0.007719</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.008608</b>	<b>0.001195</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-5</b>	<b>0.009007</b>	<b>0.00606</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.007533</b>	<b>0.001878</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-8	0.003446	0.001804	0.004	No 12	0.002625	0.001046	8.333	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-9</b>	<b>0.006036</b>	<b>0.004933</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.005485</b>	<b>0.0007414</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	DGWC-10	0.001267	0.0008381	0.005	No 12	0.001053	0.0002733	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.00016	0.005	No 12	0.002107	0.0009187	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.001	0.00025	0.005	No 14	0.0006893	0.00079	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No 12	0.002107	0.000919	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00012	0.005	No 13	0.001648	0.001145	69.23	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-17	0.00033	0.00024	0.005	No 13	0.0006169	0.0008366	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00033	0.005	No 13	0.0005838	0.0006022	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-2	0.001	0.00013	0.005	No 13	0.0006538	0.0008526	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-20	0.002229	0.001771	0.005	No 13	0.002	0.0003082	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No 13	0.0008085	0.0005286	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-22	0.001	0.0004	0.005	No 13	0.0007354	0.0005646	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No 13	0.00047	0.0006466	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0005	0.005	No 12	0.00086	0.0005345	16.67	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-42	0.0024	0.00037	0.005	No 13	0.001042	0.0007112	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-47	0.002295	0.001198	0.005	No 13	0.001746	0.0007378	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.004529	0.002389	0.005	No 13	0.0036	0.001801	0	None	In(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.001	0.0002	0.005	No 12	0.0007592	0.000611	16.67	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-8	0.002601	0.002016	0.005	No 12	0.002308	0.0003728	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No 13	0.0007531	0.0005442	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No 12	0.003883	0.004519	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No 12	0.006866	0.004629	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-12	0.01	0.00094	0.1	No 14	0.009353	0.002421	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.00066	0.1	No 12	0.006907	0.004568	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No 13	0.007411	0.004182	69.23	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-17	0.0035	0.0024	0.1	No 13	0.003862	0.00275	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No 13	0.0043	0.003261	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No 13	0.006348	0.004808	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No 13	0.004985	0.004154	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No 13	0.006381	0.004767	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-22	0.01	0.0012	0.1	No 13	0.009323	0.002441	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No 13	0.00357	0.004467	30.77	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.0005	0.1	No 12	0.009208	0.002742	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No 13	0.005095	0.004745	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-47	0.01	0.0007	0.1	No 13	0.009285	0.002579	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No 13	0.008546	0.003549	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.00045	0.1	No 12	0.009204	0.002757	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No 12	0.006331	0.004571	58.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No 13	0.006792	0.004421	61.54	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>DGWC-10</b>	<b>0.194</b>	<b>0.1479</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.1671</b>	<b>0.03784</b>	<b>0</b>	<b>None</b>	<b>x^3</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-11	0.0025	0.0006	0.032	No 12	0.001606	0.0009402	50	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-12	0.0079	0.0021	0.032	No 14	0.006143	0.007268	14.29	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0025	0.0004	0.032	No 12	0.001982	0.0009381	75	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-15	0.0042	0.0018	0.032	No 13	0.003992	0.00635	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02807	0.02097	0.032	No 13	0.02399	0.006439	7.692	None	x^2	0.01	Param.

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Cobalt (mg/L)</b>	<b>DGWC-19</b>	<b>0.05328</b>	<b>0.04876</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.05102</b>	<b>0.003039</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-2	0.02786	0.01119	0.032	No 13	0.01952	0.01121	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-20</b>	<b>0.6453</b>	<b>0.4536</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.5495</b>	<b>0.1289</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-21	0.01	0.005	0.032	No 13	0.008538	0.002294	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-22	0.0106	0.005	0.032	No 13	0.008662	0.002396	15.38	None	No	0.01	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.032	No 13	0.002044	0.001333	69.23	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-4	0.0025	0.0014	0.032	No 12	0.002033	0.000982	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-42	0.04874	0.01994	0.032	No 13	0.03434	0.01937	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-47</b>	<b>0.4062</b>	<b>0.2647</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.3355</b>	<b>0.09515</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-48</b>	<b>0.5235</b>	<b>0.415</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.4692</b>	<b>0.07295</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-5	0.03614	0.02048	0.032	No 12	0.02902	0.01169	0	None	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-8</b>	<b>0.09482</b>	<b>0.04891</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.07187</b>	<b>0.02925</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-9</b>	<b>0.2018</b>	<b>0.136</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.1689</b>	<b>0.04419</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.533	1.067	5.92	No 13	1.3	0.3132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.324	0.6257	5.92	No 13	0.975	0.4697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.119	0.3122	5.92	No 13	0.7574	0.6581	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.536	1.01	5.92	No 13	1.273	0.354	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.156	0.6832	5.92	No 13	0.9195	0.3179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.736	0.5423	5.92	No 13	1.196	0.9184	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.101	0.5388	5.92	No 13	0.8199	0.3781	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.108	0.5209	5.92	No 13	0.8143	0.3946	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.451	0.8198	5.92	No 13	1.135	0.4243	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.567	0.8478	5.92	No 13	1.207	0.4835	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.2	0.6287	5.92	No 13	0.9143	0.3841	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.462	0.779	5.92	No 13	1.121	0.4594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.482	0.6925	5.92	No 13	1.087	0.5307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.788	1.182	5.92	No 13	1.485	0.4079	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.192	0.6811	5.92	No 13	0.9368	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.046	1.811	5.92	No 13	2.428	0.8307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.561	1.567	5.92	No 13	2.064	0.6687	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	1.955	1.022	5.92	No 13	1.489	0.6279	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8387	0.4284	5.92	No 13	0.6335	0.2759	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.469	0.8959	5.92	No 13	1.182	0.3851	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.819	1.276	4	No 14	1.548	0.3832	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.1	0.04	4	No 13	0.07738	0.02685	53.85	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-12	0.3	0.071	4	No 14	0.1683	0.153	42.86	None	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-13	0.2371	0.08721	4	No 13	0.1683	0.1136	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.1	0.052	4	No 14	0.08386	0.02776	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.079	4	No 14	0.1061	0.04679	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3341	0.1109	4	No 14	0.2225	0.1575	14.29	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.5725	0.1743	4	No 14	0.3979	0.327	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.28	0.052	4	No 14	0.1524	0.1678	35.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9283	0.3788	4	No 14	0.6536	0.3879	7.143	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.07	4	No 14	0.108	0.07152	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-22	0.13	0.09	4	No 14	0.1211	0.06974	42.86	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.2749	0.09828	4	No 14	0.2011	0.1607	7.143	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.17	0.082	4	No 14	0.1416	0.1901	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-42	0.1	0.06	4	No 14	0.09143	0.02316	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.228	0.5388	4	No 14	0.8836	0.4867	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.27	0.6254	4	No 14	0.9479	0.4552	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	0.9221	0.2741	4	No 13	0.63	0.4591	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.4944	0.1003	4	No 13	0.3211	0.2329	15.38	Cohen's	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.317	0.9573	4	No 14	1.137	0.254	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00011	0.015	No 12	0.002974	0.002504	58.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-11	0.005	0.000076	0.015	No 12	0.002958	0.002523	58.33	None	No	0.01	NP (normality)

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-12	0.005	0.00011	0.015	No 14	0.004301	0.001778	85.71	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.0002	0.015	No 12	0.004191	0.001888	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-14	0.005	0.000096	0.015	No 13	0.004242	0.001851	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.000082	0.015	No 13	0.002826	0.002461	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-17	0.005	0.000079	0.015	No 13	0.002742	0.002539	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-19	0.005	0.00007	0.015	No 13	0.003503	0.002337	69.23	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-2	0.005	0.000064	0.015	No 13	0.002353	0.00255	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-20	0.005	0.00013	0.015	No 13	0.003192	0.002385	61.54	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.015	No 13	0.002405	0.002502	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.000066	0.015	No 13	0.00462	0.001368	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.015	No 12	0.003779	0.002209	75	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-42	0.0016	0.0002	0.015	No 13	0.001152	0.00175	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-47	0.005	0.0005	0.015	No 13	0.001732	0.001875	23.08	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-48	0.0035	0.00092	0.015	No 13	0.002067	0.001499	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-5	0.005	0.000051	0.015	No 12	0.001941	0.00235	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.015	No 12	0.002626	0.002485	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-9	0.005	0.00017	0.015	No 13	0.004255	0.001818	84.62	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-10	0.015	0.002	0.04	No 12	0.005458	0.004637	16.67	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	DGWC-11	0.0028	0.0019	0.04	No 12	0.003333	0.003684	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-12	0.015	0.00097	0.04	No 14	0.01001	0.006944	64.29	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-13	0.015	0.0028	0.04	No 12	0.005117	0.004624	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.04	No 13	0.0048	0.003316	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-15	0.0066	0.0059	0.04	No 12	0.006392	0.0008229	0	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-17	0.015	0.00096	0.04	No 13	0.009647	0.007049	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-19	0.015	0.0031	0.04	No 13	0.004108	0.00328	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-2	0.07156	0.02739	0.04	No 13	0.05299	0.03076	7.692	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-20	0.015	0.0019	0.04	No 13	0.006369	0.005794	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.04	No 13	0.006692	0.002518	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-22	0.0047	0.0036	0.04	No 13	0.004992	0.003032	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-23	0.0162	0.0036	0.04	No 13	0.01175	0.01975	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.04	No 12	0.003833	0.003537	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-42	0.01247	0.01025	0.04	No 13	0.01136	0.001495	7.692	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>DGWC-47</b>	<b>0.0771</b>	<b>0.06002</b>	<b>0.04</b>	<b>Yes 13</b>	<b>0.06856</b>	<b>0.01149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>DGWC-48</b>	<b>0.13</b>	<b>0.1093</b>	<b>0.04</b>	<b>Yes 13</b>	<b>0.1197</b>	<b>0.01391</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	DGWC-5	0.008526	0.003793	0.04	No 12	0.006275	0.00332	8.333	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.04	No 12	0.006375	0.002911	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-9	0.02965	0.02256	0.04	No 13	0.02611	0.004768	7.692	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0005	0.00008	0.002	No 12	0.0003601	0.0002067	66.67	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-11	0.0005	0.00006	0.002	No 12	0.0003908	0.0001976	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-12	0.0005	0.00006	0.002	No 14	0.000319	0.000218	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0005	0.00009	0.002	No 12	0.00043	0.0001635	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0005	0.00006	0.002	No 13	0.0003992	0.0001916	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0005	0.00006	0.002	No 13	0.0002785	0.0002154	46.15	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-19	0.0005	0.00005	0.002	No 13	0.0003985	0.0001933	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-2	0.00064	0.00008	0.002	No 13	0.0004133	0.0001952	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-20	0.0005	0.00008	0.002	No 13	0.0004354	0.0001577	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0005	0.00006	0.002	No 13	0.0003362	0.0002163	61.54	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-22	0.0005	0.000055	0.002	No 13	0.0004004	0.0001896	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0005	0.00014	0.002	No 13	0.0002723	0.0001623	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-4	0.00059	0.000082	0.002	No 12	0.0004377	0.0001686	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-42	0.0005	0.00004	0.002	No 13	0.0004646	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0005	0.00009	0.002	No 12	0.0002417	0.0001701	16.67	None	No	0.01	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-8	0.0005	0.00006	0.002	No 12	0.0002909	0.0002192	50	None	No	0.01	NP (normality)

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	DGWC-9	0.0005	0.00005	0.002	No 13	0.0003548	0.0001878	53.85	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-13	0.02834	0.01374	0.1	No 12	0.02104	0.009302	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.005	0.0018	0.1	No 13	0.003231	0.001752	46.15	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-23	0.01155	0.007262	0.1	No 13	0.009408	0.002886	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.006873	0.004594	0.1	No 12	0.005733	0.001452	8.333	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05502	0.01853	0.05	No 12	0.03678	0.02325	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No 14	0.005921	0.004238	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.01	0.0015	0.05	No 12	0.004858	0.003462	25	None	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No 13	0.007438	0.004001	69.23	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-15	0.01	0.0018	0.05	No 13	0.009369	0.002274	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.0072	0.05	No 13	0.008846	0.002183	15.38	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-19	0.009886	0.005688	0.05	No 13	0.007538	0.002479	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0046	0.05	No 13	0.007777	0.002565	53.85	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-20	0.06857	0.03146	0.05	No 13	0.05002	0.02496	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-22	0.01	0.0017	0.05	No 13	0.009362	0.002302	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-4	0.01	0.0014	0.05	No 12	0.009283	0.002483	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01444	0.006265	0.05	No 13	0.01035	0.005499	15.38	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009889	0.004257	0.05	No 13	0.006738	0.003327	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.05512	0.01002	0.05	No 12	0.03657	0.0445	8.333	None	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.01	0.0018	0.05	No 12	0.006183	0.003635	41.67	None	No	0.01	NP (normality)
<b>Selenium (mg/L)</b>	<b>DGWC-9</b>	<b>0.1415</b>	<b>0.05002</b>	<b>0.05</b>	<b>Yes 13</b>	<b>0.09574</b>	<b>0.06149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Thallium (mg/L)	DGWC-10	0.001	0.00036	0.002	No 12	0.000515	0.000237	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No 14	0.0005476	0.0004696	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No 13	0.0003692	0.0003601	23.08	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.00049	0.002	No 13	0.0005415	0.0001493	7.692	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-20	0.0016	0.00055	0.002	No 13	0.0009392	0.0005086	30.77	None	No	0.01	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-22	0.001	0.000064	0.002	No 13	0.0006411	0.0004726	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.000073	0.002	No 12	0.0009228	0.0002676	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No 13	0.0007184	0.0004397	69.23	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-47	0.00032	0.0002	0.002	No 13	0.00036	0.0002876	15.38	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No 13	0.0006466	0.0004653	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No 12	0.0007783	0.0004023	75	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-8	0.001	0.0002	0.002	No 12	0.0004217	0.0003532	25	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-9	0.0009925	0.0005252	0.002	No 13	0.0007031	0.0002337	30.77	Cohen's	No	0.01	Param.

# State Confidence Interval Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.03066	0.01584	0.01	Yes 13	0.02325	0.009966	7.692	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.009456	0.005244	0.004	Yes 12	0.00735	0.002684	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01338	0.009172	0.004	Yes 13	0.01128	0.002831	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009497	0.007719	0.004	Yes 13	0.008608	0.001195	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.009007	0.00606	0.004	Yes 12	0.007533	0.001878	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006036	0.004933	0.004	Yes 13	0.005485	0.0007414	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.194	0.1479	0.032	Yes 12	0.1671	0.03784	0	None	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05328	0.04876	0.032	Yes 13	0.05102	0.003039	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6453	0.4536	0.032	Yes 13	0.5495	0.1289	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4062	0.2647	0.032	Yes 13	0.3355	0.09515	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5235	0.415	0.032	Yes 13	0.4692	0.07295	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.09482	0.04891	0.032	Yes 12	0.07187	0.02925	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2018	0.136	0.032	Yes 13	0.1689	0.04419	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.0771	0.06002	0.03	Yes 13	0.06856	0.01149	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.13	0.1093	0.03	Yes 13	0.1197	0.01391	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-9	0.1415	0.05002	0.05	Yes 13	0.09574	0.06149	0	None	No	0.01	Param.

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	DGWC-12	0.003	0.0003	0.006	No 14	0.002807	0.0007216	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-14	0.003	0.0011	0.006	No 13	0.002854	0.000527	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.00073	0.006	No 13	0.00262	0.0009312	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-17	0.003	0.00045	0.006	No 13	0.002804	0.0007072	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-19	0.003	0.00036	0.006	No 13	0.002797	0.0007322	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.0006	0.006	No 13	0.002815	0.0006656	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.0013	0.006	No 13	0.002869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.0007	0.006	No 13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No 12	0.002615	0.0009004	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-47	0.003	0.0012	0.006	No 13	0.002862	0.0004992	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-48	0.003	0.00039	0.006	No 13	0.002799	0.0007239	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.00032	0.006	No 12	0.002777	0.0007736	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.00722	0.00308	0.01	No 12	0.00515	0.002638	8.333	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No 14	0.004374	0.001592	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.00039	0.01	No 13	0.004645	0.001279	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No 13	0.004042	0.001828	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No 13	0.003148	0.00209	53.85	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-19	0.005	0.00049	0.01	No 13	0.002365	0.001645	23.08	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No 13	0.004499	0.001261	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01699	0.006683	0.01	No 13	0.01184	0.006934	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-22	0.005	0.001	0.01	No 13	0.004692	0.001109	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No 12	0.0039	0.001991	75	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No 13	0.004369	0.001542	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003855	0.001418	0.01	No 13	0.002523	0.001439	15.38	Cohen's	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No 13	0.00293	0.002018	46.15	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-5	0.0203	0.0032	0.01	No 12	0.009483	0.01044	16.67	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No 12	0.003472	0.001906	58.33	None	No	0.01	NP (normality)
<b>Arsenic (mg/L)</b>	<b>DGWC-9</b>	<b>0.03066</b>	<b>0.01584</b>	<b>0.01</b>	<b>Yes 13</b>	<b>0.02325</b>	<b>0.009966</b>	<b>7.692</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Barium (mg/L)	DGWC-10	0.03055	0.02357	2	No 12	0.02706	0.004448	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06805	0.05751	2	No 12	0.06278	0.006717	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.03036	0.02319	2	No 14	0.02691	0.005363	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	DGWC-13	0.03355	0.02707	2	No 12	0.02917	0.007981	8.333	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06272	0.05738	2	No 13	0.06005	0.003589	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05171	0.04502	2	No 13	0.04836	0.0045	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.05844	0.04436	2	No 13	0.0514	0.009465	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02536	0.02124	2	No 13	0.0233	0.002771	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02269	0.02115	2	No 13	0.02192	0.001038	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01488	0.008707	2	No 13	0.01179	0.004149	7.692	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No 13	0.02634	0.001198	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-22	0.03853	0.03293	2	No 13	0.03573	0.003765	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02432	0.01814	2	No 13	0.02131	0.004373	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.0363	0.03	2	No 12	0.03397	0.002586	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-42	0.02101	0.01682	2	No 13	0.01895	0.002948	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-47	0.01952	0.01539	2	No 13	0.01745	0.00278	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.0145	0.0129	2	No 13	0.0137	0.001075	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01858	0.01676	2	No 11	0.01767	0.001092	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.03968	0.02782	2	No 12	0.03375	0.007562	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01623	0.01485	2	No 13	0.01554	0.0009287	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-10</b>	<b>0.009456</b>	<b>0.005244</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.00735</b>	<b>0.002684</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-11	0.003	0.00012	0.004	No 12	0.001807	0.001475	58.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-12	0.00049	0.00017	0.004	No 14	0.0006153	0.001014	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.00007	0.004	No 12	0.002268	0.001324	75	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-15	0.003	0.00022	0.004	No 13	0.00256	0.001075	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.00071	0.0005	0.004	No 13	0.0009623	0.0009065	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No 13	0.002077	0.0004304	15.38	None	No	0.01	NP (normality)

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-20	0.0063	0.0026	0.004	No 13	0.003808	0.001906	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No 13	0.0005969	0.001067	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-22	0.003	0.00014	0.004	No 13	0.0006054	0.001063	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-23	0.00077	0.00038	0.004	No 13	0.0008285	0.0009694	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No 12	0.0006617	0.001093	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002873	0.002173	0.004	No 13	0.002523	0.0004711	7.692	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-47</b>	<b>0.01338</b>	<b>0.009172</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.01128</b>	<b>0.002831</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-48</b>	<b>0.009497</b>	<b>0.007719</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.008608</b>	<b>0.001195</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-5</b>	<b>0.009007</b>	<b>0.00606</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.007533</b>	<b>0.001878</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-8	0.003446	0.001804	0.004	No 12	0.002625	0.001046	8.333	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-9</b>	<b>0.006036</b>	<b>0.004933</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.005485</b>	<b>0.0007414</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	DGWC-10	0.001267	0.0008381	0.005	No 12	0.001053	0.0002733	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.00016	0.005	No 12	0.002107	0.0009187	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.001	0.00025	0.005	No 14	0.0006893	0.00079	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No 12	0.002107	0.000919	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00012	0.005	No 13	0.001648	0.001145	69.23	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-17	0.00033	0.00024	0.005	No 13	0.0006169	0.0008366	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00033	0.005	No 13	0.0005838	0.0006022	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-2	0.001	0.00013	0.005	No 13	0.0006538	0.0008526	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-20	0.002229	0.001771	0.005	No 13	0.002	0.0003082	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No 13	0.0008085	0.0005286	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-22	0.001	0.0004	0.005	No 13	0.0007354	0.0005646	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No 13	0.00047	0.0006466	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0005	0.005	No 12	0.00086	0.0005345	16.67	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-42	0.0024	0.00037	0.005	No 13	0.001042	0.0007112	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-47	0.002295	0.001198	0.005	No 13	0.001746	0.0007378	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.004529	0.002389	0.005	No 13	0.0036	0.001801	0	None	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.001	0.0002	0.005	No 12	0.0007592	0.000611	16.67	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-8	0.002601	0.002016	0.005	No 12	0.002308	0.0003728	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No 13	0.0007531	0.0005442	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No 12	0.003883	0.004519	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No 12	0.006866	0.004629	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-12	0.01	0.00094	0.1	No 14	0.009353	0.002421	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.00066	0.1	No 12	0.006907	0.004568	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No 13	0.007411	0.004182	69.23	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-17	0.0035	0.0024	0.1	No 13	0.003862	0.00275	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No 13	0.0043	0.003261	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No 13	0.006348	0.004808	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No 13	0.004985	0.004154	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No 13	0.006381	0.004767	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-22	0.01	0.0012	0.1	No 13	0.009323	0.002441	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No 13	0.00357	0.004467	30.77	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.0005	0.1	No 12	0.009208	0.002742	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No 13	0.005095	0.004745	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-47	0.01	0.0007	0.1	No 13	0.009285	0.002579	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No 13	0.008546	0.003549	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.00045	0.1	No 12	0.009204	0.002757	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No 12	0.006331	0.004571	58.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No 13	0.006792	0.004421	61.54	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>DGWC-10</b>	<b>0.194</b>	<b>0.1479</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.1671</b>	<b>0.03784</b>	<b>0</b>	<b>None</b>	<b>x^3</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-11	0.0025	0.0006	0.032	No 12	0.001606	0.0009402	50	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-12	0.0079	0.0021	0.032	No 14	0.006143	0.007268	14.29	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0025	0.0004	0.032	No 12	0.001982	0.0009381	75	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-15	0.0042	0.0018	0.032	No 13	0.003992	0.00635	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02807	0.02097	0.032	No 13	0.02399	0.006439	7.692	None	x^2	0.01	Param.



# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Cobalt (mg/L)</b>	<b>DGWC-19</b>	<b>0.05328</b>	<b>0.04876</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.05102</b>	<b>0.003039</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-2	0.02786	0.01119	0.032	No 13	0.01952	0.01121	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-20</b>	<b>0.6453</b>	<b>0.4536</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.5495</b>	<b>0.1289</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-21	0.01	0.005	0.032	No 13	0.008538	0.002294	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-22	0.0106	0.005	0.032	No 13	0.008662	0.002396	15.38	None	No	0.01	NP (Cohens/xfm)
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.032	No 13	0.002044	0.001333	69.23	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-4	0.0025	0.0014	0.032	No 12	0.002033	0.000982	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-42	0.04874	0.01994	0.032	No 13	0.03434	0.01937	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-47</b>	<b>0.4062</b>	<b>0.2647</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.3355</b>	<b>0.09515</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-48</b>	<b>0.5235</b>	<b>0.415</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.4692</b>	<b>0.07295</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-5	0.03614	0.02048	0.032	No 12	0.02902	0.01169	0	None	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-8</b>	<b>0.09482</b>	<b>0.04891</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.07187</b>	<b>0.02925</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-9</b>	<b>0.2018</b>	<b>0.136</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.1689</b>	<b>0.04419</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.533	1.067	5.92	No 13	1.3	0.3132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.324	0.6257	5.92	No 13	0.975	0.4697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.119	0.3122	5.92	No 13	0.7574	0.6581	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.536	1.01	5.92	No 13	1.273	0.354	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.156	0.6832	5.92	No 13	0.9195	0.3179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.736	0.5423	5.92	No 13	1.196	0.9184	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.101	0.5388	5.92	No 13	0.8199	0.3781	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.108	0.5209	5.92	No 13	0.8143	0.3946	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.451	0.8198	5.92	No 13	1.135	0.4243	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.567	0.8478	5.92	No 13	1.207	0.4835	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.2	0.6287	5.92	No 13	0.9143	0.3841	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.462	0.779	5.92	No 13	1.121	0.4594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.482	0.6925	5.92	No 13	1.087	0.5307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.788	1.182	5.92	No 13	1.485	0.4079	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.192	0.6811	5.92	No 13	0.9368	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.046	1.811	5.92	No 13	2.428	0.8307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.561	1.567	5.92	No 13	2.064	0.6687	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	1.955	1.022	5.92	No 13	1.489	0.6279	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8387	0.4284	5.92	No 13	0.6335	0.2759	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.469	0.8959	5.92	No 13	1.182	0.3851	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.819	1.276	4	No 14	1.548	0.3832	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.1	0.04	4	No 13	0.07738	0.02685	53.85	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-12	0.3	0.071	4	No 14	0.1683	0.153	42.86	None	No	0.01	NP (Cohens/xfm)
Fluoride (mg/L)	DGWC-13	0.2371	0.08721	4	No 13	0.1683	0.1136	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.1	0.052	4	No 14	0.08386	0.02776	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.079	4	No 14	0.1061	0.04679	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3341	0.1109	4	No 14	0.2225	0.1575	14.29	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.5725	0.1743	4	No 14	0.3979	0.327	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.28	0.052	4	No 14	0.1524	0.1678	35.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9283	0.3788	4	No 14	0.6536	0.3879	7.143	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.07	4	No 14	0.108	0.07152	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-22	0.13	0.09	4	No 14	0.1211	0.06974	42.86	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.2749	0.09828	4	No 14	0.2011	0.1607	7.143	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.17	0.082	4	No 14	0.1416	0.1901	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-42	0.1	0.06	4	No 14	0.09143	0.02316	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.228	0.5388	4	No 14	0.8836	0.4867	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.27	0.6254	4	No 14	0.9479	0.4552	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	0.9221	0.2741	4	No 13	0.63	0.4591	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.4944	0.1003	4	No 13	0.3211	0.2329	15.38	Cohen's	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.317	0.9573	4	No 14	1.137	0.254	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00011	0.005	No 12	0.002974	0.002504	58.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-11	0.005	0.000076	0.005	No 12	0.002958	0.002523	58.33	None	No	0.01	NP (normality)

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-12	0.005	0.00011	0.005	No 14	0.004301	0.001778	85.71	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.0002	0.005	No 12	0.004191	0.001888	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-14	0.005	0.000096	0.005	No 13	0.004242	0.001851	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.000082	0.005	No 13	0.002826	0.002461	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-17	0.005	0.000079	0.005	No 13	0.002742	0.002539	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-19	0.005	0.00007	0.005	No 13	0.003503	0.002337	69.23	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-2	0.005	0.000064	0.005	No 13	0.002353	0.00255	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-20	0.005	0.00013	0.005	No 13	0.003192	0.002385	61.54	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.005	No 13	0.002405	0.002502	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.000066	0.005	No 13	0.00462	0.001368	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.005	No 12	0.003779	0.002209	75	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-42	0.0016	0.0002	0.005	No 13	0.001152	0.00175	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-47	0.005	0.0005	0.005	No 13	0.001732	0.001875	23.08	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-48	0.0035	0.00092	0.005	No 13	0.002067	0.001499	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-5	0.005	0.000051	0.005	No 12	0.001941	0.00235	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.005	No 12	0.002626	0.002485	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-9	0.005	0.00017	0.005	No 13	0.004255	0.001818	84.62	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-10	0.015	0.002	0.03	No 12	0.005458	0.004637	16.67	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	DGWC-11	0.0028	0.0019	0.03	No 12	0.003333	0.003684	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-12	0.015	0.00097	0.03	No 14	0.01001	0.006944	64.29	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-13	0.015	0.0028	0.03	No 12	0.005117	0.004624	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.03	No 13	0.0048	0.003316	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-15	0.0066	0.0059	0.03	No 12	0.006392	0.0008229	0	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-17	0.015	0.00096	0.03	No 13	0.009647	0.007049	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-19	0.015	0.0031	0.03	No 13	0.004108	0.00328	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-2	0.07156	0.02739	0.03	No 13	0.05299	0.03076	7.692	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-20	0.015	0.0019	0.03	No 13	0.006369	0.005794	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.03	No 13	0.006692	0.002518	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-22	0.0047	0.0036	0.03	No 13	0.004992	0.003032	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-23	0.0162	0.0036	0.03	No 13	0.01175	0.01975	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.03	No 12	0.003833	0.003537	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-42	0.01247	0.01025	0.03	No 13	0.01136	0.001495	7.692	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>DGWC-47</b>	<b>0.0771</b>	<b>0.06002</b>	<b>0.03</b>	<b>Yes 13</b>	<b>0.06856</b>	<b>0.01149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>DGWC-48</b>	<b>0.13</b>	<b>0.1093</b>	<b>0.03</b>	<b>Yes 13</b>	<b>0.1197</b>	<b>0.01391</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	DGWC-5	0.008526	0.003793	0.03	No 12	0.006275	0.00332	8.333	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.03	No 12	0.006375	0.002911	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-9	0.02965	0.02256	0.03	No 13	0.02611	0.004768	7.692	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0005	0.00008	0.002	No 12	0.0003601	0.0002067	66.67	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-11	0.0005	0.00006	0.002	No 12	0.0003908	0.0001976	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-12	0.0005	0.00006	0.002	No 14	0.000319	0.000218	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0005	0.00009	0.002	No 12	0.00043	0.0001635	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0005	0.00006	0.002	No 13	0.0003992	0.0001916	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0005	0.00006	0.002	No 13	0.0002785	0.0002154	46.15	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-19	0.0005	0.00005	0.002	No 13	0.0003985	0.0001933	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-2	0.00064	0.00008	0.002	No 13	0.0004133	0.0001952	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-20	0.0005	0.00008	0.002	No 13	0.0004354	0.0001577	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0005	0.00006	0.002	No 13	0.0003362	0.0002163	61.54	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-22	0.0005	0.000055	0.002	No 13	0.0004004	0.0001896	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0005	0.00014	0.002	No 13	0.0002723	0.0001623	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-4	0.00059	0.000082	0.002	No 12	0.0004377	0.0001686	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-42	0.0005	0.00004	0.002	No 13	0.0004646	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0005	0.00009	0.002	No 12	0.0002417	0.0001701	16.67	None	No	0.01	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-8	0.0005	0.00006	0.002	No 12	0.0002909	0.0002192	50	None	No	0.01	NP (normality)

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	DGWC-9	0.0005	0.00005	0.002	No	13	0.0003548	0.0001878	53.85	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-13	0.02834	0.01374	0.041	No	12	0.02104	0.009302	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.005	0.0018	0.041	No	13	0.003231	0.001752	46.15	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-23	0.01155	0.007262	0.041	No	13	0.009408	0.002886	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.006873	0.004594	0.041	No	12	0.005733	0.001452	8.333	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05502	0.01853	0.05	No	12	0.03678	0.02325	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No	14	0.005921	0.004238	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.01	0.0015	0.05	No	12	0.004858	0.003462	25	None	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No	13	0.007438	0.004001	69.23	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-15	0.01	0.0018	0.05	No	13	0.009369	0.002274	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.0072	0.05	No	13	0.008846	0.002183	15.38	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-19	0.009886	0.005688	0.05	No	13	0.007538	0.002479	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0046	0.05	No	13	0.007777	0.002565	53.85	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-20	0.06857	0.03146	0.05	No	13	0.05002	0.02496	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-22	0.01	0.0017	0.05	No	13	0.009362	0.002302	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-4	0.01	0.0014	0.05	No	12	0.009283	0.002483	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01444	0.006265	0.05	No	13	0.01035	0.005499	15.38	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009889	0.004257	0.05	No	13	0.006738	0.003327	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.05512	0.01002	0.05	No	12	0.03657	0.0445	8.333	None	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.01	0.0018	0.05	No	12	0.006183	0.003635	41.67	None	No	0.01	NP (normality)
<b>Selenium (mg/L)</b>	<b>DGWC-9</b>	<b>0.1415</b>	<b>0.05002</b>	<b>0.05</b>	<b>Yes</b>	<b>13</b>	<b>0.09574</b>	<b>0.06149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Thallium (mg/L)	DGWC-10	0.001	0.00036	0.002	No	12	0.000515	0.000237	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No	14	0.0005476	0.0004696	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No	13	0.0003692	0.0003601	23.08	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.00049	0.002	No	13	0.0005415	0.0001493	7.692	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-20	0.0016	0.00055	0.002	No	13	0.0009392	0.0005086	30.77	None	No	0.01	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-22	0.001	0.000064	0.002	No	13	0.0006411	0.0004726	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.000073	0.002	No	12	0.0009228	0.0002676	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No	13	0.0007184	0.0004397	69.23	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-47	0.00032	0.0002	0.002	No	13	0.00036	0.0002876	15.38	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No	13	0.0006466	0.0004653	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No	12	0.0007783	0.0004023	75	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-8	0.001	0.0002	0.002	No	12	0.0004217	0.0003532	25	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-9	0.0009925	0.0005252	0.002	No	13	0.0007031	0.0002337	30.77	Cohen's	No	0.01	Param.

# Outlier Summary

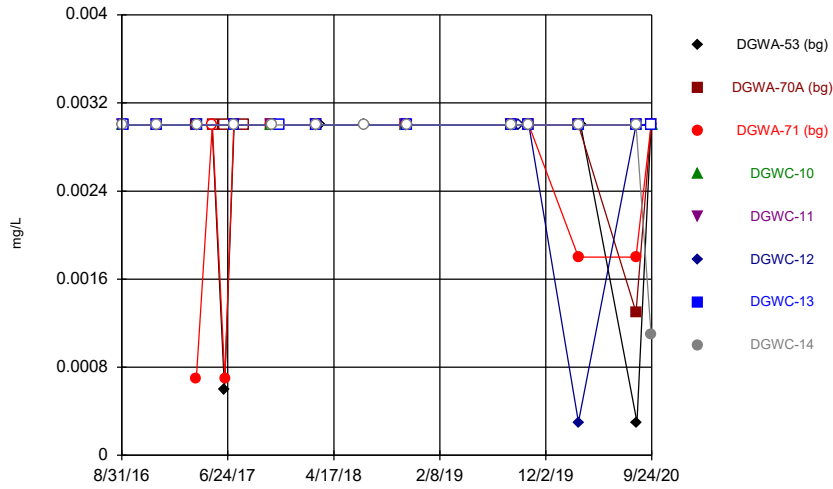
Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:30 PM

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	DGWC-5 Barium (mg/L)	DGWC-10 Boron (mg/L)	DGWC-12 Chloride (mg/L)	DGWA-70A Chromium (mg/L)	DGWC-15 Lithium (mg/L)	DGWC-14 Sulfate (mg/L)	DGWA-53 TDS (mg/L)	DGWC-15 TDS (mg/L)
8/31/2016	0.0266 (o)							
12/7/2016		20 (o)						
3/29/2017	4.3 (o)				81 (o)			
7/12/2017							490 (o)	
10/24/2017						671 (o)		
11/6/2018	2.1 (o)							
11/7/2018				<0.05 (o)				
10/15/2019			0.034 (O)					

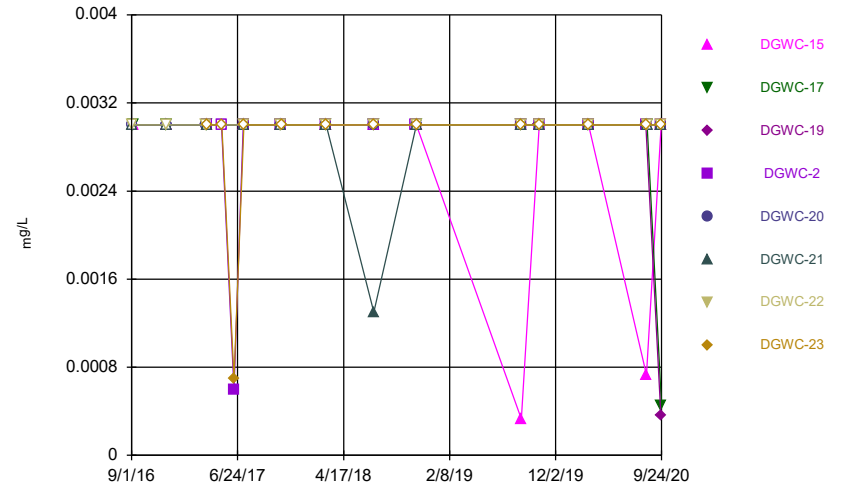
FIGURE A.

Time Series



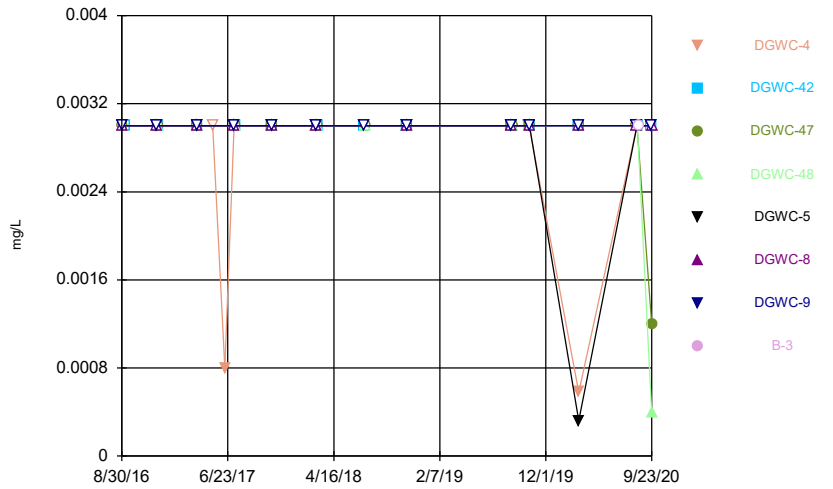
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



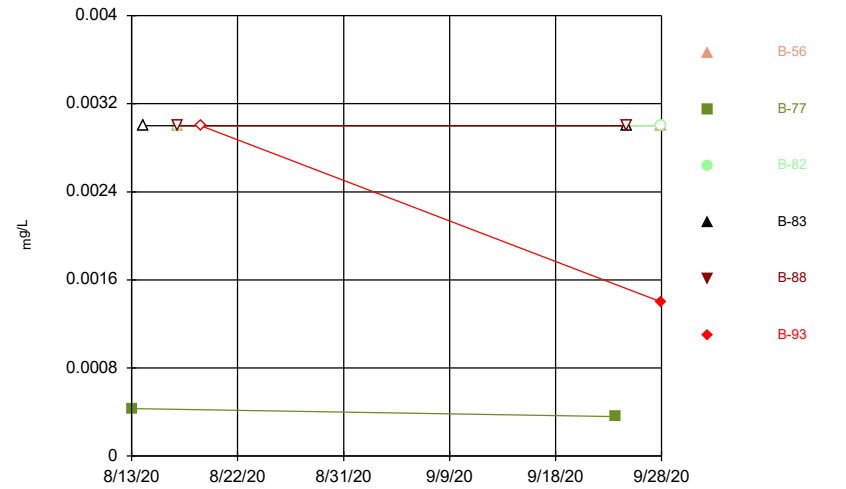
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Time Series



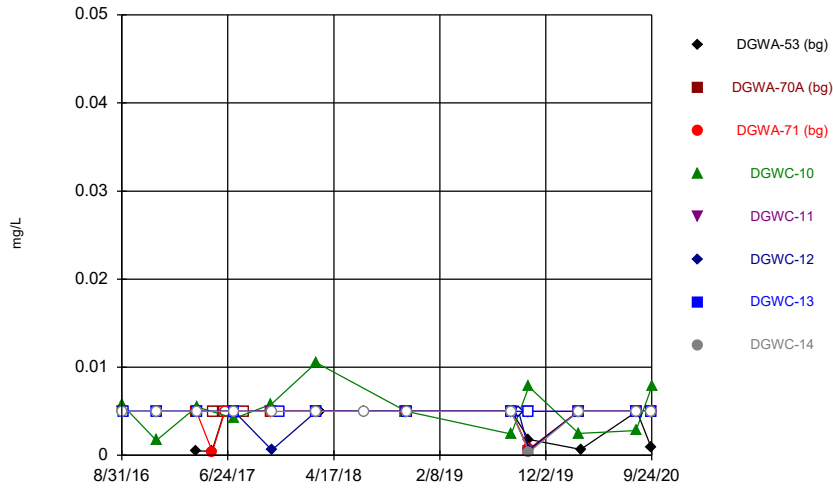
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



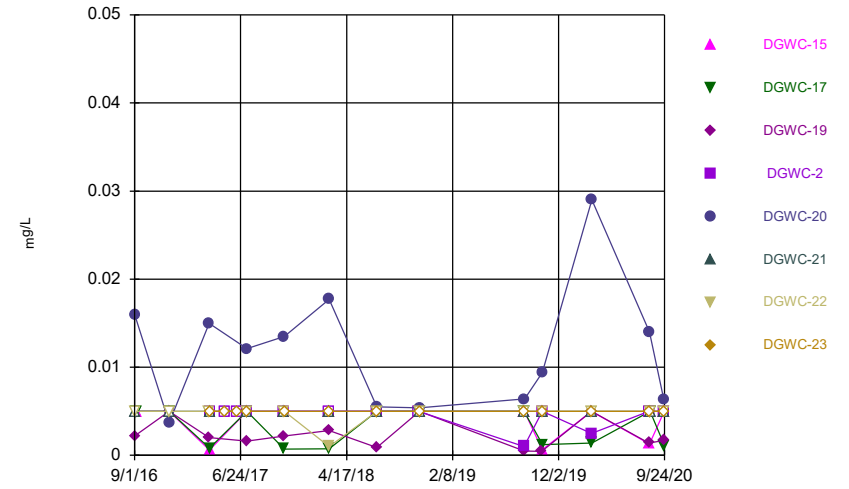
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Time Series



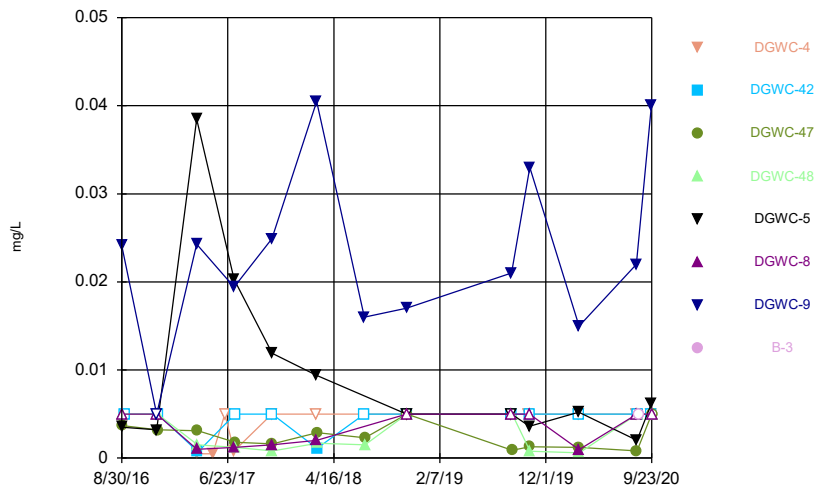
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Time Series



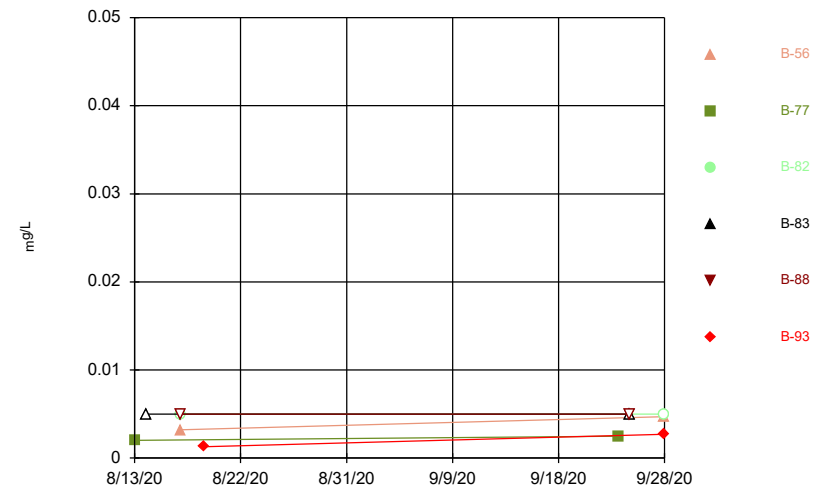
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Time Series



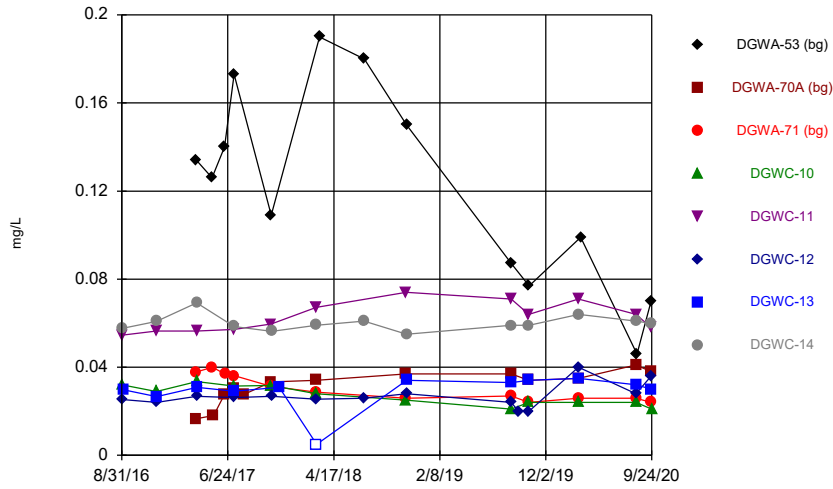
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



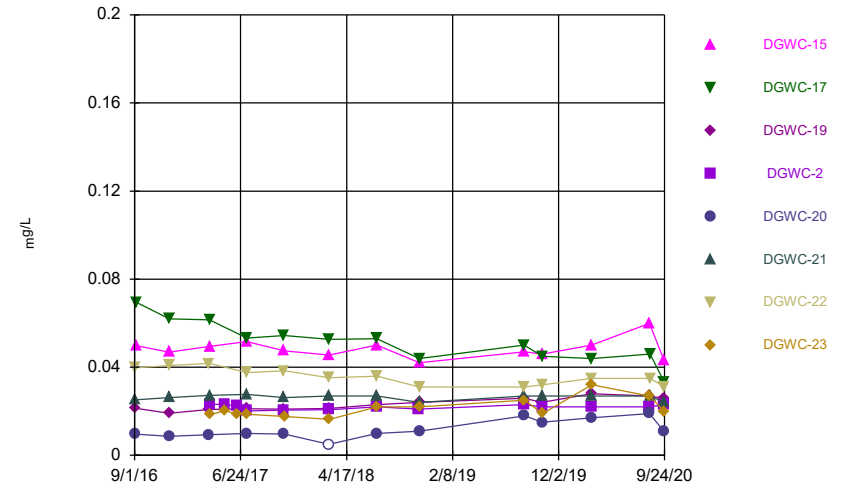
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Time Series



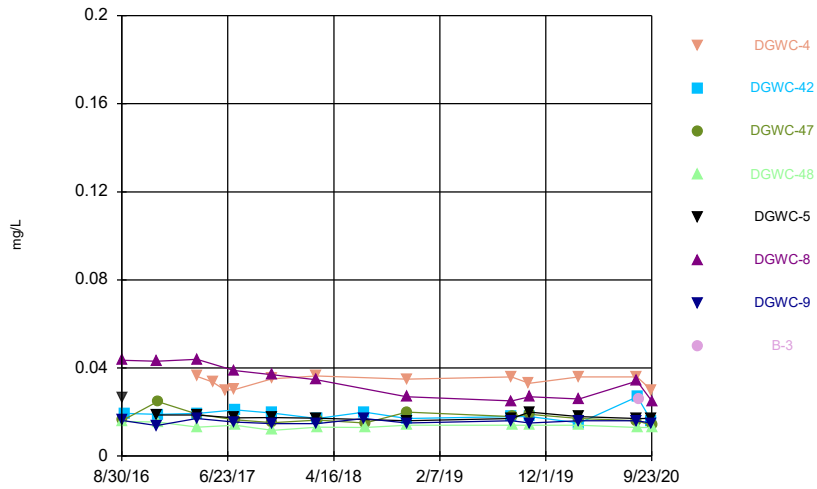
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Time Series



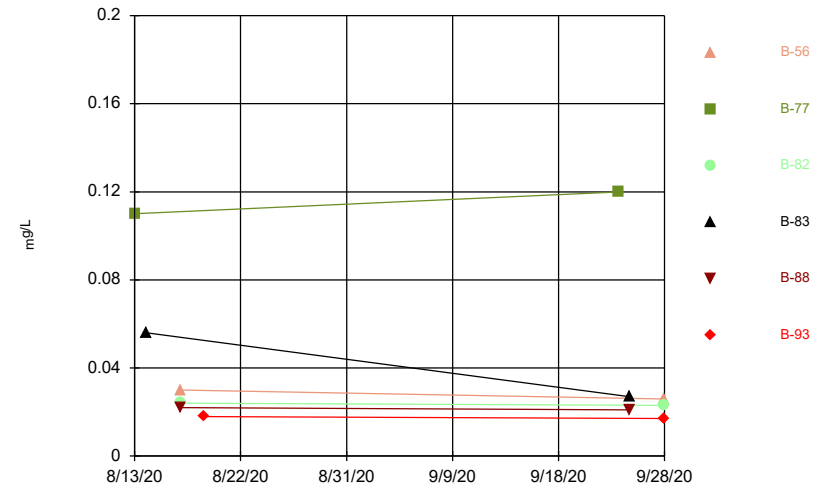
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Time Series



Constituent: Barium Analysis Run 11/4/2020 3:44 PM View: Descriptive 2-3-4  
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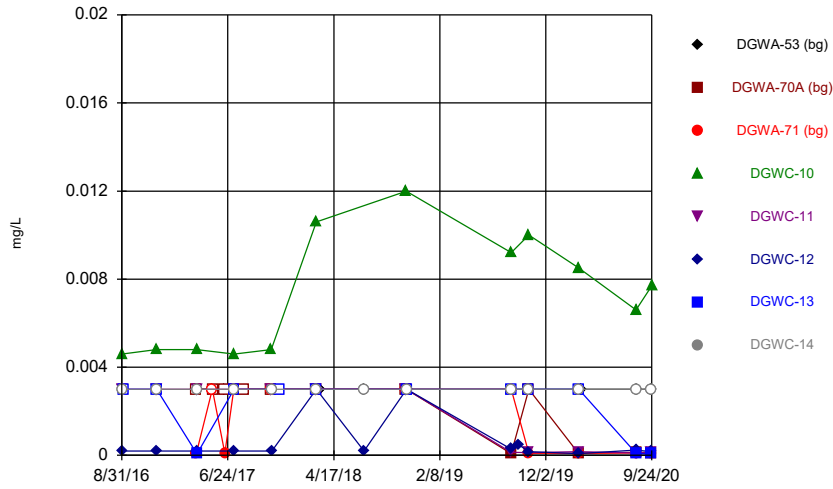
Time Series



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Plant McDonough Client: Southern Company Data: McDonough AP

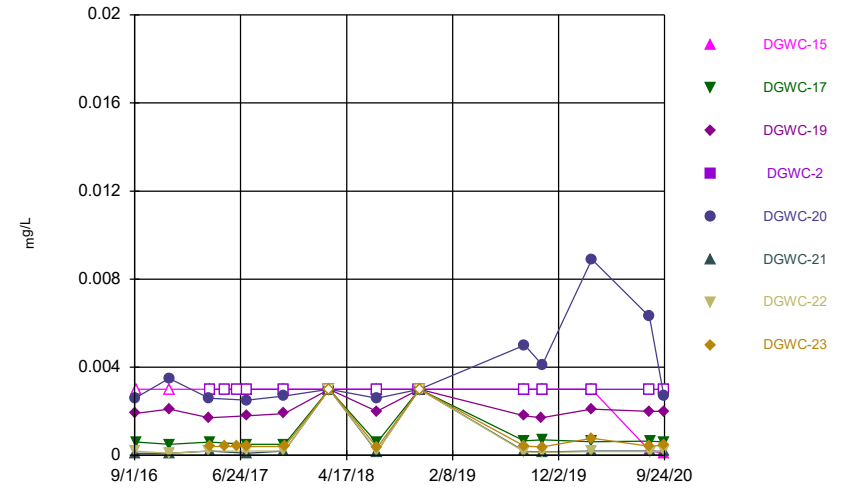


Time Series



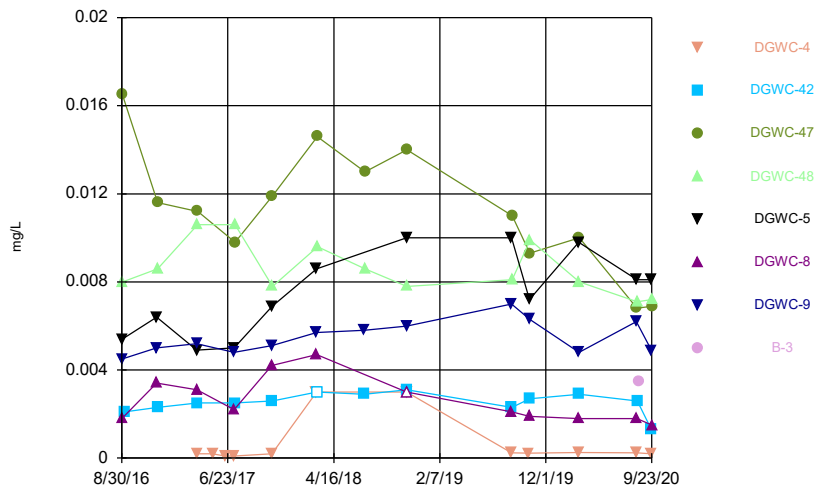
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



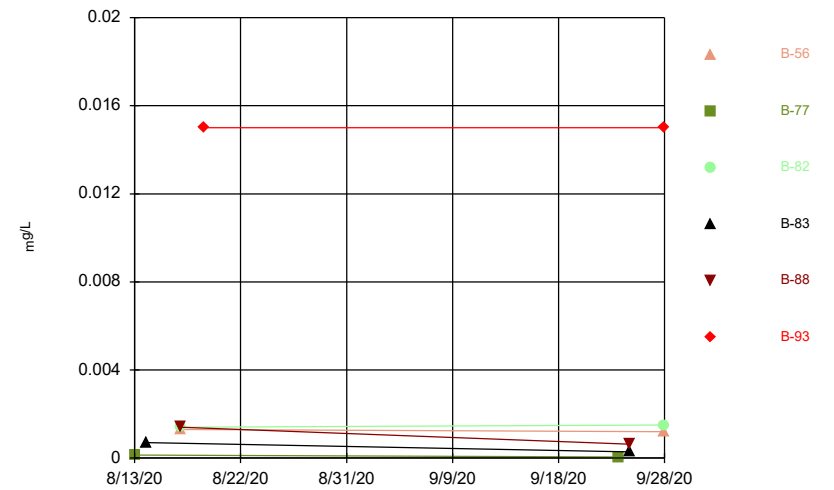
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



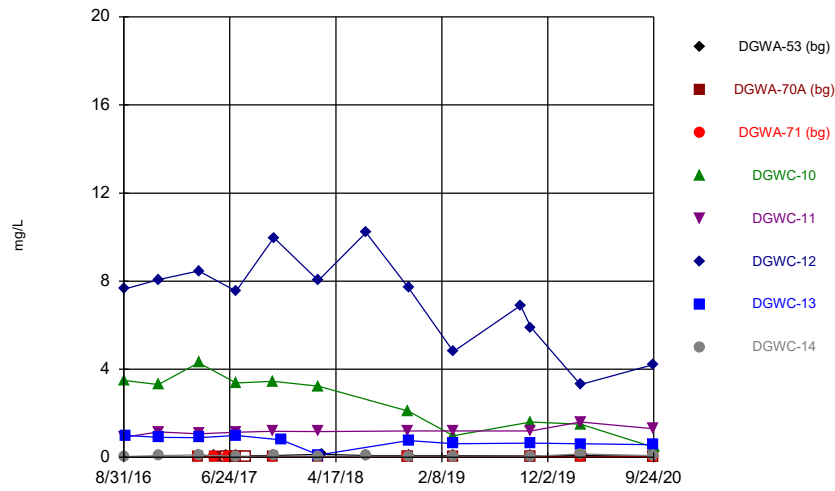
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



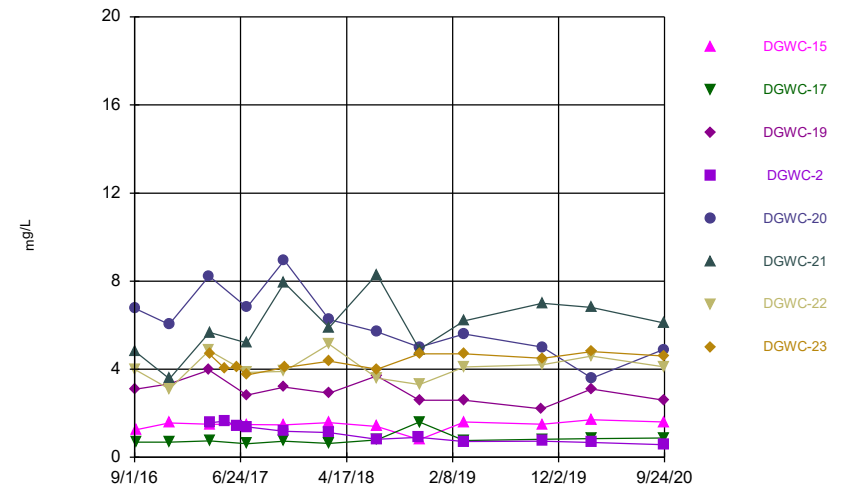
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Time Series



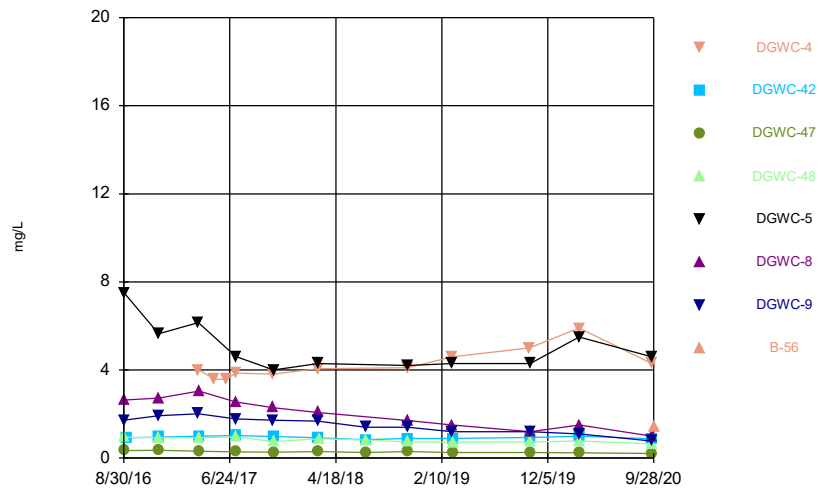
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Time Series



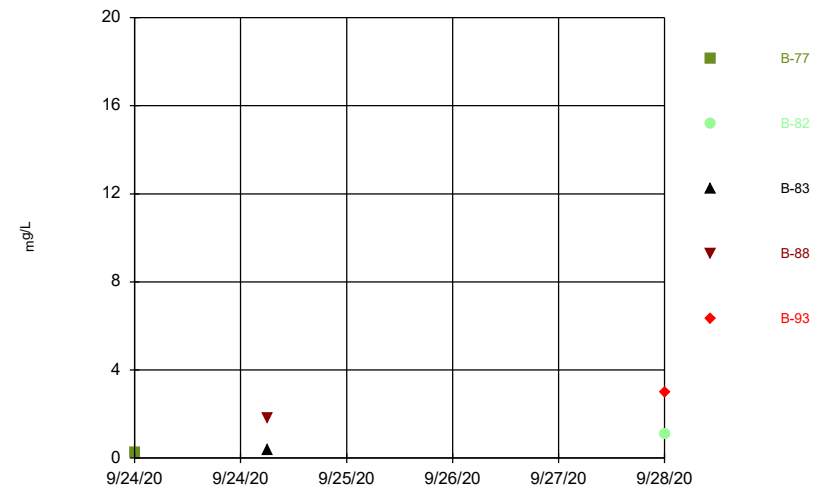
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Time Series



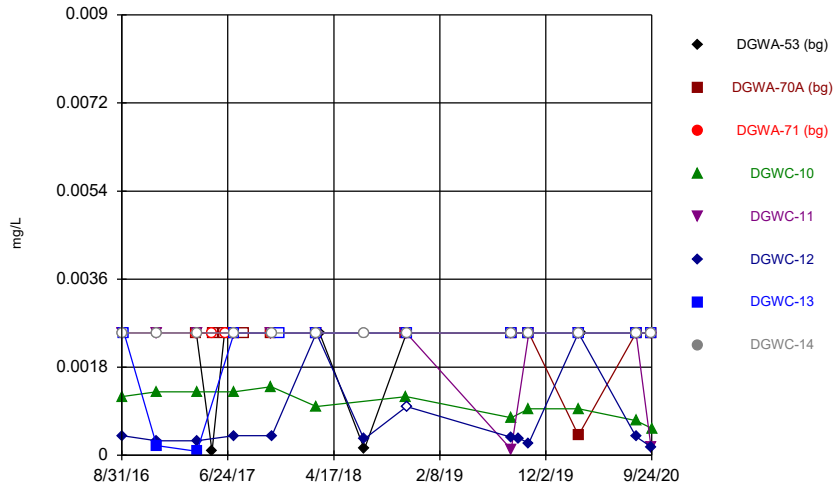
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Time Series



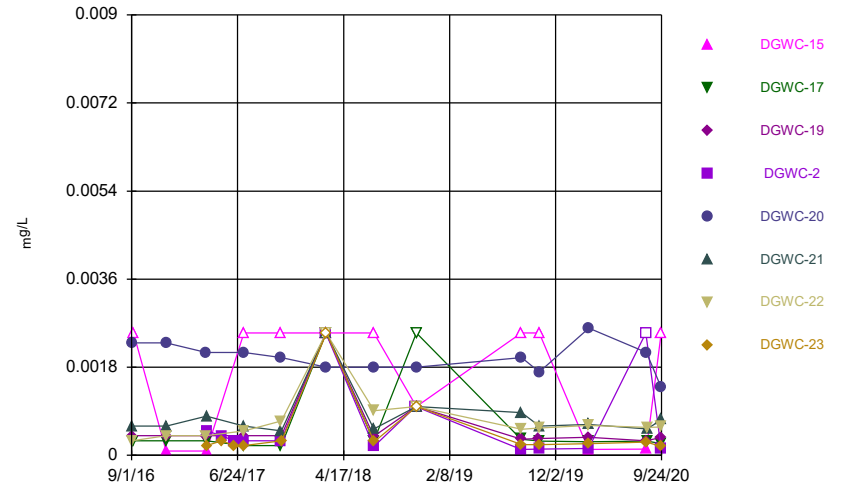
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Time Series



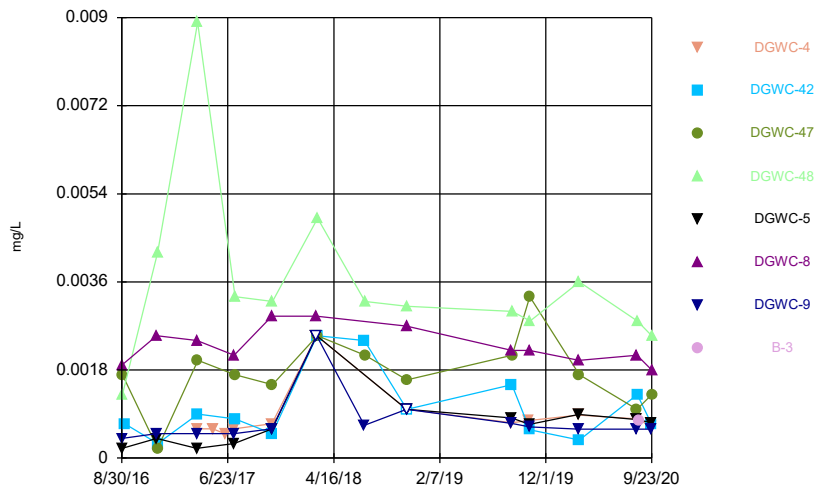
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



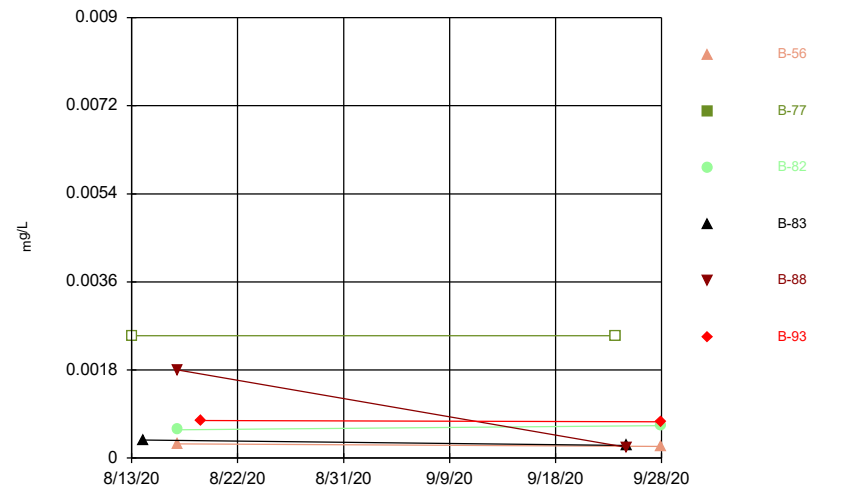
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Time Series



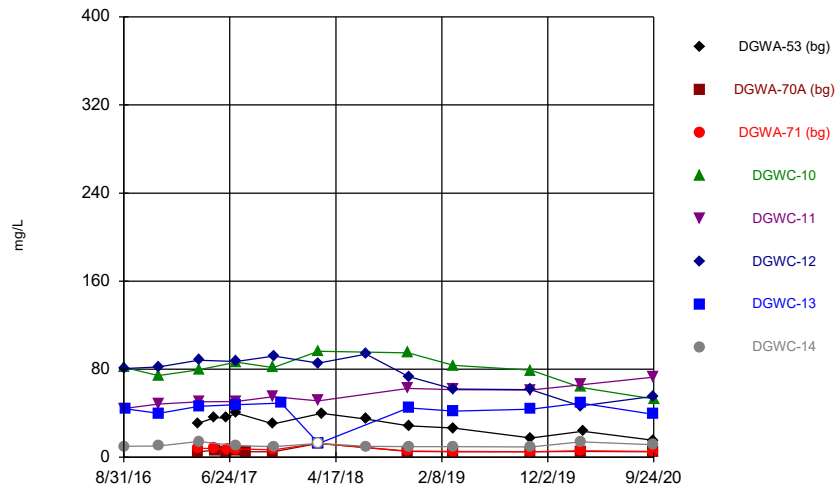
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Time Series



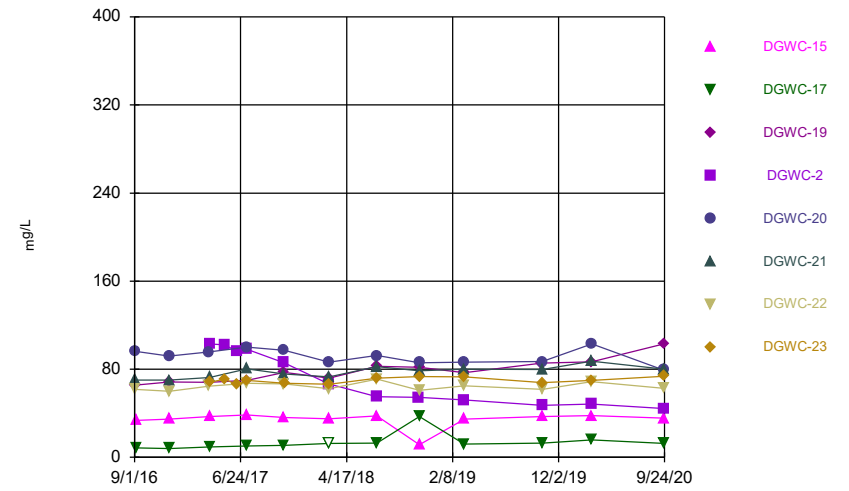
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Time Series



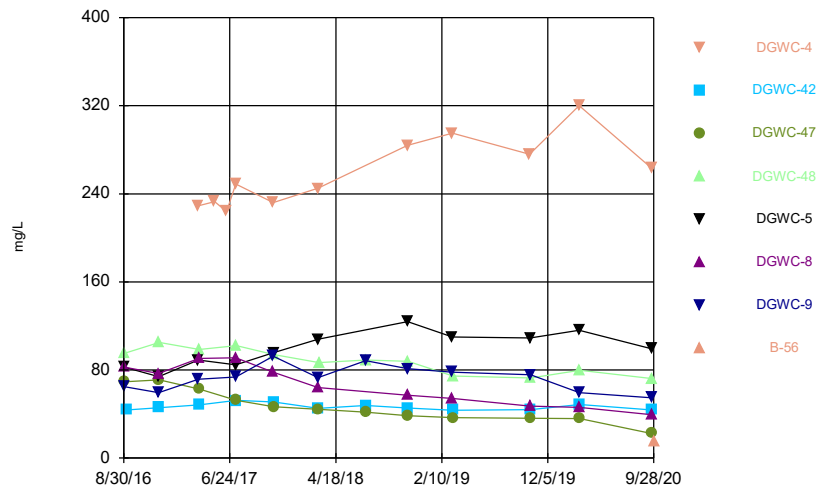
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Time Series



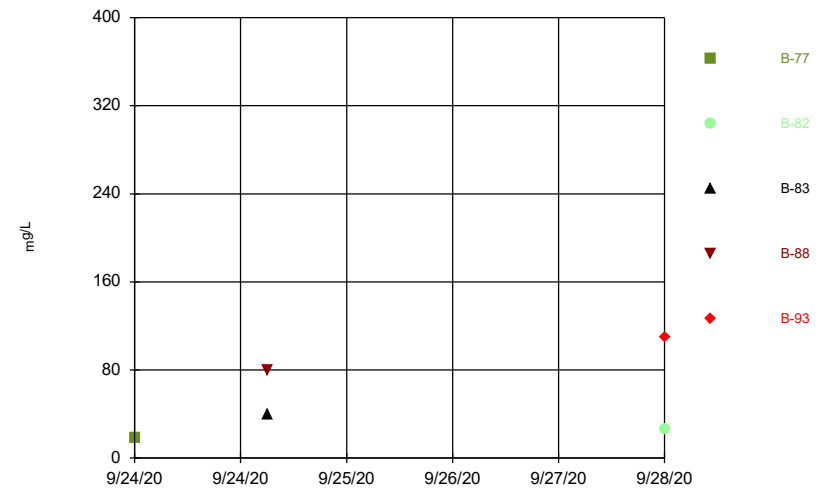
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Time Series



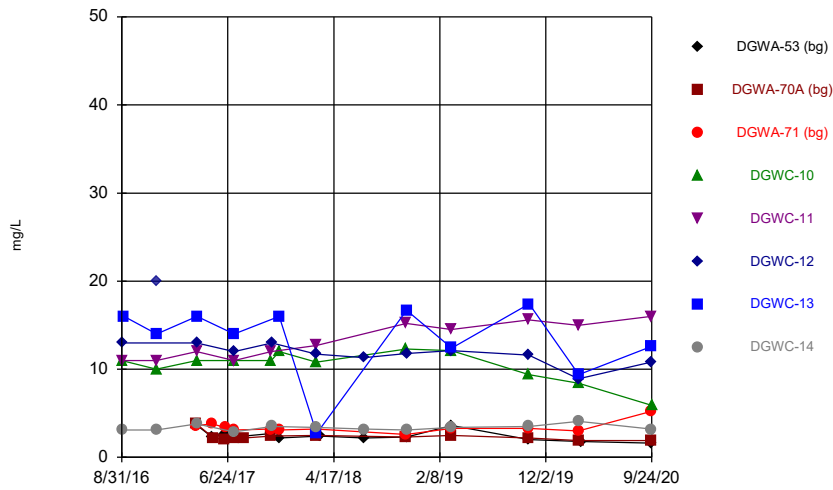
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Time Series



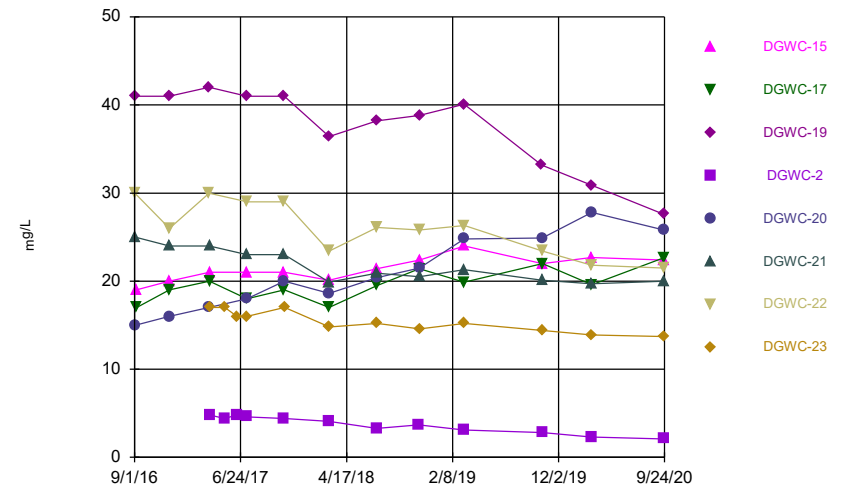
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### Time Series



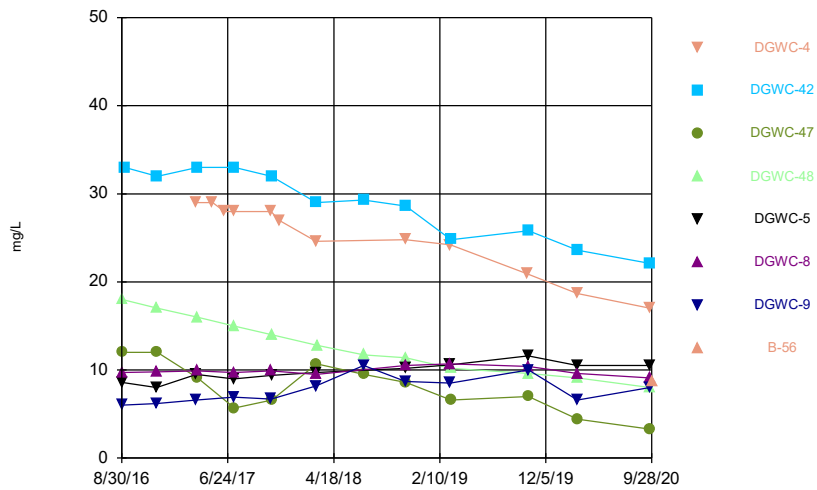
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### Time Series



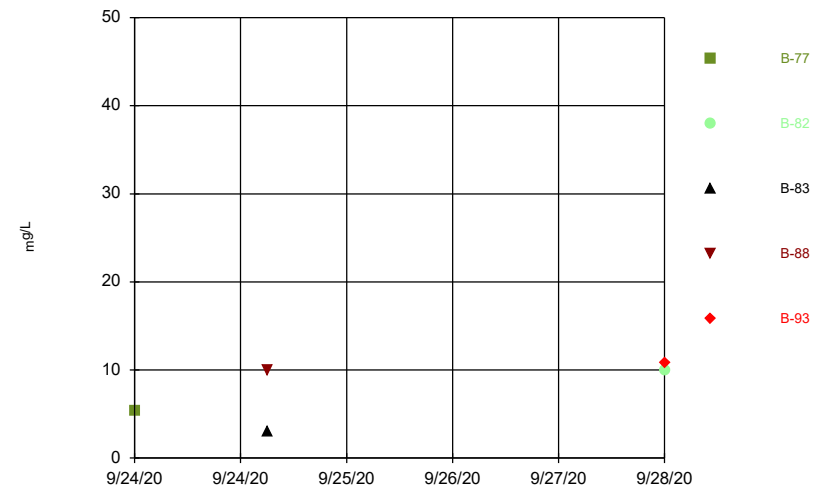
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### Time Series



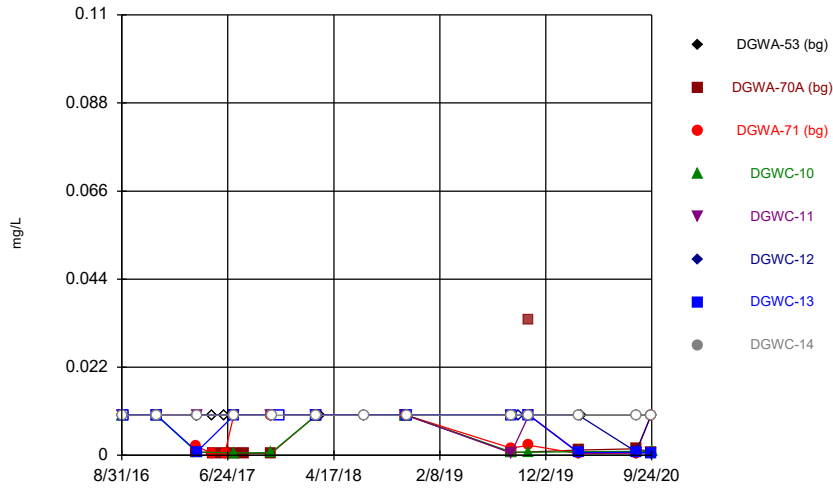
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### Time Series



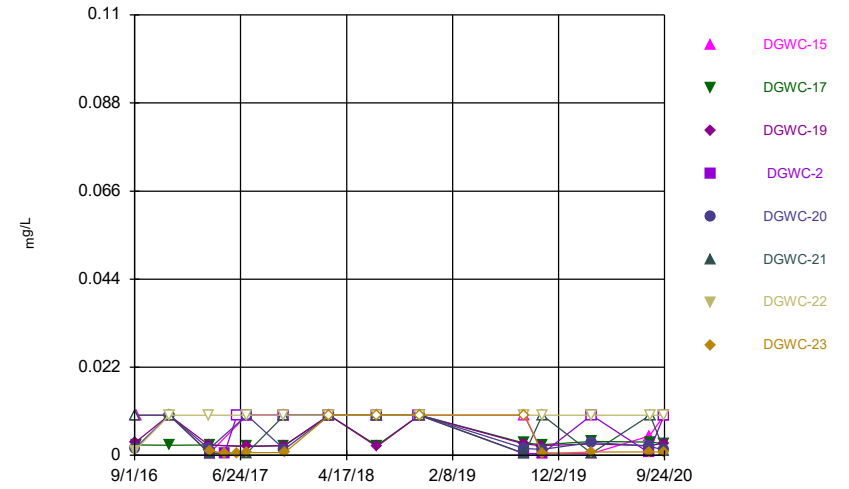
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Time Series



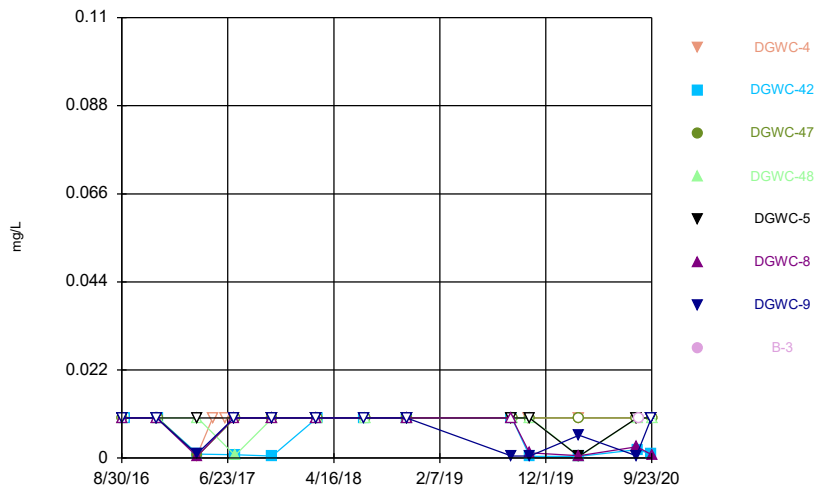
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Time Series



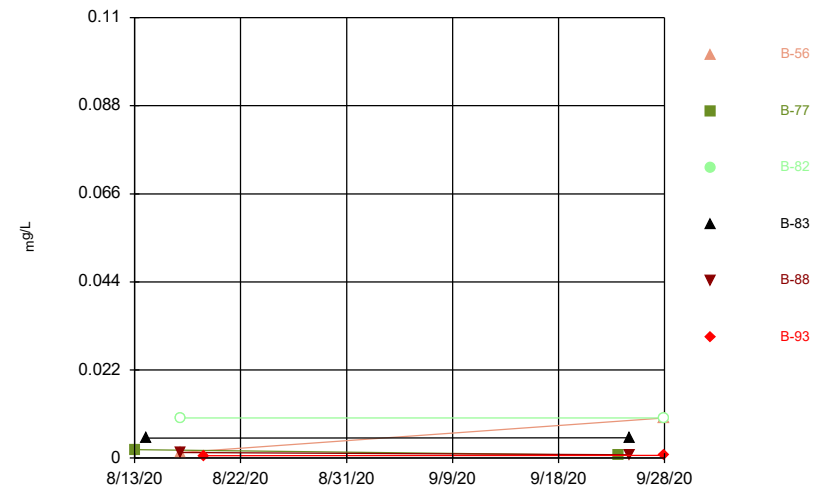
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Time Series



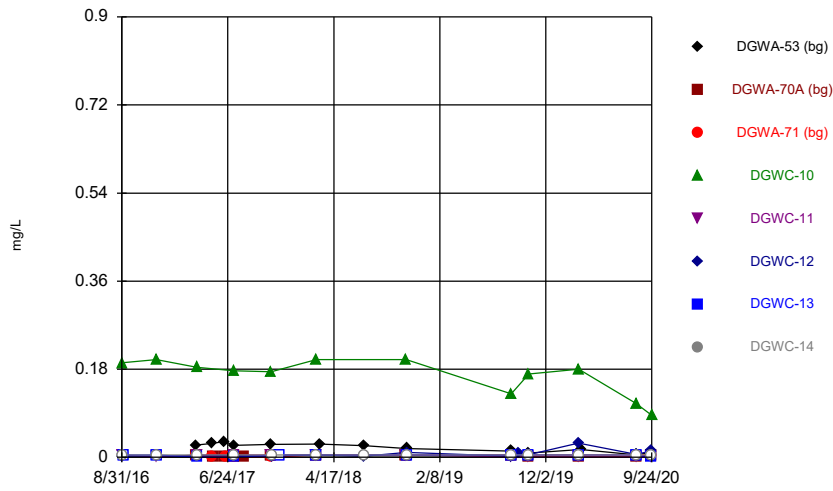
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Time Series



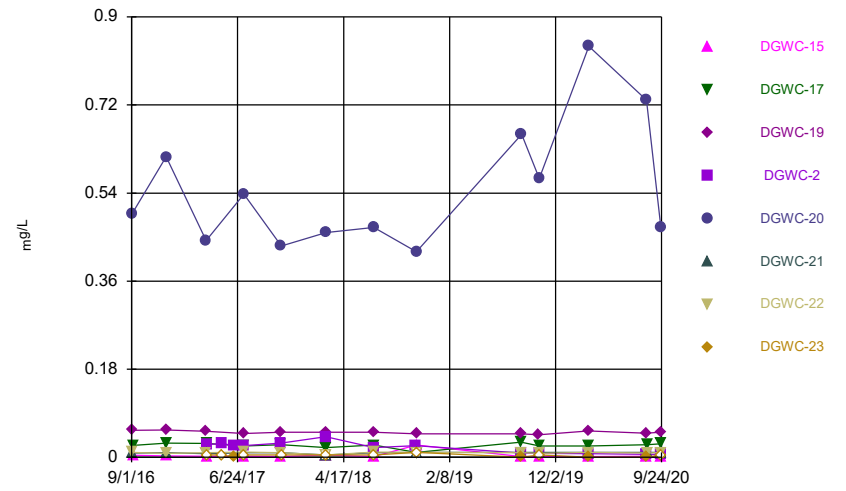
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Time Series



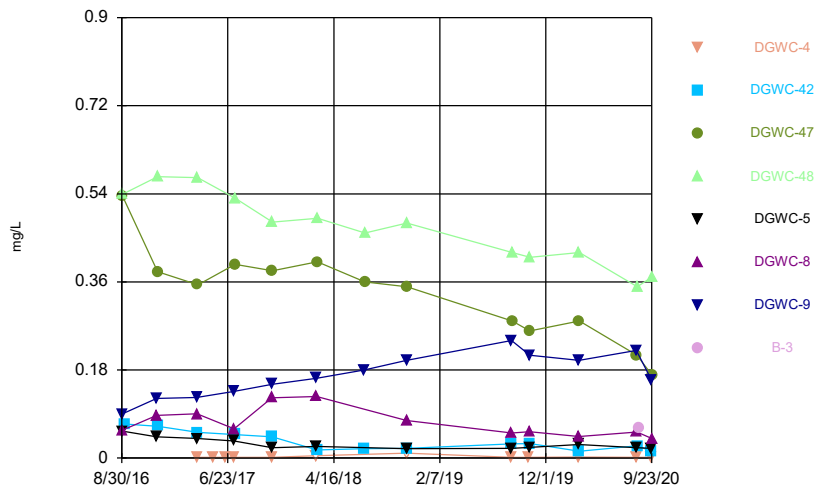
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Time Series



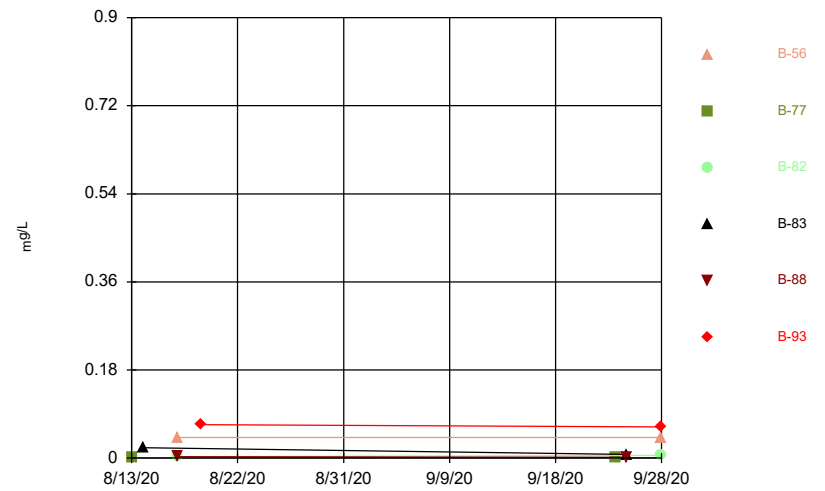
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Time Series



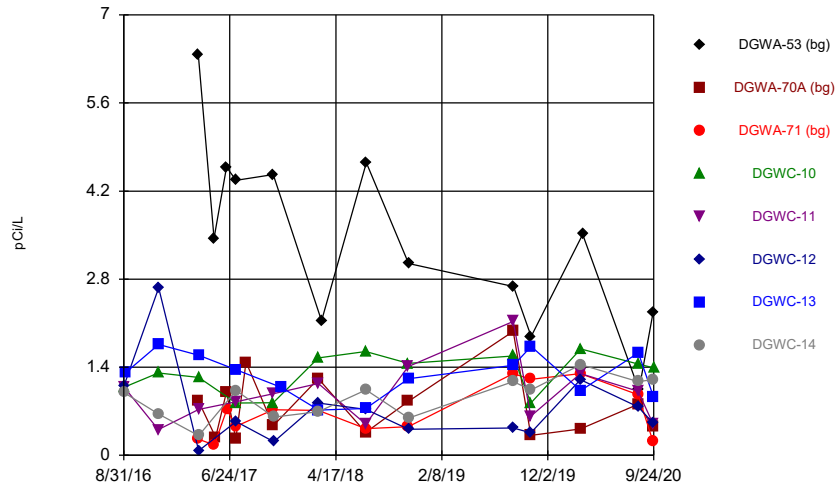
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Time Series



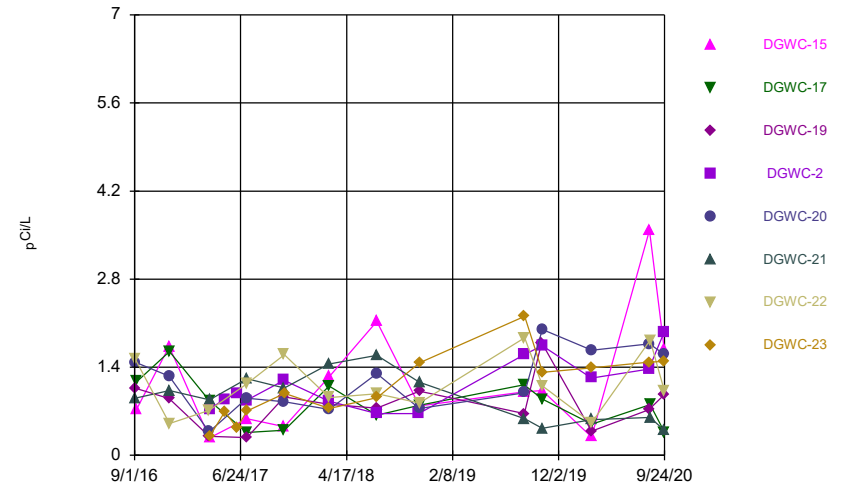
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Time Series



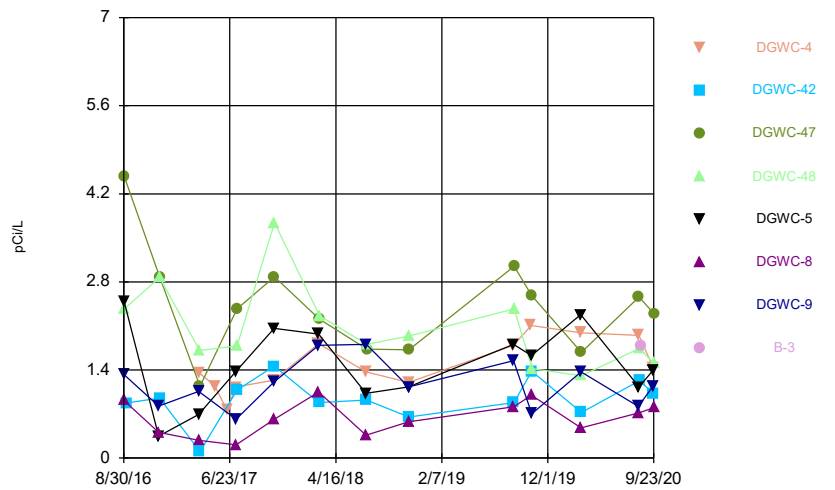
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Time Series



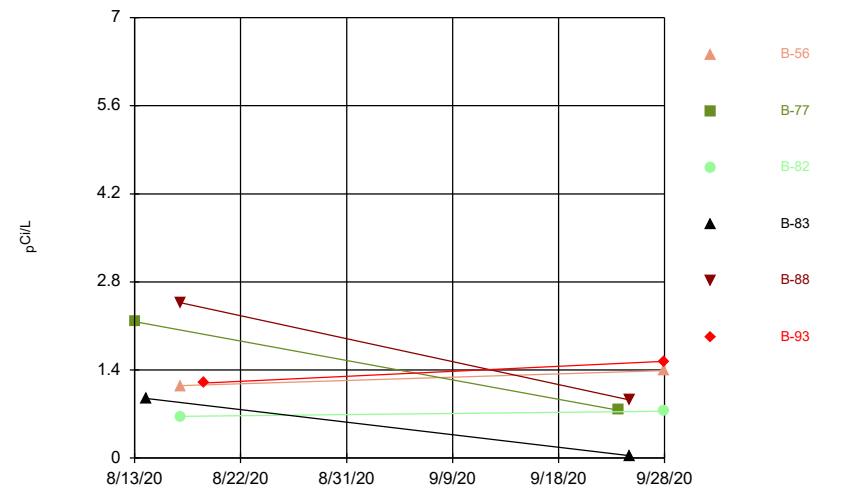
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Time Series



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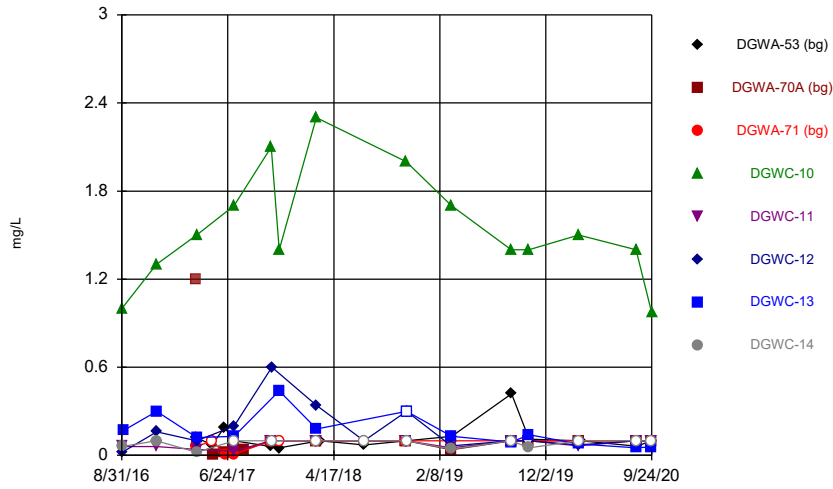
Time Series



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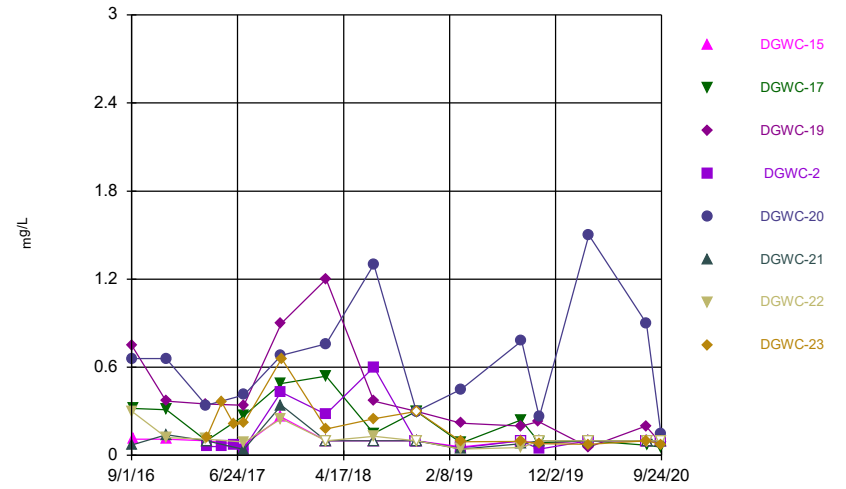


Time Series



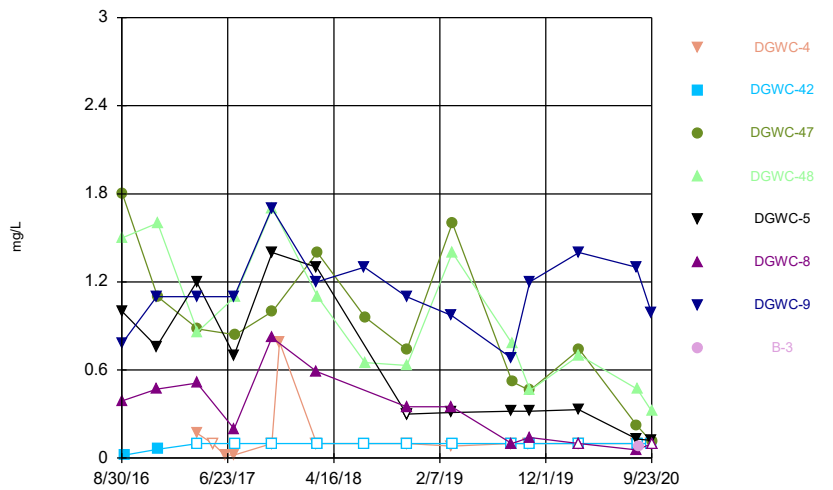
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Time Series



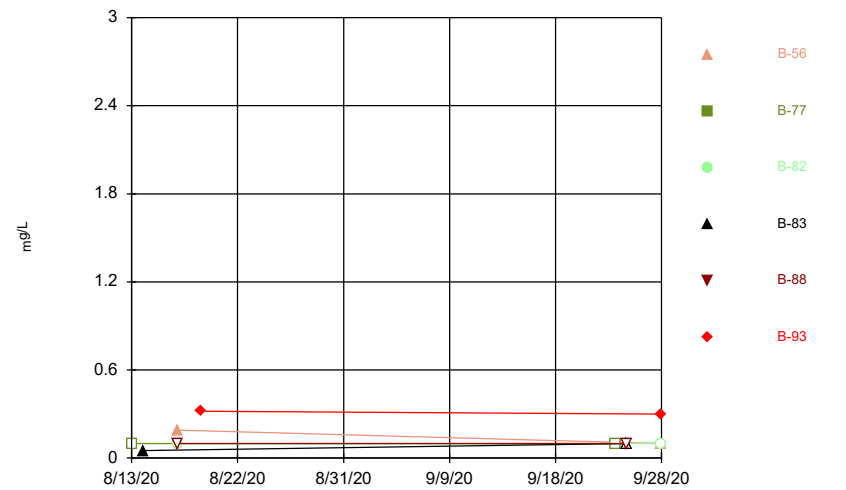
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Time Series



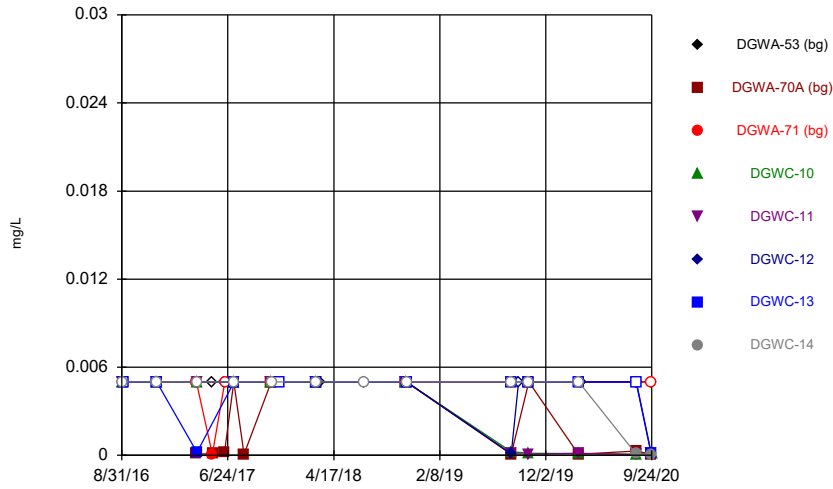
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Time Series



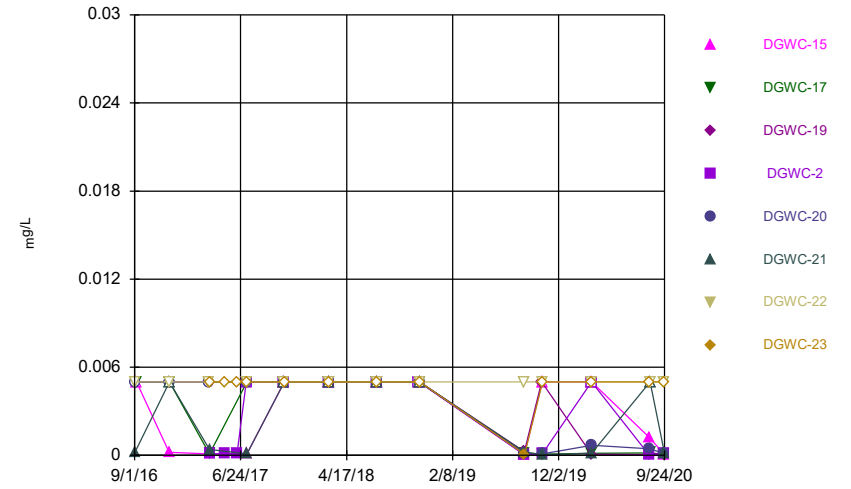
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Time Series



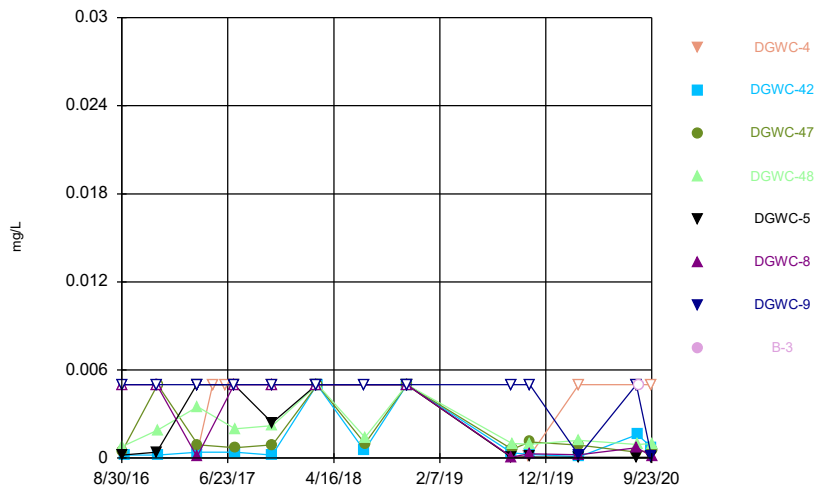
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Time Series



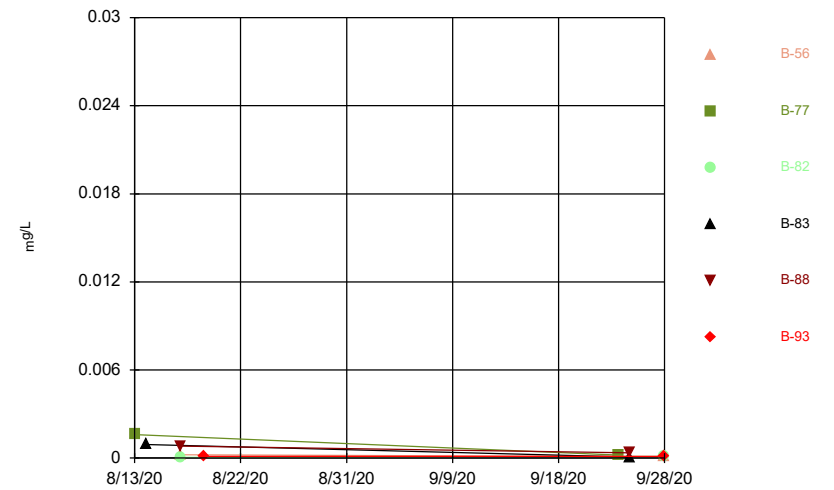
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Time Series



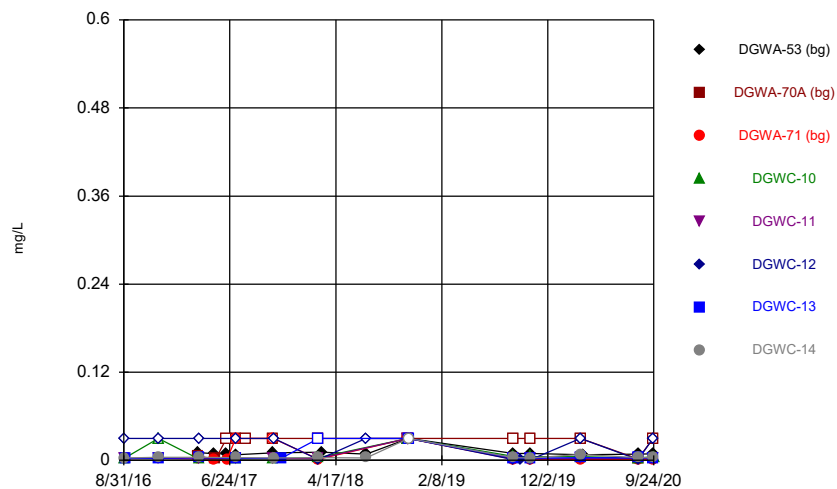
Constituent: Lead Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



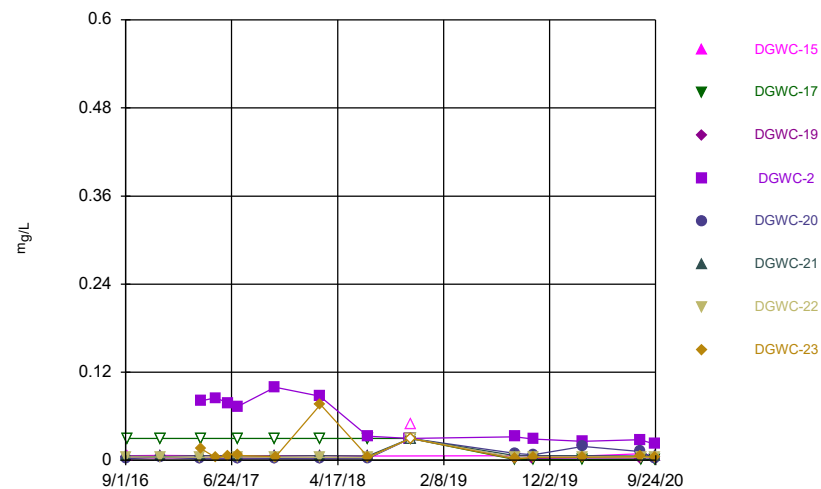
Constituent: Lead Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



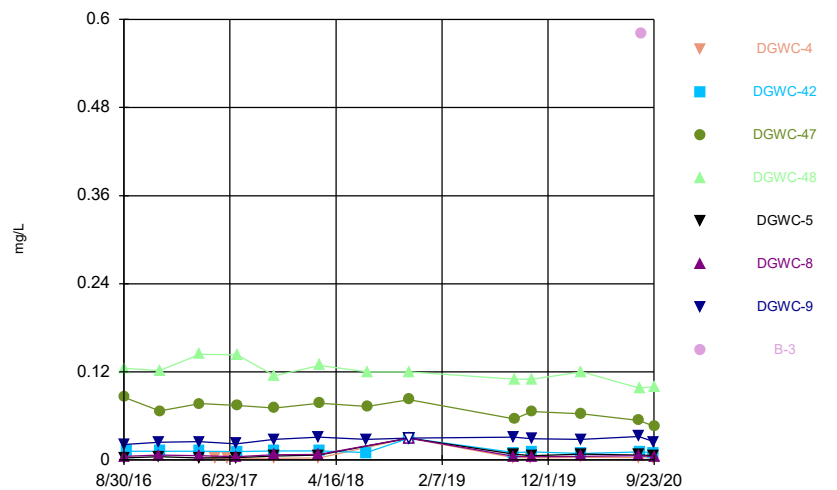
Constituent: Lithium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



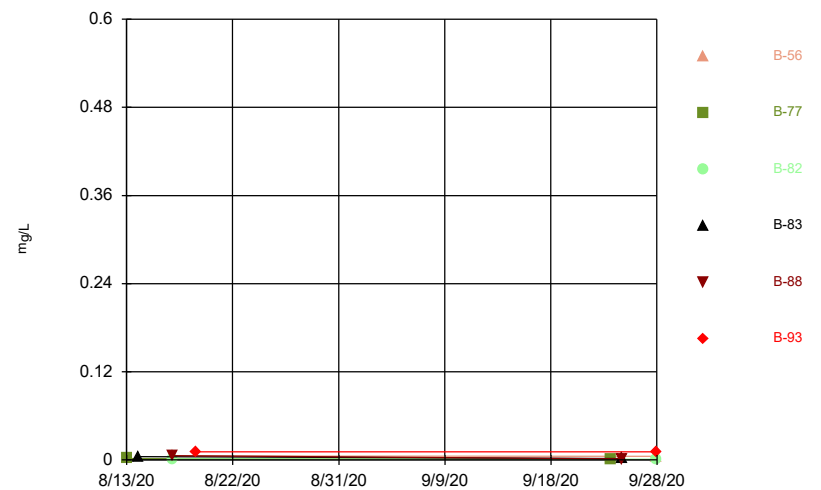
Constituent: Lithium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



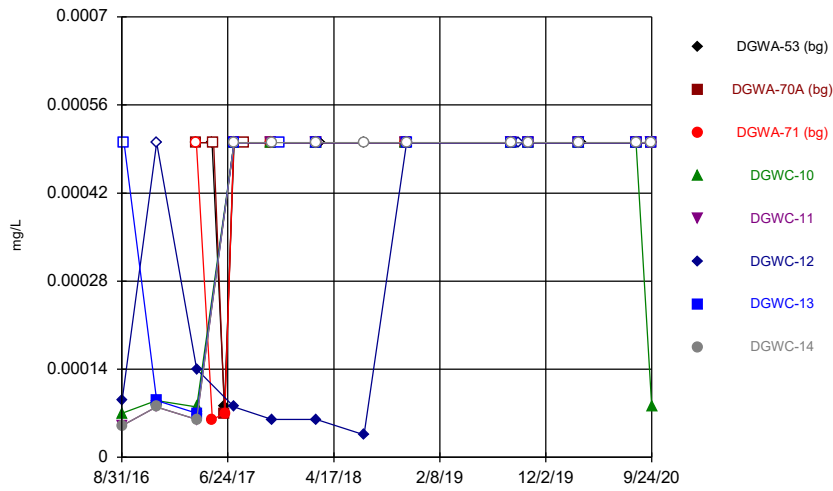
Constituent: Lithium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



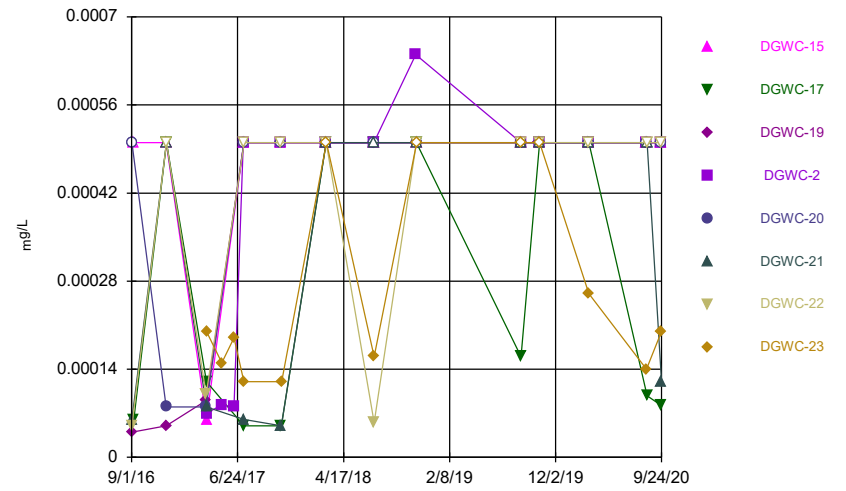
Constituent: Lithium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



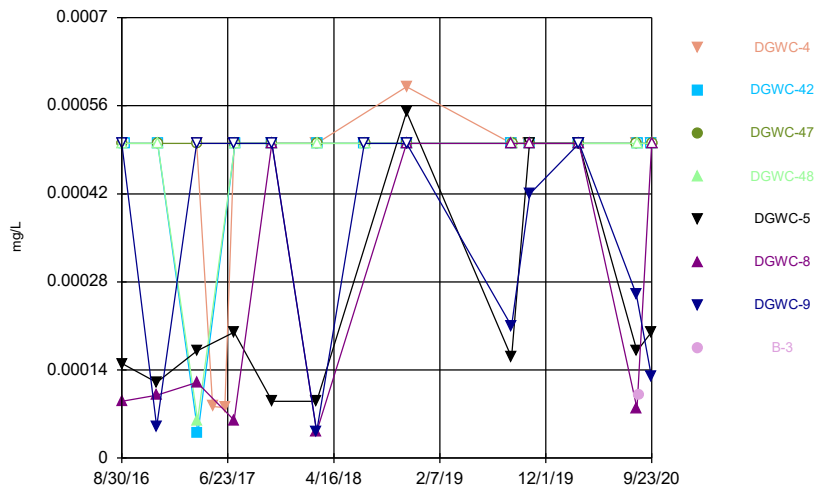
Constituent: Mercury Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



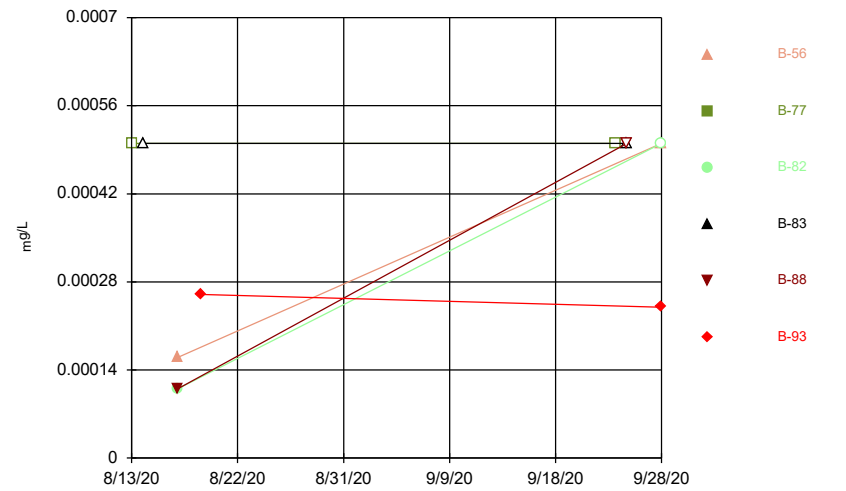
Constituent: Mercury Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



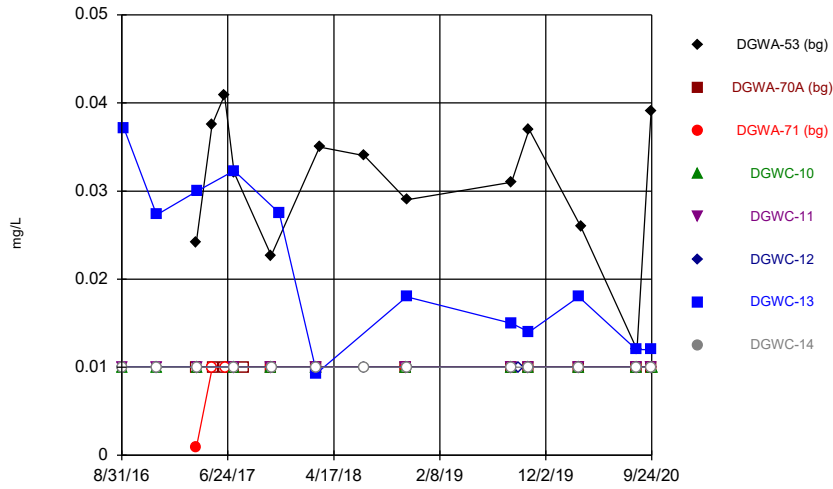
Constituent: Mercury Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



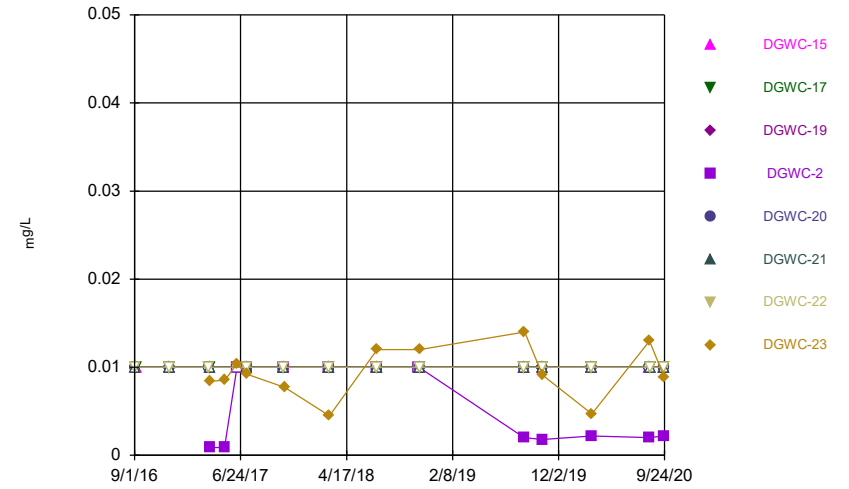
Constituent: Mercury Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



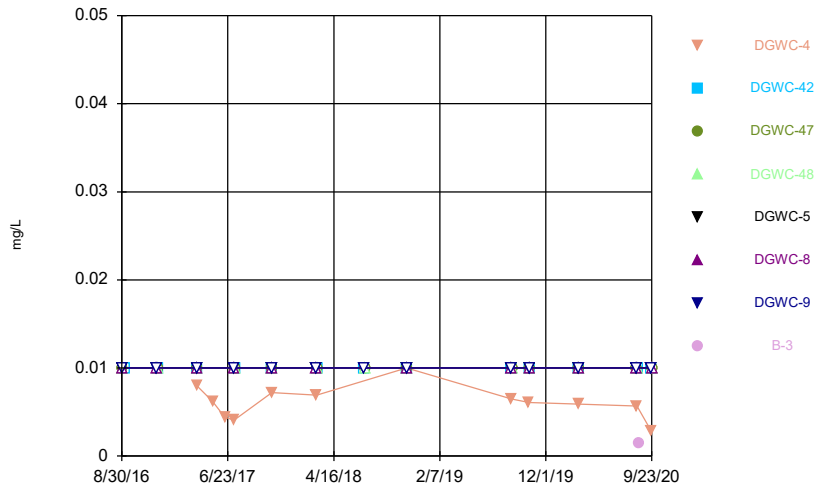
Constituent: Molybdenum Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



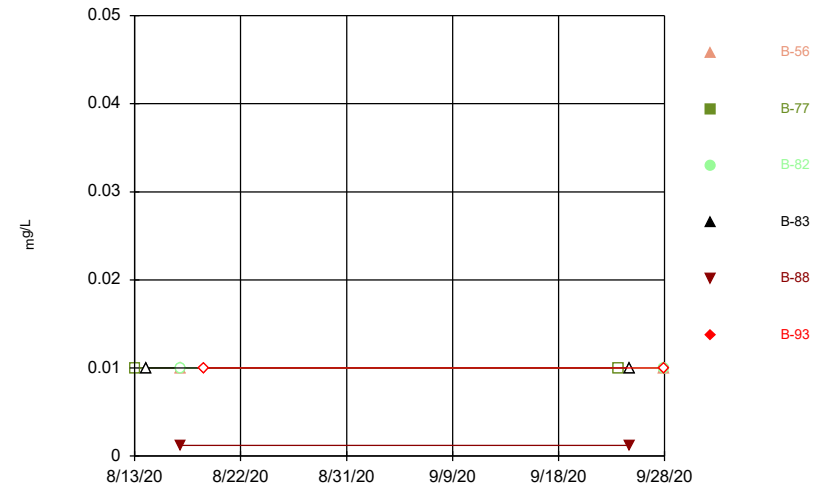
Constituent: Molybdenum Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



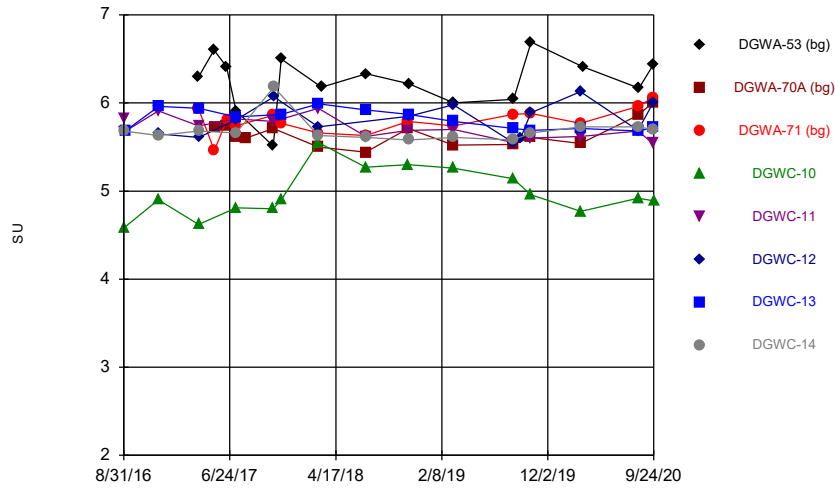
Constituent: Molybdenum Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



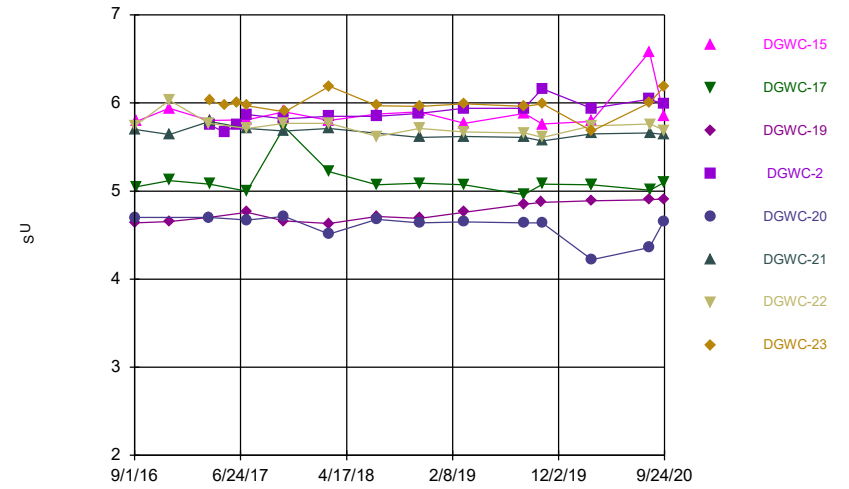
Constituent: Molybdenum Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



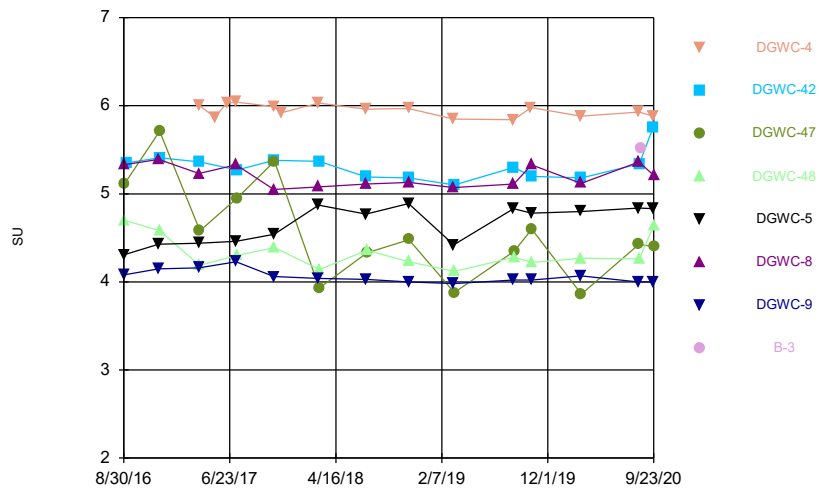
Constituent: pH Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



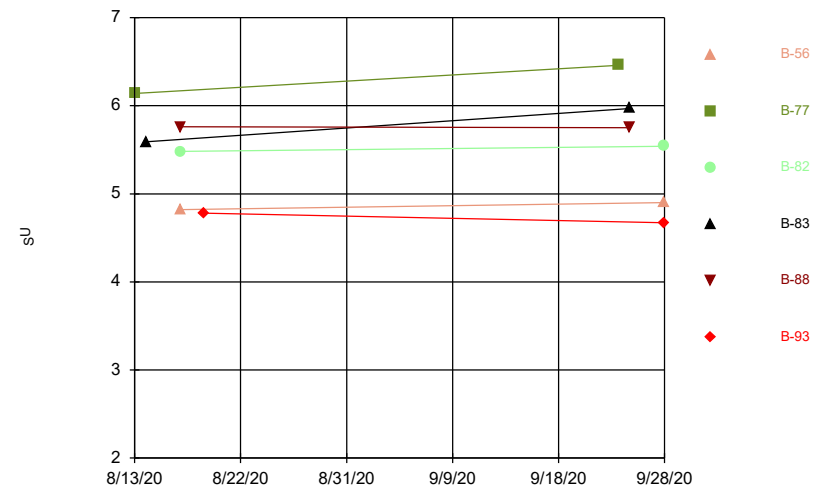
Constituent: pH Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



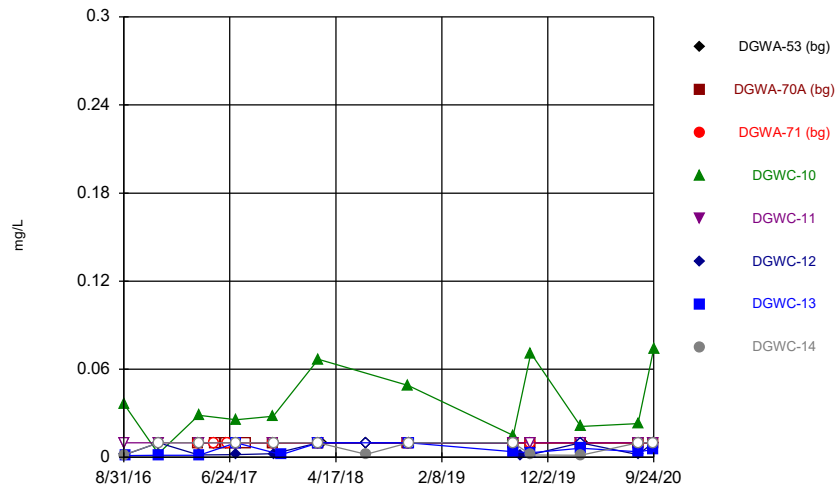
Constituent: pH Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



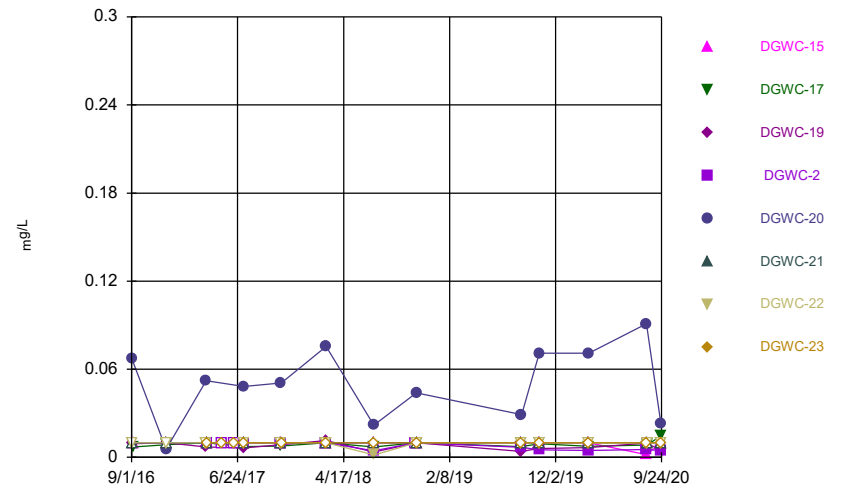
Constituent: pH Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



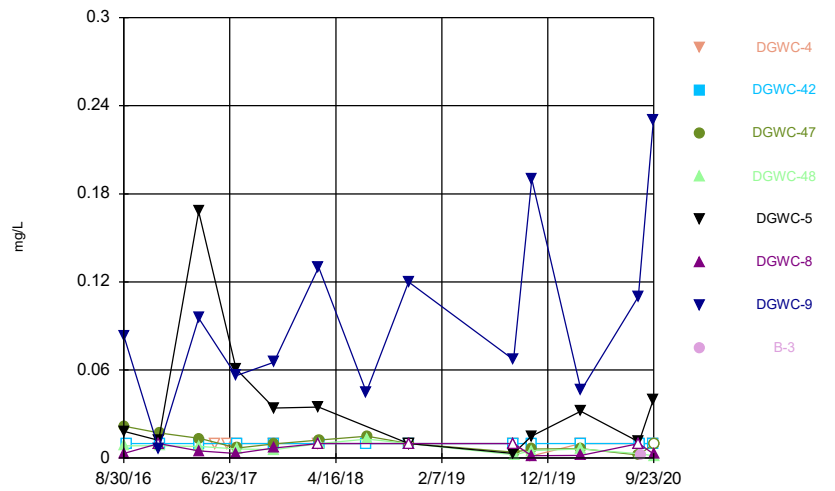
Constituent: Seleniun Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



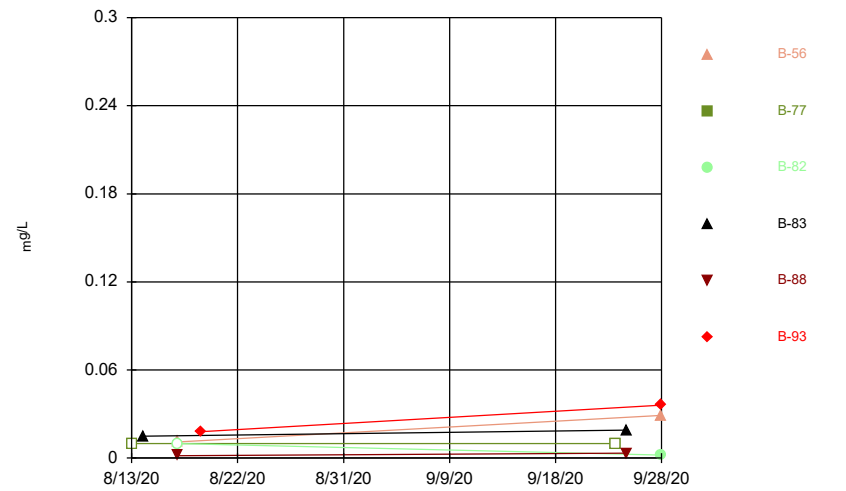
Constituent: Seleniun Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



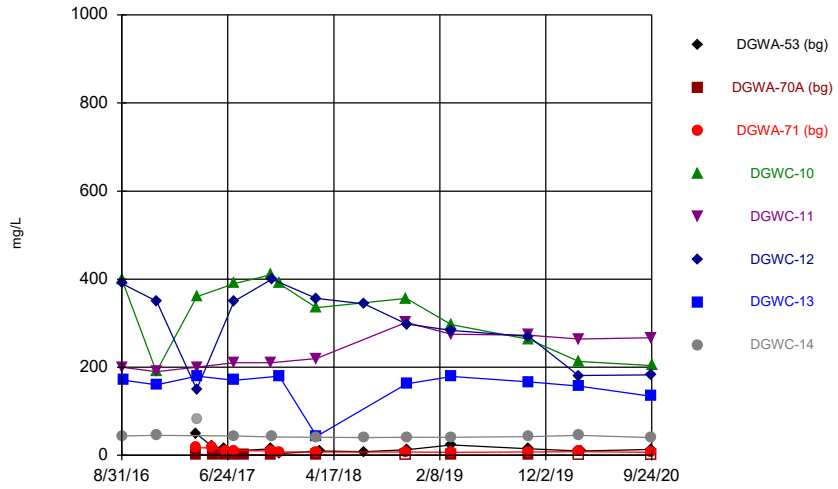
Constituent: Seleniun Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



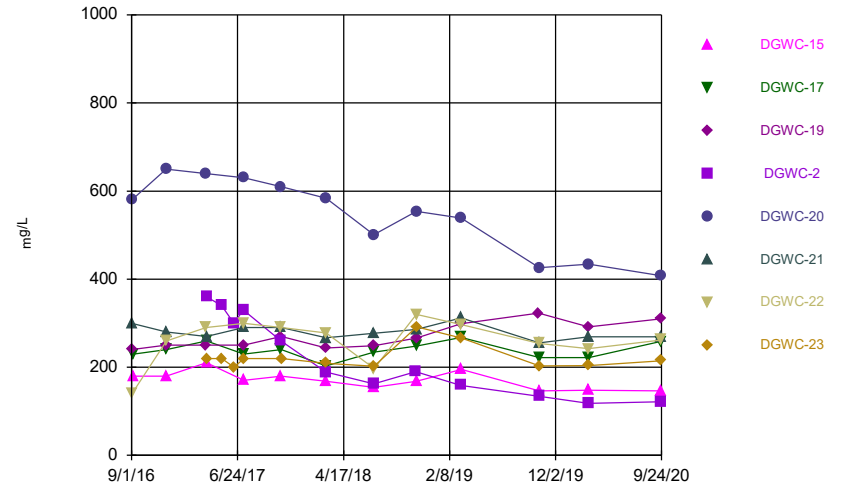
Constituent: Seleniun Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



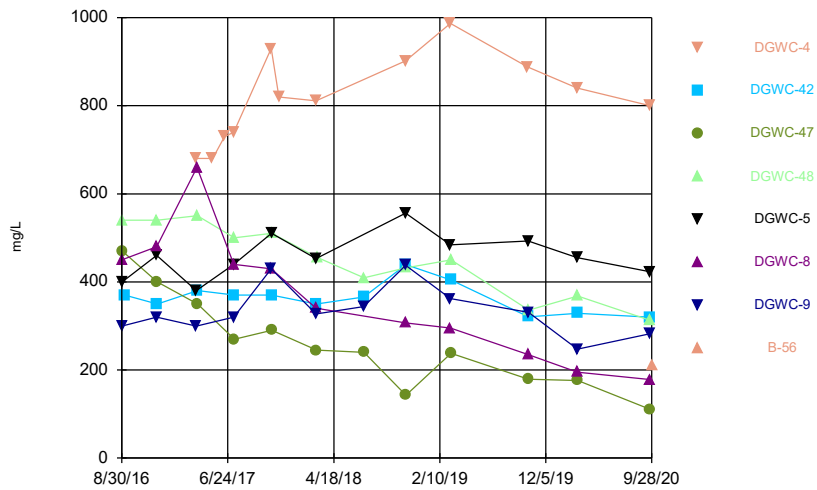
Constituent: Sulfate Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



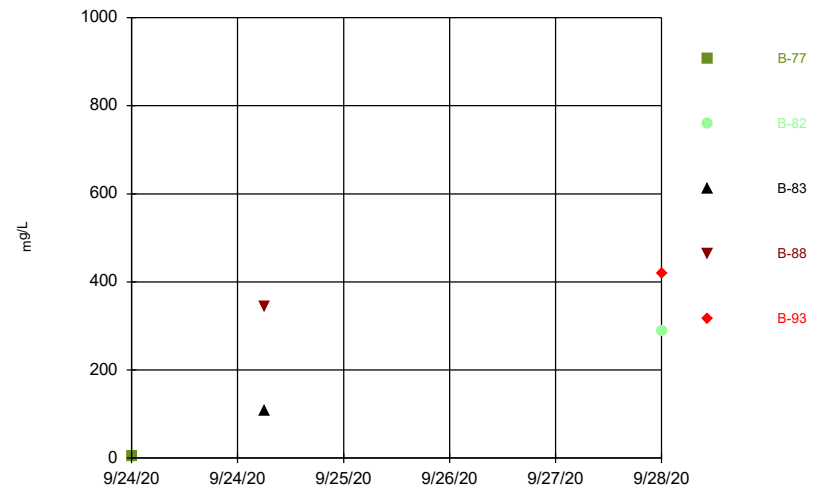
Constituent: Sulfate Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Sulfate Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

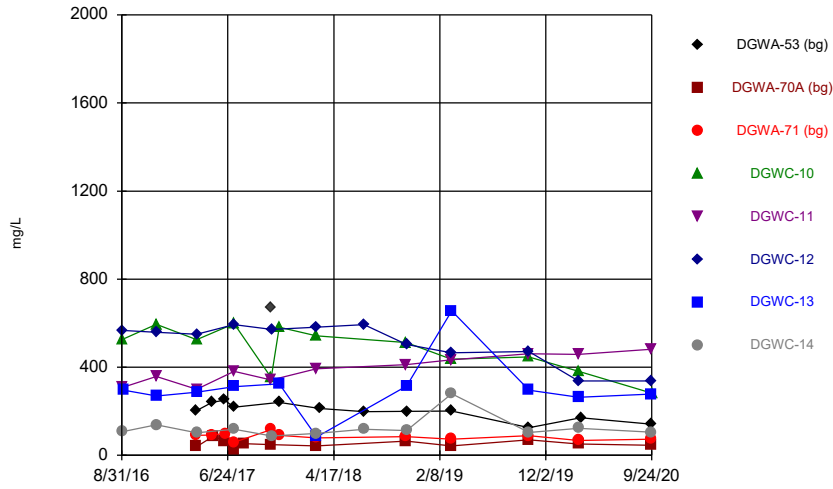
Time Series



Constituent: Sulfate Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

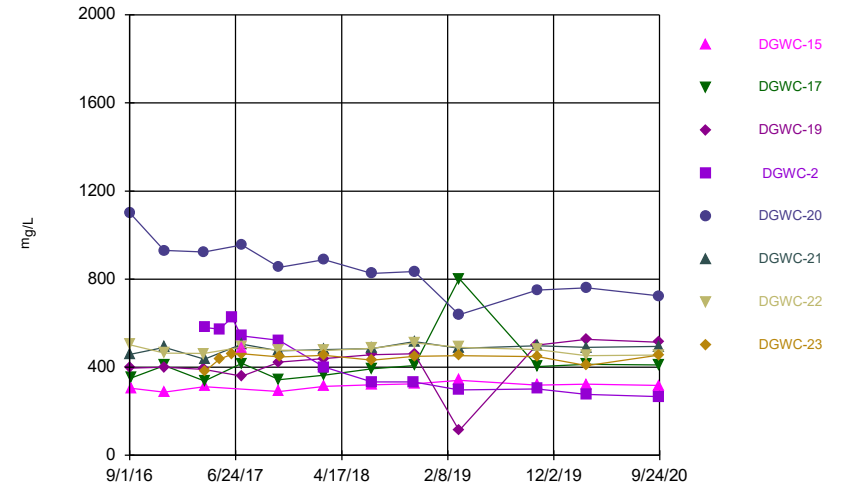


### Time Series



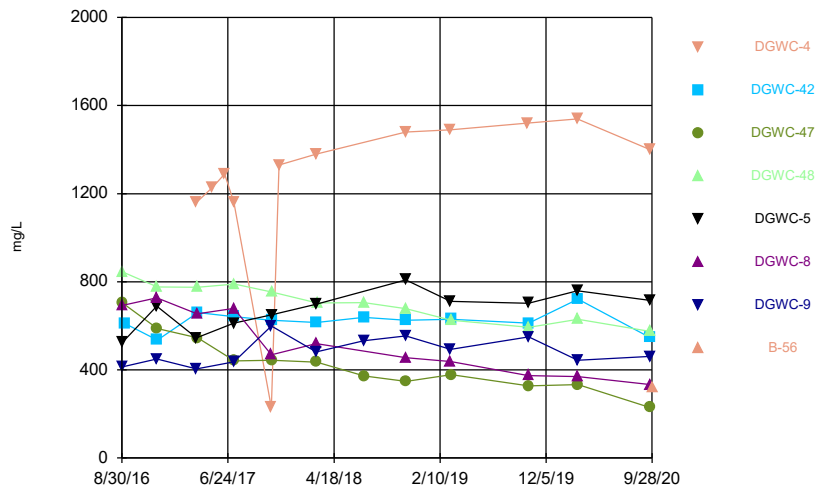
Constituent: TDS Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



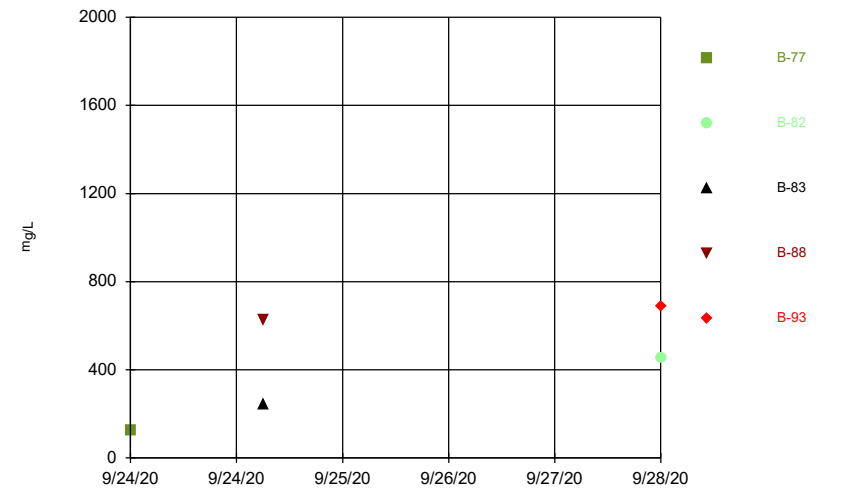
Constituent: TDS Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



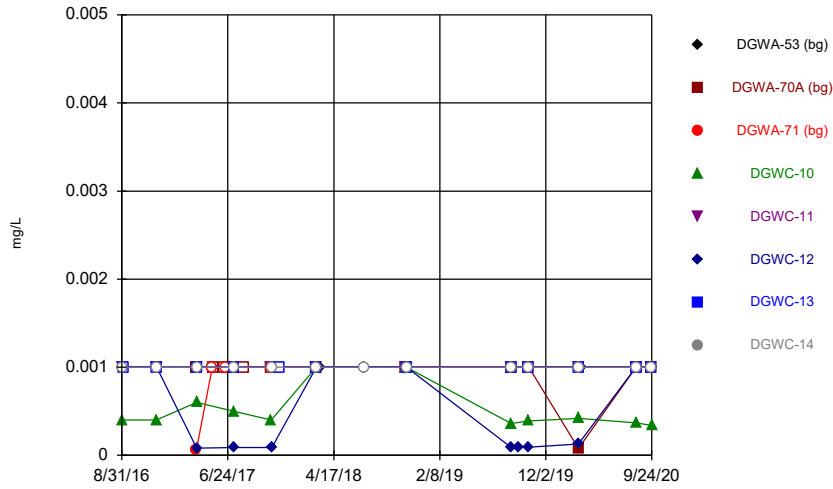
Constituent: TDS Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Time Series



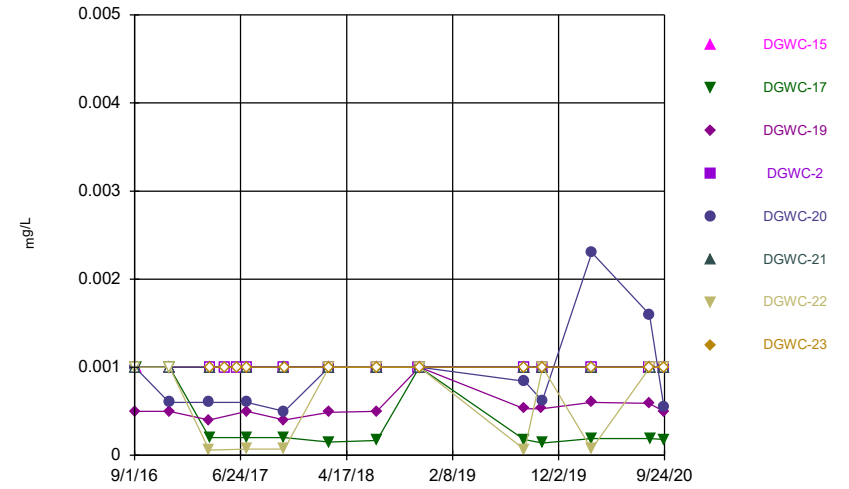
Constituent: TDS Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



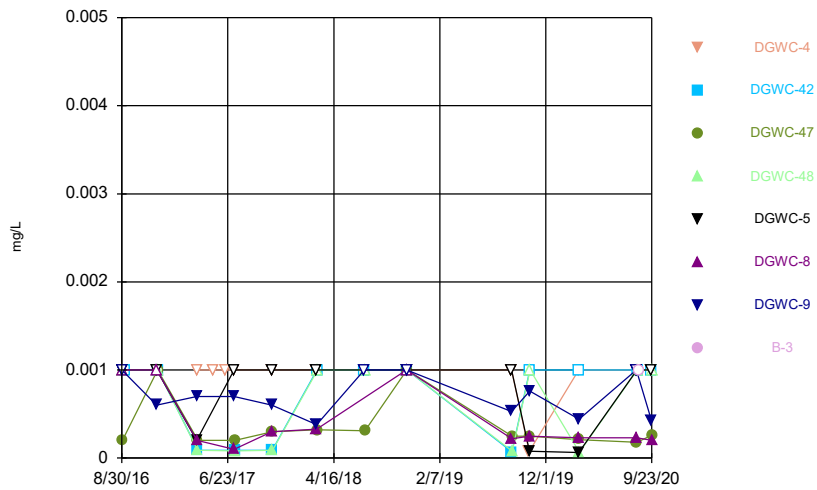
Constituent: Thallium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



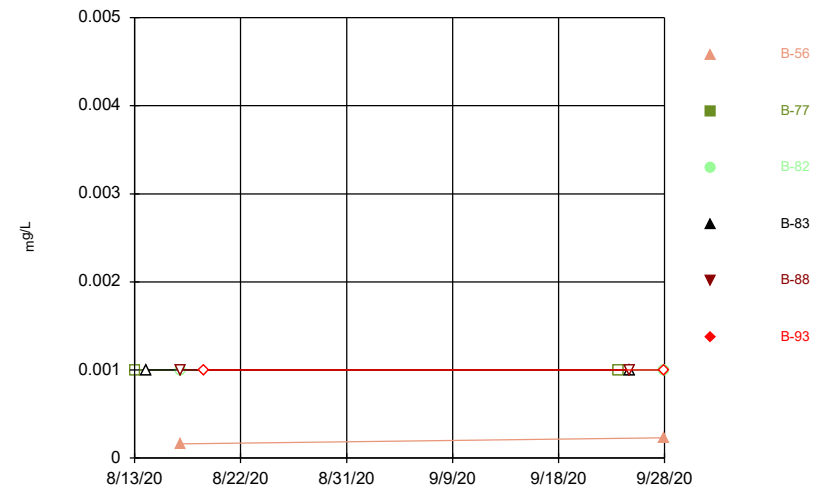
Constituent: Thallium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Thallium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Thallium Analysis Run 11/4/2020 3:45 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2020 3:49 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				<0.003	<0.003			<0.003	
9/1/2016						<0.003			
9/6/2016							<0.003		<0.003
12/6/2016				<0.003	<0.003			<0.003	
12/7/2016						<0.003	<0.003		<0.003
3/28/2017	<0.003	<0.003	0.0007 (J)						
3/29/2017				<0.003	<0.003	<0.003		<0.003	
3/30/2017							<0.003		<0.003
5/11/2017	<0.003								
5/12/2017			<0.003						
5/15/2017		<0.003							
6/15/2017	0.0006 (J)	<0.003							
6/16/2017			0.0007 (J)						
7/11/2017		<0.003	<0.003						
7/12/2017	<0.003			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2017		<0.003							
10/24/2017	<0.003	<0.003	<0.003	<0.003	<0.003				
10/25/2017						<0.003		<0.003	<0.003
11/15/2017							<0.003		
2/27/2018		<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	
2/28/2018							<0.003		<0.003
3/8/2018	<0.003								
7/11/2018						<0.003		<0.003	<0.003
7/12/2018	<0.003								
11/6/2018		<0.003	<0.003	<0.003	<0.003				
11/7/2018	<0.003					<0.003	<0.003	<0.003	<0.003
8/27/2019		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
8/28/2019	<0.003						<0.003		0.00033 (J)
9/17/2019						<0.003			
10/15/2019		<0.003	<0.003	<0.003	<0.003	<0.003			
10/16/2019	<0.003						<0.003	<0.003	
10/17/2019									<0.003
3/2/2020		<0.003	0.0018 (J)		<0.003	0.0003 (J)			
3/3/2020				<0.003			<0.003	<0.003	<0.003
3/9/2020	<0.003								
8/11/2020		0.0013 (J)	0.0018 (J)	<0.003	<0.003	<0.003		<0.003	
8/12/2020							<0.003		
8/13/2020	0.0003 (J)								0.00073 (J)
9/22/2020	<0.003	<0.003	<0.003		<0.003	<0.003		0.0011 (J)	
9/23/2020							<0.003		<0.003
9/24/2020				<0.003					

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2020 3:49 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		<0.003							
9/2/2016				<0.003	<0.003	<0.003			
9/7/2016	<0.003								<0.003
12/7/2016		<0.003		<0.003					
12/8/2016	<0.003				<0.003	<0.003			<0.003
3/28/2017								<0.003	
3/29/2017		<0.003		<0.003		<0.003			
3/30/2017	<0.003		<0.003		<0.003		<0.003		
3/31/2017									<0.003
5/11/2017			<0.003						
5/12/2017							<0.003	<0.003	
6/15/2017			0.0006 (J)				0.0007 (J)	0.0008 (J)	
7/11/2017			<0.003					<0.003	
7/12/2017	<0.003	<0.003		<0.003	<0.003		<0.003		
7/13/2017						<0.003			<0.003
10/24/2017			<0.003					<0.003	
10/25/2017	<0.003	<0.003		<0.003	<0.003	<0.003			<0.003
10/26/2017							<0.003		
2/27/2018			<0.003					<0.003	
2/28/2018	<0.003	<0.003		<0.003	<0.003	<0.003			<0.003
3/1/2018							<0.003		
7/11/2018	<0.003	<0.003	<0.003	<0.003	0.0013 (J)				<0.003
7/12/2018						<0.003	<0.003		
11/6/2018			<0.003					<0.003	
11/7/2018	<0.003	<0.003		<0.003	<0.003	<0.003			<0.003
11/8/2018							<0.003		
8/27/2019	<0.003		<0.003					<0.003	
8/28/2019		<0.003							<0.003
8/29/2019				<0.003	<0.003	<0.003	<0.003		
10/15/2019								<0.003	
10/16/2019		<0.003							
10/17/2019			<0.003	<0.003	<0.003				<0.003
10/18/2019	<0.003					<0.003	<0.003		
3/2/2020								0.00058 (J)	
3/3/2020		<0.003	<0.003		<0.003	<0.003			
3/4/2020	<0.003			<0.003			<0.003		<0.003
8/11/2020		<0.003	<0.003						
8/12/2020								<0.003	
8/13/2020				<0.003			<0.003		<0.003
8/14/2020	<0.003				<0.003	<0.003			
9/22/2020		0.00036 (J)		<0.003				<0.003	<0.003
9/23/2020			<0.003						
9/24/2020	0.00045 (J)				<0.003	<0.003	<0.003		

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2020 3:49 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.003	<0.003				
8/31/2016			<0.003						
9/1/2016	<0.003	<0.003							
12/6/2016			<0.003	<0.003	<0.003				
12/8/2016	<0.003	<0.003							
3/28/2017			<0.003		<0.003				
3/29/2017				<0.003					
3/30/2017		<0.003							
3/31/2017	<0.003								
7/11/2017			<0.003	<0.003	<0.003				
7/13/2017	<0.003	<0.003							
10/24/2017				<0.003	<0.003				
10/25/2017			<0.003						
10/26/2017	<0.003	<0.003							
2/27/2018			<0.003	<0.003	<0.003				
3/1/2018	<0.003								
3/2/2018		<0.003							
7/11/2018					<0.003				
7/12/2018	<0.003	<0.003							
11/6/2018			<0.003	<0.003	<0.003				
11/7/2018	<0.003	<0.003							
8/27/2019			<0.003		<0.003				
8/28/2019				<0.003					
8/29/2019	<0.003	<0.003							
10/16/2019			<0.003	<0.003					
10/17/2019	<0.003				<0.003				
10/18/2019		<0.003							
3/2/2020			0.00032 (J)						
3/3/2020				<0.003	<0.003				
3/4/2020	<0.003	<0.003							
8/11/2020					<0.003				
8/12/2020	<0.003		<0.003	<0.003					
8/13/2020		<0.003						0.00043 (J)	
8/17/2020						<0.003	<0.003		<0.003
9/22/2020			<0.003		<0.003				
9/23/2020	0.0012 (J)	0.00039 (J)		<0.003					
9/24/2020								0.00036 (J)	
9/28/2020							<0.003		<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2020 3:49 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	<0.003		
8/17/2020		<0.003	
8/19/2020			<0.003
9/25/2020	<0.003	<0.003	
9/28/2020			0.0014 (J)

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2020 3:49 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0058	<0.005			<0.005	
9/1/2016						<0.005			
9/6/2016							<0.005		<0.005
12/6/2016				0.0017 (J)	<0.005			<0.005	
12/7/2016						<0.005	<0.005		<0.005
3/28/2017	0.0005 (J)	<0.005	<0.005						
3/29/2017				0.0055	<0.005	<0.005		<0.005	
3/30/2017							<0.005		0.0006 (J)
5/11/2017	0.0005 (J)								
5/12/2017			0.0004 (J)						
5/15/2017		<0.005							
6/15/2017	<0.005	<0.005							
6/16/2017			<0.005						
7/11/2017		<0.005	<0.005						
7/12/2017	<0.005			0.0042 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
8/8/2017		<0.005							
10/24/2017	<0.005	<0.005	<0.005	0.0058	<0.005				
10/25/2017						0.0006 (J)		<0.005	<0.005
11/15/2017							<0.005		
2/27/2018		<0.005	<0.005	0.0105	<0.005	<0.005		<0.005	
2/28/2018							<0.005		<0.005
3/8/2018	<0.005								
7/11/2018						<0.005		<0.005	<0.005
7/12/2018	<0.005								
11/6/2018		<0.005	<0.005	<0.005 (J)	<0.005				
11/7/2018	<0.005 (J)					<0.005	<0.005	<0.005	<0.005
8/27/2019		<0.005	<0.005	0.0024 (J)	<0.005	<0.005		<0.005	
8/28/2019	<0.005						<0.005		<0.005
9/17/2019						<0.005			
10/15/2019		0.00052 (J)	0.00071 (J)	0.0078	<0.005	0.00063 (J)			
10/16/2019	0.0018 (J)						<0.005	0.00039 (J)	
10/17/2019									0.00064 (J)
3/2/2020		<0.005	<0.005		<0.005	<0.005			
3/3/2020				0.0025 (J)			<0.005	<0.005	<0.005
3/9/2020	0.00068 (J)								
8/11/2020		<0.005	<0.005	0.0028 (J)	<0.005	<0.005		<0.005	
8/12/2020							<0.005		
8/13/2020	<0.005								0.0013 (J)
9/22/2020	0.00093 (J)	<0.005	<0.005		<0.005	<0.005		<0.005	
9/23/2020							<0.005		<0.005
9/24/2020				0.0078					

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0022 (J)							
9/2/2016				0.0159	<0.005	<0.005			
9/7/2016	<0.005								<0.005
12/7/2016		<0.005		0.0037 (J)					
12/8/2016	<0.005				<0.005	<0.005			<0.005
3/28/2017								0.0005 (J)	
3/29/2017		0.002 (J)		0.015		<0.005			
3/30/2017	0.0008 (J)		<0.005		<0.005		<0.005		
3/31/2017									0.0007 (J)
5/11/2017			<0.005						
5/12/2017							<0.005	0.0005 (J)	
6/15/2017			<0.005				<0.005	<0.005	
7/11/2017			<0.005					0.0008 (J)	
7/12/2017	<0.005	0.0016 (J)		0.0121	<0.005		<0.005		
7/13/2017						<0.005			<0.005
10/24/2017			<0.005					<0.005	
10/25/2017	0.0007 (J)	0.0022 (J)		0.0135	<0.005	<0.005			<0.005
10/26/2017							<0.005		
2/27/2018			<0.005					<0.005	
2/28/2018	0.00073 (J)	0.0028 (J)		0.0177	<0.005	0.001 (J)			0.0011 (J)
3/1/2018							<0.005		
7/11/2018	<0.005	0.0009 (J)	<0.005	0.0055	<0.005				<0.005
7/12/2018						<0.005	<0.005		
11/6/2018			<0.005					<0.005	
11/7/2018	<0.005	<0.005 (J)		0.0054	<0.005	<0.005			<0.005
11/8/2018							<0.005		
8/27/2019	<0.005		0.00099 (J)					<0.005	
8/28/2019		0.00049 (J)							<0.005
8/29/2019				0.0064	<0.005	<0.005	<0.005		
10/15/2019								<0.005	
10/16/2019		0.00046 (J)							
10/17/2019			<0.005	0.0094	<0.005				<0.005
10/18/2019	0.0012 (J)					<0.005	<0.005		
3/2/2020								<0.005	
3/3/2020		<0.005	0.0025 (J)		<0.005	<0.005			
3/4/2020	0.0014 (J)			0.029			<0.005		<0.005
8/11/2020		0.0014 (J)	<0.005						
8/12/2020								<0.005	
8/13/2020				0.014			<0.005		<0.005
8/14/2020	<0.005				<0.005	<0.005			
9/22/2020		0.0017 (J)		0.0063				<0.005	<0.005
9/23/2020			<0.005						
9/24/2020	0.0011 (J)				<0.005	<0.005	<0.005		



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.005	0.0241				
8/31/2016			0.0035 (J)						
9/1/2016	0.0037 (J)	<0.005							
12/6/2016			0.0032 (J)	<0.005	<0.005				
12/8/2016	0.0032 (J)	<0.005							
3/28/2017			0.0385		0.0243				
3/29/2017				0.001 (J)					
3/30/2017		0.0015 (J)							
3/31/2017	0.0031 (J)								
7/11/2017			0.0203	0.0012 (J)	0.0194				
7/13/2017	0.0018 (J)	0.0012 (J)							
10/24/2017				0.0015 (J)	0.0249				
10/25/2017			0.0119						
10/26/2017	0.0016 (J)	0.0008 (J)							
2/27/2018			0.0094	0.002 (J)	0.0405				
3/1/2018	0.0029 (J)								
3/2/2018		0.0017 (J)							
7/11/2018					0.016				
7/12/2018	0.0023 (J)	0.0015 (J)							
11/6/2018			<0.005	<0.005	0.017				
11/7/2018	<0.005 (J)	<0.005							
8/27/2019			<0.005		0.021				
8/28/2019				<0.005					
8/29/2019	0.00089 (J)	<0.005							
10/16/2019			0.0036 (J)	<0.005					
10/17/2019	0.0013 (J)				0.033				
10/18/2019		0.00079 (J)							
3/2/2020			0.0052						
3/3/2020				0.00096 (J)	0.015				
3/4/2020	0.0012 (J)	0.0006 (J)							
8/11/2020					0.022				
8/12/2020	0.00081 (J)		0.002 (J)	<0.005					
8/13/2020		<0.005						0.002 (J)	
8/17/2020						<0.005	0.0032 (J)		<0.005
9/22/2020			0.0062		0.04				
9/23/2020	<0.005	<0.005		<0.005					
9/24/2020								0.0025 (J)	
9/28/2020							0.0047 (J)		<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	<0.005		
8/17/2020		<0.005	
8/19/2020			0.0013 (J)
9/25/2020	<0.005	<0.005	
9/28/2020			0.0027 (J)

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0321	0.0545			0.0576	
9/1/2016						0.0254			
9/6/2016							0.0297		0.0497
12/6/2016				0.029	0.0564			0.0608	
12/7/2016						0.0241	0.0266		0.0469
3/28/2017	0.134	0.0166	0.0378						
3/29/2017				0.0335	0.0565	0.0268		0.0693	
3/30/2017							0.0308		0.0495
5/11/2017	0.126								
5/12/2017			0.04						
5/15/2017		0.0181							
6/15/2017	0.14	0.0277							
6/16/2017			0.0369						
7/11/2017		0.0306	0.0362						
7/12/2017	0.173			0.0314	0.0572	0.0262	0.0291	0.0585	0.0517
8/8/2017		0.0277							
10/24/2017	0.109	0.0333	0.0313	0.0317	0.0596				
10/25/2017						0.0268		0.0563	0.0474
11/15/2017							0.0309		
2/27/2018		0.0341	0.0287	0.028	0.0672	0.0255		0.0591	
2/28/2018							<-0.01		0.0455
3/8/2018	0.19								
7/11/2018						0.026		0.061	0.05
7/12/2018	0.18								
11/6/2018		0.037	0.026	0.025	0.074				
11/7/2018	0.15					0.028	0.034	0.055	0.042
8/27/2019		0.037	0.027	0.021	0.071	0.024		0.059	
8/28/2019	0.087						0.033		0.047
9/17/2019						0.02			
10/15/2019		0.034	0.024	0.024	0.064	0.02			
10/16/2019	0.077						0.034	0.059	
10/17/2019									0.046
3/2/2020		0.035	0.026		0.071	0.04			
3/3/2020				0.024			0.035	0.064	0.05
3/9/2020	0.099								
8/11/2020		0.041	0.026	0.024	0.064	0.028		0.061	
8/12/2020							0.032		
8/13/2020	0.046								0.06
9/22/2020	0.07	0.038	0.024		0.058	0.036		0.06	
9/23/2020							0.03		0.043
9/24/2020				0.021					

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0214							
9/2/2016				0.0097 (J)	0.0252	0.0397			
9/7/2016	0.0694								0.0194
12/7/2016		0.0191		0.0087 (J)					
12/8/2016	0.062				0.0262	0.0408			0.0189
3/28/2017								0.0363	
3/29/2017		0.0209		0.0094 (J)		0.0417			
3/30/2017	0.0615		0.0232		0.0272		0.0184		
3/31/2017									0.0194
5/11/2017			0.0231						
5/12/2017							0.0202	0.0337	
6/15/2017			0.0223				0.0188	0.03	
7/11/2017			0.0201					0.0301	
7/12/2017	0.0532	0.0212		0.0099 (J)	0.0276		0.0186		
7/13/2017						0.0376			0.021
10/24/2017			0.0206					0.0351	
10/25/2017	0.0544	0.021		0.0096 (J)	0.0262	0.0384			0.0196
10/26/2017							0.0176		
2/27/2018			0.0207					0.0364	
2/28/2018	0.0527	0.0213		<0.01	0.027	0.0353			0.0171
3/1/2018							0.0164		
7/11/2018	0.053	0.023	0.022	0.01	0.027				0.02
7/12/2018						0.036	0.022		
11/6/2018			0.021					0.035	
11/7/2018	0.044	0.024		0.011	0.024	0.031			0.017
11/8/2018							0.022		
8/27/2019	0.05		0.023					0.036	
8/28/2019		0.026							0.018
8/29/2019				0.018	0.027	0.031	0.025		
10/15/2019								0.033	
10/16/2019		0.024							
10/17/2019			0.022	0.015	0.027				0.018
10/18/2019	0.045					0.032	0.019		
3/2/2020								0.036	
3/3/2020		0.028	0.022		0.027	0.035			
3/4/2020	0.044			0.017			0.032		0.015
8/11/2020		0.027	0.022						
8/12/2020								0.036	
8/13/2020				0.019			0.027		0.027
8/14/2020	0.046				0.027	0.035			
9/22/2020		0.026		0.011				0.03	0.016
9/23/2020			0.023						
9/24/2020	0.033				0.024	0.031	0.02		

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.0435	0.0162				
8/31/2016			0.0266 (o)						
9/1/2016	0.0162	0.0157							
12/6/2016			0.0186	0.0431	0.0138				
12/8/2016	0.0247	0.0155							
3/28/2017			0.0187		0.017				
3/29/2017				0.044					
3/30/2017		0.0131							
3/31/2017	0.0189								
7/11/2017			0.0174 (J)	0.0389	0.0154 (J)				
7/13/2017	0.0165	0.014							
10/24/2017				0.0369	0.0148				
10/25/2017			0.0175						
10/26/2017	0.0152	0.0117							
2/27/2018			0.0172	0.0346	0.0148				
3/1/2018	0.0164								
3/2/2018		0.0131							
7/11/2018					0.017				
7/12/2018	0.015	0.013							
11/6/2018			0.016	0.027	0.015				
11/7/2018	0.02	0.014							
8/27/2019			0.017		0.016				
8/28/2019				0.025					
8/29/2019	0.018	0.014							
10/16/2019			0.02	0.027					
10/17/2019	0.019				0.015				
10/18/2019		0.014							
3/2/2020			0.018						
3/3/2020				0.026	0.016				
3/4/2020	0.017	0.014							
8/11/2020					0.016				
8/12/2020	0.016		0.017	0.034					
8/13/2020		0.013						0.11	
8/17/2020						0.026	0.03		0.024
9/22/2020			0.017		0.015				
9/23/2020	0.014	0.013		0.025					
9/24/2020								0.12	
9/28/2020							0.026		0.023

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.056		
8/17/2020		0.022	
8/19/2020			0.018
9/25/2020	0.027	0.021	
9/28/2020			0.017

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0046	<0.003			<0.003	
9/1/2016						0.0002 (J)			
9/6/2016							<0.003		<0.003
12/6/2016				0.0048	<0.003			<0.003	
12/7/2016						0.0002 (J)	<0.003		<0.003
3/28/2017	<0.003	<0.003	9E-05 (J)						
3/29/2017				0.0048	<0.003	0.0002 (J)		<0.003	
3/30/2017							7E-05 (J)		<0.003
5/11/2017	<0.003								
5/12/2017			<0.003						
5/15/2017		<0.003							
6/15/2017	<0.003	<0.003							
6/16/2017			0.0001 (J)						
7/11/2017		<0.003	<0.003						
7/12/2017	<0.003			0.0046	<0.003	0.0002 (J)	<0.003	<0.003	<0.003
8/8/2017		<0.003							
10/24/2017	<0.003	<0.003	<0.003	0.0048	<0.003				
10/25/2017						0.0002 (J)		<0.003	<0.003
11/15/2017							<0.003		
2/27/2018		<0.003	<0.003	0.0106	<0.003	<0.003		<0.003	
2/28/2018							<0.003		<0.003
3/8/2018	<0.003								
7/11/2018						0.0002 (J)		<0.003	<0.003
7/12/2018	<0.003								
11/6/2018		<0.003 (J)	<0.003 (J)	0.012	<0.003 (J)				
11/7/2018	<0.003					<0.003 (J)	<0.003 (J)	<0.003	<0.003 (J)
8/27/2019		7.9E-05 (J)	<0.003	0.0092	0.00014 (J)	0.00028 (J)		<0.003	
8/28/2019	<0.003						<0.003		<0.003
9/17/2019						0.00049 (J)			
10/15/2019		<0.003	8.8E-05 (J)	0.01	0.00012 (J)	0.00016 (J)			
10/16/2019	<0.003						<0.003	<0.003	
10/17/2019									<0.003
3/2/2020		9.6E-05 (J)	0.0001 (J)		0.00016 (J)	7.4E-05 (J)			
3/3/2020				0.0085			<0.003	<0.003	<0.003
3/9/2020	<0.003								
8/11/2020		0.00013 (J)	0.00011 (J)	0.0066	0.00011 (J)	0.00024 (J)		<0.003	
8/12/2020							7.8E-05 (J)		
8/13/2020	<0.003								0.00022 (J)
9/22/2020	<0.003	6.8E-05 (J)	6.9E-05 (J)		0.00015 (J)	0.00017 (J)		<0.003	
9/23/2020							6.8E-05 (J)		5.8E-05 (J)
9/24/2020				0.0077					

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0019 (J)							
9/2/2016				0.0026 (J)	0.0001 (J)	0.0002 (J)			
9/7/2016	0.0006 (J)								0.0021 (J)
12/7/2016		0.0021 (J)		0.0035					
12/8/2016	0.0005 (J)				0.0001 (J)	0.0001 (J)			0.0023 (J)
3/28/2017								0.0002 (J)	
3/29/2017		0.0017 (J)		0.0026 (J)		0.0002 (J)			
3/30/2017	0.0006 (J)		<0.003		0.0002 (J)		0.0004 (J)		
3/31/2017									0.0025 (J)
5/11/2017			<0.003						
5/12/2017							0.0004 (J)	0.0002 (J)	
6/15/2017			<0.003				0.0004 (J)	0.0001 (J)	
7/11/2017			<0.003					0.0001 (J)	
7/12/2017	0.0005 (J)	0.0018 (J)		0.0025 (J)	0.0001 (J)		0.0004 (J)		
7/13/2017						0.0002 (J)			0.0025 (J)
10/24/2017			<0.003					0.0002 (J)	
10/25/2017	0.0005 (J)	0.0019 (J)		0.0027 (J)	0.0002 (J)	0.0002 (J)			0.0026 (J)
10/26/2017							0.0004 (J)		
2/27/2018			<0.003					<0.003	
2/28/2018	<0.003	<0.003		<0.003	<0.003	<0.003			<0.003
3/1/2018							<0.003		
7/11/2018	0.00058 (J)	0.002 (J)	<0.003	0.0026 (J)	0.00016 (J)				0.0029 (J)
7/12/2018						0.00018 (J)	0.00035 (J)		
11/6/2018			<0.003					<0.003 (J)	
11/7/2018	<0.003	<0.003 (J)		<0.003 (J)	<0.003 (J)	<0.003 (J)			0.0031
11/8/2018							<0.003 (J)		
8/27/2019	0.00066 (J)		<0.003					0.00024 (J)	
8/28/2019		0.0018 (J)							0.0023 (J)
8/29/2019				0.005	0.00018 (J)	0.00015 (J)	0.00041 (J)		
10/15/2019								0.00022 (J)	
10/16/2019		0.0017 (J)							
10/17/2019			<0.003	0.0041	0.00015 (J)				0.0027 (J)
10/18/2019	0.00071 (J)					0.00014 (J)	0.00038 (J)		
3/2/2020								0.00025 (J)	
3/3/2020		0.0021 (J)	<0.003		0.00019 (J)	0.00017 (J)			
3/4/2020	0.00062 (J)			0.0089			0.00077 (J)		0.0029 (J)
8/11/2020		0.002 (J)	<0.003						
8/12/2020								0.00024 (J)	
8/13/2020				0.0063			0.00041 (J)		0.0026 (J)
8/14/2020	0.00064 (J)				0.0002 (J)	0.00016 (J)			
9/22/2020		0.002 (J)		0.0027 (J)				0.00019 (J)	0.0013 (J)
9/23/2020			<0.003						
9/24/2020	0.0006 (J)				0.00018 (J)	0.00017 (J)	0.00045 (J)		



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.0018 (J)	0.0045				
8/31/2016			0.0054						
9/1/2016	0.0165	0.008							
12/6/2016			0.0064	0.0034	0.005				
12/8/2016	0.0116	0.0086							
3/28/2017			0.0049		0.0052				
3/29/2017				0.0031					
3/30/2017		0.0106							
3/31/2017	0.0112								
7/11/2017			0.005	0.0022 (J)	0.0048				
7/13/2017	0.0098	0.0106							
10/24/2017				0.0042	0.0051				
10/25/2017			0.0069						
10/26/2017	0.0119	0.0078							
2/27/2018			0.0086	0.0047	0.0057				
3/1/2018	0.0146								
3/2/2018		0.0096							
7/11/2018					0.0058				
7/12/2018	0.013	0.0086							
11/6/2018			0.01	<0.003 (J)	0.006				
11/7/2018	0.014	0.0078							
8/27/2019			0.01		0.007				
8/28/2019				0.0021 (J)					
8/29/2019	0.011	0.0081							
10/16/2019			0.0072	0.0019 (J)					
10/17/2019	0.0093				0.0063				
10/18/2019		0.0099							
3/2/2020			0.0098						
3/3/2020				0.0018 (J)	0.0048				
3/4/2020	0.01	0.008							
8/11/2020					0.0062				
8/12/2020	0.0068		0.0081	0.0018 (J)					
8/13/2020		0.0071						0.00014 (J)	
8/17/2020						0.0035	0.0013 (J)		0.0014 (J)
9/22/2020			0.0081		0.0049				
9/23/2020	0.0069	0.0072		0.0015 (J)					
9/24/2020								5.3E-05 (J)	
9/28/2020							0.0012 (J)		0.0015 (J)

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.0007 (J)		
8/17/2020		0.0014 (J)	
8/19/2020			0.015
9/25/2020	0.00028 (J)	0.00063 (J)	
9/28/2020			0.015

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				3.5	0.914			0.0419 (J)	
9/1/2016						7.64			
9/6/2016							1		1.25
12/6/2016				3.3	1.15			0.0804	
12/7/2016						8.07	0.9		1.56
3/28/2017	0.0612	0.0067 (J)	0.0097 (J)						
3/29/2017				4.3	1.07	8.46		0.103	
3/30/2017							0.898		1.5
5/11/2017	0.0805								
5/12/2017			0.0082 (J)						
5/15/2017		0.0073 (J)							
6/15/2017	0.0725	<0.1							
6/16/2017			0.0085 (J)						
7/11/2017		<0.1	0.0077 (J)						
7/12/2017	0.0735			3.38	1.14	7.55	0.996	0.044	1.49
8/8/2017		<0.1							
10/24/2017	0.077	0.0082 (J)	0.0083 (J)	3.45	1.18				
10/25/2017						9.97		0.0565	1.47
11/15/2017							0.795		
2/27/2018		0.0062 (J)	0.0069 (J)	3.23	1.17	8.03		0.0539	
2/28/2018							0.106		1.58
3/8/2018	0.13 (J)								
7/11/2018						10.2		0.057	1.4
7/12/2018	0.076								
11/6/2018		<0.04 (J)	<0.04 (J)	2.1	1.2				
11/7/2018	0.073					7.7	0.76	0.055	0.8
3/12/2019		0.0073 (J)	0.0068 (J)	0.98	1.2	4.8			
3/13/2019	0.08						0.62	0.047	
3/14/2019									1.6
9/17/2019						6.9			
10/15/2019		<0.1	0.0054 (J)	1.6	1.2	5.9			
10/16/2019	0.059						0.65	0.052	
10/17/2019									1.5
3/2/2020		0.0055 (J)	0.01 (J)		1.6	3.3			
3/3/2020				1.5			0.61	0.15	1.7
3/9/2020	0.08 (J)								
9/22/2020	0.056 (J)	<0.1	<0.1		1.3	4.2		0.086 (J)	
9/23/2020							0.57		1.6
9/24/2020				0.45					

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		3.08							
9/2/2016				6.77	4.81	3.99			
9/7/2016	0.683								0.924
12/7/2016		3.34		6.04					
12/8/2016	0.688				3.57	3.1			0.957
3/28/2017								4.01	
3/29/2017		3.96		8.23		4.85			
3/30/2017	0.743		1.56		5.68		4.68		
3/31/2017									0.989
5/11/2017			1.65						
5/12/2017							4.03	3.58	
6/15/2017			1.44				4.11	3.58	
7/11/2017			1.39					3.85	
7/12/2017	0.62	2.82		6.81	5.2		3.74		
7/13/2017						3.85			1.03
10/24/2017			1.18					3.82	
10/25/2017	0.739	3.19		8.94	7.92	3.9			0.982
10/26/2017							4.07		
2/27/2018			1.12					4.06	
2/28/2018	0.627	2.91		6.26	5.89	5.14			0.918
3/1/2018							4.37		
7/11/2018	0.79	3.7	0.82	5.7	8.3				0.83
7/12/2018						3.6	4		
11/6/2018			0.9					4.1	
11/7/2018	1.6	2.6		5	4.9	3.3			0.89
11/8/2018							4.7		
3/12/2019			0.72					4.6	
3/13/2019	0.76	2.6		5.6	6.2				
3/14/2019						4.1	4.7		0.89
10/15/2019								5	
10/16/2019		2.2							
10/17/2019			0.73	5	7				0.94
10/18/2019	0.82					4.2	4.5		
3/2/2020								5.9	
3/3/2020		3.1	0.68		6.8	4.6			
3/4/2020	0.85			3.6			4.8		1
9/22/2020		2.6		4.9				4.3	0.88
9/23/2020			0.57						
9/24/2020	0.88				6.1	4.1	4.6		

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-56	B-77	B-82	B-83
8/30/2016				2.63	1.72				
8/31/2016			7.5						
9/1/2016	0.345	0.955							
12/6/2016			5.64	2.72	1.92				
12/8/2016	0.352	0.919							
3/28/2017			6.16		2.01				
3/29/2017				3.04					
3/30/2017		0.925							
3/31/2017	0.312								
7/11/2017			4.61	2.55	1.78				
7/13/2017	0.28	0.972							
10/24/2017				2.29	1.72				
10/25/2017			4						
10/26/2017	0.269	0.746							
2/27/2018			4.29	2.07	1.68				
3/1/2018	0.296								
3/2/2018		0.878							
7/11/2018					1.4				
7/12/2018	0.26	0.82							
11/6/2018			4.2	1.7	1.4				
11/7/2018	0.3	0.74							
3/12/2019			4.3	1.5	1.2				
3/14/2019	0.26	0.72							
10/16/2019			4.3	1.2					
10/17/2019	0.25				1.2				
10/18/2019		0.74							
3/2/2020			5.5						
3/3/2020				1.5	1.1				
3/4/2020	0.24	0.77							
9/22/2020			4.6		0.78				
9/23/2020	0.21	0.65		1					
9/24/2020							0.27		
9/25/2020									0.35
9/28/2020						1.4		1.1	

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-88	B-93
9/25/2020	1.8	
9/28/2020		3

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0012	<0.0025			<0.0025	
9/1/2016						0.0004 (J)			
9/6/2016							<0.0025		<0.0025
12/6/2016				0.0013	<0.0025			<0.0025	
12/7/2016						0.0003 (J)	0.0002 (J)		9E-05 (J)
3/28/2017	<0.0025	<0.0025	<0.0025						
3/29/2017				0.0013	<0.0025	0.0003 (J)		<0.0025	
3/30/2017							8E-05 (J)		9E-05 (J)
5/11/2017	8E-05 (J)								
5/12/2017			<0.0025						
5/15/2017		<0.0025							
6/15/2017	<0.0025	<0.0025							
6/16/2017			<0.0025						
7/11/2017		<0.0025	<0.0025						
7/12/2017	<0.0025			0.0013	<0.0025	0.0004 (J)	<0.0025	<0.0025	<0.0025
8/8/2017		<0.0025							
10/24/2017	<0.0025	<0.0025	<0.0025	0.0014	<0.0025				
10/25/2017						0.0004 (J)		<0.0025	<0.0025
11/15/2017							<0.0025		
2/27/2018		<0.0025	<0.0025	0.001	<0.0025	<0.0025		<0.0025	
2/28/2018							<0.0025		<0.0025
3/8/2018	<0.0025								
7/11/2018						0.00033 (J)		<0.0025	<0.0025
7/12/2018	0.00013 (J)								
11/6/2018		<0.0025	<0.0025	0.0012	<0.0025				
11/7/2018	<0.0025					<0.001 (J)	<0.0025	<0.0025	<0.001 (J)
8/27/2019		<0.0025	<0.0025	0.00077 (J)	0.00012 (J)	0.00037 (J)		<0.0025	
8/28/2019	<0.0025						<0.0025		<0.0025
9/17/2019						0.00035 (J)			
10/15/2019		<0.0025	<0.0025	0.00095 (J)	<0.0025	0.00025 (J)			
10/16/2019	<0.0025						<0.0025	<0.0025	
10/17/2019									<0.0025
3/2/2020		0.00041 (J)	<0.0025		<0.0025	<0.0025			
3/3/2020				0.00095 (J)			<0.0025	<0.0025	0.00012 (J)
3/9/2020	<0.0025								
8/11/2020		<0.0025	<0.0025	0.00071 (J)	<0.0025	0.00038 (J)		<0.0025	
8/12/2020							<0.0025		
8/13/2020	<0.0025								0.00013 (J)
9/22/2020	<0.0025	<0.0025	<0.0025		0.00016 (J)	0.00017 (J)		<0.0025	
9/23/2020							<0.0025		<0.0025
9/24/2020				0.00055 (J)					

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0004 (J)							
9/2/2016				0.0023	0.0006 (J)	0.0003 (J)			
9/7/2016	0.0003 (J)								0.0007 (J)
12/7/2016		0.0004 (J)		0.0023					
12/8/2016	0.0003 (J)				0.0006 (J)	0.0004 (J)			0.0003 (J)
3/28/2017								0.0006 (J)	
3/29/2017		0.0004 (J)		0.0021		0.0004 (J)			
3/30/2017	0.0003 (J)		0.0005 (J)		0.0008 (J)		0.0002 (J)		
3/31/2017									0.0009 (J)
5/11/2017			0.0004 (J)						
5/12/2017							0.0003 (J)	0.0006 (J)	
6/15/2017			0.0003 (J)				0.0002 (J)	0.0005 (J)	
7/11/2017			0.0003 (J)					0.0006 (J)	
7/12/2017	0.0002 (J)	0.0004 (J)		0.0021	0.0006 (J)		0.0002 (J)		
7/13/2017						0.0005 (J)			0.0008 (J)
10/24/2017			0.0003 (J)					0.0007 (J)	
10/25/2017	0.0002 (J)	0.0004 (J)		0.002	0.0005 (J)	0.0007 (J)			0.0005 (J)
10/26/2017							0.0003 (J)		
2/27/2018			<0.0025					<0.0025	
2/28/2018	<0.0025	<0.0025		0.0018	<0.0025	<0.0025			<0.0025
3/1/2018							<0.0025		
7/11/2018	0.00029 (J)	0.00039 (J)	0.00018 (J)	0.0018	0.00054 (J)				0.0024
7/12/2018						0.00091 (J)	0.00028 (J)		
11/6/2018			<0.001 (J)					<0.001 (J)	
11/7/2018	<0.0025	<0.001 (J)		0.0018	<0.001 (J)	<0.001 (J)			<0.001 (J)
11/8/2018							<0.001 (J)		
8/27/2019	0.00033 (J)		0.00012 (J)					0.00072 (J)	
8/28/2019		0.00033 (J)							0.0015 (J)
8/29/2019				0.002 (J)	0.00087 (J)	0.00053 (J)	0.00022 (J)		
10/15/2019								0.00077 (J)	
10/16/2019		0.00034 (J)							
10/17/2019			0.00013 (J)	0.0017 (J)	0.0006 (J)				0.00058 (J)
10/18/2019	0.00029 (J)					0.00056 (J)	0.00022 (J)		
3/2/2020								0.00088 (J)	
3/3/2020		0.00037 (J)	0.00014 (J)		0.00063 (J)	0.00061 (J)			
3/4/2020	0.00028 (J)			0.0026			0.00024 (J)		0.00037 (J)
8/11/2020		0.0003 (J)	<0.0025						
8/12/2020								0.0008 (J)	
8/13/2020				0.0021 (J)			0.00027 (J)		0.0013 (J)
8/14/2020	0.00029 (J)				0.00054 (J)	0.00057 (J)			
9/22/2020		0.00036 (J)		0.0014 (J)				0.00065 (J)	0.0007 (J)
9/23/2020			0.00013 (J)						
9/24/2020	0.00024 (J)				0.00073 (J)	0.00058 (J)	0.00018 (J)		



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.0019	0.0004 (J)				
8/31/2016			0.0002 (J)						
9/1/2016	0.0017	0.0013							
12/6/2016			0.0004 (J)	0.0025	0.0005 (J)				
12/8/2016	0.0002 (J)	0.0042							
3/28/2017			0.0002 (J)		0.0005 (J)				
3/29/2017				0.0024					
3/30/2017		0.0089							
3/31/2017	0.002								
7/11/2017			0.0003 (J)	0.0021	0.0005 (J)				
7/13/2017	0.0017	0.0033							
10/24/2017				0.0029	0.0006 (J)				
10/25/2017			0.0006 (J)						
10/26/2017	0.0015	0.0032							
2/27/2018			<0.0025	0.0029	<0.0025				
3/1/2018	0.0025								
3/2/2018		0.0049							
7/11/2018					0.00067 (J)				
7/12/2018	0.0021	0.0032							
11/6/2018			<0.001 (J)	0.0027	<0.001 (J)				
11/7/2018	0.0016	0.0031							
8/27/2019			0.00082 (J)		0.00071 (J)				
8/28/2019				0.0022 (J)					
8/29/2019	0.0021 (J)	0.003							
10/16/2019			0.00069 (J)	0.0022 (J)					
10/17/2019	0.0033				0.00064 (J)				
10/18/2019		0.0028							
3/2/2020			0.00089 (J)						
3/3/2020				0.002 (J)	0.00059 (J)				
3/4/2020	0.0017 (J)	0.0036							
8/11/2020					0.00059 (J)				
8/12/2020	0.001 (J)		0.00079 (J)	0.0021 (J)					
8/13/2020		0.0028						<0.0025	
8/17/2020						0.00077 (J)	0.00029 (J)		0.00058 (J)
9/22/2020			0.00072 (J)		0.00059 (J)				
9/23/2020	0.0013 (J)	0.0025		0.0018 (J)					
9/24/2020								<0.0025	
9/28/2020							0.00024 (J)		0.00066 (J)

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.00037 (J)		
8/17/2020		0.0018 (J)	
8/19/2020			0.00077 (J)
9/25/2020	0.00026 (J)	0.00022 (J)	
9/28/2020			0.00074 (J)

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				81.7	44.2			9.95	
9/1/2016						80.6			
9/6/2016							44		33.6
12/6/2016				74.2	48.3			10.4	
12/7/2016						82.1	39.8		34.7
3/28/2017	30.8	5.14	8.31						
3/29/2017				79.5	50.5	88.3		14.4	
3/30/2017							46.3		36.9
5/11/2017	35.8								
5/12/2017			8.04						
5/15/2017		6.5							
6/15/2017	36	5.38							
6/16/2017			7.66						
7/11/2017		5.96	7.71						
7/12/2017	40.3			86.3	50.8	87	47.8	10.5	38.4
8/8/2017		5.2							
10/24/2017	30.3	4.93	6.86	81.5	55				
10/25/2017						92.1		9.67	36.2
11/15/2017							49.3		
2/27/2018		<25	<25	96.2	51.4	85.6		<25	
2/28/2018							<25		35
3/8/2018	39.8								
7/11/2018						93.6		9.9	37.5
7/12/2018	34.7								
11/6/2018		5.5	5.7	94.8	62.6				
11/7/2018	28.6					73.3	44.8	9.7	11.4
3/12/2019		5.1	5.5	83.5	61.4	62.1			
3/13/2019	26.7						42.1	9.7	
3/14/2019									34.7
10/15/2019		5.1	5.1	79.1	61.2	61.4			
10/16/2019	17.7						43.8	9.4	
10/17/2019									37
3/2/2020		5.3	5.8		65.8	46.5			
3/3/2020				63.6			49.3	14	37.8
3/9/2020	23.7								
9/22/2020	15.5	5	5.4		72.7	55.4		11.6	
9/23/2020							39		35.6
9/24/2020				53.1					

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		65.6							
9/2/2016				96.3	70.2	61.6			
9/7/2016	8.61								43.6
12/7/2016		68.3		91.9					
12/8/2016	7.92				70.1	60.1			45.8
3/28/2017								229	
3/29/2017		68		95.7		64.7			
3/30/2017	9.56		103		72.5		68.1		
3/31/2017									48.3
5/11/2017			102						
5/12/2017							71.1	233	
6/15/2017			96.2				65.9	224	
7/11/2017			98.4					249	
7/12/2017	10.4	70		100	80.4		70		
7/13/2017						67.2			52.3
10/24/2017			86					232	
10/25/2017	10.9	77		97.3	75.6	66.8			50.9
10/26/2017							67.2		
2/27/2018			66.7					245	
2/28/2018	<25	72		86.3	73.2	62.3			45.1
3/1/2018							66.5		
7/11/2018	13 (J)	82.7	55	92.4	82.3				47.8
7/12/2018						71	72		
11/6/2018			54.5					284	
11/7/2018	37	81.7		85.9	78.5	60.9			45.5
11/8/2018							73.5		
3/12/2019			52.2					295	
3/13/2019	11.9 (J)	76.9		86.4	79.9				
3/14/2019						64.8	73.2		43.5
10/15/2019								276	
10/16/2019		85.7							
10/17/2019			47.2	86.9	79.8				44.1
10/18/2019	12.9					61.7	67.7		
3/2/2020								320	
3/3/2020		86.8	48.4		87.4	68.7			
3/4/2020	15.8			103			69.8		48.8
9/22/2020		103		79.2				263	43.8
9/23/2020			44.4						
9/24/2020	12.7				80	62.6	73.7		

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-56	B-77	B-82	B-83
8/30/2016				82.7	64.9				
8/31/2016			82.6						
9/1/2016	69.3	95.1							
12/6/2016			73.9	76.8	59.3				
12/8/2016	71.1	105							
3/28/2017			89.1		71.6				
3/29/2017				90.5					
3/30/2017		98.6							
3/31/2017	62.6								
7/11/2017			84.6	91.1	73.7				
7/13/2017	52.5	102							
10/24/2017				78.1	92.5				
10/25/2017			95.6						
10/26/2017	46.7	94							
2/27/2018			108	64.2	73.1				
3/1/2018	44.2								
3/2/2018		86.6							
7/11/2018					88.5				
7/12/2018	41.6	89.1							
11/6/2018			124	57	81.1				
11/7/2018	38.6	88							
3/12/2019			110	54.3	78.1				
3/14/2019	36.6	74.6							
10/16/2019			109	47.3					
10/17/2019	36.2				75.6				
10/18/2019		72.7							
3/2/2020			116						
3/3/2020				46	59.5				
3/4/2020	36	79.7							
9/22/2020			99.2		54.7				
9/23/2020	22.3	72.2		39.3					
9/24/2020							17.9		
9/25/2020									39.8
9/28/2020						15.1		26.5	

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-88	B-93
9/25/2020	79.8	
9/28/2020		110

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				11	11			3.1	
9/1/2016						13			
9/6/2016							16		19
12/6/2016				10	11			3.1	
12/7/2016						20 (o)	14		20
3/28/2017	3.7	3.8	3.6						
3/29/2017				11	12	13		3.8	
3/30/2017							16		21
5/11/2017	2.3								
5/12/2017			3.8						
5/15/2017		2.2							
6/15/2017	2.6	2							
6/16/2017			3.4						
7/11/2017		2.1	3.1						
7/12/2017	2.3			11	11	12	14	2.9	21
8/8/2017		2.2							
10/24/2017	2.7	2.4	3.2	11	12				
10/25/2017						13		3.5	21
11/15/2017	2.2		3.1	12			16		
2/27/2018		2.5	3.2	10.8	12.7	11.7		3.4	
2/28/2018							2.7		20.1
3/8/2018	2.4								
7/11/2018						11.3		3.2	21.4
7/12/2018	2.2								
11/6/2018		2.3	2.6	12.3	15.2				
11/7/2018	2.3					11.8	16.7	3.1	22.4
3/12/2019		2.5	3.3	12.1	14.5	12.1			
3/13/2019	3.6						12.4	3.4	
3/14/2019									24
10/15/2019		2.2	3.3	9.4	15.6	11.6			
10/16/2019	2						17.4	3.5	
10/17/2019									22
3/2/2020		1.9	3		15	8.9			
3/3/2020				8.4			9.4	4.1	22.7
3/9/2020	1.8								
9/22/2020	1.6	1.9	5.2		16	10.8		3.2	
9/23/2020							12.6		22.4
9/24/2020				5.9					

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		41							
9/2/2016				15	25	30			
9/7/2016	17								33
12/7/2016		41		16					
12/8/2016	19				24	26			32
3/28/2017								29	
3/29/2017		42		17		30			
3/30/2017	20		4.8		24		17		
3/31/2017									33
5/11/2017			4.4						
5/12/2017							17	29	
6/15/2017			4.8				16	28	
7/11/2017			4.6					28	
7/12/2017	18	41		18	23		16		
7/13/2017						29			33
10/24/2017			4.4					28	
10/25/2017	19	41		20	23	29			32
10/26/2017							17		
11/15/2017								27	
2/27/2018			4.1					24.6	
2/28/2018	17	36.4		18.6	19.9	23.4			29
3/1/2018							14.8		
7/11/2018	19.5	38.2	3.3	20.4	20.9				29.3
7/12/2018						26.1	15.2		
11/6/2018			3.7					24.8	
11/7/2018	21.4	38.8		21.5	20.5	25.8			28.6
11/8/2018							14.6		
3/12/2019			3.1					24.2	
3/13/2019	19.9	40.1		24.8	21.3				
3/14/2019						26.3	15.2		24.8
10/15/2019								20.9	
10/16/2019		33.2							
10/17/2019			2.8	24.9	20.1				25.8
10/18/2019	22					23.4	14.4		
3/2/2020								18.7	
3/3/2020		30.9	2.3		19.7	21.8			
3/4/2020	19.6			27.8			13.9		23.6
9/22/2020		27.6		25.8				17	22.1
9/23/2020			2.1						
9/24/2020	22.7				20	21.5	13.7		



# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-56	B-77	B-82	B-83
8/30/2016				9.7	6				
8/31/2016			8.6						
9/1/2016	12	18							
12/6/2016			8	9.8	6.2				
12/8/2016	12	17							
3/28/2017			9.5		6.6				
3/29/2017				9.9					
3/30/2017		16							
3/31/2017	9.1								
7/11/2017			9	9.7	6.9				
7/13/2017	5.7	15							
10/24/2017				9.9	6.7				
10/25/2017			9.4						
10/26/2017	6.6	14							
2/27/2018			9.7	9.5	8.2				
3/1/2018	10.7								
3/2/2018		12.8							
7/11/2018					10.5				
7/12/2018	9.5	11.7							
11/6/2018			10.2	10.5	8.7				
11/7/2018	8.6	11.4							
3/12/2019			10.6	10.7	8.5				
3/14/2019	6.6	10.2							
10/16/2019			11.6	10.4					
10/17/2019	7				10				
10/18/2019		9.6							
3/2/2020			10.5						
3/3/2020				9.6	6.6				
3/4/2020	4.4	9.1							
9/22/2020			10.5		8				
9/23/2020	3.3	8		9.1					
9/24/2020							5.3		
9/25/2020									3
9/28/2020						8.7		9.9	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-88	B-93
9/25/2020	10	
9/28/2020		10.8

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				<0.01	<0.01			<0.01	
9/1/2016						<0.01			
9/6/2016							<0.01		<0.01
12/6/2016				<0.01	<0.01			<0.01	
12/7/2016						<0.01	<0.01		<0.01
3/28/2017	<0.01	0.0008 (J)	0.0023 (J)						
3/29/2017				0.0008 (J)	<0.01	<0.01		<0.01	
3/30/2017							0.0009 (J)		0.0005 (J)
5/11/2017	<0.01								
5/12/2017			0.0004 (J)						
5/15/2017		0.0006 (J)							
6/15/2017	<0.01	0.0006 (J)							
6/16/2017			0.0005 (J)						
7/11/2017		0.0005 (J)	<0.01						
7/12/2017	<0.01			0.0006 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
8/8/2017		0.0005 (J)							
10/24/2017	<0.01	0.0005 (J)	<0.01	0.0007 (J)	<0.01				
10/25/2017						<0.01		<0.01	<0.01
11/15/2017							<0.01		
2/27/2018		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
2/28/2018							<0.01		<0.01
3/8/2018	<0.01								
7/11/2018						<0.01		<0.01	<0.01
7/12/2018	<0.01								
11/6/2018		<0.01	<0.01	<0.01	<0.01				
11/7/2018	<0.01					<0.01	<0.01	<0.01	<0.01 (J)
8/27/2019		0.00071 (J)	0.0018 (J)	0.00083 (J)	0.0006 (J)	<0.01	<0.01	<0.01	
8/28/2019	<0.01						<0.01		<0.01
9/17/2019						<0.01			
10/15/2019		0.034 (O)	0.0025 (J)	0.00078 (J)	<0.01	<0.01			
10/16/2019	<0.01						<0.01	<0.01	
10/17/2019									0.00058 (J)
3/2/2020		0.0013 (J)	0.00045 (J)		0.0006 (J)	<0.01			
3/3/2020				0.00092 (J)			0.00066 (J)	<0.01	0.00046 (J)
3/9/2020	<0.01								
8/11/2020		0.0016 (J)	0.0006 (J)	0.00097 (J)	0.00061 (J)	0.00094 (J)		<0.01	
8/12/2020							0.00074 (J)		
8/13/2020	<0.01								0.0048 (J)
9/22/2020	<0.01	0.00089 (J)	<0.01		0.00058 (J)	<0.01		<0.01	
9/23/2020							0.00059 (J)		<0.01
9/24/2020				0.001 (J)					

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0031 (J)							
9/2/2016				0.0017 (J)	<0.01	0.0012 (J)			
9/7/2016	0.0026 (J)								<0.01
12/7/2016		<0.01		<0.01					
12/8/2016	0.0025 (J)				<0.01	<0.01			<0.01
3/28/2017								0.0005 (J)	
3/29/2017		0.0025 (J)		0.0016 (J)		<0.01			
3/30/2017	0.0026 (J)		0.0005 (J)		0.0005 (J)		0.0012 (J)		
3/31/2017									0.001 (J)
5/11/2017			0.0005 (J)						
5/12/2017							0.0004 (J)	<0.01	
6/15/2017			<0.01				0.0005 (J)	<0.01	
7/11/2017			<0.01					<0.01	
7/12/2017	0.0022 (J)	0.0023 (J)		<0.01	0.0006 (J)		0.0007 (J)		
7/13/2017						<0.01			0.0008 (J)
10/24/2017			<0.01					<0.01	
10/25/2017	0.0024 (J)	0.0024 (J)		0.0015 (J)	<0.01	<0.01			0.0005 (J)
10/26/2017							0.0007 (J)		
2/27/2018			<0.01					<0.01	
2/28/2018	<0.01	<0.01		<0.01	<0.01	<0.01			<0.01
3/1/2018							<0.01		
7/11/2018	0.0024 (J)	0.0022 (J)	<0.01	<0.01	<0.01				<0.01
7/12/2018						<0.01	<0.01		
11/6/2018			<0.01					<0.01	
11/7/2018	<0.01	<0.01 (J)		<0.01 (J)	<0.01	<0.01			<0.01
11/8/2018							<0.01		
8/27/2019	0.0031 (J)		0.0004 (J)					<0.01	
8/28/2019		0.0028 (J)							<0.01
8/29/2019				0.0017 (J)	0.00041 (J)	<0.01	<0.01		
10/15/2019								<0.01	
10/16/2019		0.0024 (J)							
10/17/2019			0.00046 (J)	0.0015 (J)	<0.01				0.00041 (J)
10/18/2019	0.0027 (J)					<0.01	0.00041 (J)		
3/2/2020								<0.01	
3/3/2020		0.0028 (J)	<0.01		0.00048 (J)	<0.01			
3/4/2020	0.0035 (J)			0.0032 (J)			0.00081 (J)		0.00042 (J)
8/11/2020		0.0024 (J)	0.00067 (J)						
8/12/2020								<0.01	
8/13/2020				0.0023 (J)			0.00085 (J)		0.0021 (J)
8/14/2020	0.0033 (J)				<0.01	<0.01			
9/22/2020		0.003 (J)		0.0013 (J)				<0.01	0.001 (J)
9/23/2020			<0.01						
9/24/2020	0.0029 (J)				0.00096 (J)	<0.01	0.00084 (J)		

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.01	<0.01				
8/31/2016			<0.01						
9/1/2016	<0.01	<0.01							
12/6/2016			<0.01	<0.01	<0.01				
12/8/2016	<0.01	<0.01							
3/28/2017			<0.01		0.001 (J)				
3/29/2017				0.0004 (J)					
3/30/2017		<0.01							
3/31/2017	0.0007 (J)								
7/11/2017			<0.01	<0.01	<0.01				
7/13/2017	<0.01	0.0007 (J)							
10/24/2017				<0.01	<0.01				
10/25/2017			<0.01						
10/26/2017	<0.01	<0.01							
2/27/2018			<0.01	<0.01	<0.01				
3/1/2018	<0.01								
3/2/2018		<0.01							
7/11/2018					<0.01				
7/12/2018	<0.01	<0.01							
11/6/2018			<0.01	<0.01	<0.01				
11/7/2018	<0.01	<0.01							
8/27/2019			<0.01		0.00048 (J)				
8/28/2019				<0.01					
8/29/2019	<0.01	<0.01							
10/16/2019			<0.01	0.0013 (J)					
10/17/2019	<0.01				0.00051 (J)				
10/18/2019		<0.01							
3/2/2020			0.00045 (J)						
3/3/2020				0.00061 (J)	0.0057 (J)				
3/4/2020	<0.01	0.0004 (J)							
8/11/2020					0.00061 (J)				
8/12/2020	<0.01		<0.01	0.0028 (J)					
8/13/2020		<0.01						0.0021 (J)	
8/17/2020						<0.01	0.0014 (J)		<0.01
9/22/2020			<0.01		<0.01				
9/23/2020	<0.01	<0.01		0.00086 (J)					
9/24/2020								0.0007 (J)	
9/28/2020							<0.01		<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.005 (J)		
8/17/2020		0.0014 (J)	
8/19/2020			0.00057 (J)
9/25/2020	0.0051 (J)	0.00085 (J)	
9/28/2020			0.00066 (J)

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.193	<0.005			<0.005	
9/1/2016						0.0021 (J)			
9/6/2016							<0.005		0.0042 (J)
12/6/2016				0.2	0.0006 (J)			<0.005	
12/7/2016						0.0026 (J)	<0.005		0.0028 (J)
3/28/2017	0.025	0.0034 (J)	0.0033 (J)						
3/29/2017				0.184	<0.005	0.0026 (J)		<0.005	
3/30/2017							0.0005 (J)		0.0024 (J)
5/11/2017	0.0281								
5/12/2017			0.0016 (J)						
5/15/2017		0.0024 (J)							
6/15/2017	0.0322	0.0014 (J)							
6/16/2017			0.0011 (J)						
7/11/2017		0.0007 (J)	0.0008 (J)						
7/12/2017	0.0247			0.177	<0.005	0.0033 (J)	0.0004 (J)	<0.005	0.002 (J)
8/8/2017		0.0007 (J)							
10/24/2017	0.0267	<0.005	0.0004 (J)	0.175	<0.005				
10/25/2017						0.0021 (J)		<0.005	0.0019 (J)
11/15/2017							<0.005		
2/27/2018		<0.005	<0.005	0.2	<0.005	<0.005		<0.005	
2/28/2018							<0.005		<0.005
3/8/2018	0.027								
7/11/2018						0.002 (J)		<0.005	0.0018 (J)
7/12/2018	0.024								
11/6/2018		<0.005	<0.005	0.2	<0.005				
11/7/2018	0.018					<0.01 (J)	<0.005	<0.005	0.025
8/27/2019		<0.005	<0.005	0.13	0.00076 (J)	0.0021 (J)		<0.005	
8/28/2019	0.013						<0.005		0.0015 (J)
9/17/2019						0.0079			
10/15/2019		0.00064 (J)	<0.005	0.17	0.0006 (J)	0.0058			
10/16/2019	0.009						<0.005	<0.005	
10/17/2019									0.0018 (J)
3/2/2020		0.00037 (J)	<0.005		0.00078 (J)	0.029			
3/3/2020				0.18			<0.005	<0.005	0.0018 (J)
3/9/2020	0.016								
8/11/2020		0.0012 (J)	<0.005	0.11	0.00055 (J)	0.006		<0.005	
8/12/2020							<0.005		
8/13/2020	0.0051								0.0024 (J)
9/22/2020	0.011	<0.005	<0.005		0.00098 (J)	0.013		<0.005	
9/23/2020							0.00038 (J)		0.0018 (J)
9/24/2020				0.086					

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0553							
9/2/2016				0.497	0.0085 (J)	0.0102			
9/7/2016	0.0247								0.0695
12/7/2016		0.0561		0.614					
12/8/2016	0.029				0.0095 (J)	0.0079 (J)			0.0652
3/28/2017								0.0018 (J)	
3/29/2017		0.0534		0.443		0.0097 (J)			
3/30/2017	0.0283		0.0255		0.0076 (J)		<0.005		
3/31/2017									0.0524
5/11/2017			0.0284						
5/12/2017							<0.005	0.0015 (J)	
6/15/2017			0.0238				0.0003 (J)	0.0015 (J)	
7/11/2017			0.0238					0.0015 (J)	
7/12/2017	0.023	0.0489		0.538	0.0092 (J)		<0.005		
7/13/2017						0.0106			0.0481
10/24/2017			0.0292					0.0017 (J)	
10/25/2017	0.0259	0.0514		0.432	0.0092 (J)	0.0094 (J)			0.0435
10/26/2017							<0.005		
2/27/2018			0.042					<0.005	
2/28/2018	0.02	0.0511		0.459	<0.005	<0.005			0.0167
3/1/2018							<0.005		
7/11/2018	0.025	0.051	0.02	0.47	0.0097 (J)				0.019
7/12/2018						0.011	<0.005		
11/6/2018			0.024					<0.01 (J)	
11/7/2018	<0.01 (J)	0.048		0.42	<0.01 (J)	<0.01 (J)			0.02
11/8/2018							<0.01 (J)		
8/27/2019	0.031		0.0088					0.0018 (J)	
8/28/2019		0.048							0.029
8/29/2019				0.66	0.01	0.0094	0.00036 (J)		
10/15/2019								0.0018 (J)	
10/16/2019		0.046							
10/17/2019			0.0084	0.57	0.01				0.03
10/18/2019	0.023					0.0084	<0.005		
3/2/2020								0.0021 (J)	
3/3/2020		0.054	0.0073		0.01	0.0098			
3/4/2020	0.023			0.84			0.00043 (J)		0.014
8/11/2020		0.049	0.0064						
8/12/2020								0.0018 (J)	
8/13/2020				0.73			0.00048 (J)		0.025
8/14/2020	0.026				0.0098	0.0087			
9/22/2020		0.051		0.47				0.0014 (J)	0.014
9/23/2020			0.0062						
9/24/2020	0.028				0.01	0.01	<0.005		



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.0568	0.0896				
8/31/2016			0.055						
9/1/2016	0.536	0.539							
12/6/2016			0.0432	0.0873	0.122				
12/8/2016	0.381	0.575							
3/28/2017			0.04		0.124				
3/29/2017				0.0902					
3/30/2017		0.573							
3/31/2017	0.354								
7/11/2017			0.0351 (J)	0.0601	0.136				
7/13/2017	0.396	0.531							
10/24/2017				0.123	0.151				
10/25/2017			0.0209						
10/26/2017	0.383	0.482							
2/27/2018			0.024	0.126	0.163				
3/1/2018	0.401								
3/2/2018		0.49							
7/11/2018					0.18				
7/12/2018	0.36	0.46							
11/6/2018			0.019	0.077	0.2				
11/7/2018	0.35	0.48							
8/27/2019			0.02		0.24				
8/28/2019				0.051					
8/29/2019	0.28	0.42							
10/16/2019			0.022	0.054					
10/17/2019	0.26				0.21				
10/18/2019		0.41							
3/2/2020			0.028						
3/3/2020				0.044	0.2				
3/4/2020	0.28	0.42							
8/11/2020					0.22				
8/12/2020	0.21		0.021	0.053					
8/13/2020		0.35						0.0011 (J)	
8/17/2020						0.061	0.042		0.0028 (J)
9/22/2020			0.02		0.16				
9/23/2020	0.17	0.37		0.04					
9/24/2020								0.0004 (J)	
9/28/2020							0.042		0.0053

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.021		
8/17/2020		0.0031 (J)	
8/19/2020			0.068
9/25/2020	0.0073	0.0015 (J)	
9/28/2020			0.064

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				1.08	1.09			0.997 (U)	
9/1/2016						1.11			
9/6/2016							1.32		0.731 (U)
12/6/2016				1.31	0.409 (U)			0.659 (U)	
12/7/2016						2.66	1.76		1.73
3/28/2017	6.36	0.866 (U)	0.257 (U)						
3/29/2017				1.24	0.727	0.0726 (U)		0.313 (U)	
3/30/2017							1.59		0.276 (U)
5/11/2017	3.45								
5/12/2017			0.165 (U)						
5/15/2017		0.288 (U)							
6/15/2017	4.58	1.01 (U)							
6/16/2017			0.732 (U)						
7/11/2017		0.254 (U)	0.461 (U)						
7/12/2017	4.37			0.831	0.85 (U)	0.538 (U)	1.36	1.03 (U)	0.584 (U)
8/8/2017		1.48							
10/24/2017	4.46	0.472 (U)	0.724 (U)	0.838 (U)	0.98 (U)				
10/25/2017						0.216 (U)		0.607 (U)	0.454 (U)
11/15/2017							1.08 (U)		
2/27/2018		1.22	0.714 (U)	1.55	1.14	0.83		0.695 (U)	
2/28/2018							0.721 (U)		1.25
3/8/2018	2.14								
7/10/2018		0.362 (U)	0.426 (U)	1.65	0.495 (U)		0.746 (U)		
7/11/2018						0.728 (U)		1.04 (U)	2.13
7/12/2018	4.65								
11/6/2018		0.859 (U)	0.455 (U)	1.46	1.41				
11/7/2018	3.05					0.414 (U)	1.22 (U)	0.593 (U)	0.786 (U)
8/27/2019		1.97	1.3 (U)	1.58	2.13	0.434 (U)		1.17 (U)	
8/28/2019	2.68						1.43		1.01 (U)
10/15/2019		0.319 (U)	1.21 (U)	0.831 (U)	0.622 (U)	0.359 (U)			
10/16/2019	1.89						1.73	1.04 (U)	
10/17/2019									1.03 (U)
3/2/2020		0.419 (U)	1.3		1.3	1.2 (U)			
3/3/2020				1.69			1.03	1.44	0.293 (U)
3/9/2020	3.51								
8/11/2020		0.812 (U)	0.965 (U)	1.45	1.02	0.77 (U)		1.17 (U)	
8/12/2020							1.63		
8/13/2020	1.04								3.58
9/22/2020	2.27	0.45 (U)	0.216 (U)		0.502 (U)	0.515 (U)		1.2 (U)	
9/23/2020							0.935 (U)		1.69 (U)
9/24/2020				1.39					

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		1.07 (U)							
9/2/2016				1.48	0.908 (U)	1.54			
9/7/2016	1.17								0.876 (U)
12/7/2016		0.903 (U)		1.26 (U)					
12/8/2016	1.65				1.03 (U)	0.505 (U)			0.955
3/28/2017								1.36	
3/29/2017		0.302 (U)		0.373 (U)		0.715 (U)			
3/30/2017	0.865 (U)		0.737 (U)		0.884 (U)		0.297 (U)		
3/31/2017									0.102 (U)
5/11/2017			0.892 (U)						
5/12/2017							0.693 (U)	1.15	
6/15/2017			0.979 (U)				0.435 (U)	0.765 (U)	
7/11/2017			0.871 (U)					1.13	
7/12/2017	0.362 (U)	0.283 (U)		0.91 (U)	1.22		0.703 (U)		
7/13/2017						1.14			1.08 (U)
10/24/2017			1.19					1.24	
10/25/2017	0.401 (U)	0.927 (U)		0.853 (U)	1.07 (U)	1.6			1.46
10/26/2017							0.984 (U)		
2/27/2018			0.863 (U)					1.82	
2/28/2018	1.1 (U)	0.813 (U)		0.727 (U)	1.45	0.918 (U)			0.882 (U)
3/1/2018							0.743 (U)		
7/10/2018								1.37	
7/11/2018	0.64 (U)	0.751 (U)	0.663 (U)	1.3	1.59				0.924 (U)
7/12/2018						0.981 (U)	0.918 (U)		
11/6/2018			0.664					1.2	
11/7/2018	0.795 (U)	1.02		0.746 (U)	1.16	0.832 (U)			0.654 (U)
11/8/2018							1.47		
8/27/2019	1.12		1.6					1.79	
8/28/2019		0.661 (U)							0.883 (U)
8/29/2019				0.996 (U)	0.582 (U)	1.87	2.21		
10/15/2019								2.11 (U)	
10/16/2019		1.79							
10/17/2019			1.74	2	0.427 (U)				1.38
10/18/2019	0.89 (U)					1.1 (U)	1.32		
3/2/2020								1.99	
3/3/2020		0.383 (U)	1.23		0.567 (U)	0.517 (U)			
3/4/2020	0.493 (U)			1.67			1.39		0.722 (U)
8/11/2020		0.723 (U)	1.37						
8/12/2020								1.95	
8/13/2020				1.77			1.48 (U)		1.23 (U)
8/14/2020	0.804 (U)				0.602 (U)	1.83			
9/22/2020		0.96 (U)		1.61 (U)				1.43 (U)	1.03 (U)
9/23/2020			1.96 (U)						
9/24/2020	0.369 (U)				0.396 (U)	1.02 (U)	1.49		

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.919 (U)	1.33				
8/31/2016			2.49						
9/1/2016	4.47	2.37							
12/6/2016			0.348 (U)	0.407 (U)	0.828 (U)				
12/8/2016	2.88	2.87							
3/28/2017			0.693 (U)		1.06				
3/29/2017				0.28 (U)					
3/30/2017		1.71							
3/31/2017	1.14								
7/11/2017			1.38	0.209 (U)	0.62 (U)				
7/13/2017	2.37	1.78							
10/24/2017				0.615 (U)	1.21				
10/25/2017			2.06						
10/26/2017	2.88	3.74							
2/27/2018			1.97	1.05 (U)	1.79				
3/1/2018	2.21								
3/2/2018		2.26							
7/10/2018			1.03 (U)	0.363 (U)					
7/11/2018					1.81				
7/12/2018	1.73	1.81							
11/6/2018			1.13	0.577 (U)	1.13				
11/7/2018	1.72	1.94							
8/27/2019			1.81		1.55				
8/28/2019				0.815 (U)					
8/29/2019	3.05	2.37							
10/16/2019			1.63	0.999 (U)					
10/17/2019	2.58				0.702 (U)				
10/18/2019		1.42							
3/2/2020			2.28						
3/3/2020				0.481 (U)	1.37				
3/4/2020	1.68	1.31							
8/11/2020					0.819 (U)				
8/12/2020	2.56		1.13	0.721 (U)					
8/13/2020		1.74						2.17	
8/17/2020						1.78 (U)	1.15 (U)		0.662 (U)
9/22/2020			1.4 (U)		1.15 (U)				
9/23/2020	2.3 (U)	1.51 (U)		0.8 (U)					
9/24/2020								0.761 (U)	
9/28/2020							1.39		0.747 (U)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.95 (U)		
8/17/2020		2.47	
8/19/2020			1.19 (U)
9/25/2020	0.0359 (U)	0.925 (U)	
9/28/2020			1.54

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				1	0.06 (J)			0.06 (J)	
9/1/2016						0.02 (J)			
9/6/2016							0.17 (J)		0.11 (J)
12/6/2016				1.3	0.06 (J)			0.1 (J)	
12/7/2016						0.16 (J)	0.3		0.11 (J)
3/28/2017	0.12 (J)	1.2 (o)	0.06 (J)						
3/29/2017				1.5	0.04 (J)	0.1 (J)		0.02 (J)	
3/30/2017							0.12 (J)		<0.1
5/11/2017	0.07 (J)								
5/12/2017			<0.1						
5/15/2017		0.005 (J)							
6/15/2017	0.19 (J)	0.02 (J)							
6/16/2017			0.008 (J)						
7/11/2017		0.06 (J)	0.007 (J)						
7/12/2017	0.1 (J)			1.7	0.03 (J)	0.2 (J)	0.13 (J)	<0.1	0.07 (J)
8/8/2017		0.04 (J)							
10/24/2017	0.06 (J)	<0.1	<0.1	2.1	<0.1				
10/25/2017						0.6		<0.1	0.26 (J)
11/15/2017	0.05 (J)		<0.1	1.4			0.44		
2/27/2018		<0.1	<0.1	2.3	<0.1	0.34		<0.1	
2/28/2018							0.18		<0.1
3/8/2018	<0.1								
7/11/2018						<0.1		<0.1	<0.1
7/12/2018	0.071 (J)								
11/6/2018		<0.1	<0.1	2	<0.1				
11/7/2018	<0.1					<0.3 (J)	<0.3 (J)	<0.1	<0.1
3/12/2019		0.039 (J)	<0.1	1.7	0.052 (J)	0.065 (J)			
3/13/2019	0.13 (J)						0.13 (J)	0.042 (J)	
3/14/2019									0.057 (J)
8/27/2019		<0.1	<0.1	1.4	<0.1	<0.1		<0.1	
8/28/2019	0.42						0.091 (J)		<0.1
10/15/2019		<0.1	<0.1	1.4	<0.1	<0.1			
10/16/2019	0.11 (J)						0.14 (J)	0.052 (J)	
10/17/2019									0.079 (J)
3/2/2020		<0.1	<0.1		0.064 (J)	0.071 (J)			
3/3/2020				1.5			0.078 (J)	<0.1	<0.1
3/9/2020	0.1 (J)								
8/11/2020		<0.1	<0.1	1.4	<0.1	<0.1		<0.1	
8/12/2020							0.051 (J)		
8/13/2020	0.062 (J)								<0.1
9/22/2020	0.099 (J)	<0.1	<0.1		<0.1	<0.1		<0.1	
9/23/2020							0.058 (J)		<0.1
9/24/2020				0.97					

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.75							
9/2/2016				0.66	0.07 (J)	0.3			
9/7/2016	0.32								0.02 (J)
12/7/2016		0.37		0.66					
12/8/2016	0.31				0.14 (J)	0.12 (J)			0.06 (J)
3/28/2017								0.17 (J)	
3/29/2017		0.35		0.34		0.11 (J)			
3/30/2017	0.1 (J)		0.06 (J)		<0.1		0.12 (J)		
3/31/2017									<0.1
5/11/2017			0.06 (J)						
5/12/2017							0.36	<0.1	
6/15/2017			0.07 (J)				0.21 (J)	0.02 (J)	
7/11/2017			0.04 (J)					0.02 (J)	
7/12/2017	0.27 (J)	0.34		0.41	0.04 (J)		0.22 (J)		
7/13/2017						0.09 (J)			<0.1
10/24/2017			0.43					<0.1	
10/25/2017	0.49	0.9		0.68	0.34	0.25 (J)			<0.1
10/26/2017							0.66		
11/15/2017								0.79	
2/27/2018			0.28					<0.1	
2/28/2018	0.54	1.2		0.76	<0.1	<0.1			<0.1
3/1/2018							0.18		
7/11/2018	0.15 (J)	0.37	0.6	1.3	<0.1				<0.1
7/12/2018						0.13 (J)	0.25 (J)		
11/6/2018			<0.1					<0.1	
11/7/2018	<0.3 (J)	<0.3 (J)		<0.3 (J)	<0.1	<0.1			<0.1
11/8/2018							<0.3 (J)		
3/12/2019			0.052 (J)					0.082 (J)	
3/13/2019	0.084 (J)	0.22 (J)		0.45	0.043 (J)				
3/14/2019						0.042 (J)	0.092 (J)		<0.1
8/27/2019	0.24 (J)		<0.1					<0.1	
8/28/2019		0.2							<0.1
8/29/2019				0.78	0.079 (J)	0.054 (J)	0.095 (J)		
10/15/2019								<0.1	
10/16/2019		0.23 (J)							
10/17/2019			0.042 (J)	0.26 (J)	<0.1				<0.1
10/18/2019	0.086 (J)					<0.1	0.079 (J)		
3/2/2020								<0.1	
3/3/2020		0.056 (J)	<0.1		<0.1	<0.1			
3/4/2020	<0.1			1.5			0.075 (J)		<0.1
8/11/2020		0.2	<0.1						
8/12/2020								<0.1	
8/13/2020				0.9			0.1		<0.1
8/14/2020	0.069 (J)				<0.1	<0.1			
9/22/2020		0.084 (J)		0.15				<0.1	<0.1
9/23/2020			<0.1						
9/24/2020	0.056 (J)				<0.1	<0.1	0.075 (J)		



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.39	0.78				
8/31/2016			1						
9/1/2016	1.8	1.5							
12/6/2016			0.76	0.47	1.1				
12/8/2016	1.1	1.6							
3/28/2017			1.2		1.1				
3/29/2017				0.51					
3/30/2017		0.86							
3/31/2017	0.88								
7/11/2017			0.7	0.2 (J)	1.1				
7/13/2017	0.84	1.1							
10/24/2017				0.82	1.7				
10/25/2017			1.4						
10/26/2017	1	1.7							
2/27/2018			1.3	0.59	1.2				
3/1/2018	1.4								
3/2/2018		1.1							
7/11/2018					1.3				
7/12/2018	0.96	0.65							
11/6/2018			<0.3 (J)	0.35	1.1				
11/7/2018	0.74	0.63							
3/12/2019			0.31	0.35	0.97				
3/14/2019	1.6	1.4							
8/27/2019			0.32		0.68				
8/28/2019				0.098 (J)					
8/29/2019	0.52	0.78							
10/16/2019			0.32	0.14 (J)					
10/17/2019	0.46				1.2				
10/18/2019		0.46							
3/2/2020			0.33						
3/3/2020				<0.1	1.4				
3/4/2020	0.74	0.7							
8/11/2020					1.3				
8/12/2020	0.22		0.13	0.056 (J)					
8/13/2020		0.47						<0.1	
8/17/2020						0.077 (J)	0.19		<0.1
9/22/2020			0.12		0.99				
9/23/2020	0.11	0.32		<0.1					
9/24/2020								<0.1	
9/28/2020							0.098 (J)		<0.1

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.05 (J)		
8/17/2020		<0.1	
8/19/2020			0.32
9/25/2020	<0.1	<0.1	
9/28/2020			0.3

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				<0.005	<0.005			<0.005	
9/1/2016						<0.005			
9/6/2016							<0.005		<0.005
12/6/2016				<0.005	<0.005			<0.005	
12/7/2016						<0.005	<0.005		0.0002 (J)
3/28/2017	<0.005	9E-05 (J)	<0.005						
3/29/2017				<0.005	<0.005	<0.005		<0.005	
3/30/2017							0.0002 (J)		0.0001 (J)
5/11/2017	<0.005								
5/12/2017			8E-05 (J)						
5/15/2017		0.0001 (J)							
6/15/2017	<0.005	0.0002 (J)							
6/16/2017			<0.005						
7/11/2017		<0.005	<0.005						
7/12/2017	<0.005			<0.005	<0.005	<0.005	<0.005	<0.005	0.0001 (J)
8/8/2017		7E-05 (J)							
10/24/2017	<0.005	<0.005	<0.005	<0.005	<0.005				
10/25/2017						<0.005		<0.005	<0.005
11/15/2017							<0.005		
2/27/2018		<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
2/28/2018							<0.005		<0.005
3/8/2018	<0.005								
7/11/2018						<0.005		<0.005	<0.005
7/12/2018	<0.005								
11/6/2018		<0.005	<0.005	<0.005	<0.005				
11/7/2018	<0.005					<0.005	<0.005	<0.005	<0.005
8/27/2019		7.8E-05 (J)	<0.005	0.00024 (J)	0.00012 (J)	0.0001 (J)		<0.005	
8/28/2019	<0.005						<0.005		5.9E-05 (J)
9/17/2019						<0.005			
10/15/2019		<0.005	<0.005	0.00014 (J)	7.6E-05 (J)	<0.005			
10/16/2019	<0.005						<0.005	<0.005	
10/17/2019									<0.005
3/2/2020		7.4E-05 (J)	<0.005		0.00015 (J)	<0.005			
3/3/2020				0.00011 (J)			<0.005	<0.005	<0.005
3/9/2020	<0.005								
8/11/2020		0.0003 (J)	<0.005	7E-05 (J)	5.3E-05 (J)	<0.005		9.6E-05 (J)	
8/12/2020							<0.005		
8/13/2020	<0.005								0.0012 (J)
9/22/2020	<0.005	7.8E-05 (J)	<0.005		0.0001 (J)	0.00011 (J)		4.4E-05 (J)	
9/23/2020							9.8E-05 (J)		8.2E-05 (J)
9/24/2020				0.00013 (J)					

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		<0.005							
9/2/2016				<0.005	0.0002 (J)	<0.005			
9/7/2016	<0.005								0.0002 (J)
12/7/2016		<0.005		<0.005					
12/8/2016	<0.005				<0.005	<0.005			0.0002 (J)
3/28/2017								0.0002 (J)	
3/29/2017		<0.005		<0.005		<0.005			
3/30/2017	0.0001 (J)		0.0001 (J)		0.0004 (J)		<0.005		
3/31/2017									0.0004 (J)
5/11/2017			9E-05 (J)						
5/12/2017							<0.005	<0.005	
6/15/2017			0.0001 (J)				<0.005	<0.005	
7/11/2017			<0.005					<0.005	
7/12/2017	<0.005	<0.005		<0.005	0.0001 (J)		<0.005		
7/13/2017						<0.005			0.0004 (J)
10/24/2017			<0.005					<0.005	
10/25/2017	<0.005	<0.005		<0.005	<0.005	<0.005			0.0002 (J)
10/26/2017							<0.005		
2/27/2018			<0.005					<0.005	
2/28/2018	<0.005	<0.005		<0.005	<0.005	<0.005			<0.005
3/1/2018							<0.005		
7/11/2018	<0.005	<0.005	<0.005	<0.005	<0.005				0.00052 (J)
7/12/2018						<0.005	<0.005		
11/6/2018			<0.005					<0.005	
11/7/2018	<0.005	<0.005		<0.005	<0.005	<0.005			<0.005 (J)
11/8/2018							<0.005		
8/27/2019	9E-05 (J)		6E-05 (J)					4.9E-05 (J)	
8/28/2019		0.00026 (J)							0.00036 (J)
8/29/2019				0.00015 (J)	0.00023 (J)	<0.005	6.6E-05 (J)		
10/15/2019								0.0001 (J)	
10/16/2019		<0.005							
10/17/2019			8.6E-05 (J)	9.7E-05 (J)	4.6E-05 (J)				0.00026 (J)
10/18/2019	7.4E-05 (J)					<0.005	<0.005		
3/2/2020								<0.005	
3/3/2020		7E-05 (J)	<0.005		0.00015 (J)	<0.005			
3/4/2020	0.00013 (J)			0.00068 (J)			<0.005		0.0001 (J)
8/11/2020		5.3E-05 (J)	6.4E-05 (J)						
8/12/2020								<0.005	
8/13/2020				0.00044 (J)			<0.005		0.0016 (J)
8/14/2020	0.00017 (J)				<0.005	<0.005			
9/22/2020		0.00016 (J)		0.00013 (J)				<0.005	0.00074 (J)
9/23/2020			9.4E-05 (J)						
9/24/2020	7.9E-05 (J)				0.00014 (J)	<0.005	<0.005		

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.005	<0.005				
8/31/2016			0.0002 (J)						
9/1/2016	0.0005 (J)	0.0008 (J)							
12/6/2016			0.0004 (J)	<0.005	<0.005				
12/8/2016	<0.005	0.0019 (J)							
3/28/2017			<0.005		<0.005				
3/29/2017				0.0001 (J)					
3/30/2017		0.0035 (J)							
3/31/2017	0.0009 (J)								
7/11/2017			<0.005	<0.005	<0.005				
7/13/2017	0.0007 (J)	0.002 (J)							
10/24/2017				<0.005	<0.005				
10/25/2017			0.0024 (J)						
10/26/2017	0.0009 (J)	0.0022 (J)							
2/27/2018			<0.005	<0.005	<0.005				
3/1/2018	<0.005								
3/2/2018		<0.005							
7/11/2018					<0.005				
7/12/2018	0.001 (J)	0.0014 (J)							
11/6/2018			<0.005	<0.005	<0.005				
11/7/2018	<0.005 (J)	<0.005 (J)							
8/27/2019			5.1E-05 (J)		<0.005				
8/28/2019				8.2E-05 (J)					
8/29/2019	0.0006 (J)	0.001 (J)							
10/16/2019			8.5E-05 (J)	0.00029 (J)					
10/17/2019	0.0011 (J)				<0.005				
10/18/2019		0.00095 (J)							
3/2/2020			5.1E-05 (J)						
3/3/2020				0.00023 (J)	0.00017 (J)				
3/4/2020	0.00088 (J)	0.0012 (J)							
8/11/2020									
8/12/2020	0.0004 (J)		6.3E-05 (J)	0.0007 (J)					
8/13/2020		0.00092 (J)						0.0016 (J)	
8/17/2020						<0.005	0.00022 (J)		5.9E-05 (J)
9/22/2020			4.8E-05 (J)		0.00015 (J)				
9/23/2020	0.00053 (J)	0.001 (J)		0.00011 (J)					
9/24/2020								0.00021 (J)	
9/28/2020							9.1E-05 (J)		0.00011 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.00092 (J)		
8/17/2020		0.00081 (J)	
8/19/2020			0.00012 (J)
9/25/2020	6.5E-05 (J)	0.00035 (J)	
9/28/2020			0.00012 (J)

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0022 (J)	0.0022 (J)			0.0031 (J)	
9/1/2016						<0.03			
9/6/2016							0.0029 (J)		0.0064 (J)
12/6/2016				<0.03	0.0027 (J)			0.0042 (J)	
12/7/2016						<0.03	0.003 (J)		0.0066 (J)
3/28/2017	0.0108 (J)	0.0054 (J)	0.0025 (J)						
3/29/2017				0.002 (J)	0.0021 (J)	<0.03		0.0041 (J)	
3/30/2017							0.0035 (J)		0.0061 (J)
5/11/2017	0.0087 (J)								
5/12/2017			0.0016 (J)						
5/15/2017		0.002 (J)							
6/15/2017	0.0088 (J)	<0.03							
6/16/2017			0.0016 (J)						
7/11/2017		<0.03	<0.03						
7/12/2017	0.0075 (J)			0.0019 (J)	0.0022 (J)	<0.03	0.0028 (J)	0.0036 (J)	0.006 (J)
8/8/2017		<0.03							
10/24/2017	0.0103 (J)	<0.03	<0.03	0.0022 (J)	0.0024 (J)				
10/25/2017						<0.03		0.0032 (J)	0.0061 (J)
11/15/2017							0.0028 (J)		
2/27/2018		<0.03	0.0013 (J)	0.0037 (J)	0.0022 (J)	0.00097 (J)		0.0035 (J)	
2/28/2018							<0.03		0.0062 (J)
3/8/2018	0.011 (J)								
7/11/2018						<0.03		0.0034 (J)	0.0058 (J)
7/12/2018	0.0084 (J)								
11/6/2018		<0.03	<0.03	<0.03	<0.03				
11/7/2018	<0.03					<0.03	<0.03	<0.03	<0.05 (o)
8/27/2019		<0.03	0.0014 (J)	0.0053 (J)	0.0023 (J)	0.0011 (J)		0.0038 (J)	
8/28/2019	0.0092 (J)						0.0033 (J)		0.0063 (J)
9/17/2019						0.0011 (J)			
10/15/2019		<0.03	0.0012 (J)	0.0051 (J)	0.0019 (J)	0.00091 (J)			
10/16/2019	0.0094 (J)						0.0029 (J)	0.0032 (J)	
10/17/2019									0.0064 (J)
3/2/2020		<0.03	0.0011 (J)		0.0023 (J)	<0.03			
3/3/2020				0.0049 (J)			0.0035 (J)	0.008 (J)	0.0059 (J)
3/9/2020	0.0077 (J)								
8/11/2020		0.0019 (J)	0.0015 (J)	0.0033 (J)	0.0028 (J)	0.0011 (J)		0.0035 (J)	
8/12/2020							0.0034 (J)		
8/13/2020	0.0085 (J)								0.0089 (J)
9/22/2020	0.0089 (J)	<0.03	0.0012 (J)		0.0019 (J)	<0.03		0.0038 (J)	
9/23/2020							0.0033 (J)		0.006 (J)
9/24/2020				0.0049 (J)					

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0034 (J)							
9/2/2016				0.0021 (J)	0.0057 (J)	0.0046 (J)			
9/7/2016	<0.03								0.012 (J)
12/7/2016		0.0034 (J)		0.005 (J)					
12/8/2016	<0.03				0.0054 (J)	0.0047 (J)			0.0118 (J)
3/28/2017								0.0031 (J)	
3/29/2017		0.0031 (J)		0.0021 (J)		0.0043 (J)			
3/30/2017	<0.03		0.0807		0.0065 (J)		0.0162 (J)		
3/31/2017									0.0119 (J)
5/11/2017			0.085						
5/12/2017							0.0036 (J)	0.0027 (J)	
6/15/2017			0.0781				0.0063 (J)	0.0025 (J)	
7/11/2017			0.0731					0.0022 (J)	
7/12/2017	<0.03	0.0032 (J)		0.0019 (J)	0.0057 (J)		0.0068 (J)		
7/13/2017						0.0044 (J)			0.0116 (J)
10/24/2017			0.0995					0.0024 (J)	
10/25/2017	<0.03	0.0031 (J)		0.0022 (J)	0.006 (J)	0.0042 (J)			0.0122 (J)
10/26/2017							0.0049 (J)		
2/27/2018			0.0875					0.0027 (J)	
2/28/2018	<0.03	0.0031 (J)		0.0019 (J)	0.0061 (J)	0.0043 (J)			0.0122 (J)
3/1/2018							0.0759		
7/11/2018	<0.03	0.0034 (J)	0.033 (J)	0.0022 (J)	0.0057 (J)				0.01 (J)
7/12/2018						0.0036 (J)	0.0047 (J)		
11/6/2018			<0.03					<0.03	
11/7/2018	<0.03	<0.03		<0.03	<0.03	<0.03			<0.03
11/8/2018							<0.03		
8/27/2019	0.00089 (J)		0.032					0.0033 (J)	
8/28/2019		0.0032 (J)							0.01 (J)
8/29/2019				0.0093 (J)	0.0061 (J)	0.0035 (J)	0.0017 (J)		
10/15/2019								0.0029 (J)	
10/16/2019		0.0026 (J)							
10/17/2019			0.029 (J)	0.0075 (J)	0.0063 (J)				0.011 (J)
10/18/2019	0.00096 (J)					0.0041 (J)	0.0039 (J)		
3/2/2020								0.0035 (J)	
3/3/2020		0.0034 (J)	0.026 (J)		0.0065 (J)	0.0046 (J)			
3/4/2020	0.0011 (J)			0.019 (J)			0.004 (J)		0.0091 (J)
8/11/2020		0.0031 (J)	0.028 (J)						
8/12/2020								0.0031 (J)	
8/13/2020				0.012 (J)			0.0052 (J)		0.011 (J)
8/14/2020	0.0015 (J)				0.0058 (J)	0.0039 (J)			
9/22/2020		0.0034 (J)		0.0026 (J)				0.0026 (J)	0.0099 (J)
9/23/2020			0.022 (J)						
9/24/2020	0.00096 (J)				0.0062 (J)	0.0037 (J)	0.0045 (J)		



# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.005 (J)	0.0212 (J)				
8/31/2016			0.0026 (J)						
9/1/2016	0.0854	0.125							
12/6/2016			0.0046 (J)	0.0066 (J)	0.0242 (J)				
12/8/2016	0.0667	0.122							
3/28/2017			0.0028 (J)		0.0249 (J)				
3/29/2017				0.0059 (J)					
3/30/2017		0.144							
3/31/2017	0.0767								
7/11/2017			0.0031 (J)	0.0045 (J)	0.022 (J)				
7/13/2017	0.0743	0.143							
10/24/2017				0.0072 (J)	0.0281 (J)				
10/25/2017			0.0055 (J)						
10/26/2017	0.071	0.115							
2/27/2018			0.0066 (J)	0.0075 (J)	0.031 (J)				
3/1/2018	0.0772								
3/2/2018		0.129							
7/11/2018					0.028 (J)				
7/12/2018	0.073	0.12							
11/6/2018			<0.03	<0.03	<0.03				
11/7/2018	0.082	0.12							
8/27/2019			0.008 (J)		0.031				
8/28/2019				0.0048 (J)					
8/29/2019	0.056	0.11							
10/16/2019			0.006 (J)	0.0045 (J)					
10/17/2019	0.066				0.029 (J)				
10/18/2019		0.11							
3/2/2020			0.0079 (J)						
3/3/2020				0.0052 (J)	0.028 (J)				
3/4/2020	0.063	0.12							
8/11/2020					0.032				
8/12/2020	0.054		0.0067 (J)	0.0058 (J)					
8/13/2020		0.098						0.0018 (J)	
8/17/2020						0.58	0.0056 (J)		0.0016 (J)
9/22/2020			0.0065 (J)		0.025 (J)				
9/23/2020	0.046	0.1		0.0045 (J)					
9/24/2020								0.00095 (J)	
9/28/2020							0.005 (J)		0.001 (J)

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.0045 (J)		
8/17/2020		0.006 (J)	
8/19/2020			0.011 (J)
9/25/2020	0.0018 (J)	0.0016 (J)	
9/28/2020			0.011 (J)

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				7E-05 (J)	5E-05 (J)			5E-05 (J)	
9/1/2016						9E-05 (J)			
9/6/2016							<0.0005		<0.0005
12/6/2016				9E-05 (J)	8E-05 (J)			8E-05 (J)	
12/7/2016						<0.0005	9E-05 (J)		<0.0005
3/28/2017	<0.0005	<0.0005	<0.0005						
3/29/2017				8E-05 (J)	6E-05 (J)	0.00014 (J)		6E-05 (J)	
3/30/2017							7E-05 (J)		6E-05 (J)
5/11/2017	<0.0005								
5/12/2017			6E-05 (J)						
5/15/2017		<0.0005							
6/15/2017	8E-05 (J)	7E-05 (J)							
6/16/2017			7E-05 (J)						
7/11/2017		<0.0005	<0.0005						
7/12/2017	<0.0005			<0.0005	<0.0005	8E-05 (J)	<0.0005	<0.0005	<0.0005
8/8/2017		<0.0005							
10/24/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
10/25/2017						6E-05 (J)		<0.0005	<0.0005
11/15/2017							<0.0005		
2/27/2018		<0.0005	<0.0005	<0.0005	<0.0005	6E-05 (J)		<0.0005	
2/28/2018							<0.0005		<0.0005
3/8/2018	<0.0005								
7/11/2018						3.6E-05 (J)		<0.0005	<0.0005
7/12/2018	<0.0005								
11/6/2018		<0.0005	<0.0005	<0.0005	<0.0005				
11/7/2018	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005
8/27/2019		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/28/2019	<0.0005						<0.0005		<0.0005
9/17/2019						<0.0005			
10/15/2019		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
10/16/2019	<0.0005						<0.0005	<0.0005	
10/17/2019									<0.0005
3/2/2020		<0.0005	<0.0005		<0.0005	<0.0005			
3/3/2020				<0.0005			<0.0005	<0.0005	<0.0005
3/9/2020	<0.0005								
8/11/2020		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	
8/12/2020							<0.0005		
8/13/2020	<0.0005								<0.0005
9/22/2020	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005	
9/23/2020							<0.0005		<0.0005
9/24/2020				8.1E-05 (J)					

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		4E-05 (J)							
9/2/2016				<0.0005	6E-05 (J)	5E-05 (J)			
9/7/2016	6E-05 (J)								<0.0005
12/7/2016		5E-05 (J)		8E-05 (J)					
12/8/2016	<0.0005				<0.0005	<0.0005			<0.0005
3/28/2017								<0.0005	
3/29/2017		9E-05 (J)		8E-05 (J)		0.0001 (J)			
3/30/2017	0.00012 (J)		7E-05 (J)		8E-05 (J)		0.0002 (J)		
3/31/2017									4E-05 (J)
5/11/2017			8.3E-05 (J)						
5/12/2017							0.00015 (J)	8.2E-05 (J)	
6/15/2017			8E-05 (J)				0.00019 (J)	8E-05 (J)	
7/11/2017			<0.0005					<0.0005	
7/12/2017	5E-05 (J)	<0.0005		<0.0005	6E-05 (J)		0.00012 (J)		
7/13/2017						<0.0005			<0.0005
10/24/2017			<0.0005					<0.0005	
10/25/2017	5E-05 (J)	<0.0005		<0.0005	5E-05 (J)	<0.0005			<0.0005
10/26/2017							0.00012 (J)		
2/27/2018			<0.0005					<0.0005	
2/28/2018	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005			<0.0005
3/1/2018							<0.0005		
7/11/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
7/12/2018						5.5E-05 (J)	0.00016 (J)		
11/6/2018			0.00064					0.00059	
11/7/2018	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005			<0.0005
11/8/2018							<0.0005		
8/27/2019	0.00016 (J)		<0.0005					<0.0005	
8/28/2019		<0.0005							<0.0005
8/29/2019				<0.0005	<0.0005	<0.0005	<0.0005		
10/15/2019								<0.0005	
10/16/2019		<0.0005							
10/17/2019			<0.0005	<0.0005	<0.0005				<0.0005
10/18/2019	<0.0005					<0.0005	<0.0005		
3/2/2020								<0.0005	
3/3/2020		<0.0005	<0.0005		<0.0005	<0.0005			
3/4/2020	<0.0005			<0.0005			0.00026		<0.0005
8/11/2020		<0.0005	<0.0005						
8/12/2020								<0.0005	
8/13/2020				<0.0005			0.00014 (J)		<0.0005
8/14/2020	9.8E-05 (J)				<0.0005	<0.0005			
9/22/2020		<0.0005		<0.0005				<0.0005	<0.0005
9/23/2020			<0.0005						
9/24/2020	8.2E-05 (J)				0.00012 (J)	<0.0005	0.0002 (J)		

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				9E-05 (J)	<0.0005				
8/31/2016			0.00015 (J)						
9/1/2016	<0.0005	<0.0005							
12/6/2016			0.00012 (J)	0.0001 (J)	5E-05 (J)				
12/8/2016	<0.0005	<0.0005							
3/28/2017			0.00017 (J)		<0.0005				
3/29/2017				0.00012 (J)					
3/30/2017		6E-05 (J)							
3/31/2017	<0.0005								
7/11/2017			0.0002 (J)	6E-05 (J)	<0.0005				
7/13/2017	<0.0005	<0.0005							
10/24/2017				<0.0005	<0.0005				
10/25/2017			9E-05 (J)						
10/26/2017	<0.0005	<0.0005							
2/27/2018			9E-05 (J)	4.2E-05 (J)	4.2E-05 (J)				
3/1/2018	<0.0005								
3/2/2018		<0.0005							
7/11/2018					<0.0005				
7/12/2018	<0.0005	<0.0005							
11/6/2018			0.00055	<0.0005	<0.0005				
11/7/2018	<0.0005	<0.0005							
8/27/2019			0.00016 (J)		0.00021 (J)				
8/28/2019				<0.0005					
8/29/2019	<0.0005	<0.0005							
10/16/2019			<0.0005	<0.0005					
10/17/2019	<0.0005				0.00042 (J)				
10/18/2019		<0.0005							
3/2/2020			<0.0005						
3/3/2020				<0.0005	<0.0005				
3/4/2020	<0.0005	<0.0005							
8/11/2020					0.00026				
8/12/2020	<0.0005		0.00017 (J)	7.9E-05 (J)					
8/13/2020		<0.0005						<0.0005	
8/17/2020						0.0001 (J)	0.00016 (J)		0.00011 (J)
9/22/2020			0.0002 (J)		0.00013 (J)				
9/23/2020	<0.0005	<0.0005		<0.0005					
9/24/2020								<0.0005	
9/28/2020							<0.0005		<0.0005

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	<0.0005		
8/17/2020		0.00011 (J)	
8/19/2020			0.00026
9/25/2020	<0.0005	<0.0005	
9/28/2020			0.00024 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				<0.01	<0.01			<0.01	
9/1/2016						<0.01			
9/6/2016							0.0371		<0.01
12/6/2016				<0.01	<0.01			<0.01	
12/7/2016						<0.01	0.0273		<0.01
3/28/2017	0.0242	<0.01	0.0009 (J)						
3/29/2017				<0.01	<0.01	<0.01		<0.01	
3/30/2017							0.03		<0.01
5/11/2017	0.0375								
5/12/2017			<0.01						
5/15/2017		<0.01							
6/15/2017	0.0409	<0.01							
6/16/2017			<0.01						
7/11/2017		<0.01	<0.01						
7/12/2017	0.0321			<0.01	<0.01	<0.01	0.0323	<0.01	<0.01
8/8/2017		<0.01							
10/24/2017	0.0227	<0.01	<0.01	<0.01	<0.01				
10/25/2017						<0.01		<0.01	<0.01
11/15/2017							0.0275		
2/27/2018		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
2/28/2018							0.0093 (J)		<0.01
3/8/2018	0.035								
7/11/2018						<0.01		<0.01	<0.01
7/12/2018	0.034								
11/6/2018		<0.01	<0.01	<0.01	<0.01				
11/7/2018	0.029					<0.01	0.018	<0.01	<0.01
8/27/2019		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
8/28/2019	0.031						0.015		<0.01
9/17/2019						<0.01			
10/15/2019		<0.01	<0.01	<0.01	<0.01	<0.01			
10/16/2019	0.037						0.014	<0.01	
10/17/2019									<0.01
3/2/2020		<0.01	<0.01		<0.01	<0.01			
3/3/2020				<0.01			0.018	<0.01	<0.01
3/9/2020	0.026								
8/11/2020		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
8/12/2020							0.012		
8/13/2020	0.012								<0.01
9/22/2020	0.039	<0.01	<0.01		<0.01	<0.01		<0.01	
9/23/2020							0.012		<0.01
9/24/2020				<0.01					

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		<0.01							
9/2/2016				<0.01	<0.01	<0.01			
9/7/2016	<0.01								<0.01
12/7/2016		<0.01		<0.01					
12/8/2016	<0.01				<0.01	<0.01			<0.01
3/28/2017								0.008 (J)	
3/29/2017		<0.01		<0.01		<0.01			
3/30/2017	<0.01		0.0009 (J)		<0.01		0.0084 (J)		
3/31/2017									<0.01
5/11/2017			0.0009 (J)						
5/12/2017							0.0085 (J)	0.0062 (J)	
6/15/2017			<0.01				0.0104	0.0044 (J)	
7/11/2017			<0.01					0.0041 (J)	
7/12/2017	<0.01	<0.01		<0.01	<0.01		0.0092 (J)		
7/13/2017						<0.01			<0.01
10/24/2017			<0.01					0.0072 (J)	
10/25/2017	<0.01	<0.01		<0.01	<0.01	<0.01			<0.01
10/26/2017							0.0077 (J)		
2/27/2018			<0.01					0.0069 (J)	
2/28/2018	<0.01	<0.01		<0.01	<0.01	<0.01			<0.01
3/1/2018							0.0045 (J)		
7/11/2018	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
7/12/2018						<0.01	0.012		
11/6/2018			<0.01					<0.01 (J)	
11/7/2018	<0.01	<0.01		<0.01	<0.01	<0.01			<0.01
11/8/2018							0.012		
8/27/2019	<0.01		0.002 (J)					0.0065 (J)	
8/28/2019		<0.01							<0.01
8/29/2019				<0.01	<0.01	<0.01	0.014		
10/15/2019								0.0061 (J)	
10/16/2019		<0.01							
10/17/2019			0.0018 (J)	<0.01	<0.01				<0.01
10/18/2019	<0.01					<0.01	0.0091 (J)		
3/2/2020								0.0059 (J)	
3/3/2020		<0.01	0.0022 (J)		<0.01	<0.01			
3/4/2020	<0.01			<0.01			0.0047 (J)		<0.01
8/11/2020		<0.01	0.002 (J)						
8/12/2020								0.0057 (J)	
8/13/2020				<0.01			0.013		<0.01
8/14/2020	<0.01				<0.01	<0.01			
9/22/2020		<0.01		<0.01				0.0028 (J)	<0.01
9/23/2020			0.0022 (J)						
9/24/2020	<0.01				<0.01	<0.01	0.0088 (J)		



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.01	<0.01				
8/31/2016			<0.01						
9/1/2016	<0.01	<0.01							
12/6/2016			<0.01	<0.01	<0.01				
12/8/2016	<0.01	<0.01							
3/28/2017			<0.01		<0.01				
3/29/2017				<0.01					
3/30/2017		<0.01							
3/31/2017	<0.01								
7/11/2017			<0.01	<0.01	<0.01				
7/13/2017	<0.01	<0.01							
10/24/2017				<0.01	<0.01				
10/25/2017			<0.01						
10/26/2017	<0.01	<0.01							
2/27/2018			<0.01	<0.01	<0.01				
3/1/2018	<0.01								
3/2/2018		<0.01							
7/11/2018					<0.01				
7/12/2018	<0.01	<0.01							
11/6/2018			<0.01	<0.01	<0.01				
11/7/2018	<0.01	<0.01							
8/27/2019			<0.01		<0.01				
8/28/2019				<0.01					
8/29/2019	<0.01	<0.01							
10/16/2019			<0.01	<0.01					
10/17/2019	<0.01				<0.01				
10/18/2019		<0.01							
3/2/2020			<0.01						
3/3/2020				<0.01	<0.01				
3/4/2020	<0.01	<0.01							
8/11/2020					<0.01				
8/12/2020	<0.01		<0.01	<0.01					
8/13/2020		<0.01						<0.01	
8/17/2020						0.0015 (J)	<0.01		<0.01
9/22/2020			<0.01		<0.01				
9/23/2020	<0.01	<0.01		<0.01					
9/24/2020								<0.01	
9/28/2020							<0.01		<0.01

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	<0.01		
8/17/2020		0.0012 (J)	
8/19/2020			<0.01
9/25/2020	<0.01	0.0012 (J)	
9/28/2020			<0.01

# Time Series

Constituent: pH (SU) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				4.58	5.83			5.68	
9/1/2016					5.67				
9/6/2016							5.69		5.79
12/6/2016				4.9	5.91			5.63	
12/7/2016						5.65	5.96		5.94
3/28/2017	6.29		5.94						
3/29/2017				4.62	5.74	5.61		5.68	
3/30/2017							5.94		5.8
5/11/2017	6.6								
5/12/2017			5.46						
5/15/2017		5.72							
6/15/2017	6.41	5.74							
6/16/2017			5.81						
7/11/2017		5.62	5.74						
7/12/2017	5.91			4.81	5.82	5.81	5.84	5.66	5.81
8/8/2017		5.6							
10/24/2017	5.51	5.71	5.86	4.8	5.79				
10/25/2017						6.07		6.18	5.9
11/15/2017	6.5		5.77	4.9			5.87		
2/27/2018		5.5	5.66	5.55	5.94	5.73		5.63	
2/28/2018							5.99		5.8
3/8/2018	6.18								
7/10/2018		5.44	5.63	5.27	5.62		5.92		
7/11/2018								5.61	5.875 (D)
7/12/2018	6.33								
11/6/2018		5.71	5.79	5.3	5.69				
11/7/2018	6.22					5.85	5.87	5.58	5.9
3/12/2019		5.52	5.74	5.26	5.7	5.98			
3/13/2019	6						5.79	5.61	
3/14/2019									5.77
8/27/2019		5.53	5.87	5.14	5.55	5.55		5.58	
8/28/2019	6.04						5.71		5.88
9/17/2019						5.6			
10/15/2019		5.61	5.88	4.96	5.6	5.89			
10/16/2019	6.69						5.69	5.66	
10/17/2019									5.76
3/2/2020		5.54	5.77		5.62	6.13			
3/3/2020				4.77			5.71	5.73	5.79
3/9/2020	6.41 (D)								
8/11/2020		5.86	5.96	4.92	5.68	5.69		5.73	
8/12/2020							5.68		
8/13/2020	6.17								6.58
9/22/2020	6.43	6.01	6.06		5.54	6		5.7	
9/23/2020							5.72		5.85
9/24/2020				4.89					

# Time Series

Constituent: pH (SU) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		4.64							
9/2/2016				4.7	5.7	5.74			
9/7/2016	5.05								5.35
12/7/2016		4.655 (D)							
12/8/2016	5.12				5.64	6.03			5.41
3/28/2017								6.01	
3/29/2017		4.7		4.7		5.77			
3/30/2017	5.08		5.75		5.79		6.03		
3/31/2017									5.36
5/11/2017			5.67						
5/12/2017							5.97	5.87	
6/15/2017			5.75				6	6.03	
7/11/2017			5.87					6.04	
7/12/2017	5	4.76		4.67	5.71		5.97		
7/13/2017						5.71			5.27
10/24/2017			5.82					5.99	
10/25/2017	5.73	4.66		4.71	5.68	5.77			5.38 (D)
10/26/2017							5.9		
11/15/2017								5.92	
2/27/2018			5.85					6.03	
2/28/2018	5.22	4.63		4.51	5.71	5.77			5.37
3/1/2018							6.19		
7/10/2018								5.96	
7/11/2018	5.07	4.71	5.85	4.68					5.19
7/12/2018						5.62	5.97		
11/6/2018			5.88					5.97	
11/7/2018	5.09	4.69		4.64	5.61	5.71			5.18
11/8/2018							5.96		
3/12/2019			5.94					5.85	
3/13/2019	5.07	4.76		4.65	5.62				
3/14/2019						5.67	5.99		5.1
8/27/2019	4.96		5.94					5.84	
8/28/2019		4.85							5.3
8/29/2019				4.64	5.61	5.66	5.96		
10/15/2019								5.98	
10/16/2019		4.87							
10/17/2019			6.16	4.64	5.57				5.2
10/18/2019	5.08					5.61	5.99		
3/2/2020								5.88	
3/3/2020	5.07	4.89	5.94		5.65	5.74			
3/4/2020	5.07			4.22			5.68		5.18
8/11/2020		4.9	6.04						
8/12/2020								5.93	
8/13/2020				4.36			6		5.34
8/14/2020	5.01				5.66	5.76			
9/22/2020		4.91		4.66				5.88	5.76
9/23/2020			5.99						
9/24/2020	5.1				5.64	5.69	6.19		

# Time Series

Constituent: pH (SU) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				5.33	4.08				
8/31/2016			4.31						
9/1/2016	5.11	4.7							
12/6/2016			4.43	5.39	4.15				
12/8/2016	5.71	4.58							
3/28/2017			4.44		4.16				
3/29/2017				5.23					
3/30/2017		4.19							
3/31/2017	4.58								
7/11/2017			4.46	5.33	4.23				
7/13/2017	4.95	4.3							
10/24/2017				5.05	4.06				
10/25/2017			4.54 (D)						
10/26/2017	5.37 (D)	4.39							
2/27/2018			4.87	5.08 (D)	4.04				
3/1/2018	3.93								
3/2/2018		4.14							
7/10/2018			4.77	5.11					
7/11/2018					4.03				
7/12/2018	4.33	4.36							
11/6/2018			4.89	5.13	4				
11/7/2018	4.48	4.23							
3/12/2019			4.42	5.07	3.98				
3/14/2019	3.88	4.12							
8/27/2019			4.83		4.02				
8/28/2019				5.11					
8/29/2019	4.35	4.28							
10/16/2019			4.78	5.33					
10/17/2019	4.6				4.02				
10/18/2019		4.22							
3/2/2020			4.8						
3/3/2020				5.12	4.07				
3/4/2020	3.86	4.27							
8/11/2020					4				
8/12/2020	4.43		4.84	5.36					
8/13/2020		4.26						6.14	
8/17/2020						5.51	4.82		5.48
9/22/2020			4.83		4				
9/23/2020	4.4	4.64		5.21					
9/24/2020								6.46	
9/28/2020							4.9		5.54

# Time Series

Constituent: pH (SU) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	5.59		
8/17/2020		5.76	
8/19/2020			4.78
9/25/2020	5.97	5.75	
9/28/2020			4.67

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0366	<0.01			0.0016 (J)	
9/1/2016						0.0017 (J)			
9/6/2016							0.0011 (J)		<0.01
12/6/2016				0.0026 (J)	<0.01			<0.01	
12/7/2016						<0.01	0.0015 (J)		<0.01
3/28/2017	<0.01	<0.01	<0.01						
3/29/2017				0.0286	<0.01	0.0017 (J)		<0.01	
3/30/2017							0.0015 (J)		<0.01
5/11/2017	<0.01								
5/12/2017			<0.01						
5/15/2017		<0.01							
6/15/2017	<0.01	<0.01							
6/16/2017			<0.01						
7/11/2017		<0.01	<0.01						
7/12/2017	<0.01			0.0257	<0.01	0.0019 (J)	<0.01	<0.01	<0.01
8/8/2017		<0.01							
10/24/2017	<0.01	<0.01	<0.01	0.0281	<0.01				
10/25/2017						0.0024 (J)		<0.01	<0.01
11/15/2017							0.0019 (J)		
2/27/2018		<0.01	<0.01	0.0667	<0.01	<0.01		<0.01	
2/28/2018							<0.01		<0.01
3/8/2018	<0.01								
7/11/2018						<0.01		0.002 (J)	<0.01
7/12/2018	<0.01								
11/6/2018		<0.01	<0.01	0.049	<0.01				
11/7/2018	<0.01					<0.01 (J)	<0.01 (J)	<0.01 (J)	<0.01 (J)
8/27/2019		<0.01	<0.01	0.015	<0.01	<0.01		<0.01	
8/28/2019	<0.01						0.0039 (J)		<0.01
9/17/2019						0.0014 (J)			
10/15/2019		<0.01	<0.01	0.071	<0.01	0.0019 (J)			
10/16/2019	<0.01						0.0031 (J)	0.0017 (J)	
10/17/2019									<0.01
3/2/2020		<0.01	<0.01		<0.01	<0.01			
3/3/2020				0.021			0.0062 (J)	0.0014 (J)	<0.01
3/9/2020	<0.01								
8/11/2020		<0.01	<0.01	0.023	<0.01	0.0019 (J)		<0.01	
8/12/2020							0.0038 (J)		
8/13/2020	<0.01								0.0018 (J)
9/22/2020	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
9/23/2020							0.0053 (J)		<0.01
9/24/2020				0.074					

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0093 (J)							
9/2/2016				0.0671	<0.01	<0.01			
9/7/2016	0.007 (J)								<0.01
12/7/2016		<0.01		0.0056 (J)					
12/8/2016	0.0087 (J)				<0.01	<0.01			<0.01
3/28/2017								<0.01	
3/29/2017		0.0071 (J)		0.0521		<0.01			
3/30/2017	0.0099 (J)		<0.01		<0.01		<0.01		
3/31/2017									<0.01
5/11/2017			<0.01						
5/12/2017							<0.01	<0.01	
6/15/2017			<0.01				<0.01	<0.01	
7/11/2017			<0.01				<0.01	<0.01	
7/12/2017	0.0072 (J)	0.0065 (J)		0.0483	<0.01		<0.01		
7/13/2017						<0.01			<0.01
10/24/2017			<0.01					<0.01	
10/25/2017	0.0078 (J)	0.0087 (J)		0.0506	<0.01	<0.01			<0.01
10/26/2017							<0.01		
2/27/2018			<0.01					<0.01	
2/28/2018	<0.01	0.0114		0.0755	<0.01	<0.01			<0.01
3/1/2018							<0.01		
7/11/2018	0.007 (J)	0.0036 (J)	0.0045 (J)	0.022	<0.01				<0.01
7/12/2018						0.0017 (J)	<0.01		
11/6/2018			<0.01 (J)					<0.01	
11/7/2018	<0.01	<0.01 (J)		0.044	<0.01	<0.01			<0.01
11/8/2018							<0.01		
8/27/2019	0.0073 (J)		0.0069 (J)					<0.01	
8/28/2019		0.004 (J)							<0.01
8/29/2019				0.029	<0.01	<0.01	<0.01		
10/15/2019								0.0014 (J)	
10/16/2019		0.006 (J)							
10/17/2019			0.0051 (J)	0.071	<0.01				<0.01
10/18/2019	0.0093 (J)					<0.01	<0.01		
3/2/2020								<0.01	
3/3/2020		0.0066 (J)	0.0047 (J)		<0.01	<0.01			
3/4/2020	0.0074 (J)			0.071			<0.01		<0.01
8/11/2020		0.0096 (J)	0.0053 (J)						
8/12/2020								<0.01	
8/13/2020				0.091			<0.01		<0.01
8/14/2020	0.0084 (J)				<0.01	<0.01			
9/22/2020		0.0052 (J)		0.023				<0.01	<0.01
9/23/2020			0.0046 (J)						
9/24/2020	0.015				<0.01	<0.01	<0.01		



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				0.0032 (J)	0.0833				
8/31/2016			0.0182						
9/1/2016	0.0217	0.0084 (J)							
12/6/2016			0.012	<0.01	0.0065 (J)				
12/8/2016	0.017	0.0084 (J)							
3/28/2017			0.168		0.0954				
3/29/2017				0.0048 (J)					
3/30/2017		0.0079 (J)							
3/31/2017	0.0133								
7/11/2017			0.0607	0.0031 (J)	0.0561				
7/13/2017	0.0068 (J)	0.0062 (J)							
10/24/2017				0.0069 (J)	0.0653				
10/25/2017			0.034						
10/26/2017	0.0097 (J)	0.0058 (J)							
2/27/2018			0.0348	<0.01	0.13				
3/1/2018	0.0124								
3/2/2018		<0.01							
7/11/2018					0.045				
7/12/2018	0.015	0.013							
11/6/2018			<0.01 (J)	<0.01 (J)	0.12				
11/7/2018	<0.01 (J)	<0.01 (J)							
8/27/2019			0.0031 (J)		0.067				
8/28/2019				<0.01					
8/29/2019	0.004 (J)	0.0023 (J)							
10/16/2019			0.015	0.0016 (J)					
10/17/2019	0.0062 (J)				0.19				
10/18/2019		0.005 (J)							
3/2/2020			0.032						
3/3/2020				0.0018 (J)	0.046				
3/4/2020	0.0065 (J)	0.0061 (J)							
8/11/2020					0.11				
8/12/2020	0.002 (J)		0.011	<0.01					
8/13/2020		0.0029 (J)						<0.01	
8/17/2020						0.0021 (J)	0.011		<0.01
9/22/2020			0.04		0.23				
9/23/2020	<0.01	0.0016 (J)		0.0028 (J)					
9/24/2020								<0.01	
9/28/2020							0.029		0.0021 (J)

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	0.015		
8/17/2020		0.0017 (J)	
8/19/2020			0.018
9/25/2020	0.019	0.0033 (J)	
9/28/2020			0.036

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				400	200			44	
9/1/2016						390			
9/6/2016							170		180
12/6/2016				190	190			45	
12/7/2016						350	160		180
3/28/2017	49	2.7	17						
3/29/2017				360	200	150		81 (o)	
3/30/2017							180		210
5/11/2017	21								
5/12/2017			17						
5/15/2017		1							
6/15/2017	16	0.86 (J)							
6/16/2017			11						
7/11/2017		1.4	11						
7/12/2017	10			390	210	350	170	44	170
8/8/2017		1.5							
10/24/2017	15	1.4	9.6	410	210				
10/25/2017						400		42	180
11/15/2017	3.8		7.8	390			180		
2/27/2018		0.54 (J)	7.4	335	220	356		41	
2/28/2018							43.5		168
3/8/2018	9.7								
7/11/2018						344		40.6	154
7/12/2018	8								
11/6/2018		<1 (J)	7.3	356	302				
11/7/2018	12.8					298	162	41.3	168
3/12/2019		0.35 (J)	7	297	275	284			
3/13/2019	23.7						179	41.2	
3/14/2019									195
10/15/2019		0.16 (J)	7.4	263	273	270			
10/16/2019	15.1						167	42.1	
10/17/2019									146
3/2/2020		<1	8.5		264	181			
3/3/2020				213			157	45.5	148
3/9/2020	9.5								
9/22/2020	13.5	<1	6.5		267	183		40.2	
9/23/2020							134		146
9/24/2020				204					

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		240							
9/2/2016				580	300	140			
9/7/2016	230								370
12/7/2016		250		650					
12/8/2016	240				280	260			350
3/28/2017								680	
3/29/2017		250		640		290			
3/30/2017	260		360		270		220		
3/31/2017									380
5/11/2017			340						
5/12/2017							220	680	
6/15/2017			300				200	730	
7/11/2017			330					740	
7/12/2017	230	250		630	290		220		
7/13/2017						300			370
10/24/2017			260					930	
10/25/2017	240	270		610	290	290			370
10/26/2017							220		
11/15/2017								820	
2/27/2018			189					811	
2/28/2018	203	244		584	267	278			350
3/1/2018							209		
7/11/2018	234	249	162	501	277				366
7/12/2018						197	202		
11/6/2018			190					902	
11/7/2018	248	266		554	286	320			439
11/8/2018							292		
3/12/2019			159					987	
3/13/2019	268	299		539	312				
3/14/2019						297	266		404
10/15/2019								888	
10/16/2019		323							
10/17/2019			134	426	255				321
10/18/2019	222					254	203		
3/2/2020								840	
3/3/2020		292	118		269	242			
3/4/2020	222			434			204		329
9/22/2020		310		408				800	320
9/23/2020			122						
9/24/2020	259				269	262	215		

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-56	B-77	B-82	B-83
8/30/2016				450	300				
8/31/2016			400						
9/1/2016	470	540							
12/6/2016			460	480	320				
12/8/2016	400	540							
3/28/2017			380		300				
3/29/2017				660					
3/30/2017		550							
3/31/2017	350								
7/11/2017			440	440	320				
7/13/2017	270	500							
10/24/2017				430	430				
10/25/2017			510						
10/26/2017	290	510							
2/27/2018			453	340	327				
3/1/2018	245								
3/2/2018		456							
7/11/2018					344				
7/12/2018	240	409							
11/6/2018			556	307	438				
11/7/2018	143	432							
3/12/2019			484	295	362				
3/14/2019	238	450							
10/16/2019			493	235					
10/17/2019	179				331				
10/18/2019		336							
3/2/2020			455						
3/3/2020				195	247				
3/4/2020	176	368							
9/22/2020			423		282				
9/23/2020	111	313		178					
9/24/2020							2.9		
9/25/2020									107
9/28/2020						211		287	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-88	B-93
9/25/2020	344	
9/28/2020		419

# Time Series

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				525	307			106	
9/1/2016						568			
9/6/2016							296		304
12/6/2016				595	358			138	
12/7/2016						559	270		287
3/28/2017	202	39	90						
3/29/2017				525	300	550		102	
3/30/2017							287		312
5/11/2017	241								
5/12/2017			92						
5/15/2017		88							
6/15/2017	251	65							
6/16/2017			100						
7/11/2017		25	59						
7/12/2017	218			598	382	594	312	118	490 (o)
8/8/2017		53							
10/24/2017	671 (o)	49	117	353	342				
10/25/2017						571		88	290
11/15/2017	241		90	582			325		
2/27/2018		43	79	542	393	582		99	
2/28/2018							84		313
3/8/2018	213								
7/11/2018						593		119	320
7/12/2018	198								
11/6/2018		65	85	512	412				
11/7/2018	200					504	314	113	325
3/12/2019		43	74	436	433	465			
3/13/2019	201						656	280	
3/14/2019									340
10/15/2019		70	89	447	461	472			
10/16/2019	126						296	104	
10/17/2019									319
3/2/2020		52	67		458	338			
3/3/2020				382			263	123	323
3/9/2020	171								
9/22/2020	142	46	74		481	338		105	
9/23/2020							278		317
9/24/2020				283					

# Time Series

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		396							
9/2/2016				1100	459	502			
9/7/2016	353								611
12/7/2016		400		930					
12/8/2016	408				491	464			535
3/28/2017								1160	
3/29/2017		390		923		462			
3/30/2017	338		580		436		380		
3/31/2017									661
5/11/2017			573						
5/12/2017							438	1230	
6/15/2017			626				458	1290	
7/11/2017			542					1160	
7/12/2017	417	360		956	505		461		
7/13/2017						492			641
10/24/2017			523					229	
10/25/2017	343	423		854	474	477			626
10/26/2017							446		
11/15/2017								1330	
2/27/2018			401					1380	
2/28/2018	364	440		888	480	476			616
3/1/2018							454		
7/11/2018	393	457	334	826	485				638
7/12/2018						486	432		
11/6/2018			334					1480	
11/7/2018	408	461		834	516	511			626
11/8/2018							450		
3/12/2019			297					1490	
3/13/2019	802	113		639	486				
3/14/2019						491	453		630
10/15/2019								1520	
10/16/2019		500							
10/17/2019			302	751	498				612
10/18/2019	403					480	448		
3/2/2020								1540	
3/3/2020		526	277		490	452			
3/4/2020	414			761			408		721
9/22/2020		513		724				1400	547
9/23/2020			267						
9/24/2020	411				494	455	456		



# Time Series

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-56	B-77	B-82	B-83
8/30/2016				693	414				
8/31/2016			524						
9/1/2016	704	845							
12/6/2016			690	727	449				
12/8/2016	587	777							
3/28/2017			545		404				
3/29/2017				654					
3/30/2017		775							
3/31/2017	545								
7/11/2017			612	679	436				
7/13/2017	441	789							
10/24/2017				468	599				
10/25/2017			650						
10/26/2017	444	753							
2/27/2018			698	520	482				
3/1/2018	435								
3/2/2018		704							
7/11/2018					532				
7/12/2018	372	705							
11/6/2018			809	456	554				
11/7/2018	348	678							
3/12/2019			711	438	493				
3/14/2019	378	625							
10/16/2019			702	374					
10/17/2019	327				550				
10/18/2019		593							
3/2/2020			759						
3/3/2020				369	444				
3/4/2020	334	630							
9/22/2020			716		461				
9/23/2020	229	575		333					
9/24/2020							124		
9/25/2020									244
9/28/2020						320		454	

# Time Series

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-88	B-93
9/25/2020	624	
9/28/2020		686

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-10	DGWC-11	DGWC-12	DGWC-13	DGWC-14	DGWC-15
8/31/2016				0.0004 (J)	<0.001			<0.001	
9/1/2016						<0.001			
9/6/2016							<0.001		<0.001
12/6/2016				0.0004 (J)	<0.001			<0.001	
12/7/2016						<0.001	<0.001		<0.001
3/28/2017	<0.001	<0.001	6E-05 (J)						
3/29/2017				0.0006 (J)	<0.001	8E-05 (J)		<0.001	
3/30/2017							<0.001		<0.001
5/11/2017	<0.001								
5/12/2017			<0.001						
5/15/2017		<0.001							
6/15/2017	<0.001	<0.001							
6/16/2017			<0.001						
7/11/2017		<0.001	<0.001						
7/12/2017	<0.001			0.0005 (J)	<0.001	9E-05 (J)	<0.001	<0.001	<0.001
8/8/2017		<0.001							
10/24/2017	<0.001	<0.001	<0.001	0.0004 (J)	<0.001				
10/25/2017						9E-05 (J)		<0.001	<0.001
11/15/2017							<0.001		
2/27/2018		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	
2/28/2018							<0.001		<0.001
3/8/2018	<0.001								
7/11/2018						<0.001		<0.001	<0.001
7/12/2018	<0.001								
11/6/2018		<0.001	<0.001	<0.001 (J)	<0.001				
11/7/2018	<0.001					<0.001	<0.001	<0.001	<0.001 (J)
8/27/2019		<0.001	<0.001	0.00036 (J)	<0.001	8.9E-05 (J)		<0.001	
8/28/2019	<0.001						<0.001		<0.001
9/17/2019						9.7E-05 (J)			
10/15/2019		<0.001	<0.001	0.00039 (J)	<0.001	9.1E-05 (J)			
10/16/2019	<0.001						<0.001	<0.001	
10/17/2019									<0.001
3/2/2020		7.8E-05 (J)	<0.001		<0.001	0.00013 (J)			
3/3/2020				0.00042 (J)			<0.001	<0.001	<0.001
3/9/2020	<0.001								
8/11/2020		<0.001	<0.001	0.00037 (J)	<0.001	<0.001		<0.001	
8/12/2020							<0.001		
8/13/2020	<0.001								<0.001
9/22/2020	<0.001	<0.001	<0.001		<0.001	<0.001		<0.001	
9/23/2020							<0.001		<0.001
9/24/2020				0.00034 (J)					

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-17	DGWC-19	DGWC-2	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-4	DGWC-42
9/1/2016		0.0005 (J)							
9/2/2016				<0.001	<0.001	<0.001			
9/7/2016	<0.001								<0.001
12/7/2016		0.0005 (J)		0.0006 (J)					
12/8/2016	<0.001				<0.001	<0.001			<0.001
3/28/2017								<0.001	
3/29/2017		0.0004 (J)		0.0006 (J)		6E-05 (J)			
3/30/2017	0.0002 (J)		<0.001		<0.001		<0.001		
3/31/2017									9E-05 (J)
5/11/2017			<0.001						
5/12/2017							<0.001	<0.001	
6/15/2017			<0.001				<0.001	<0.001	
7/11/2017			<0.001				<0.001	<0.001	
7/12/2017	0.0002 (J)	0.0005 (J)		0.0006 (J)	<0.001		<0.001		
7/13/2017						7E-05 (J)			9E-05 (J)
10/24/2017			<0.001					<0.001	
10/25/2017	0.0002 (J)	0.0004 (J)		0.0005 (J)	<0.001	7E-05 (J)			9E-05 (J)
10/26/2017							<0.001		
2/27/2018			<0.001					<0.001	
2/28/2018	0.00015 (J)	0.00049 (J)		<0.001	<0.001	<0.001			<0.001
3/1/2018							<0.001		
7/11/2018	0.00017 (J)	0.0005 (J)	<0.001	<0.001	<0.001				<0.001
7/12/2018						<0.001	<0.001		
11/6/2018			<0.001					<0.001	
11/7/2018	<0.001	<0.001 (J)		<0.001 (J)	<0.001	<0.001			<0.001
11/8/2018							<0.001 (J)		
8/27/2019	0.00018 (J)		<0.001					<0.001	
8/28/2019		0.00053 (J)							6.9E-05 (J)
8/29/2019				0.00084 (J)	<0.001	6.4E-05 (J)	<0.001		
10/15/2019								7.3E-05 (J)	
10/16/2019		0.00053 (J)							
10/17/2019			<0.001	0.00062 (J)	<0.001				<0.001
10/18/2019	0.00014 (J)					<0.001	<0.001		
3/2/2020								<0.001	
3/3/2020		0.0006 (J)	<0.001		<0.001	7E-05 (J)			
3/4/2020	0.00019 (J)			0.0023 (J)			<0.001		<0.001
8/11/2020		0.00059 (J)	<0.001						
8/12/2020								<0.001	
8/13/2020				0.0016 (J)			<0.001		<0.001
8/14/2020	0.00019 (J)				<0.001	<0.001			
9/22/2020		0.0005 (J)		0.00055 (J)				<0.001	<0.001
9/23/2020			<0.001						
9/24/2020	0.00018 (J)				<0.001	<0.001	<0.001		

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-48	DGWC-5	DGWC-8	DGWC-9	B-3	B-56	B-77	B-82
8/30/2016				<0.001	<0.001				
8/31/2016			<0.001						
9/1/2016	0.0002 (J)	<0.001							
12/6/2016			<0.001	<0.001	0.0006 (J)				
12/8/2016	<0.001	<0.001							
3/28/2017			0.0002 (J)		0.0007 (J)				
3/29/2017				0.0002 (J)					
3/30/2017		9E-05 (J)							
3/31/2017	0.0002 (J)								
7/11/2017			<0.001	0.0001 (J)	0.0007 (J)				
7/13/2017	0.0002 (J)	8E-05 (J)							
10/24/2017				0.0003 (J)	0.0006 (J)				
10/25/2017			<0.001						
10/26/2017	0.0003 (J)	9E-05 (J)							
2/27/2018			<0.001	0.00033 (J)	0.00038 (J)				
3/1/2018	0.00032 (J)								
3/2/2018		<0.001							
7/11/2018					<0.001				
7/12/2018	0.00031 (J)	<0.001							
11/6/2018			<0.001	<0.001 (J)	<0.001				
11/7/2018	<0.001 (J)	<0.001							
8/27/2019			<0.001		0.00053 (J)				
8/28/2019				0.00022 (J)					
8/29/2019	0.00025 (J)	7.8E-05 (J)							
10/16/2019			7.8E-05 (J)	0.00025 (J)					
10/17/2019	0.00025 (J)				0.00076 (J)				
10/18/2019		<0.001							
3/2/2020			6.2E-05 (J)						
3/3/2020				0.00023 (J)	0.00044 (J)				
3/4/2020	0.00021 (J)	6.8E-05 (J)							
8/11/2020					<0.001				
8/12/2020	0.00018 (J)		<0.001	0.00023 (J)					
8/13/2020		<0.001						<0.001	
8/17/2020						<0.001	0.00016 (J)		<0.001
9/22/2020			<0.001		0.00043 (J)				
9/23/2020	0.00026 (J)	<0.001		0.0002 (J)				<0.001	
9/24/2020								<0.001	
9/28/2020							0.00023 (J)		<0.001

# Time Series

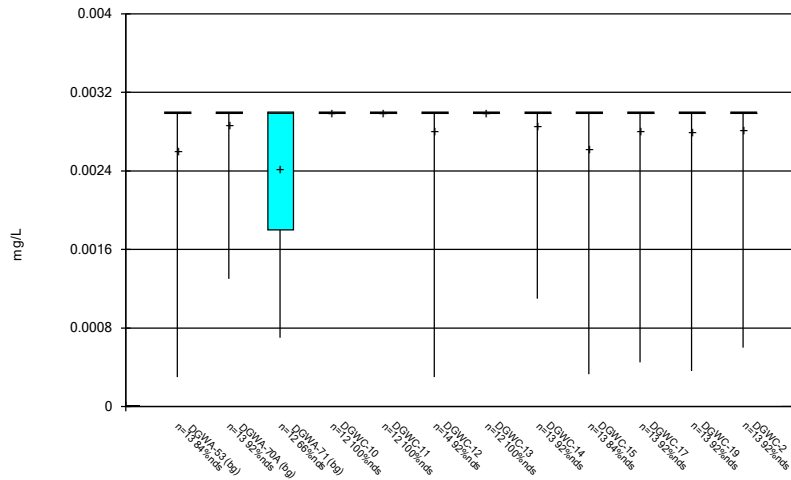
Constituent: Thallium (mg/L) Analysis Run 11/4/2020 3:50 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	B-83	B-88	B-93
8/14/2020	<0.001		
8/17/2020		<0.001	
8/19/2020			<0.001
9/25/2020	<0.001	<0.001	
9/28/2020			<0.001

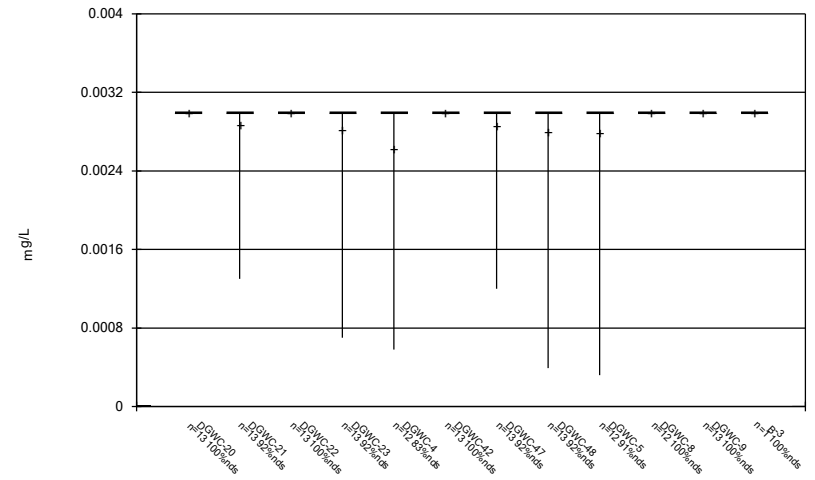
FIGURE B.

Box & Whiskers Plot



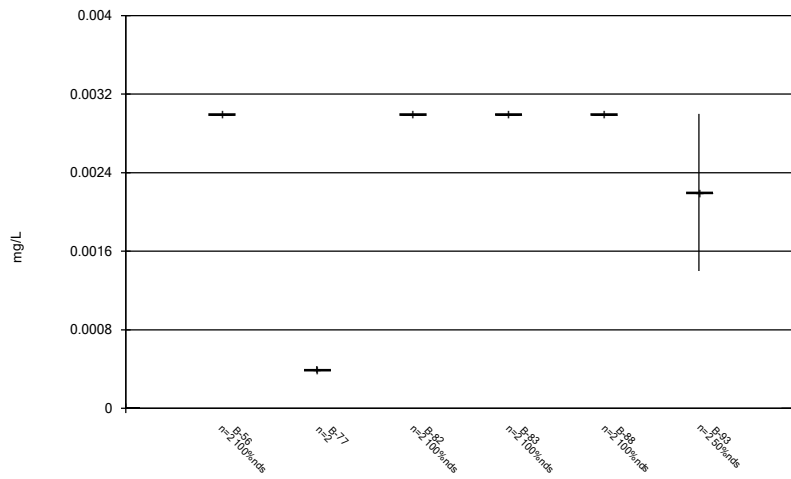
Constituent: Antimony Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



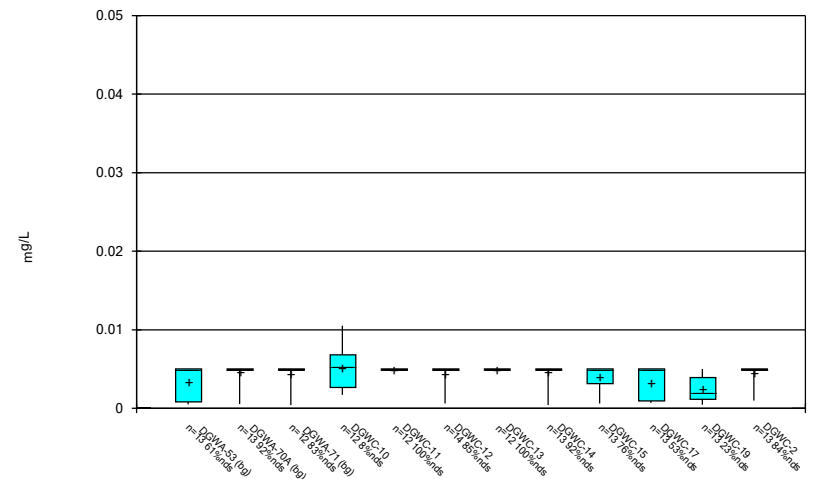
Constituent: Antimony Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Antimony Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

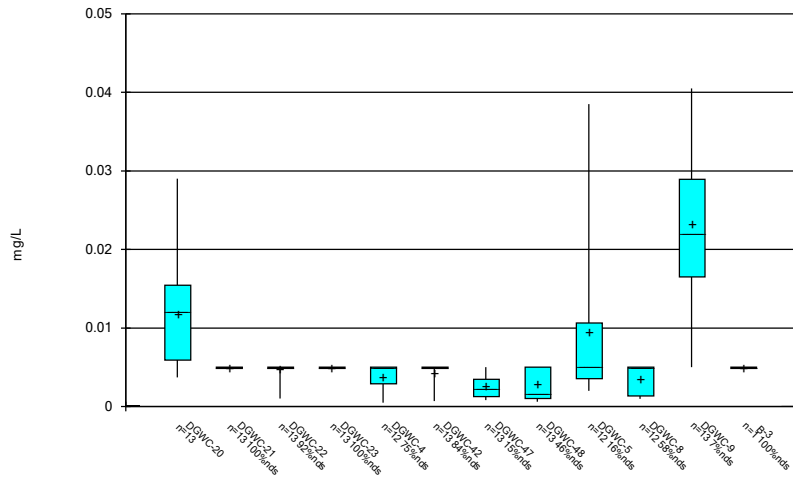
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

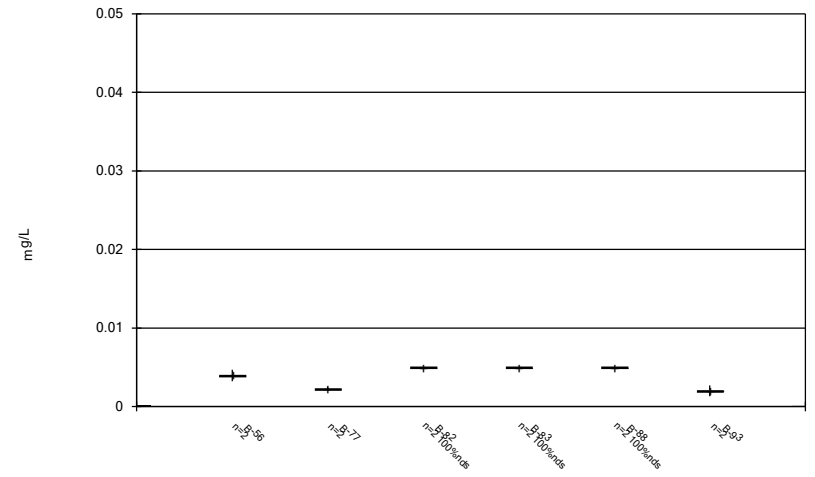


Box & Whiskers Plot



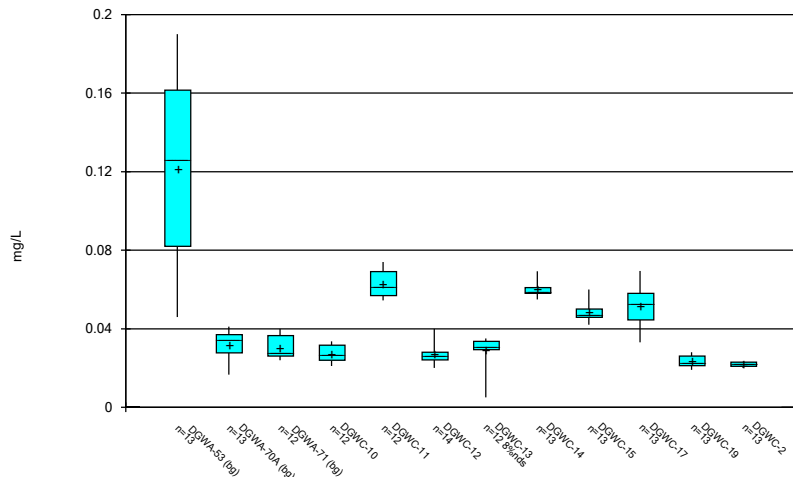
Constituent: Arsenic Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



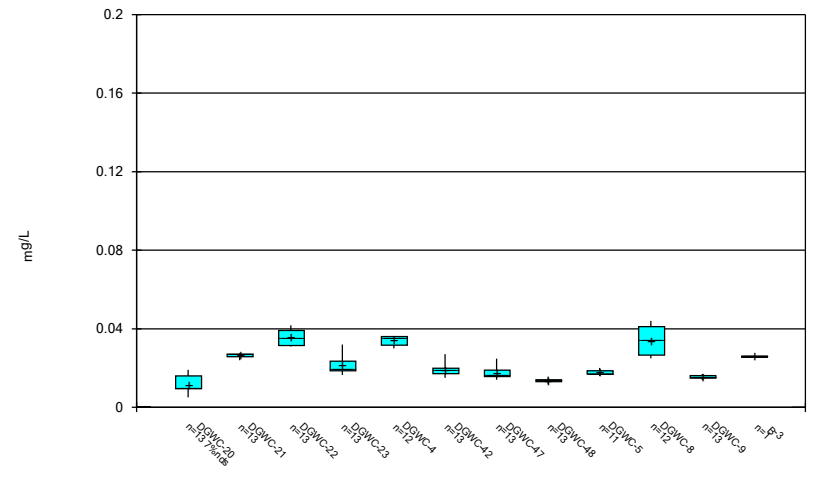
Constituent: Arsenic Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



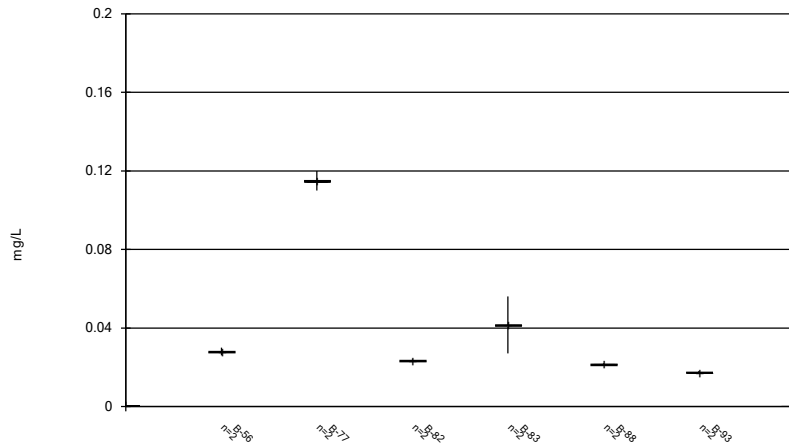
Constituent: Barium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



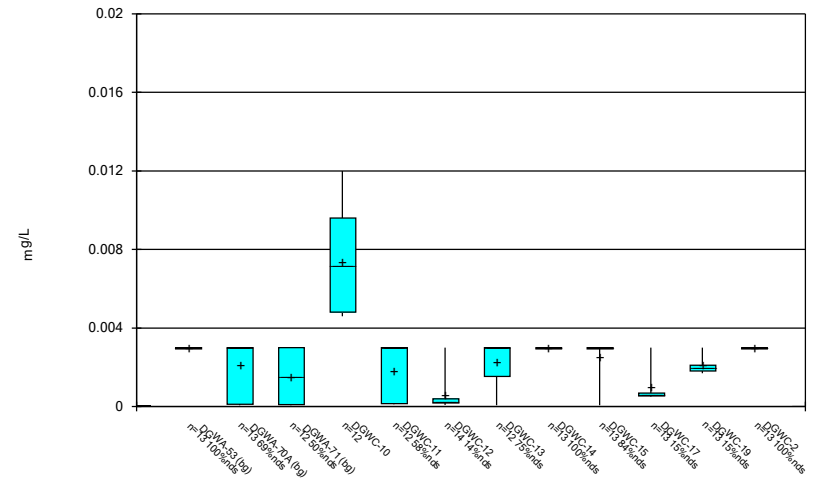
Constituent: Barium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



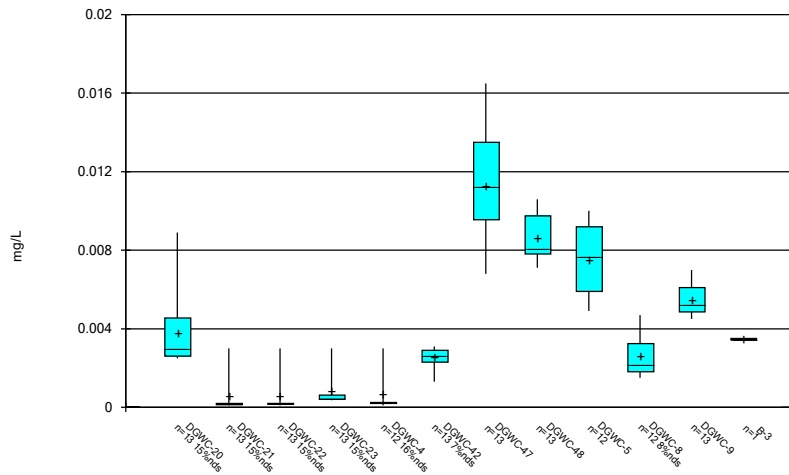
Constituent: Barium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



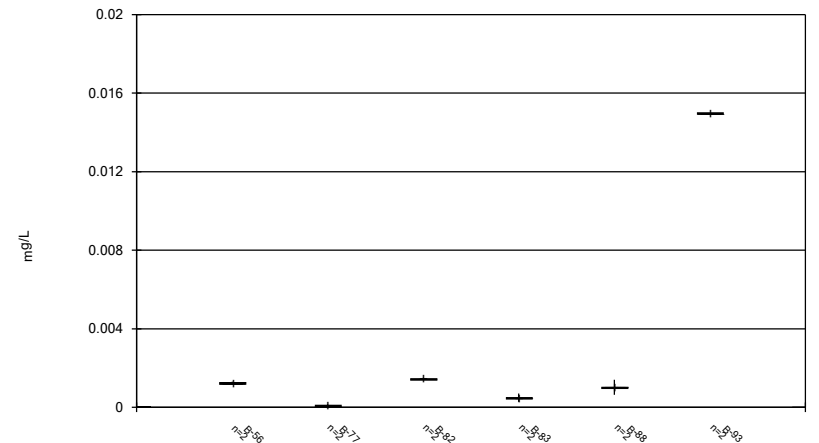
Constituent: Beryllium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



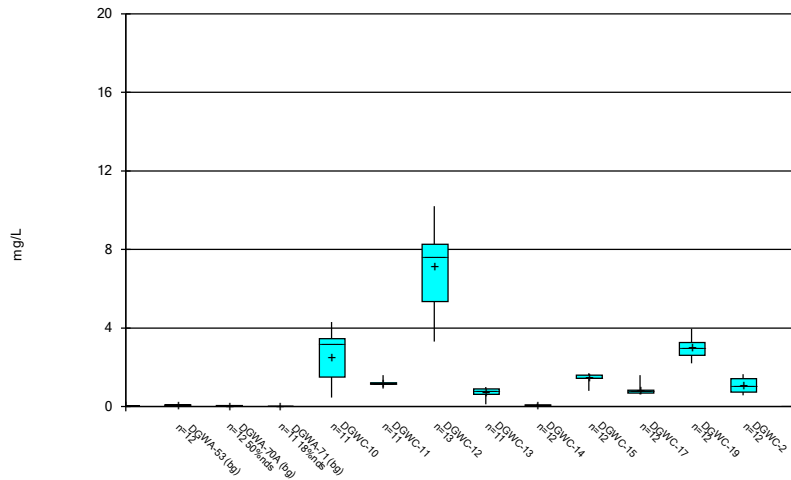
Constituent: Beryllium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



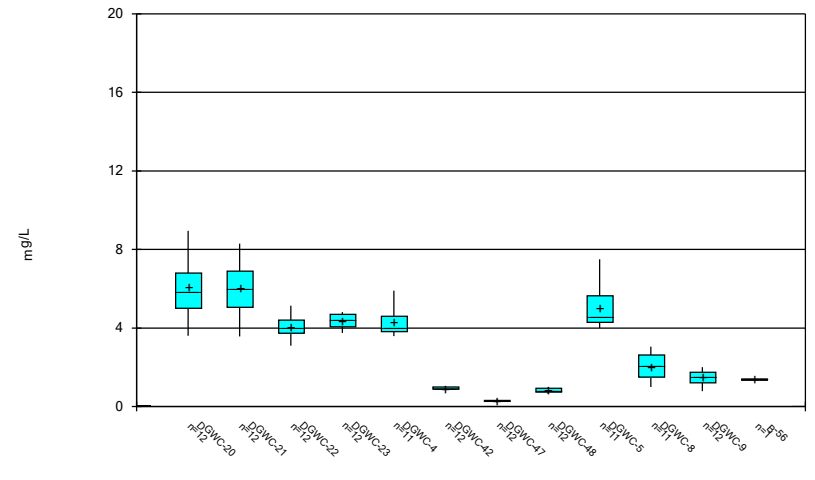
Constituent: Beryllium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



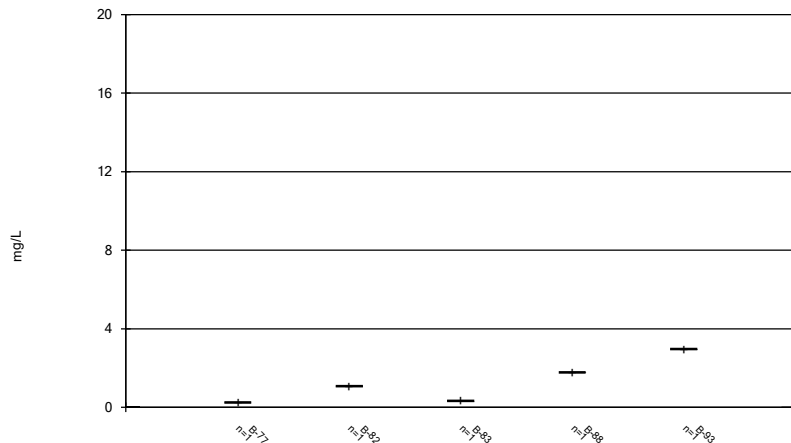
Constituent: Boron Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



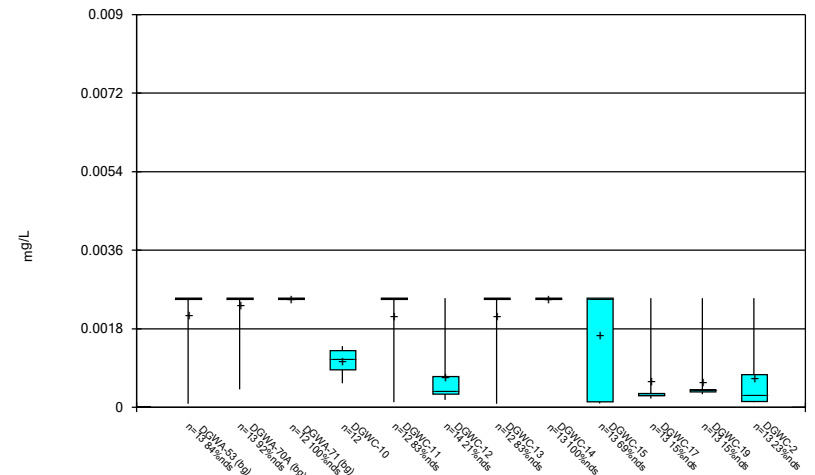
Constituent: Boron Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



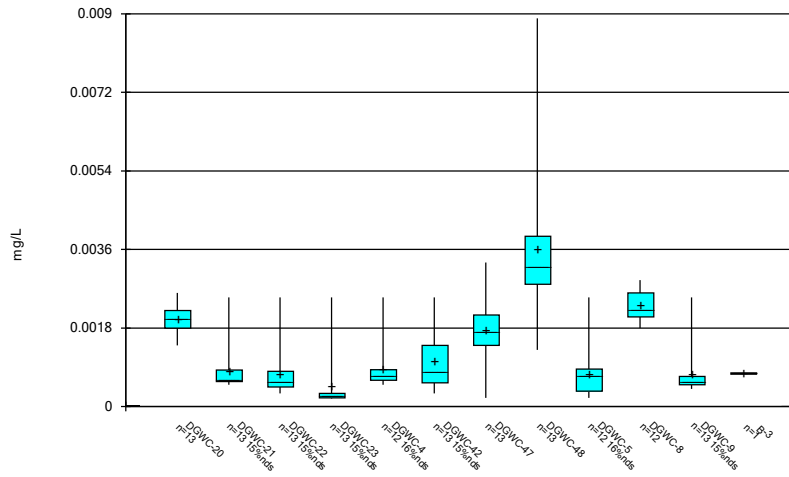
Constituent: Boron Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



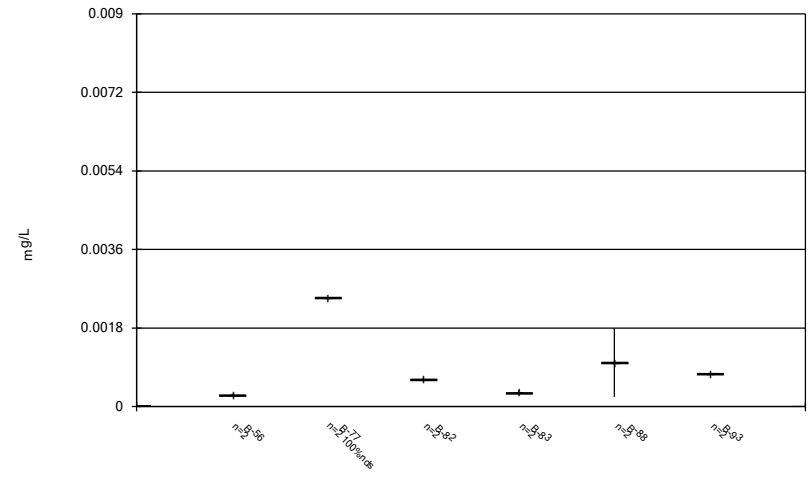
Constituent: Cadmium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



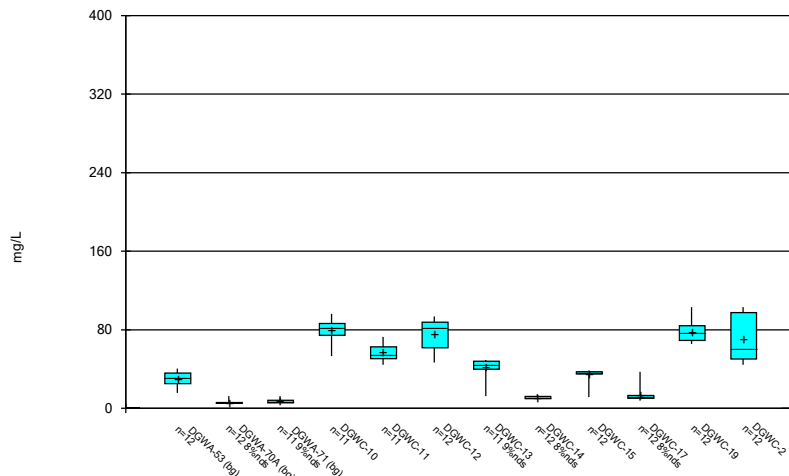
Constituent: Cadmium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



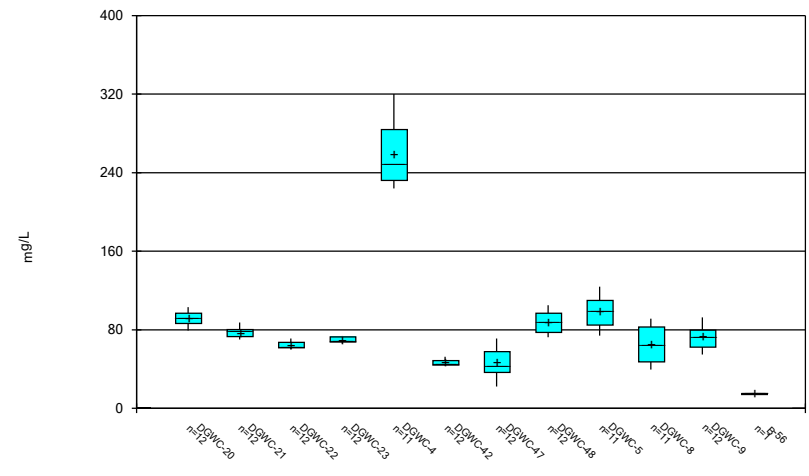
Constituent: Cadmium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



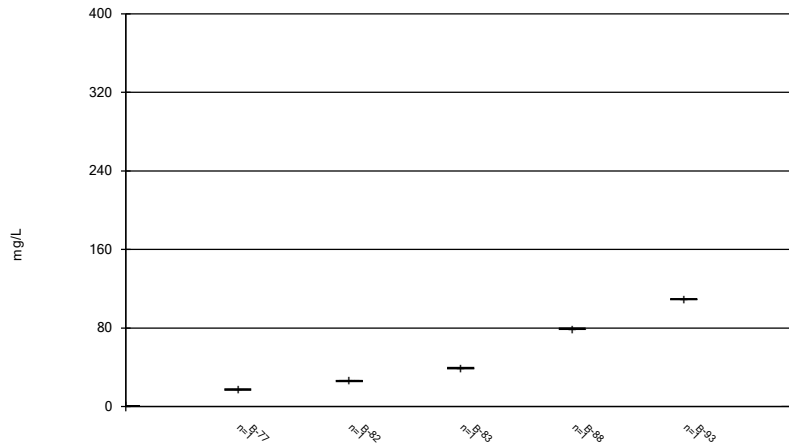
Constituent: Calcium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



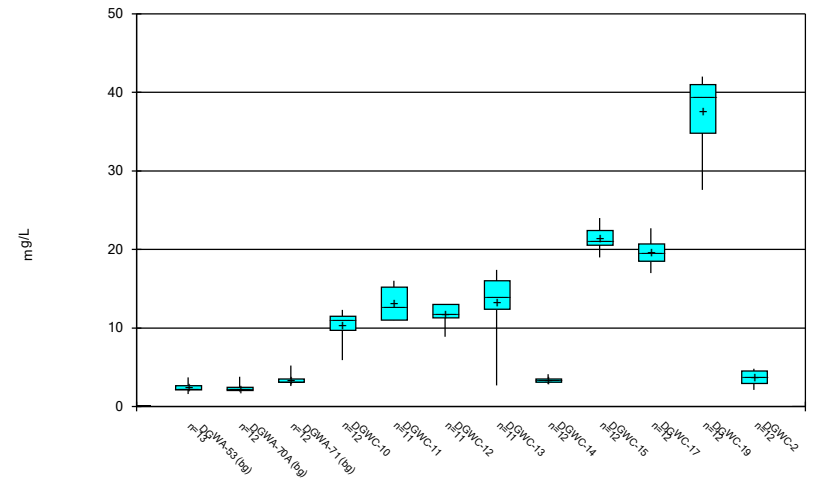
Constituent: Calcium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



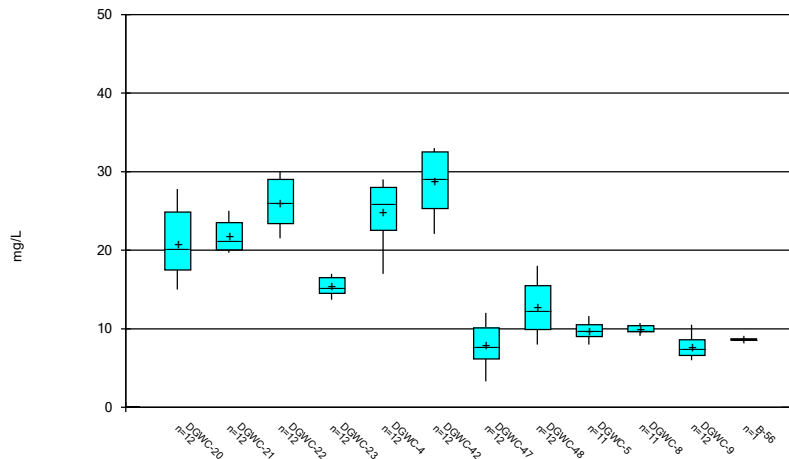
Constituent: Calcium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



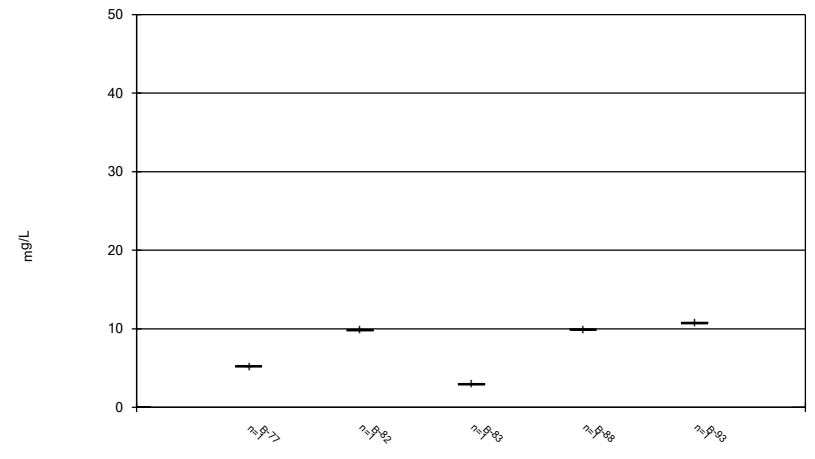
Constituent: Chloride Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



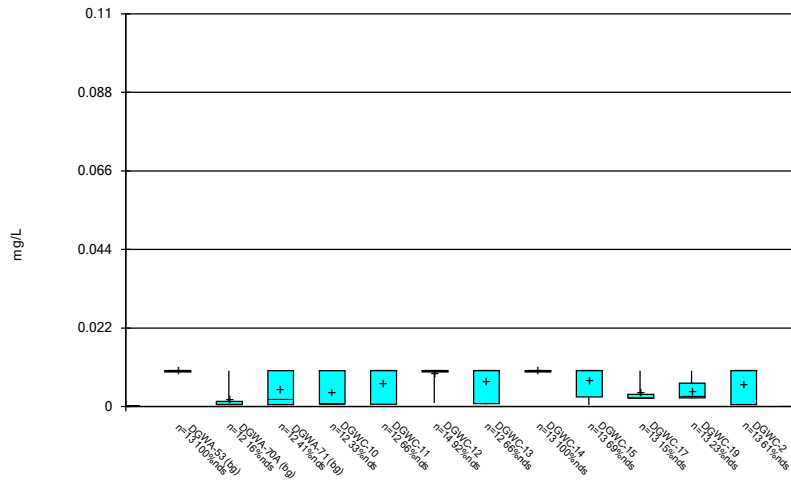
Constituent: Chloride Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



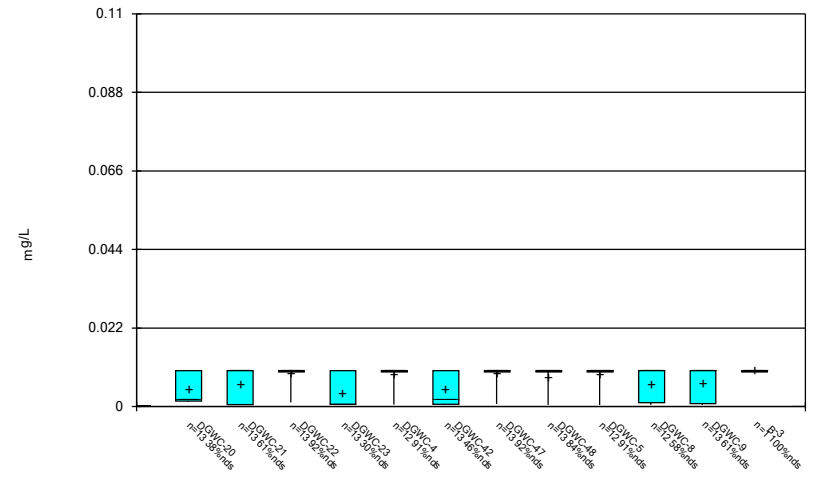
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



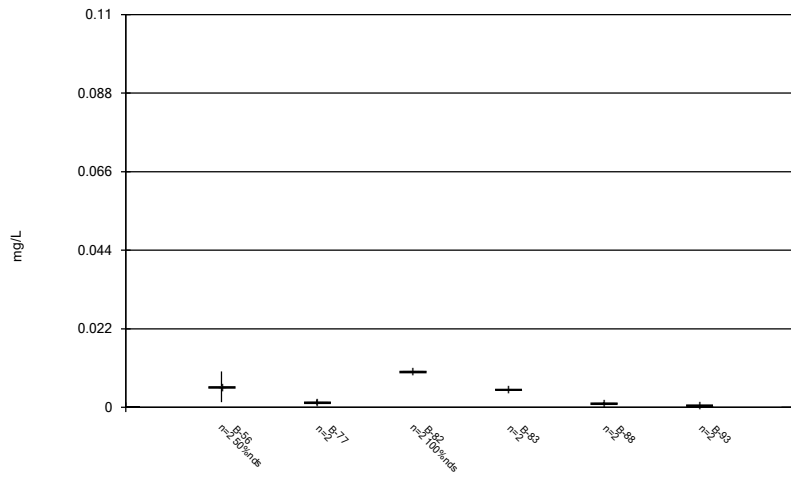
Constituent: Chromium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



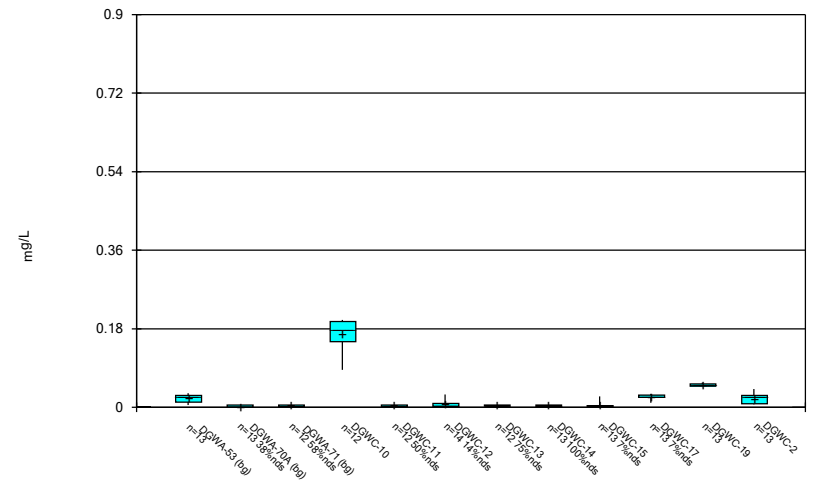
Constituent: Chromium Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



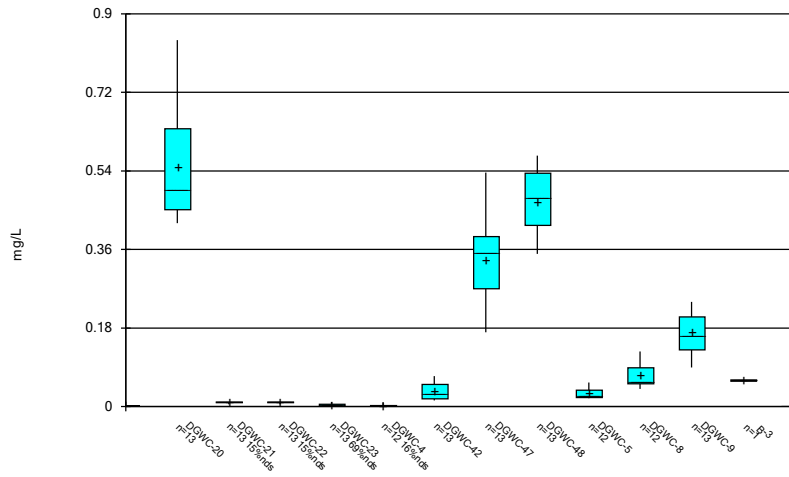
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



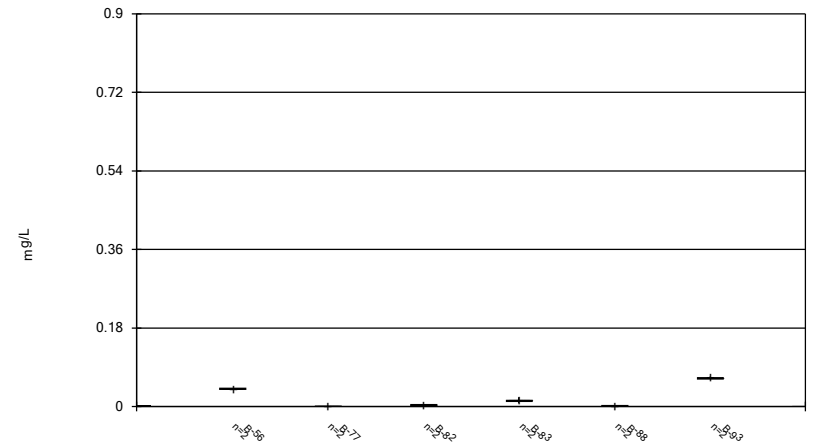
Constituent: Cobalt Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



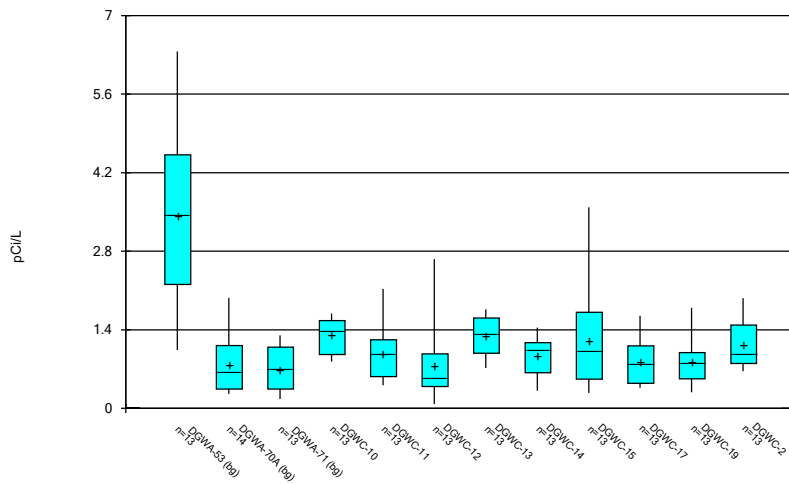
Constituent: Cobalt Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



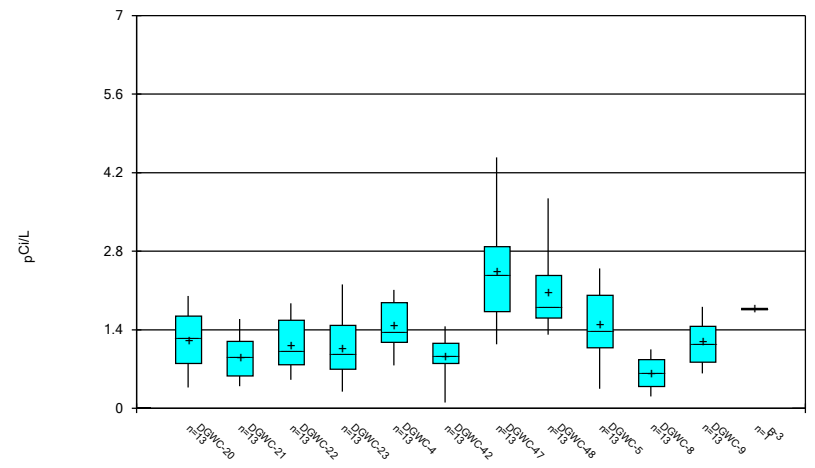
Constituent: Cobalt Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



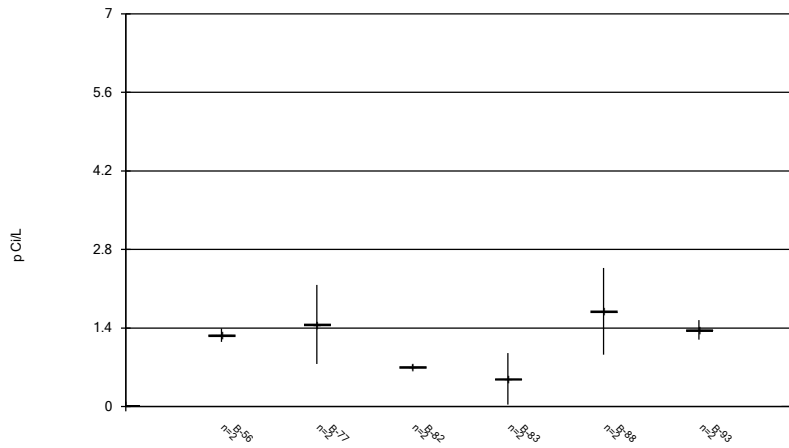
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



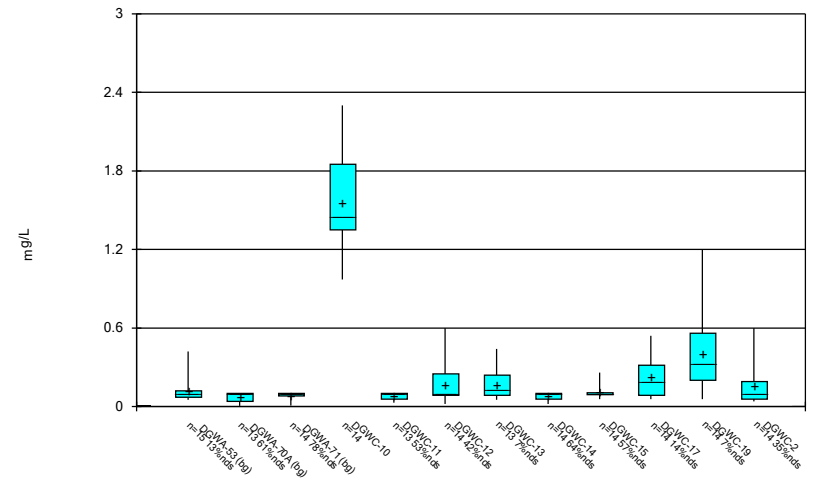
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



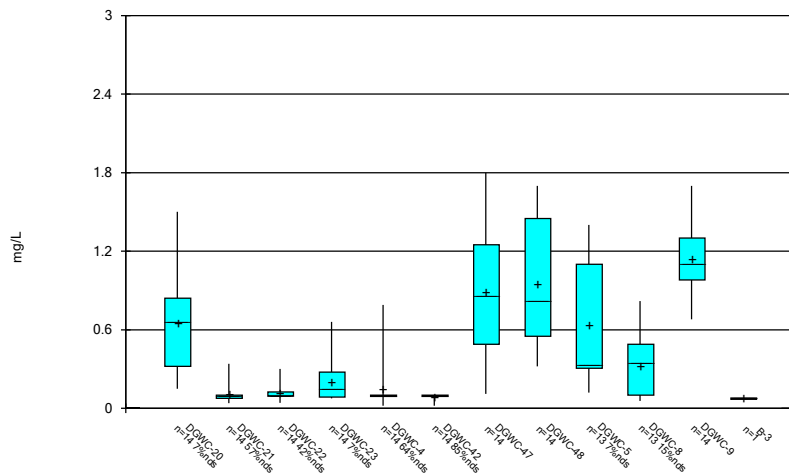
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



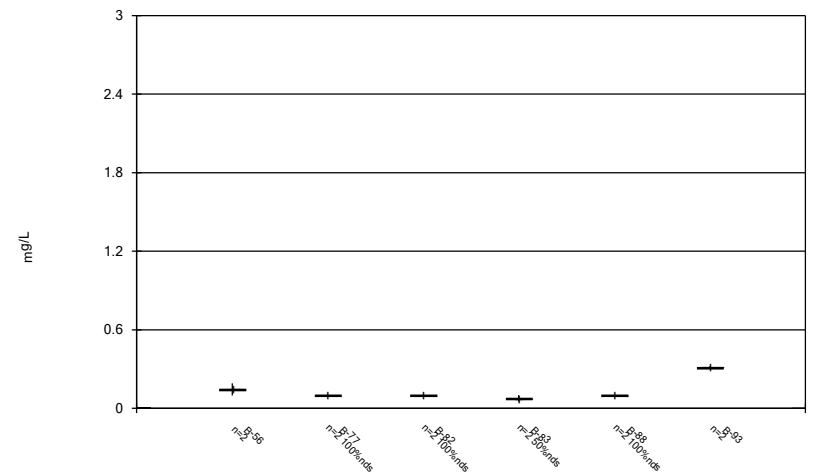
Constituent: Fluoride Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

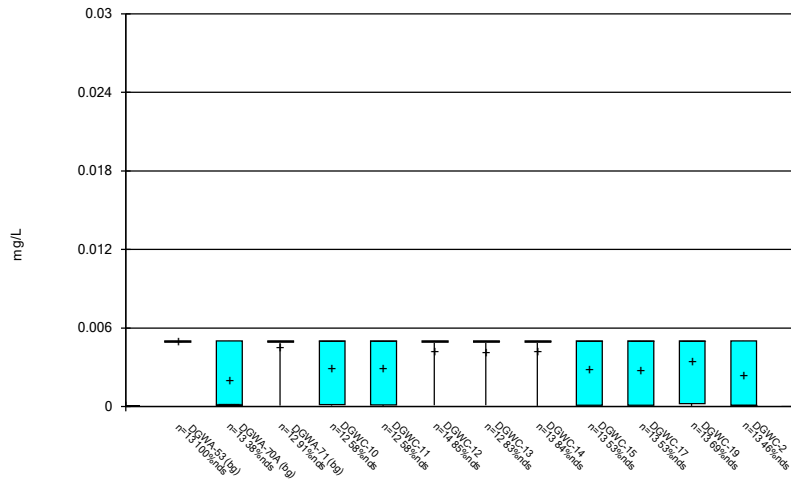
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/4/2020 3:51 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

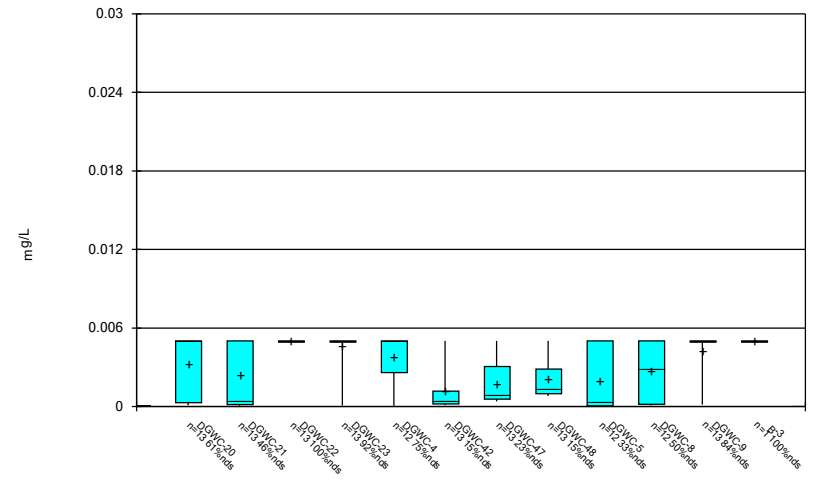


Box & Whiskers Plot



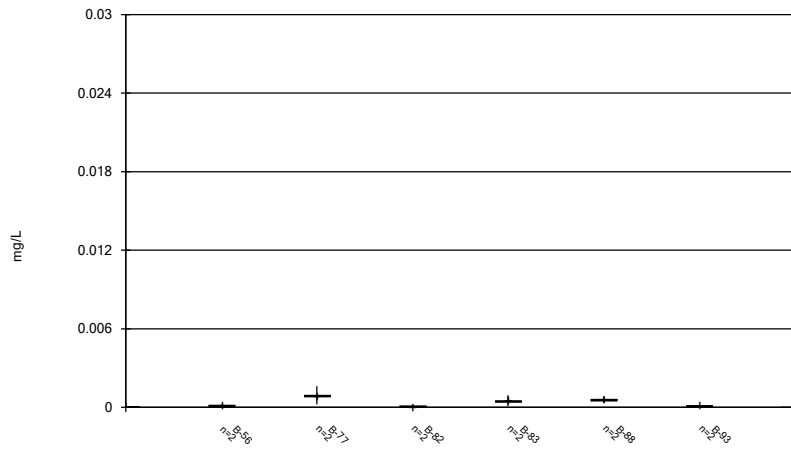
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



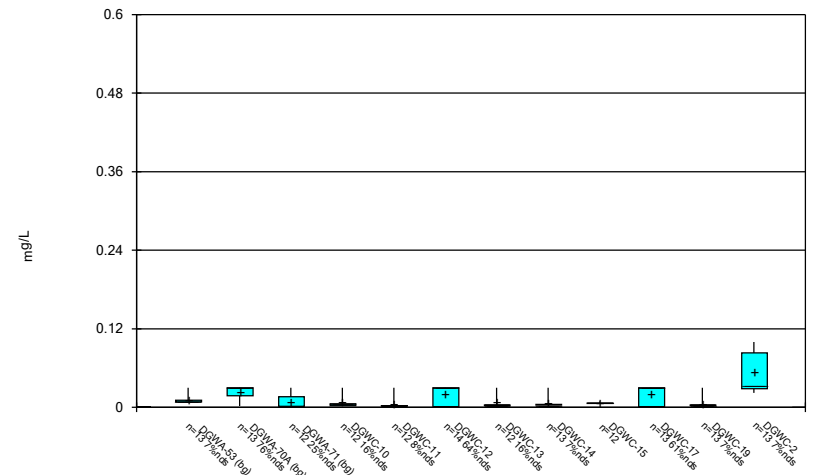
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



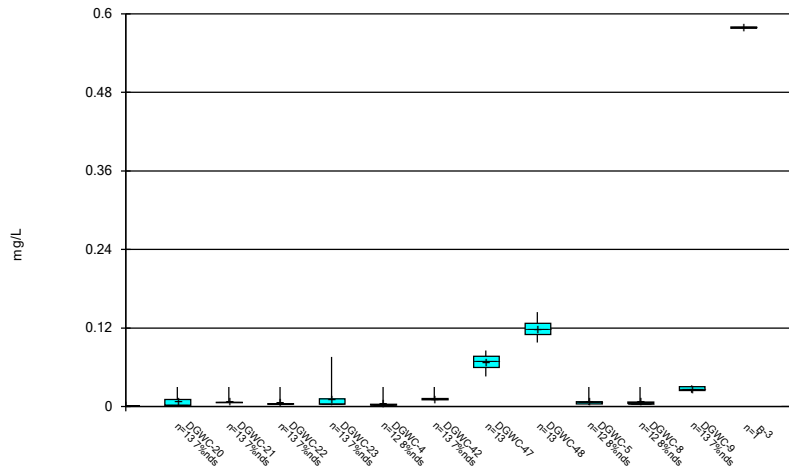
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



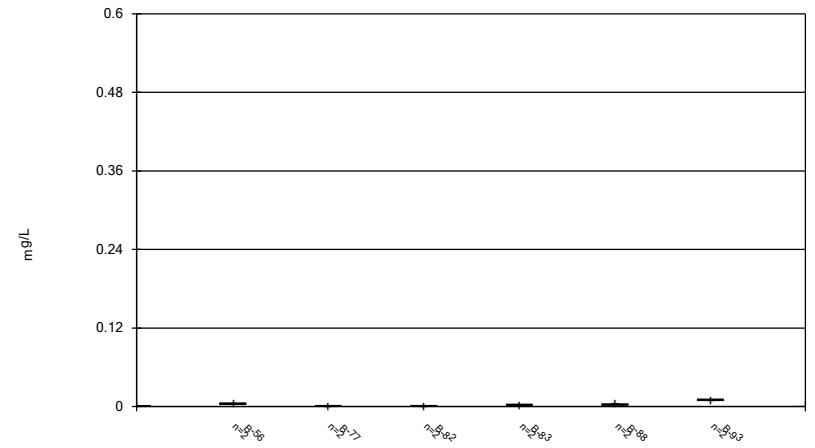
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 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



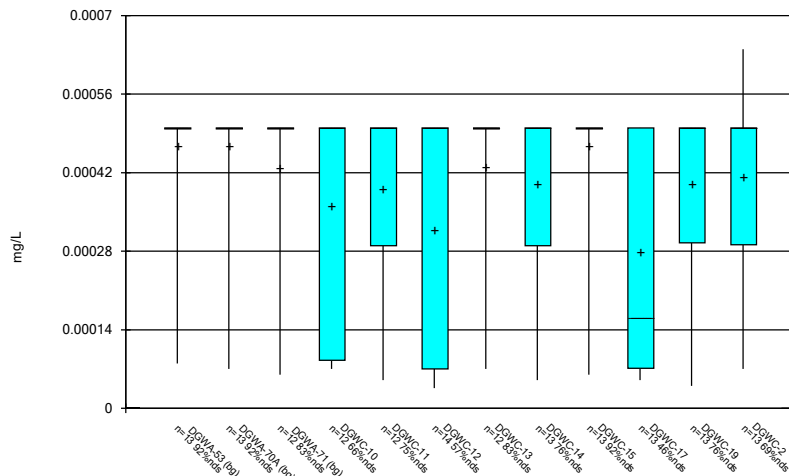
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Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



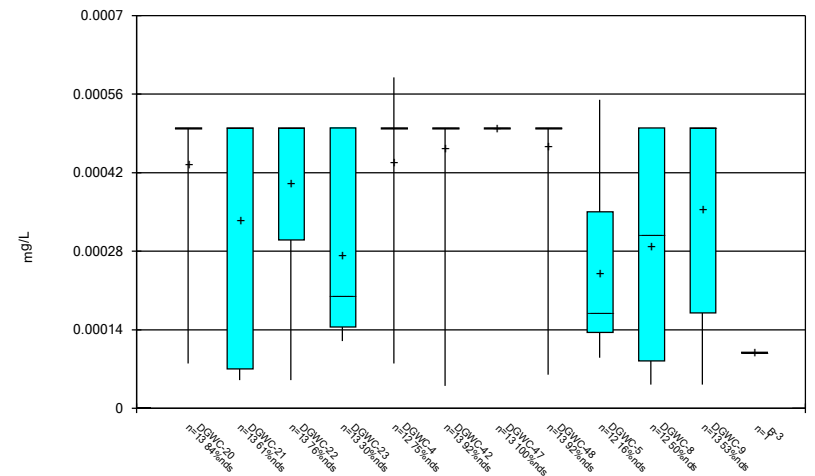
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Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



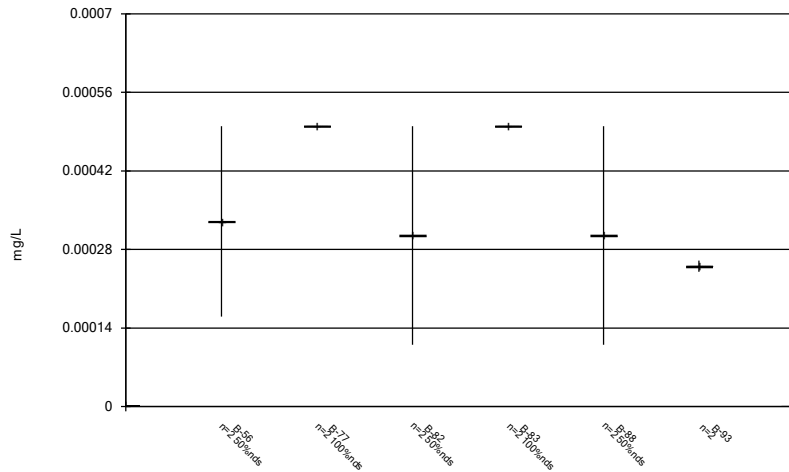
Constituent: Mercury Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



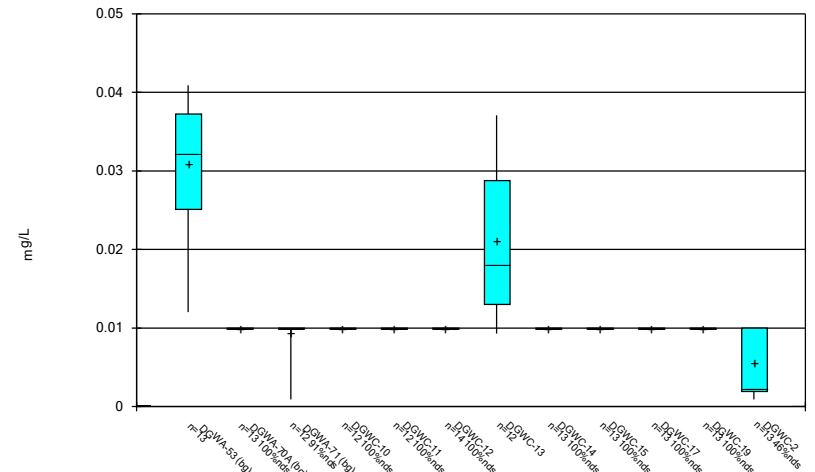
Constituent: Mercury Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



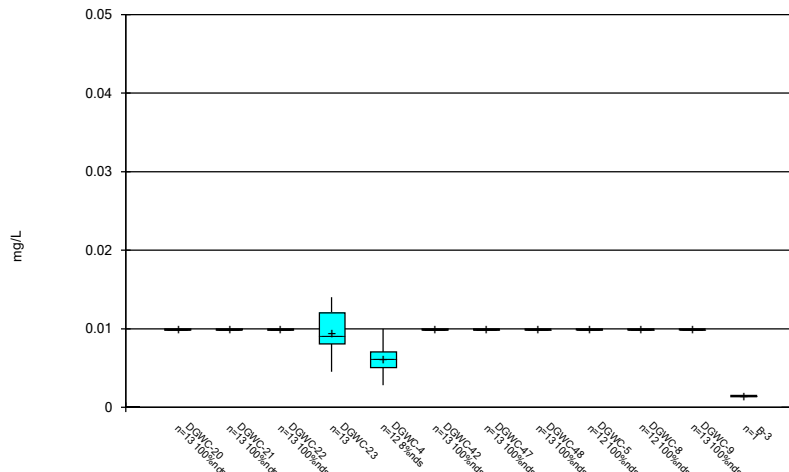
Constituent: Mercury Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



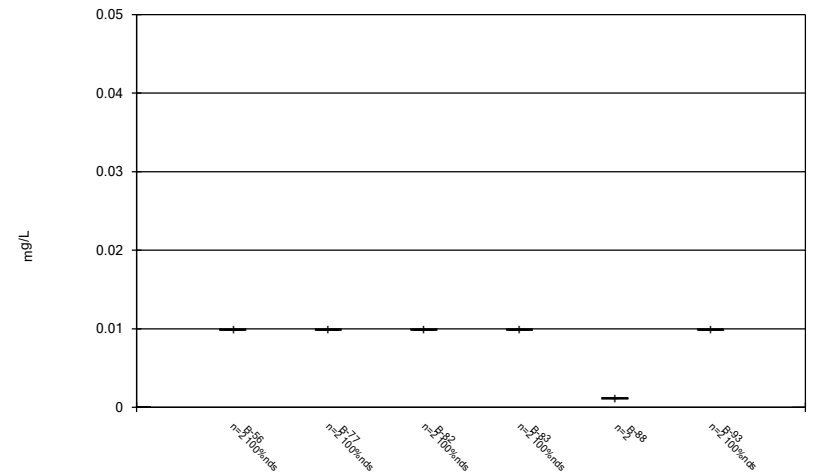
Constituent: Molybdenum Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



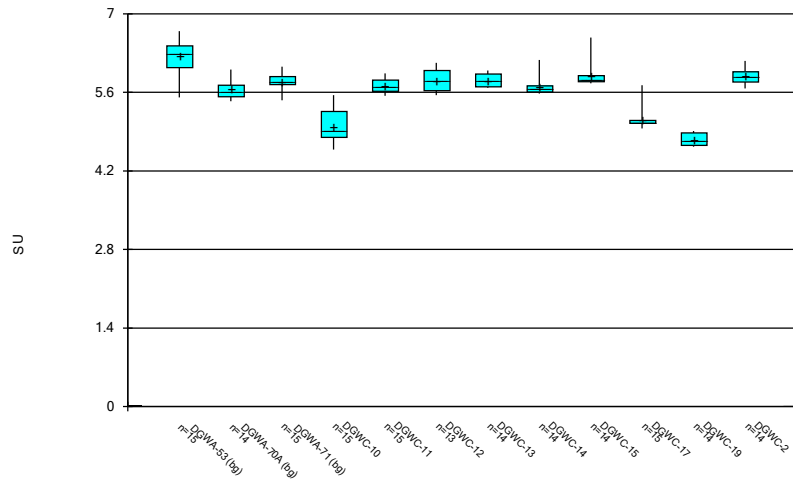
Constituent: Molybdenum Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



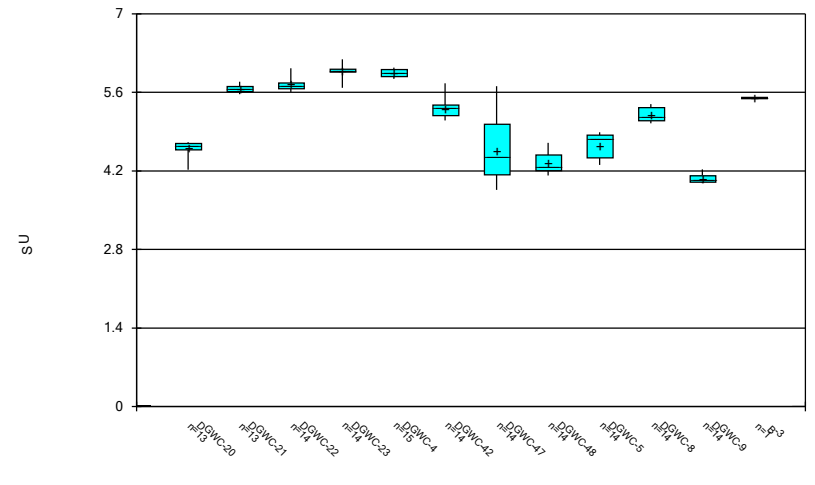
Constituent: Molybdenum Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



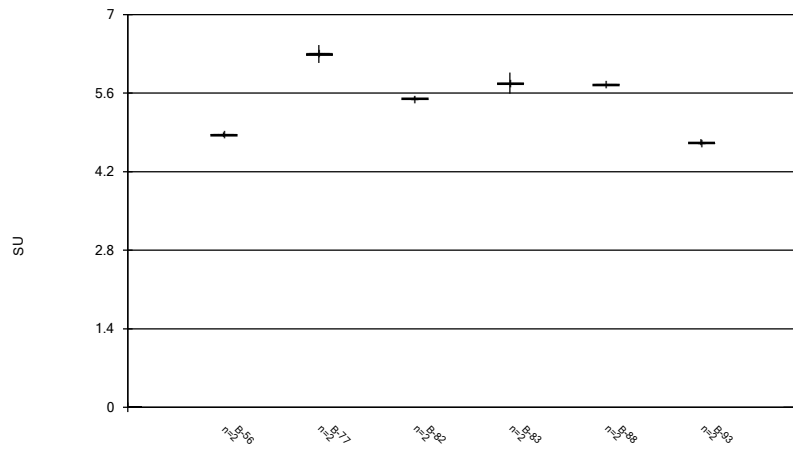
Constituent: pH Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



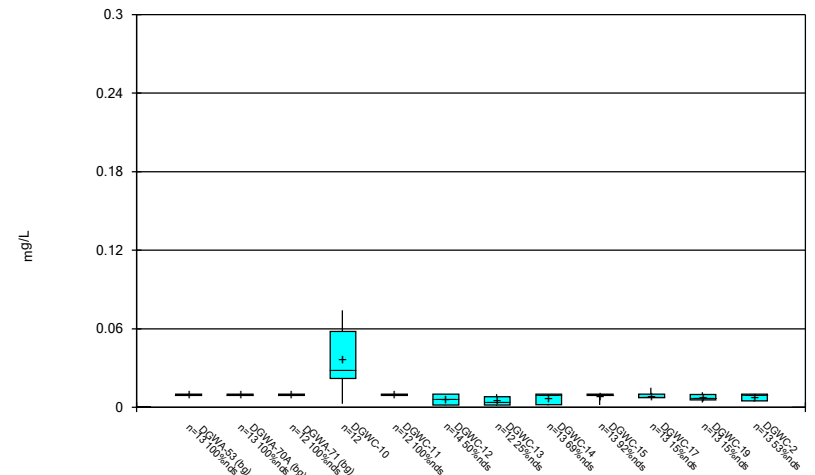
Constituent: pH Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



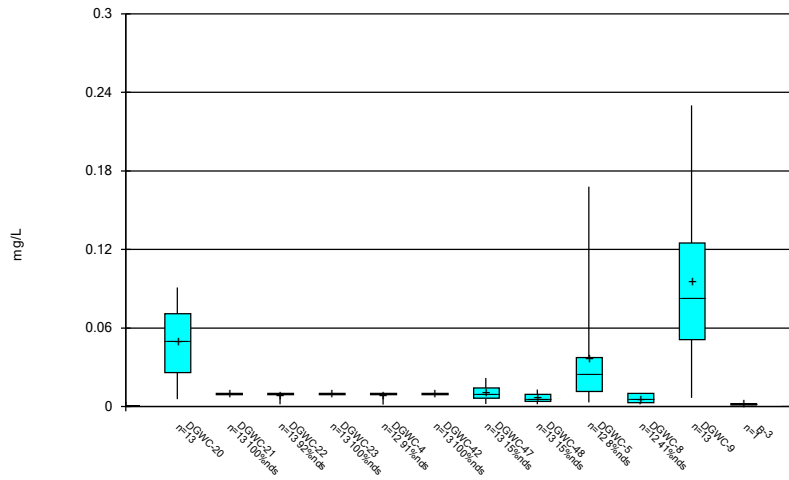
Constituent: pH Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



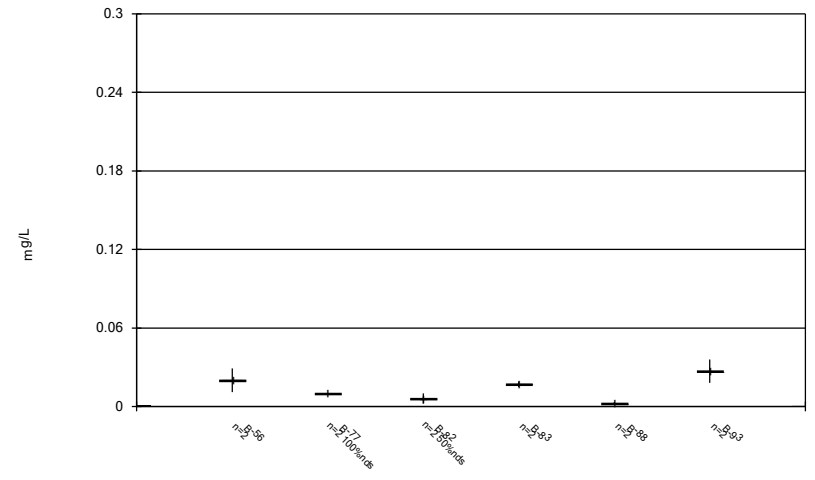
Constituent: Selenium Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



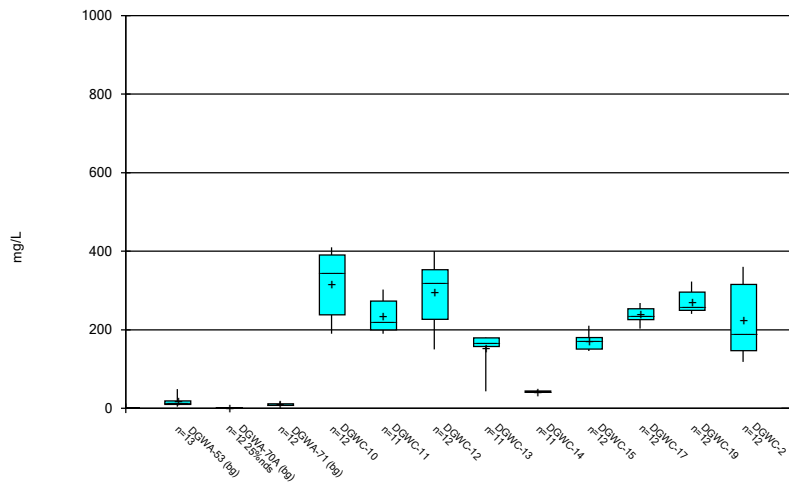
Constituent: Selenium Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



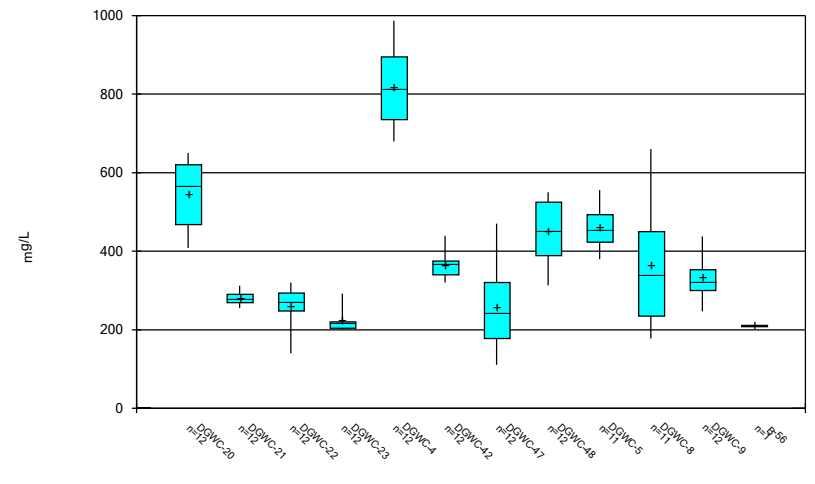
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Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



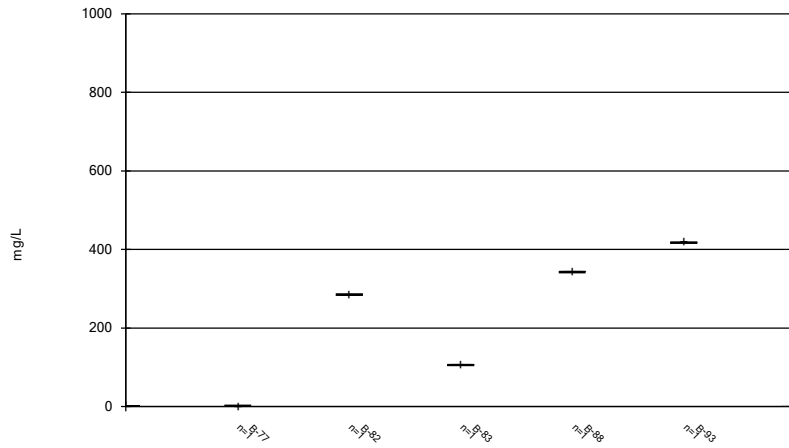
Constituent: Sulfate Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Box & Whiskers Plot



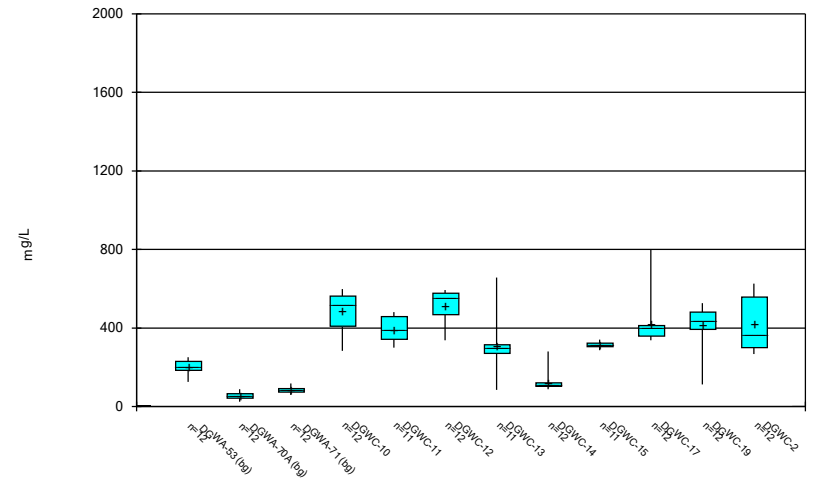
Constituent: Sulfate Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



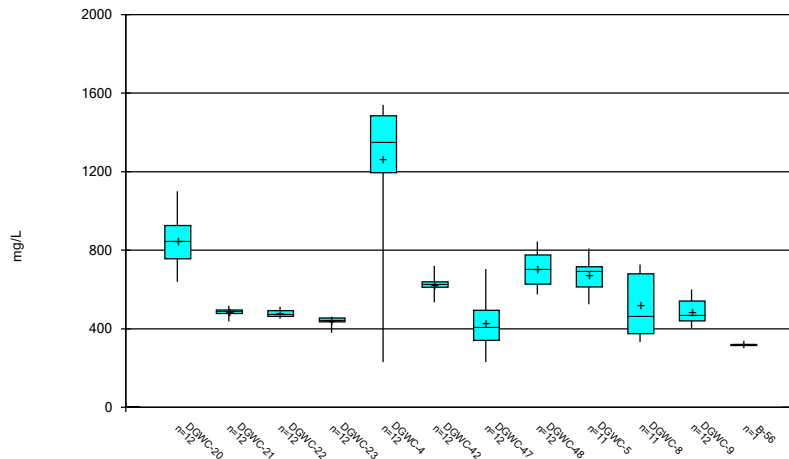
Constituent: Sulfate Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



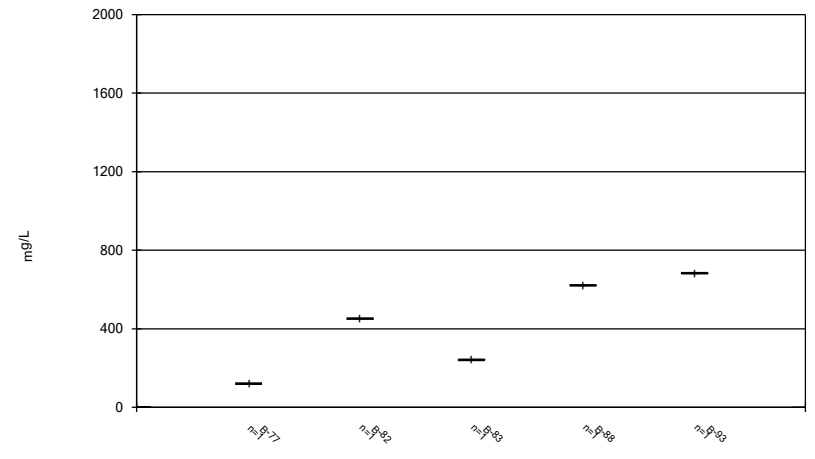
Constituent: TDS Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



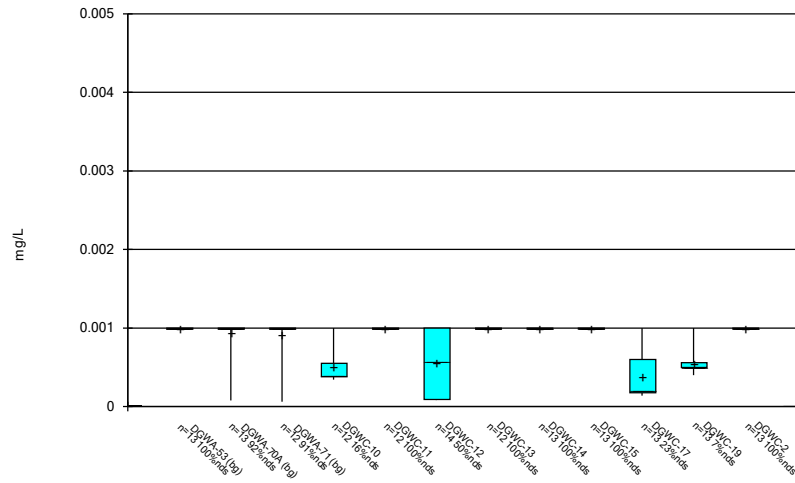
Constituent: TDS Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



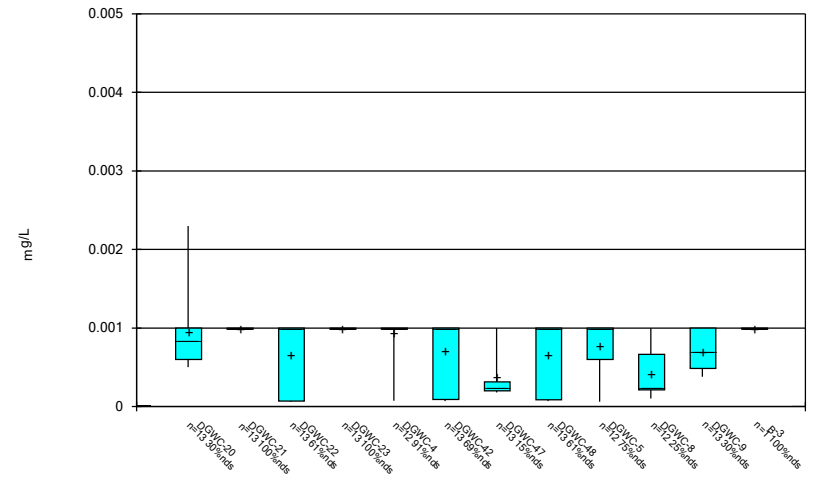
Constituent: TDS Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



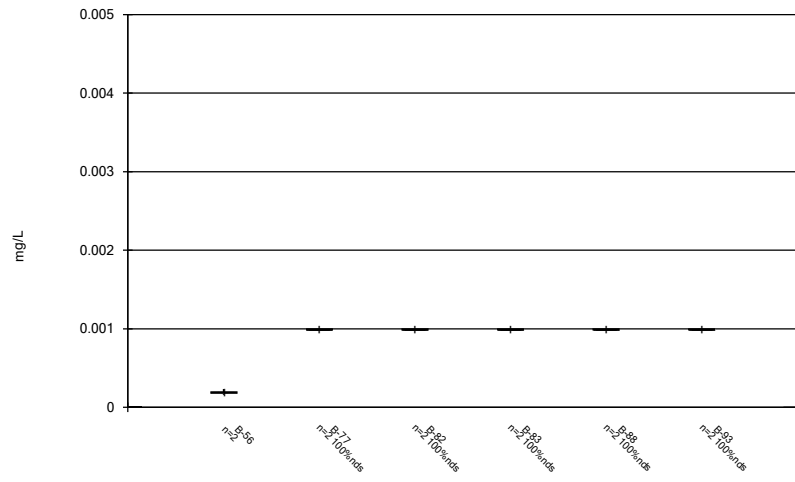
Constituent: Thallium Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/4/2020 3:52 PM View: Descriptive 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE C.



# Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:30 PM

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	DGWC-5 Barium (mg/L)	DGWC-10 Boron (mg/L)	DGWC-12 Chloride (mg/L)	DGWA-70A Chromium (mg/L)	DGWC-15 Lithium (mg/L)	DGWC-14 Sulfate (mg/L)	DGWA-53 TDS (mg/L)	DGWC-15 TDS (mg/L)
8/31/2016	0.0266 (o)							
12/7/2016		20 (o)						
3/29/2017	4.3 (o)				81 (o)			
7/12/2017							490 (o)	
10/24/2017						671 (o)		
11/6/2018	2.1 (o)							
11/7/2018				<0.05 (o)				
10/15/2019			0.034 (O)					

FIGURE D.

# Interwell Prediction Limit Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	9/24/2020	0.45	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	9/22/2020	1.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	9/22/2020	4.2	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	9/23/2020	1.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	9/24/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	9/22/2020	2.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	9/22/2020	4.9	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	9/24/2020	6.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-22	0.13	n/a	9/24/2020	4.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	9/24/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	9/22/2020	4.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	9/22/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	9/23/2020	0.21	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	9/23/2020	0.65	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	9/22/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	9/23/2020	1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	9/22/2020	0.78	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40	n/a	9/24/2020	53.1	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40	n/a	9/22/2020	72.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40	n/a	9/22/2020	55.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40	n/a	9/22/2020	103	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40	n/a	9/23/2020	44.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40	n/a	9/22/2020	79.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40	n/a	9/24/2020	80	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-22	40	n/a	9/24/2020	62.6	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40	n/a	9/24/2020	73.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40	n/a	9/22/2020	263	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40	n/a	9/22/2020	43.8	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40	n/a	9/23/2020	72.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40	n/a	9/22/2020	99.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40	n/a	9/22/2020	54.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.5	n/a	9/24/2020	5.9	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.5	n/a	9/22/2020	16	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.5	n/a	9/22/2020	10.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.5	n/a	9/23/2020	12.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.5	n/a	9/23/2020	22.4	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.5	n/a	9/24/2020	22.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.5	n/a	9/22/2020	27.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.5	n/a	9/22/2020	25.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.5	n/a	9/24/2020	20	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-22	4.5	n/a	9/24/2020	21.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.5	n/a	9/24/2020	13.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.5	n/a	9/22/2020	17	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.5	n/a	9/22/2020	22.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.5	n/a	9/23/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.5	n/a	9/22/2020	10.5	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.5	n/a	9/23/2020	9.1	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.5	n/a	9/22/2020	8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	DGWC-10	0.42	n/a	9/24/2020	0.97	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	0.42	n/a	9/22/2020	0.99	Yes	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.6	5.2	9/24/2020	4.89	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-17	6.6	5.2	9/24/2020	5.1	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-19	6.6	5.2	9/22/2020	4.91	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-20	6.6	5.2	9/22/2020	4.66	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-47	6.6	5.2	9/23/2020	4.4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-48	6.6	5.2	9/23/2020	4.64	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-5	6.6	5.2	9/22/2020	4.83	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
pH (SU)	DGWC-9	6.6	5.2	9/22/2020	4	Yes	44	5.903	0.3302	0	None	No	0.0001881	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-10	36	n/a	9/24/2020	204	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36	n/a	9/22/2020	267	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36	n/a	9/22/2020	183	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36	n/a	9/23/2020	134	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36	n/a	9/22/2020	40.2	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36	n/a	9/23/2020	146	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36	n/a	9/24/2020	259	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36	n/a	9/22/2020	310	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36	n/a	9/23/2020	122	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36	n/a	9/22/2020	408	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36	n/a	9/24/2020	269	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	36	n/a	9/24/2020	262	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36	n/a	9/24/2020	215	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36	n/a	9/22/2020	800	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36	n/a	9/22/2020	320	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36	n/a	9/23/2020	111	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36	n/a	9/23/2020	313	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36	n/a	9/22/2020	423	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36	n/a	9/23/2020	178	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36	n/a	9/22/2020	282	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	320	n/a	9/22/2020	481	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	320	n/a	9/22/2020	338	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	320	n/a	9/24/2020	411	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	320	n/a	9/22/2020	513	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	320	n/a	9/22/2020	724	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	320	n/a	9/24/2020	494	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	320	n/a	9/24/2020	455	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	320	n/a	9/24/2020	456	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	320	n/a	9/22/2020	1400	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	320	n/a	9/22/2020	547	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	320	n/a	9/23/2020	575	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	320	n/a	9/22/2020	716	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	320	n/a	9/23/2020	333	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	320	n/a	9/22/2020	461	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	9/24/2020	0.45	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	9/22/2020	1.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	9/22/2020	4.2	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	9/22/2020	0.086J	No	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	9/23/2020	1.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	9/24/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	9/22/2020	2.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	9/23/2020	0.57	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	9/22/2020	4.9	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	9/24/2020	6.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-22	0.13	n/a	9/24/2020	4.1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	9/24/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	9/22/2020	4.3	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	9/22/2020	0.88	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	9/23/2020	0.21	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	9/23/2020	0.65	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	9/22/2020	4.6	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	9/23/2020	1	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	9/22/2020	0.78	Yes	35	n/a	n/a	22.86	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40	n/a	9/24/2020	53.1	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40	n/a	9/22/2020	72.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40	n/a	9/22/2020	55.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40	n/a	9/23/2020	39	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-14	40	n/a	9/22/2020	11.6	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-15	40	n/a	9/23/2020	35.6	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-17	40	n/a	9/24/2020	12.7	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40	n/a	9/22/2020	103	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40	n/a	9/23/2020	44.4	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40	n/a	9/22/2020	79.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40	n/a	9/24/2020	80	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-22	40	n/a	9/24/2020	62.6	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40	n/a	9/24/2020	73.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40	n/a	9/22/2020	263	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40	n/a	9/22/2020	43.8	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-47	40	n/a	9/23/2020	22.3	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40	n/a	9/23/2020	72.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40	n/a	9/22/2020	99.2	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40	n/a	9/23/2020	39.3	No	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40	n/a	9/22/2020	54.7	Yes	35	n/a	n/a	5.714	n/a	n/a	0.001342	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.5	n/a	9/24/2020	5.9	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.5	n/a	9/22/2020	16	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.5	n/a	9/22/2020	10.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.5	n/a	9/23/2020	12.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.5	n/a	9/22/2020	3.2	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.5	n/a	9/23/2020	22.4	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.5	n/a	9/24/2020	22.7	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.5	n/a	9/22/2020	27.6	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.5	n/a	9/23/2020	2.1	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.5	n/a	9/22/2020	25.8	Yes	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2

# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Chloride (mg/L)</b>	<b>DGWC-21</b>	<b>4.5</b>	<b>n/a</b>	<b>9/24/2020</b>	<b>20</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-22</b>	<b>4.5</b>	<b>n/a</b>	<b>9/24/2020</b>	<b>21.5</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-23</b>	<b>4.5</b>	<b>n/a</b>	<b>9/24/2020</b>	<b>13.7</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-4</b>	<b>4.5</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>17</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-42</b>	<b>4.5</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>22.1</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	DGWC-47	4.5	n/a	9/23/2020	3.3	No	37	1.634	0.2181	0	None	sqrt(x)	0.0003762	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>DGWC-48</b>	<b>4.5</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>8</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-5</b>	<b>4.5</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>10.5</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-8</b>	<b>4.5</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>9.1</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>DGWC-9</b>	<b>4.5</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>8</b>	<b>Yes</b>	<b>37</b>	<b>1.634</b>	<b>0.2181</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.0003762</b>	<b>Param Inter 1 of 2</b>
<b>Fluoride (mg/L)</b>	<b>DGWC-10</b>	<b>0.42</b>	<b>n/a</b>	<b>9/24/2020</b>	<b>0.97</b>	<b>Yes</b>	<b>42</b>	<b>n/a</b>	<b>n/a</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0009901</b>	<b>NP Inter (normality) 1 of 2</b>
Fluoride (mg/L)	DGWC-11	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-12	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-13	0.42	n/a	9/23/2020	0.058J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-14	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-15	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-17	0.42	n/a	9/24/2020	0.056J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-19	0.42	n/a	9/22/2020	0.084J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-2	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	0.42	n/a	9/22/2020	0.15	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-21	0.42	n/a	9/24/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-22	0.42	n/a	9/24/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-23	0.42	n/a	9/24/2020	0.075J	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-4	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-42	0.42	n/a	9/22/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-47	0.42	n/a	9/23/2020	0.11	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-48	0.42	n/a	9/23/2020	0.32	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-5	0.42	n/a	9/22/2020	0.12	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-8	0.42	n/a	9/23/2020	0.1ND	No	42	n/a	n/a	50	n/a	n/a	0.0009901	NP Inter (normality) 1 of 2
<b>Fluoride (mg/L)</b>	<b>DGWC-9</b>	<b>0.42</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.99</b>	<b>Yes</b>	<b>42</b>	<b>n/a</b>	<b>n/a</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0009901</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH (SU)</b>	<b>DGWC-10</b>	<b>6.6</b>	<b>5.2</b>	<b>9/24/2020</b>	<b>4.89</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
pH (SU)	DGWC-11	6.6	5.2	9/22/2020	5.54	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-12	6.6	5.2	9/22/2020	6	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-13	6.6	5.2	9/23/2020	5.72	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-14	6.6	5.2	9/22/2020	5.7	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-15	6.6	5.2	9/23/2020	5.85	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
<b>pH (SU)</b>	<b>DGWC-17</b>	<b>6.6</b>	<b>5.2</b>	<b>9/24/2020</b>	<b>5.1</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
<b>pH (SU)</b>	<b>DGWC-19</b>	<b>6.6</b>	<b>5.2</b>	<b>9/22/2020</b>	<b>4.91</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
pH (SU)	DGWC-2	6.6	5.2	9/23/2020	5.99	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
<b>pH (SU)</b>	<b>DGWC-20</b>	<b>6.6</b>	<b>5.2</b>	<b>9/22/2020</b>	<b>4.66</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
pH (SU)	DGWC-21	6.6	5.2	9/24/2020	5.64	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-22	6.6	5.2	9/24/2020	5.69	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-23	6.6	5.2	9/24/2020	6.19	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-4	6.6	5.2	9/22/2020	5.88	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
pH (SU)	DGWC-42	6.6	5.2	9/22/2020	5.76	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
<b>pH (SU)</b>	<b>DGWC-47</b>	<b>6.6</b>	<b>5.2</b>	<b>9/23/2020</b>	<b>4.4</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
<b>pH (SU)</b>	<b>DGWC-48</b>	<b>6.6</b>	<b>5.2</b>	<b>9/23/2020</b>	<b>4.64</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
<b>pH (SU)</b>	<b>DGWC-5</b>	<b>6.6</b>	<b>5.2</b>	<b>9/22/2020</b>	<b>4.83</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>
pH (SU)	DGWC-8	6.6	5.2	9/23/2020	5.21	No	44	5.903	0.3302	0	None	No	0.001881	Param Inter 1 of 2
<b>pH (SU)</b>	<b>DGWC-9</b>	<b>6.6</b>	<b>5.2</b>	<b>9/22/2020</b>	<b>4</b>	<b>Yes</b>	<b>44</b>	<b>5.903</b>	<b>0.3302</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001881</b>	<b>Param Inter 1 of 2</b>

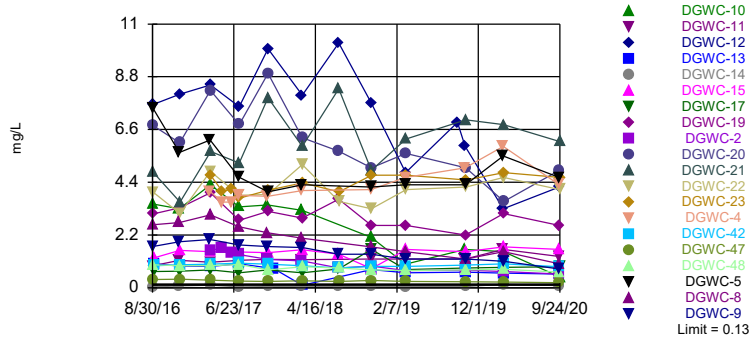
# Interwell Prediction Limit Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	DGWC-10	36	n/a	9/24/2020	204	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36	n/a	9/22/2020	267	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36	n/a	9/22/2020	183	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36	n/a	9/23/2020	134	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36	n/a	9/22/2020	40.2	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36	n/a	9/23/2020	146	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36	n/a	9/24/2020	259	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36	n/a	9/22/2020	310	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36	n/a	9/23/2020	122	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36	n/a	9/22/2020	408	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36	n/a	9/24/2020	269	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	36	n/a	9/24/2020	262	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36	n/a	9/24/2020	215	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36	n/a	9/22/2020	800	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36	n/a	9/22/2020	320	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36	n/a	9/23/2020	111	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36	n/a	9/23/2020	313	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36	n/a	9/22/2020	423	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36	n/a	9/23/2020	178	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36	n/a	9/22/2020	282	Yes	37	2.639	1.476	8.108	None	sqrt(x)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	320	n/a	9/24/2020	283	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	320	n/a	9/22/2020	481	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	320	n/a	9/22/2020	338	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-13	320	n/a	9/23/2020	278	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-14	320	n/a	9/22/2020	105	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-15	320	n/a	9/23/2020	317	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	320	n/a	9/24/2020	411	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	320	n/a	9/22/2020	513	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-2	320	n/a	9/23/2020	267	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	320	n/a	9/22/2020	724	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	320	n/a	9/24/2020	494	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	320	n/a	9/24/2020	455	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	320	n/a	9/24/2020	456	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	320	n/a	9/22/2020	1400	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	320	n/a	9/22/2020	547	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	320	n/a	9/23/2020	229	No	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	320	n/a	9/23/2020	575	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	320	n/a	9/22/2020	716	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	320	n/a	9/23/2020	333	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	320	n/a	9/22/2020	461	Yes	36	4.642	0.9577	0	None	x^(1/3)	0.0003762	Param Inter 1 of 2

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-15, DGWC-17, DGWC-19, DGWC-2, DGWC-20, DGWC-21...

Prediction Limit  
Interwell Non-parametric

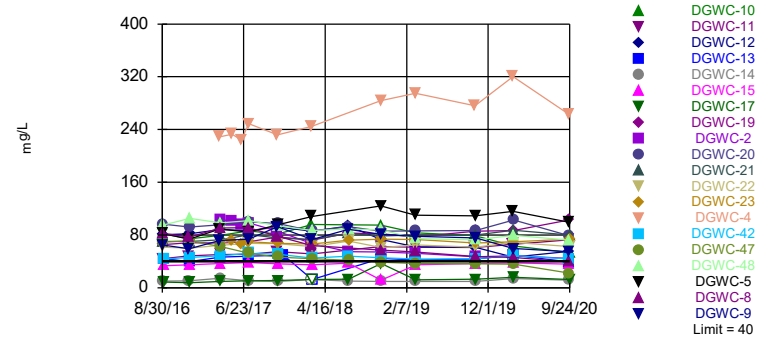


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. 22.86% NDs. Annual per-constituent alpha = 0.0523. Individual comparison alpha = 0.001342 (1 of 2). Comparing 20 points to limit.

Constituent: Boron Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-19, DGWC-2, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-4...

Prediction Limit  
Interwell Non-parametric

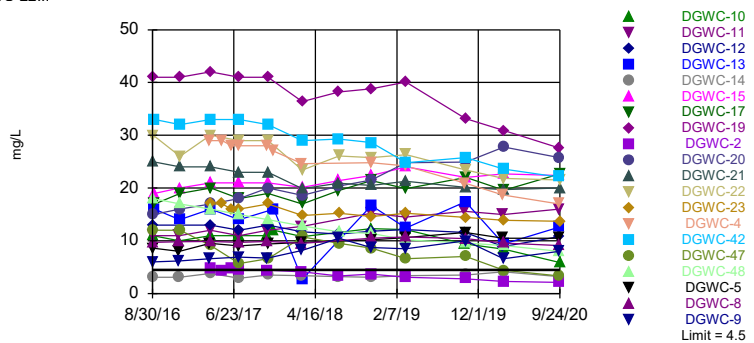


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. 5.714% NDs. Annual per-constituent alpha = 0.0523. Individual comparison alpha = 0.001342 (1 of 2). Comparing 20 points to limit.

Constituent: Calcium Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22...

Prediction Limit  
Interwell Parametric

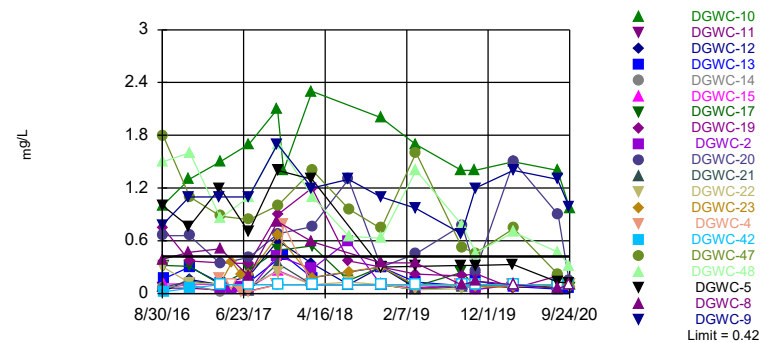


Background Data Summary (based on square root transformation): Mean=1.634, Std. Dev.=0.2181, n=37. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9429, critical = 0.914. Kappa = 2.268 (c=7, w=20, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0003762. Comparing 20 points to limit.

Constituent: Chloride Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-9

Prediction Limit  
Interwell Non-parametric



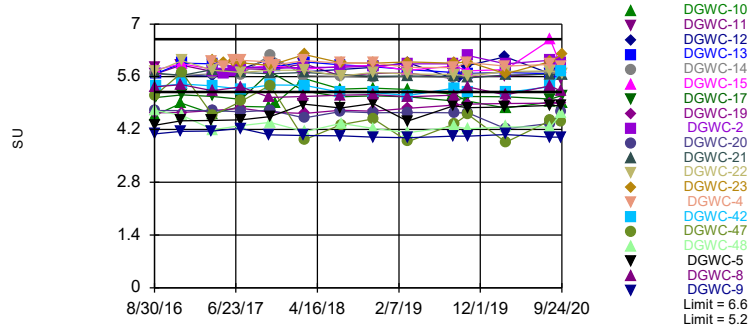
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 50% NDs. Annual per-constituent alpha = 0.03885. Individual comparison alpha = 0.0009901 (1 of 2). Comparing 20 points to limit.

Constituent: Fluoride Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP



Exceeds Limits: DGWC-10, DGWC-17, DGWC-19, DGWC-20, DGWC-47, DGWC-48, DGWC-5, DGWC-9

Prediction Limit  
Interwell Parametric

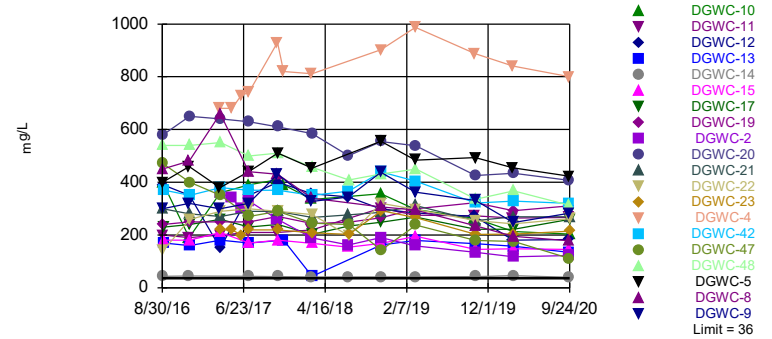


Background Data Summary: Mean=5.903, Std. Dev.=0.3302, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9275, critical = 0.924. Kappa = 2.232 (c=7, w=20, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0001881. Comparing 20 points to limit.

Constituent: pH Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-2, DGWC-20...

Prediction Limit  
Interwell Parametric

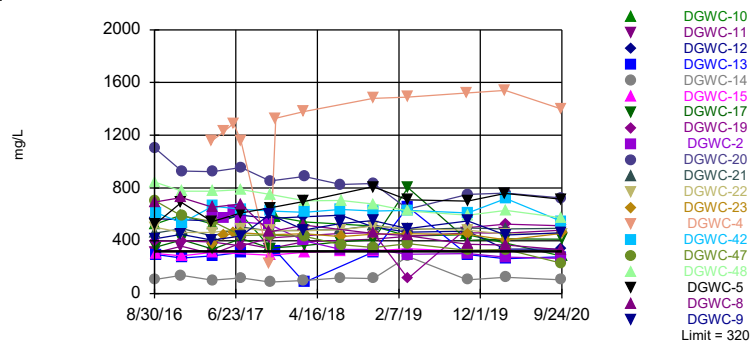


Background Data Summary (based on square root transformation): Mean=2.639, Std. Dev.=1.476, n=37, 8.108% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9367, critical = 0.914. Kappa = 2.268 (c=7, w=20, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0003762. Comparing 20 points to limit.

Constituent: Sulfate Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-11, DGWC-12, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-22, DGWC-23, DGWC-4, DGWC-42...

Prediction Limit  
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.642, Std. Dev.=0.9577, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9221, critical = 0.912. Kappa = 2.275 (c=7, w=20, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0003762. Comparing 20 points to limit.

Constituent: TDS Analysis Run 11/4/2020 3:33 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-9	DGWC-8	DGWC-10	DGWC-5	DGWC-14	DGWC-11	DGWC-47	DGWC-12	DGWC-19
8/30/2016	1.72	2.63							
8/31/2016			3.5	7.5	0.0419 (J)	0.914			
9/1/2016							0.345	7.64	3.08
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	1.92	2.72	3.3	5.64	0.0804	1.15			
12/7/2016								8.07	3.34
12/8/2016							0.352		
3/28/2017	2.01			6.16					
3/29/2017		3.04	4.3		0.103	1.07		8.46	3.96
3/30/2017									
3/31/2017							0.312		
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	1.78	2.55		4.61					
7/12/2017			3.38		0.044	1.14		7.55	2.82
7/13/2017							0.28		
8/8/2017									
10/24/2017	1.72	2.29	3.45			1.18			
10/25/2017				4	0.0565			9.97	3.19
10/26/2017							0.269		
11/15/2017									
2/27/2018	1.68	2.07	3.23	4.29	0.0539	1.17		8.03	
2/28/2018									2.91
3/1/2018							0.296		
3/2/2018									
3/8/2018									
7/11/2018	1.4				0.057			10.2	3.7
7/12/2018							0.26		
11/6/2018	1.4	1.7	2.1	4.2		1.2			
11/7/2018					0.055		0.3	7.7	2.6
11/8/2018									
3/12/2019	1.2	1.5	0.98	4.3		1.2		4.8	
3/13/2019					0.047				2.6
3/14/2019							0.26		
9/17/2019								6.9	
10/15/2019			1.6			1.2		5.9	
10/16/2019		1.2		4.3	0.052				2.2
10/17/2019	1.2						0.25		
10/18/2019									
3/2/2020				5.5		1.6		3.3	
3/3/2020	1.1	1.5	1.5		0.15				3.1
3/4/2020							0.24		
3/9/2020									
9/22/2020	0.78			4.6	0.086 (J)	1.3		4.2	2.6
9/23/2020		1					0.21		
9/24/2020			0.45						

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-21	DGWC-22	DGWC-20	DGWC-15	DGWC-13	DGWC-17	DGWC-42	DGWA-70A (bg)
8/30/2016									
8/31/2016									
9/1/2016	0.955								
9/2/2016		4.81	3.99	6.77					
9/6/2016					1.25	1			
9/7/2016							0.683	0.924	
12/6/2016									
12/7/2016				6.04	1.56	0.9			
12/8/2016	0.919	3.57	3.1				0.688	0.957	
3/28/2017									0.0067 (J)
3/29/2017			4.85	8.23					
3/30/2017	0.925	5.68			1.5	0.898	0.743		
3/31/2017								0.989	
5/11/2017									
5/12/2017									
5/15/2017									0.0073 (J)
6/15/2017									<0.1
6/16/2017									
7/11/2017									<0.1
7/12/2017		5.2		6.81	1.49	0.996	0.62		
7/13/2017	0.972		3.85					1.03	
8/8/2017									<0.1
10/24/2017									0.0082 (J)
10/25/2017		7.92	3.9	8.94	1.47		0.739	0.982	
10/26/2017	0.746								
11/15/2017						0.795			
2/27/2018									0.0062 (J)
2/28/2018		5.89	5.14	6.26	1.58	0.106	0.627	0.918	
3/1/2018									
3/2/2018	0.878								
3/8/2018									
7/11/2018		8.3		5.7	1.4		0.79	0.83	
7/12/2018	0.82		3.6						
11/6/2018									<0.04 (J)
11/7/2018	0.74	4.9	3.3	5	0.8	0.76	1.6	0.89	
11/8/2018									
3/12/2019									0.0073 (J)
3/13/2019		6.2		5.6		0.62	0.76		
3/14/2019	0.72		4.1		1.6			0.89	
9/17/2019									
10/15/2019									<0.1
10/16/2019						0.65			
10/17/2019		7		5	1.5			0.94	
10/18/2019	0.74		4.2				0.82		
3/2/2020									0.0055 (J)
3/3/2020		6.8	4.6		1.7	0.61			
3/4/2020	0.77			3.6			0.85	1	
3/9/2020									
9/22/2020				4.9				0.88	<0.1
9/23/2020	0.65				1.6	0.57			
9/24/2020		6.1	4.1				0.88		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-23	DGWC-2
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	4.01	0.0097 (J)	0.0612		
3/29/2017					
3/30/2017				4.68	1.56
3/31/2017					
5/11/2017			0.0805		1.65
5/12/2017	3.58	0.0082 (J)		4.03	
5/15/2017					
6/15/2017	3.58		0.0725	4.11	1.44
6/16/2017		0.0085 (J)			
7/11/2017	3.85	0.0077 (J)			1.39
7/12/2017			0.0735	3.74	
7/13/2017					
8/8/2017					
10/24/2017	3.82	0.0083 (J)	0.077		1.18
10/25/2017					
10/26/2017				4.07	
11/15/2017					
2/27/2018	4.06	0.0069 (J)			1.12
2/28/2018					
3/1/2018				4.37	
3/2/2018					
3/8/2018			0.13 (J)		
7/11/2018					0.82
7/12/2018			0.076	4	
11/6/2018	4.1	<0.04 (J)			0.9
11/7/2018			0.073		
11/8/2018				4.7	
3/12/2019	4.6	0.0068 (J)			0.72
3/13/2019			0.08		
3/14/2019				4.7	
9/17/2019					
10/15/2019	5	0.0054 (J)			
10/16/2019			0.059		
10/17/2019					0.73
10/18/2019				4.5	
3/2/2020	5.9	0.01 (J)			
3/3/2020					0.68
3/4/2020				4.8	
3/9/2020			0.08 (J)		
9/22/2020	4.3	<0.1	0.056 (J)		
9/23/2020					0.57
9/24/2020				4.6	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-8	DGWC-9	DGWC-14	DGWC-10	DGWC-5	DGWC-11	DGWC-12	DGWC-19	DGWC-48
8/30/2016	82.7	64.9							
8/31/2016			9.95	81.7	82.6	44.2			
9/1/2016							80.6	65.6	95.1
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	76.8	59.3	10.4	74.2	73.9	48.3			
12/7/2016							82.1	68.3	
12/8/2016									105
3/28/2017		71.6			89.1				
3/29/2017	90.5		14.4	79.5		50.5	88.3	68	
3/30/2017									98.6
3/31/2017									
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	91.1	73.7			84.6				
7/12/2017			10.5	86.3		50.8	87	70	
7/13/2017									102
8/8/2017									
10/24/2017	78.1	92.5		81.5		55			
10/25/2017			9.67		95.6		92.1	77	
10/26/2017									94
11/15/2017									
2/27/2018	64.2	73.1	<25	96.2	108	51.4	85.6		
2/28/2018								72	
3/1/2018									
3/2/2018									86.6
3/8/2018									
7/11/2018		88.5	9.9				93.6	82.7	
7/12/2018									89.1
11/6/2018	57	81.1		94.8	124	62.6			
11/7/2018			9.7				73.3	81.7	88
11/8/2018									
3/12/2019	54.3	78.1		83.5	110	61.4	62.1		
3/13/2019			9.7					76.9	
3/14/2019									74.6
10/15/2019				79.1		61.2	61.4		
10/16/2019	47.3		9.4		109			85.7	
10/17/2019		75.6							
10/18/2019									72.7
3/2/2020					116	65.8	46.5		
3/3/2020	46	59.5	14	63.6				86.8	
3/4/2020									79.7
3/9/2020									
9/22/2020		54.7	11.6		99.2	72.7	55.4	103	
9/23/2020	39.3								72.2
9/24/2020				53.1					

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-21	DGWC-22	DGWC-20	DGWC-15	DGWC-13	DGWC-42	DGWC-17	DGWA-71 (bg)
8/30/2016									
8/31/2016									
9/1/2016	69.3								
9/2/2016		70.2	61.6	96.3					
9/6/2016					33.6	44			
9/7/2016							43.6	8.61	
12/6/2016									
12/7/2016				91.9	34.7	39.8			
12/8/2016	71.1	70.1	60.1				45.8	7.92	
3/28/2017									8.31
3/29/2017			64.7	95.7					
3/30/2017		72.5			36.9	46.3		9.56	
3/31/2017	62.6						48.3		
5/11/2017									
5/12/2017									8.04
5/15/2017									
6/15/2017									
6/16/2017									7.66
7/11/2017									7.71
7/12/2017		80.4		100	38.4	47.8		10.4	
7/13/2017	52.5		67.2				52.3		
8/8/2017									
10/24/2017									6.86
10/25/2017		75.6	66.8	97.3	36.2		50.9	10.9	
10/26/2017	46.7								
11/15/2017						49.3			
2/27/2018									<25
2/28/2018		73.2	62.3	86.3	35	<25	45.1	<25	
3/1/2018	44.2								
3/2/2018									
3/8/2018									
7/11/2018		82.3		92.4	37.5		47.8	13 (J)	
7/12/2018	41.6		71						
11/6/2018									5.7
11/7/2018	38.6	78.5	60.9	85.9	11.4	44.8	45.5	37	
11/8/2018									
3/12/2019									5.5
3/13/2019		79.9		86.4		42.1		11.9 (J)	
3/14/2019	36.6		64.8		34.7		43.5		
10/15/2019									5.1
10/16/2019						43.8			
10/17/2019	36.2	79.8		86.9	37		44.1		
10/18/2019			61.7					12.9	
3/2/2020									5.8
3/3/2020		87.4	68.7		37.8	49.3			
3/4/2020	36			103			48.8	15.8	
3/9/2020									
9/22/2020				79.2			43.8		5.4
9/23/2020	22.3				35.6	39			
9/24/2020		80	62.6					12.7	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-70A (bg)	DGWA-53 (bg)	DGWC-2	DGWC-23
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	229	5.14	30.8		
3/29/2017					
3/30/2017				103	68.1
3/31/2017					
5/11/2017			35.8	102	
5/12/2017	233				71.1
5/15/2017		6.5			
6/15/2017	224	5.38	36	96.2	65.9
6/16/2017					
7/11/2017	249	5.96		98.4	
7/12/2017			40.3		70
7/13/2017					
8/8/2017		5.2			
10/24/2017	232	4.93	30.3	86	
10/25/2017					
10/26/2017					67.2
11/15/2017					
2/27/2018	245	<25		66.7	
2/28/2018					
3/1/2018					66.5
3/2/2018					
3/8/2018			39.8		
7/11/2018				55	
7/12/2018			34.7		72
11/6/2018	284	5.5		54.5	
11/7/2018			28.6		
11/8/2018					73.5
3/12/2019	295	5.1		52.2	
3/13/2019			26.7		
3/14/2019					73.2
10/15/2019	276	5.1			
10/16/2019			17.7		
10/17/2019				47.2	
10/18/2019					67.7
3/2/2020	320	5.3			
3/3/2020				48.4	
3/4/2020					69.8
3/9/2020			23.7		
9/22/2020	263	5	15.5		
9/23/2020				44.4	
9/24/2020					73.7

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-8	DGWC-9	DGWC-5	DGWC-11	DGWC-14	DGWC-10	DGWC-19	DGWC-48	DGWC-12
8/30/2016	9.7	6							
8/31/2016			8.6	11	3.1	11			
9/1/2016							41	18	13
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	9.8	6.2	8	11	3.1	10			
12/7/2016							41		20 (o)
12/8/2016								17	
3/28/2017		6.6	9.5						
3/29/2017	9.9			12	3.8	11	42		13
3/30/2017								16	
3/31/2017									
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	9.7	6.9	9						
7/12/2017				11	2.9	11	41		12
7/13/2017								15	
8/8/2017									
10/24/2017	9.9	6.7		12		11			
10/25/2017			9.4		3.5		41		13
10/26/2017								14	
11/15/2017						12			
2/27/2018	9.5	8.2	9.7	12.7	3.4	10.8			11.7
2/28/2018							36.4		
3/1/2018									
3/2/2018								12.8	
3/8/2018									
7/11/2018		10.5			3.2		38.2		11.3
7/12/2018								11.7	
11/6/2018	10.5	8.7	10.2	15.2		12.3			
11/7/2018					3.1		38.8	11.4	11.8
11/8/2018									
3/12/2019	10.7	8.5	10.6	14.5		12.1			12.1
3/13/2019					3.4		40.1		
3/14/2019								10.2	
10/15/2019				15.6		9.4			11.6
10/16/2019	10.4		11.6		3.5		33.2		
10/17/2019		10							
10/18/2019								9.6	
3/2/2020			10.5	15					8.9
3/3/2020	9.6	6.6			4.1	8.4	30.9		
3/4/2020								9.1	
3/9/2020									
9/22/2020		8	10.5	16	3.2		27.6		10.8
9/23/2020	9.1							8	
9/24/2020						5.9			



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-20	DGWC-22	DGWC-21	DGWC-15	DGWC-13	DGWC-17	DGWC-42	DGWA-71 (bg)
8/30/2016									
8/31/2016									
9/1/2016	12								
9/2/2016		15	30	25					
9/6/2016					19	16			
9/7/2016							17	33	
12/6/2016									
12/7/2016		16			20	14			
12/8/2016	12		26	24			19	32	
3/28/2017									3.6
3/29/2017		17	30						
3/30/2017				24	21	16	20		
3/31/2017	9.1							33	
5/11/2017									
5/12/2017									3.8
5/15/2017									
6/15/2017									
6/16/2017									3.4
7/11/2017									3.1
7/12/2017		18		23	21	14	18		
7/13/2017	5.7		29					33	
8/8/2017									
10/24/2017									3.2
10/25/2017		20	29	23	21		19	32	
10/26/2017	6.6								
11/15/2017						16			3.1
2/27/2018									3.2
2/28/2018		18.6	23.4	19.9	20.1	2.7	17	29	
3/1/2018	10.7								
3/2/2018									
3/8/2018									
7/11/2018		20.4		20.9	21.4		19.5	29.3	
7/12/2018	9.5		26.1						
11/6/2018									2.6
11/7/2018	8.6	21.5	25.8	20.5	22.4	16.7	21.4	28.6	
11/8/2018									
3/12/2019									3.3
3/13/2019		24.8		21.3		12.4	19.9		
3/14/2019	6.6		26.3		24			24.8	
10/15/2019									3.3
10/16/2019						17.4			
10/17/2019	7	24.9		20.1	22			25.8	
10/18/2019			23.4				22		
3/2/2020									3
3/3/2020			21.8	19.7	22.7	9.4			
3/4/2020	4.4	27.8					19.6	23.6	
3/9/2020									
9/22/2020		25.8						22.1	5.2
9/23/2020	3.3				22.4	12.6			
9/24/2020			21.5	20			22.7		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (bg)	DGWC-4	DGWA-53 (bg)	DGWC-23	DGWC-2
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	3.8	29	3.7		
3/29/2017					
3/30/2017				17	4.8
3/31/2017					
5/11/2017			2.3		4.4
5/12/2017		29		17	
5/15/2017	2.2				
6/15/2017	2	28	2.6	16	4.8
6/16/2017					
7/11/2017	2.1	28			4.6
7/12/2017			2.3	16	
7/13/2017					
8/8/2017	2.2				
10/24/2017	2.4	28	2.7		4.4
10/25/2017					
10/26/2017				17	
11/15/2017		27	2.2		
2/27/2018	2.5	24.6			4.1
2/28/2018					
3/1/2018				14.8	
3/2/2018					
3/8/2018			2.4		
7/11/2018					3.3
7/12/2018			2.2	15.2	
11/6/2018	2.3	24.8			3.7
11/7/2018			2.3		
11/8/2018				14.6	
3/12/2019	2.5	24.2			3.1
3/13/2019			3.6		
3/14/2019				15.2	
10/15/2019	2.2	20.9			
10/16/2019			2		
10/17/2019					2.8
10/18/2019				14.4	
3/2/2020	1.9	18.7			
3/3/2020					2.3
3/4/2020				13.9	
3/9/2020			1.8		
9/22/2020	1.9	17	1.6		
9/23/2020					2.1
9/24/2020				13.7	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-8	DGWC-9	DGWC-11	DGWC-10	DGWC-5	DGWC-14	DGWC-47	DGWC-12	DGWC-48
8/30/2016	0.39	0.78							
8/31/2016			0.06 (J)	1	1	0.06 (J)			
9/1/2016							1.8	0.02 (J)	1.5
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	0.47	1.1	0.06 (J)	1.3	0.76	0.1 (J)			
12/7/2016								0.16 (J)	
12/8/2016							1.1		1.6
3/28/2017		1.1			1.2				
3/29/2017	0.51		0.04 (J)	1.5		0.02 (J)		0.1 (J)	
3/30/2017									0.86
3/31/2017							0.88		
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	0.2 (J)	1.1			0.7				
7/12/2017			0.03 (J)	1.7		<0.1		0.2 (J)	
7/13/2017							0.84		1.1
8/8/2017									
10/24/2017	0.82	1.7	<0.1	2.1					
10/25/2017					1.4	<0.1		0.6	
10/26/2017							1		1.7
11/15/2017				1.4					
2/27/2018	0.59	1.2	<0.1	2.3	1.3	<0.1		0.34	
2/28/2018									
3/1/2018							1.4		
3/2/2018									1.1
3/8/2018									
7/11/2018		1.3				<0.1		<0.1	
7/12/2018							0.96		0.65
11/6/2018	0.35	1.1	<0.1	2	<0.3 (J)				
11/7/2018						<0.1	0.74	<0.3 (J)	0.63
11/8/2018									
3/12/2019	0.35	0.97	0.052 (J)	1.7	0.31			0.065 (J)	
3/13/2019						0.042 (J)			
3/14/2019							1.6		1.4
8/27/2019		0.68	<0.1	1.4	0.32	<0.1		<0.1	
8/28/2019	0.098 (J)								
8/29/2019							0.52		0.78
10/15/2019			<0.1	1.4				<0.1	
10/16/2019	0.14 (J)				0.32	0.052 (J)			
10/17/2019		1.2					0.46		
10/18/2019									0.46
3/2/2020			0.064 (J)		0.33			0.071 (J)	
3/3/2020	<0.1	1.4		1.5		<0.1			
3/4/2020							0.74		0.7
3/9/2020									
8/11/2020		1.3	<0.1	1.4		<0.1		<0.1	
8/12/2020	0.056 (J)				0.13		0.22		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWC-8	DGWC-9	DGWC-11	DGWC-10	DGWC-5	DGWC-14	DGWC-47	DGWC-12	DGWC-48
8/13/2020									0.47
8/14/2020									
9/22/2020		0.99	<0.1		0.12	<0.1		<0.1	
9/23/2020	<0.1						0.11		0.32
9/24/2020				0.97					

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-19	DGWC-21	DGWC-20	DGWC-22	DGWC-13	DGWC-15	DGWC-17	DGWC-42	DGWC-4
8/30/2016									
8/31/2016									
9/1/2016	0.75								
9/2/2016		0.07 (J)	0.66	0.3					
9/6/2016					0.17 (J)	0.11 (J)			
9/7/2016							0.32	0.02 (J)	
12/6/2016									
12/7/2016	0.37		0.66		0.3	0.11 (J)			
12/8/2016		0.14 (J)		0.12 (J)			0.31	0.06 (J)	
3/28/2017									0.17 (J)
3/29/2017	0.35		0.34	0.11 (J)					
3/30/2017		<0.1			0.12 (J)	<0.1	0.1 (J)		
3/31/2017								<0.1	
5/11/2017									
5/12/2017									<0.1
5/15/2017									
6/15/2017									0.02 (J)
6/16/2017									
7/11/2017									0.02 (J)
7/12/2017	0.34	0.04 (J)	0.41		0.13 (J)	0.07 (J)	0.27 (J)		
7/13/2017				0.09 (J)				<0.1	
8/8/2017									
10/24/2017									<0.1
10/25/2017	0.9	0.34	0.68	0.25 (J)		0.26 (J)	0.49	<0.1	
10/26/2017									
11/15/2017					0.44				0.79
2/27/2018									<0.1
2/28/2018	1.2	<0.1	0.76	<0.1	0.18	<0.1	0.54	<0.1	
3/1/2018									
3/2/2018									
3/8/2018									
7/11/2018	0.37	<0.1	1.3			<0.1	0.15 (J)	<0.1	
7/12/2018				0.13 (J)					
11/6/2018									<0.1
11/7/2018	<0.3 (J)	<0.1	<0.3 (J)	<0.1	<0.3 (J)	<0.1	<0.3 (J)	<0.1	
11/8/2018									
3/12/2019									0.082 (J)
3/13/2019	0.22 (J)	0.043 (J)	0.45		0.13 (J)		0.084 (J)		
3/14/2019				0.042 (J)		0.057 (J)		<0.1	
8/27/2019							0.24 (J)		<0.1
8/28/2019	0.2				0.091 (J)	<0.1		<0.1	
8/29/2019		0.079 (J)	0.78	0.054 (J)					
10/15/2019									<0.1
10/16/2019	0.23 (J)				0.14 (J)				
10/17/2019		<0.1	0.26 (J)			0.079 (J)		<0.1	
10/18/2019				<0.1			0.086 (J)		
3/2/2020									<0.1
3/3/2020	0.056 (J)	<0.1		<0.1	0.078 (J)	<0.1			
3/4/2020			1.5				<0.1	<0.1	
3/9/2020									
8/11/2020	0.2								
8/12/2020					0.051 (J)				<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWC-19	DGWC-21	DGWC-20	DGWC-22	DGWC-13	DGWC-15	DGWC-17	DGWC-42	DGWC-4
8/13/2020			0.9			<0.1		<0.1	
8/14/2020		<0.1		<0.1			0.069 (J)		
9/22/2020	0.084 (J)		0.15					<0.1	<0.1
9/23/2020					0.058 (J)	<0.1			
9/24/2020		<0.1		<0.1			0.056 (J)		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-23	DGWC-2	DGWA-70A (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	0.06 (J)	0.12 (J)			1.2 (o)
3/29/2017					
3/30/2017			0.12 (J)	0.06 (J)	
3/31/2017					
5/11/2017		0.07 (J)		0.06 (J)	
5/12/2017	<0.1		0.36		
5/15/2017					0.005 (J)
6/15/2017		0.19 (J)	0.21 (J)	0.07 (J)	0.02 (J)
6/16/2017	0.008 (J)				
7/11/2017	0.007 (J)			0.04 (J)	0.06 (J)
7/12/2017		0.1 (J)	0.22 (J)		
7/13/2017					
8/8/2017					0.04 (J)
10/24/2017	<0.1	0.06 (J)		0.43	<0.1
10/25/2017					
10/26/2017			0.66		
11/15/2017	<0.1	0.05 (J)			
2/27/2018	<0.1			0.28	<0.1
2/28/2018					
3/1/2018			0.18		
3/2/2018					
3/8/2018		<0.1			
7/11/2018				0.6	
7/12/2018		0.071 (J)	0.25 (J)		
11/6/2018	<0.1			<0.1	<0.1
11/7/2018		<0.1			
11/8/2018			<0.3 (J)		
3/12/2019	<0.1			0.052 (J)	0.039 (J)
3/13/2019		0.13 (J)			
3/14/2019			0.092 (J)		
8/27/2019	<0.1			<0.1	<0.1
8/28/2019		0.42			
8/29/2019			0.095 (J)		
10/15/2019	<0.1				<0.1
10/16/2019		0.11 (J)			
10/17/2019				0.042 (J)	
10/18/2019			0.079 (J)		
3/2/2020	<0.1				<0.1
3/3/2020				<0.1	
3/4/2020			0.075 (J)		
3/9/2020		0.1 (J)			
8/11/2020	<0.1			<0.1	<0.1
8/12/2020					

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-23	DGWC-2	DGWA-70A (bg)
8/13/2020		0.062 (J)	0.1		
8/14/2020					
9/22/2020	<0.1	0.099 (J)			<0.1
9/23/2020				<0.1	
9/24/2020			0.075 (J)		





# Prediction Limit

Constituent: pH (SU) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWC-8	DGWC-9	DGWC-14	DGWC-10	DGWC-5	DGWC-11	DGWC-48	DGWC-19	DGWC-47
8/11/2020		4	5.73	4.92		5.68		4.9	
8/12/2020	5.36				4.84				4.43
8/13/2020							4.26		
8/14/2020									
9/22/2020		4	5.7		4.83	5.54		4.91	
9/23/2020	5.21						4.64		4.4
9/24/2020				4.89					



# Prediction Limit

Constituent: pH (SU) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWC-22	DGWC-21	DGWC-20	DGWC-13	DGWC-15	DGWC-42	DGWC-17	DGWC-12	DGWC-4
8/11/2020								5.69	
8/12/2020				5.68					5.93
8/13/2020			4.36		6.58	5.34			
8/14/2020	5.76	5.66					5.01		
9/22/2020			4.66			5.76		6	5.88
9/23/2020				5.72	5.85				
9/24/2020	5.69	5.64					5.1		

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-2	DGWC-23	DGWA-70A (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	6.29	5.94			
3/29/2017					
3/30/2017			5.75	6.03	
3/31/2017					
5/11/2017	6.6		5.67		
5/12/2017		5.46		5.97	
5/15/2017					5.72
6/15/2017	6.41		5.75	6	5.74
6/16/2017		5.81			
7/11/2017		5.74	5.87		5.62
7/12/2017	5.91			5.97	
7/13/2017					
8/8/2017					5.6
10/24/2017	5.51	5.86	5.82		5.71
10/25/2017					
10/26/2017				5.9	
11/15/2017	6.5	5.77			
2/27/2018		5.66	5.85		5.5
2/28/2018					
3/1/2018				6.19	
3/2/2018					
3/8/2018	6.18				
7/10/2018		5.63			5.44
7/11/2018			5.85		
7/12/2018	6.33			5.97	
11/6/2018		5.79	5.88		5.71
11/7/2018	6.22				
11/8/2018				5.96	
3/12/2019		5.74	5.94		5.52
3/13/2019	6				
3/14/2019				5.99	
8/27/2019		5.87	5.94		5.53
8/28/2019	6.04				
8/29/2019				5.96	
9/17/2019					
10/15/2019		5.88			5.61
10/16/2019	6.69				
10/17/2019			6.16		
10/18/2019				5.99	
3/2/2020		5.77			5.54
3/3/2020			5.94		
3/4/2020				5.68	
3/9/2020	6.41 (D)				

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
Plant McDonough Client: Southern Company Data: McDonough AP

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	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-2	DGWC-23	DGWA-70A (bg)
8/11/2020		5.96	6.04		5.86
8/12/2020					
8/13/2020	6.17			6	
8/14/2020					
9/22/2020	6.43	6.06			6.01
9/23/2020			5.99		
9/24/2020				6.19	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-9	DGWC-8	DGWC-5	DGWC-11	DGWC-10	DGWC-14	DGWC-48	DGWC-19	DGWC-12
8/30/2016	300	450							
8/31/2016			400	200	400	44			
9/1/2016							540	240	390
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	320	480	460	190	190	45			
12/7/2016								250	350
12/8/2016							540		
3/28/2017	300		380						
3/29/2017		660		200	360	81 (o)		250	150
3/30/2017							550		
3/31/2017									
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	320	440	440						
7/12/2017				210	390	44		250	350
7/13/2017							500		
8/8/2017									
10/24/2017	430	430		210	410				
10/25/2017			510			42		270	400
10/26/2017							510		
11/15/2017					390				
2/27/2018	327	340	453	220	335	41			356
2/28/2018								244	
3/1/2018									
3/2/2018							456		
3/8/2018									
7/11/2018	344					40.6		249	344
7/12/2018							409		
11/6/2018	438	307	556	302	356				
11/7/2018						41.3	432	266	298
11/8/2018									
3/12/2019	362	295	484	275	297				284
3/13/2019						41.2		299	
3/14/2019							450		
10/15/2019				273	263				270
10/16/2019		235	493			42.1		323	
10/17/2019	331								
10/18/2019							336		
3/2/2020			455	264					181
3/3/2020	247	195			213	45.5		292	
3/4/2020							368		
3/9/2020									
9/22/2020	282		423	267		40.2		310	183
9/23/2020		178					313		
9/24/2020					204				

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-21	DGWC-22	DGWC-20	DGWC-13	DGWC-15	DGWC-42	DGWC-17	DGWC-4
8/30/2016									
8/31/2016									
9/1/2016	470								
9/2/2016		300	140	580					
9/6/2016					170	180			
9/7/2016							370	230	
12/6/2016									
12/7/2016				650	160	180			
12/8/2016	400	280	260				350	240	
3/28/2017									680
3/29/2017			290	640					
3/30/2017		270			180	210		260	
3/31/2017	350						380		
5/11/2017									
5/12/2017									680
5/15/2017									
6/15/2017									730
6/16/2017									
7/11/2017									740
7/12/2017		290		630	170	170		230	
7/13/2017	270		300				370		
8/8/2017									
10/24/2017									930
10/25/2017		290	290	610		180	370	240	
10/26/2017	290								
11/15/2017					180				820
2/27/2018									811
2/28/2018		267	278	584	43.5	168	350	203	
3/1/2018	245								
3/2/2018									
3/8/2018									
7/11/2018		277		501		154	366	234	
7/12/2018	240		197						
11/6/2018									902
11/7/2018	143	286	320	554	162	168	439	248	
11/8/2018									
3/12/2019									987
3/13/2019		312		539	179			268	
3/14/2019	238		297			195	404		
10/15/2019									888
10/16/2019					167				
10/17/2019	179	255		426		146	321		
10/18/2019			254					222	
3/2/2020									840
3/3/2020		269	242		157	148			
3/4/2020	176			434			329	222	
3/9/2020									
9/22/2020				408			320		800
9/23/2020	111				134	146			
9/24/2020		269	262					259	



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-71 (bg)	DGWA-70A (bg)	DGWC-2	DGWC-23
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	49	17	2.7		
3/29/2017					
3/30/2017				360	220
3/31/2017					
5/11/2017	21			340	
5/12/2017		17			220
5/15/2017			1		
6/15/2017	16		0.86 (J)	300	200
6/16/2017		11			
7/11/2017		11	1.4	330	
7/12/2017	10				220
7/13/2017					
8/8/2017			1.5		
10/24/2017	15	9.6	1.4	260	
10/25/2017					
10/26/2017					220
11/15/2017	3.8	7.8			
2/27/2018		7.4	0.54 (J)	189	
2/28/2018					
3/1/2018					209
3/2/2018					
3/8/2018	9.7				
7/11/2018				162	
7/12/2018	8				202
11/6/2018		7.3	<1 (J)	190	
11/7/2018	12.8				
11/8/2018					292
3/12/2019		7	0.35 (J)	159	
3/13/2019	23.7				
3/14/2019					266
10/15/2019		7.4	0.16 (J)		
10/16/2019	15.1				
10/17/2019				134	
10/18/2019					203
3/2/2020		8.5	<1		
3/3/2020				118	
3/4/2020					204
3/9/2020	9.5				
9/22/2020	13.5	6.5	<1		
9/23/2020				122	
9/24/2020					215

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-8	DGWC-9	DGWC-14	DGWC-5	DGWC-11	DGWC-10	DGWC-12	DGWC-47	DGWC-19
8/30/2016	693	414							
8/31/2016			106	524	307	525			
9/1/2016							568	704	396
9/2/2016									
9/6/2016									
9/7/2016									
12/6/2016	727	449	138	690	358	595			
12/7/2016							559		400
12/8/2016								587	
3/28/2017		404		545					
3/29/2017	654		102		300	525	550		390
3/30/2017									
3/31/2017								545	
5/11/2017									
5/12/2017									
5/15/2017									
6/15/2017									
6/16/2017									
7/11/2017	679	436		612					
7/12/2017			118		382	598	594		360
7/13/2017								441	
8/8/2017									
10/24/2017	468	599			342	353			
10/25/2017			88	650			571		423
10/26/2017								444	
11/15/2017						582			
2/27/2018	520	482	99	698	393	542	582		
2/28/2018									440
3/1/2018								435	
3/2/2018									
3/8/2018									
7/11/2018		532	119				593		457
7/12/2018								372	
11/6/2018	456	554		809	412	512			
11/7/2018			113				504	348	461
11/8/2018									
3/12/2019	438	493		711	433	436	465		
3/13/2019			280						113
3/14/2019								378	
10/15/2019					461	447	472		
10/16/2019	374		104	702					500
10/17/2019		550						327	
10/18/2019									
3/2/2020				759	458		338		
3/3/2020	369	444	123			382			526
3/4/2020								334	
3/9/2020									
9/22/2020		461	105	716	481		338		513
9/23/2020	333							229	
9/24/2020						283			

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-22	DGWC-21	DGWC-20	DGWC-15	DGWC-13	DGWC-42	DGWC-17	DGWC-4
8/30/2016									
8/31/2016									
9/1/2016	845								
9/2/2016		502	459	1100					
9/6/2016					304	296			
9/7/2016							611	353	
12/6/2016									
12/7/2016				930	287	270			
12/8/2016	777	464	491				535	408	
3/28/2017									1160
3/29/2017		462		923					
3/30/2017	775		436		312	287		338	
3/31/2017							661		
5/11/2017									
5/12/2017									1230
5/15/2017									
6/15/2017									1290
6/16/2017									
7/11/2017									1160
7/12/2017			505	956	490 (o)	312		417	
7/13/2017	789	492					641		
8/8/2017									
10/24/2017									229
10/25/2017		477	474	854	290		626	343	
10/26/2017	753								
11/15/2017						325			1330
2/27/2018									1380
2/28/2018		476	480	888	313	84	616	364	
3/1/2018									
3/2/2018	704								
3/8/2018									
7/11/2018			485	826	320		638	393	
7/12/2018	705	486							
11/6/2018									1480
11/7/2018	678	511	516	834	325	314	626	408	
11/8/2018									
3/12/2019									1490
3/13/2019			486	639		656		802	
3/14/2019	625	491			340		630		
10/15/2019									1520
10/16/2019						296			
10/17/2019			498	751	319		612		
10/18/2019	593	480						403	
3/2/2020									1540
3/3/2020		452	490		323	263			
3/4/2020	630			761			721	414	
3/9/2020									
9/22/2020				724			547		1400
9/23/2020	575				317	278			
9/24/2020		455	494					411	

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/4/2020 3:37 PM View: Interwell PLs 2-3-4  
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-53 (bg)	DGWA-71 (bg)	DGWA-70A (bg)	DGWC-2	DGWC-23
8/30/2016					
8/31/2016					
9/1/2016					
9/2/2016					
9/6/2016					
9/7/2016					
12/6/2016					
12/7/2016					
12/8/2016					
3/28/2017	202	90	39		
3/29/2017					
3/30/2017				580	380
3/31/2017					
5/11/2017	241			573	
5/12/2017		92			438
5/15/2017			88		
6/15/2017	251		65	626	458
6/16/2017		100			
7/11/2017		59	25	542	
7/12/2017	218				461
7/13/2017					
8/8/2017			53		
10/24/2017	671 (o)	117	49	523	
10/25/2017					
10/26/2017					446
11/15/2017	241	90			
2/27/2018		79	43	401	
2/28/2018					
3/1/2018					454
3/2/2018					
3/8/2018	213				
7/11/2018				334	
7/12/2018	198				432
11/6/2018		85	65	334	
11/7/2018	200				
11/8/2018					450
3/12/2019		74	43	297	
3/13/2019	201				
3/14/2019					453
10/15/2019		89	70		
10/16/2019	126				
10/17/2019				302	
10/18/2019					448
3/2/2020		67	52		
3/3/2020				277	
3/4/2020					408
3/9/2020	171				
9/22/2020	142	74	46		
9/23/2020				267	
9/24/2020					456

FIGURE E.

# Trend Test Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWC-10	-0.7875	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-11	0.05321	44	34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.105	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-17	0.04907	40	38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3228	-60	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-20	-0.7622	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5082	38	34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02874	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-48	-0.07167	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5023	-46	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2724	-55	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-53 (bg)	-5.213	-40	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.9849	-35	-34	Yes	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	6.164	47	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.938	54	38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-19.32	-62	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.742	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.372	43	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.8116	46	38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-19	-2.92	-44	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.214	62	38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.347	-48	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-22	-2.105	-43	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-0.9328	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.348	-60	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.859	-54	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.563	-66	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.7327	40	34	Yes	11	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.07026	68	48	Yes	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-9	-0.02468	-49	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3438	-40	-38	Yes	12	25	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.262	-49	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-19	17.35	39	38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-76.21	-58	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-54.31	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-72.08	-58	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-57.99	-51	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-81.75	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-53 (bg)	-26.46	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	40.18	45	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-67.11	-50	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	117.2	45	38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-65.67	-56	-38	Yes	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	47.26	37	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-92.7	-49	-34	Yes	11	0	n/a	n/a	0.01	NP

# Trend Test Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWA-53 (bg)	-0.0003249	-5	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-70A (bg)	0	1	38	No	12	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	-0.00009656	-1	-34	No	11	18.18	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-10</b>	<b>-0.7875</b>	<b>-41</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-11</b>	<b>0.05321</b>	<b>44</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-12	-1.012	-38	-43	No	13	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-13</b>	<b>-0.105</b>	<b>-39</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-15	0.03879	20	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-17</b>	<b>0.04907</b>	<b>40</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-19	-0.2025	-27	-38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-2</b>	<b>-0.3228</b>	<b>-60</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-20</b>	<b>-0.7622</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-21	0.5429	26	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-22	0.1245	13	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-23	0.1754	25	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-4</b>	<b>0.5082</b>	<b>38</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-42	-0.0129	-15	-38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-47</b>	<b>-0.02874</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-48</b>	<b>-0.07167</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	DGWC-5	-0.2739	-14	-34	No	11	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>DGWC-8</b>	<b>-0.5023</b>	<b>-46</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>DGWC-9</b>	<b>-0.2724</b>	<b>-55</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>DGWA-53 (bg)</b>	<b>-5.213</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWA-70A (bg)	-0.1112	-19	-38	No	12	8.333	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWA-71 (bg)</b>	<b>-0.9849</b>	<b>-35</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>9.091</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-10	-3.185	-13	-34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-11</b>	<b>6.164</b>	<b>47</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-12	-9.372	-30	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-19</b>	<b>6.938</b>	<b>54</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>DGWC-2</b>	<b>-19.32</b>	<b>-62</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-20	-3.238	-18	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-21	3.106	38	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-22	0.5145	12	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-23	1.123	22	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	25.63	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-42	-0.5495	-12	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>DGWC-48</b>	<b>-7.742</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	DGWC-5	10.45	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-9	-0.4432	0	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-53 (bg)	-0.2527	-40	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-70A (bg)	-0.08248	-13	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-71 (bg)	-0.07123	-11	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-10	-0.4055	-14	-38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-11</b>	<b>1.372</b>	<b>43</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-12	-0.6308	-34	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-13	-0.4371	-7	-34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-15</b>	<b>0.8116</b>	<b>46</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-17	1.012	36	38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>DGWC-19</b>	<b>-2.92</b>	<b>-44</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-20</b>	<b>3.214</b>	<b>62</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-21</b>	<b>-1.347</b>	<b>-48</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-22</b>	<b>-2.105</b>	<b>-43</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-23</b>	<b>-0.9328</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-4</b>	<b>-3.348</b>	<b>-60</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-42</b>	<b>-2.859</b>	<b>-54</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Trend Test Summary - All Results

Plant McDonough    Client: Southern Company    Data: McDonough AP    Printed 11/4/2020, 3:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Chloride (mg/L)</b>	<b>DGWC-48</b>	<b>-2.563</b>	<b>-66</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>DGWC-5</b>	<b>0.7327</b>	<b>40</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	DGWC-8	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-9	0.9794	31	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-53 (bg)	0	-1	-53	No	15	13.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-70A (bg)	0.01815	38	43	No	13	61.54	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-71 (bg)	0	26	48	No	14	78.57	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-10	0	-7	-48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-9	0.03493	11	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-53 (bg)	0.031	4	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-70A (bg)	0.004574	2	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-71 (bg)	0.06107	33	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-10	0.05117	18	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-17	-0.005267	-14	-53	No	15	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>DGWC-19</b>	<b>0.07026</b>	<b>68</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	DGWC-20	-0.02415	-38	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-47	-0.2068	-37	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-48	-0.02253	-17	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-5	0.1155	48	48	No	14	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>DGWC-9</b>	<b>-0.02468</b>	<b>-49</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWA-53 (bg)	-2.258	-20	-43	No	13	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWA-70A (bg)</b>	<b>-0.3438</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWA-71 (bg)</b>	<b>-2.262</b>	<b>-49</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-10	-46.42	-33	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-11	21.85	33	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-12	-43.07	-35	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-13	-3.786	-17	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-14	-0.653	-16	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-15	-9.472	-37	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-17	1.086	3	38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-19</b>	<b>17.35</b>	<b>39</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-2</b>	<b>-76.21</b>	<b>-58</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-20</b>	<b>-54.31</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-21	-4.361	-20	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-22	0.2633	1	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-23	0	-4	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-4	66.54	29	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-42	-10.69	-20	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-47</b>	<b>-72.08</b>	<b>-58</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>DGWC-48</b>	<b>-57.99</b>	<b>-51</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-5	12.32	11	34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>DGWC-8</b>	<b>-81.75</b>	<b>-49</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	DGWC-9	4.346	6	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWA-53 (bg)</b>	<b>-26.46</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWA-70A (bg)	0	0	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-71 (bg)	-5.475	-26	-38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-11</b>	<b>40.18</b>	<b>45</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-12	-52.08	-33	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-17	16.77	27	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-19	34.48	38	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-20</b>	<b>-67.11</b>	<b>-50</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-21	7.717	26	38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-22	-4.029	-12	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-23	1.483	4	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-4</b>	<b>117.2</b>	<b>45</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>



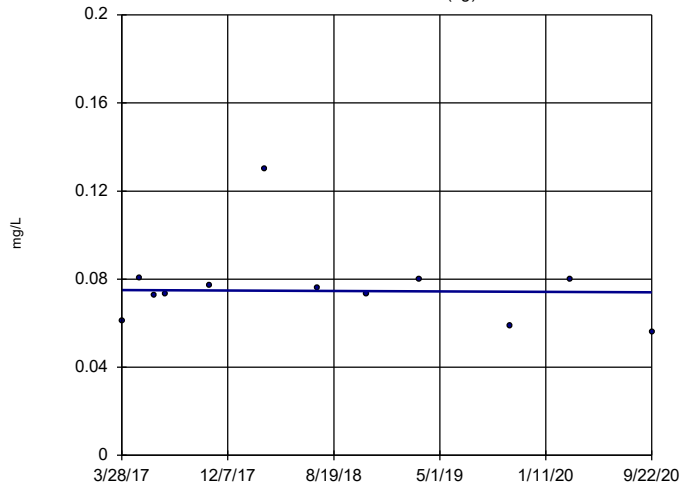
# Trend Test Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:41 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	DGWC-42	0.1608	1	38	No	12	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>DGWC-48</b>	<b>-65.67</b>	<b>-56</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>TDS (mg/L)</b>	<b>DGWC-5</b>	<b>47.26</b>	<b>37</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>TDS (mg/L)</b>	<b>DGWC-8</b>	<b>-92.7</b>	<b>-49</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	DGWC-9	17.89	18	38	No	12	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

DGWA-53 (bg)



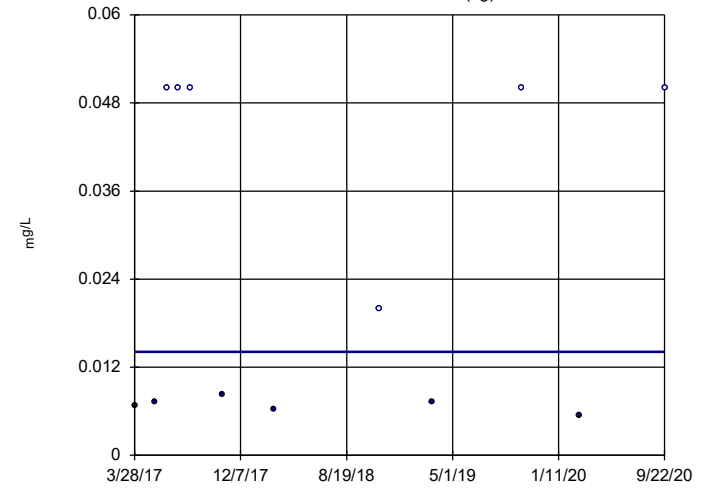
n = 12  
 Slope = -0.0003249  
 units per year.  
 Mann-Kendall  
 statistic = -5  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

DGWA-70A (bg)



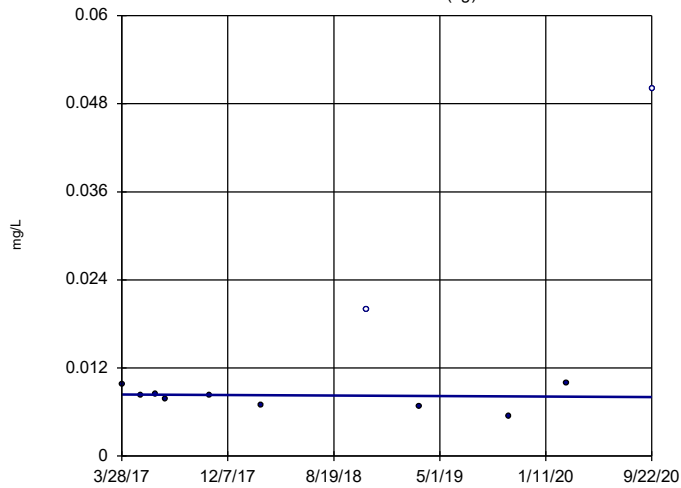
n = 12  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 1  
 critical = 38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

DGWA-71 (bg)

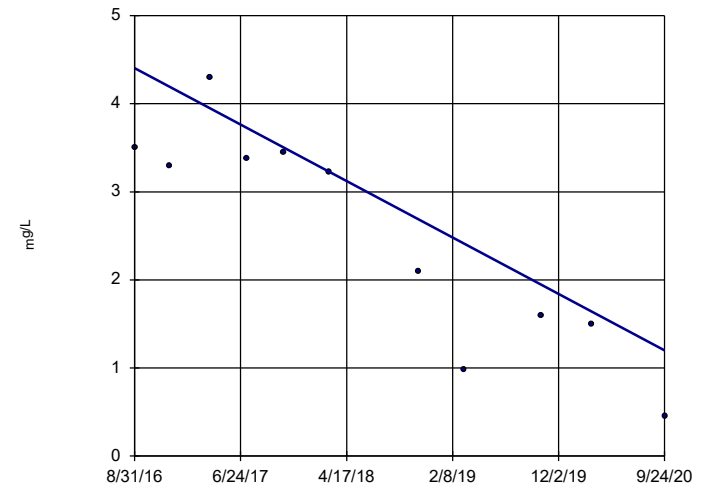


n = 11  
 Slope = -0.00009656  
 units per year.  
 Mann-Kendall  
 statistic = -1  
 critical = -34  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-10

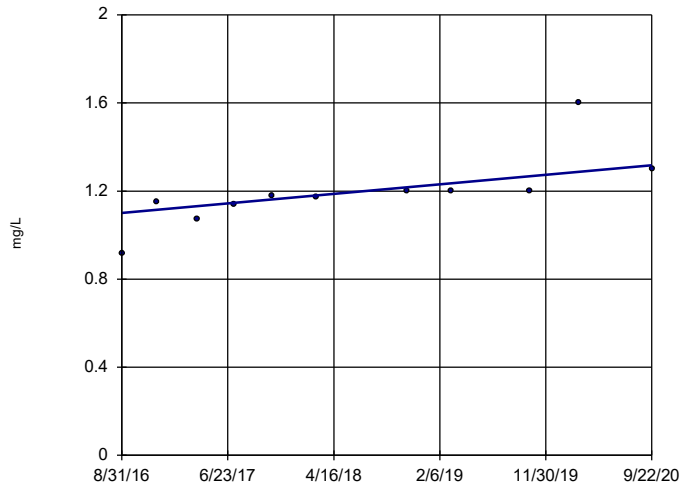


n = 11  
 Slope = -0.7875  
 units per year.  
 Mann-Kendall  
 statistic = -41  
 critical = -34  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-11

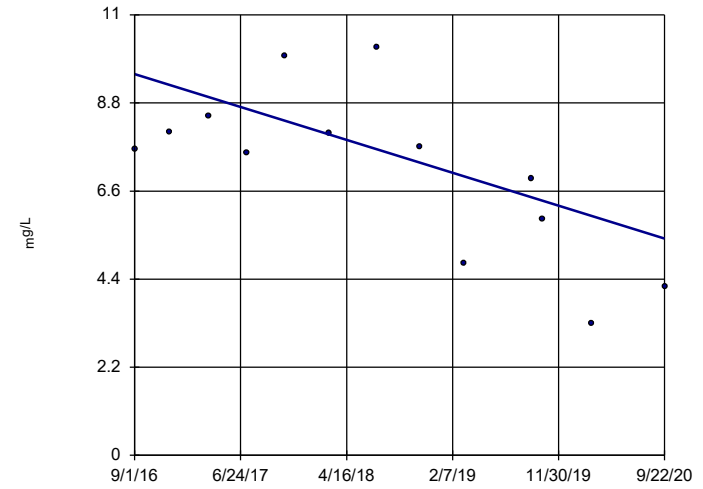


n = 11  
 Slope = 0.05321 units per year.  
 Mann-Kendall statistic = 44  
 critical = 34  
 Increasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-12

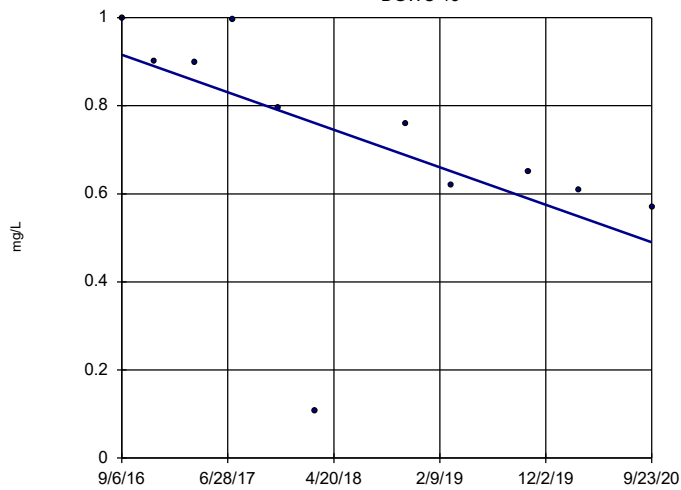


n = 13  
 Slope = -1.012 units per year.  
 Mann-Kendall statistic = -38  
 critical = -43  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-13

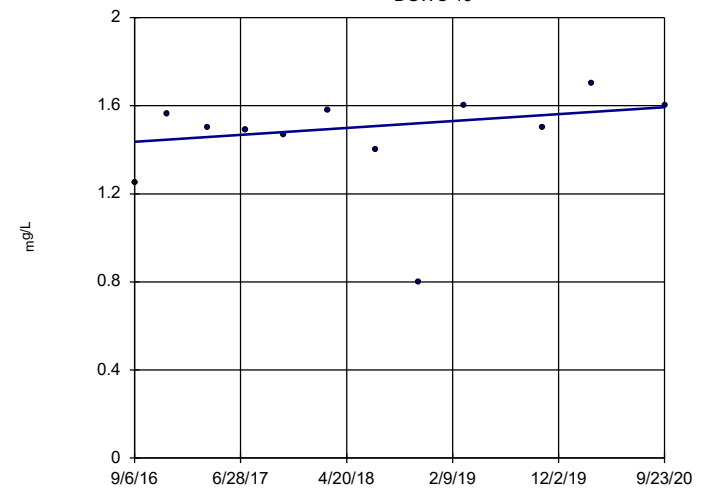


n = 11  
 Slope = -0.105 units per year.  
 Mann-Kendall statistic = -39  
 critical = -34  
 Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-15



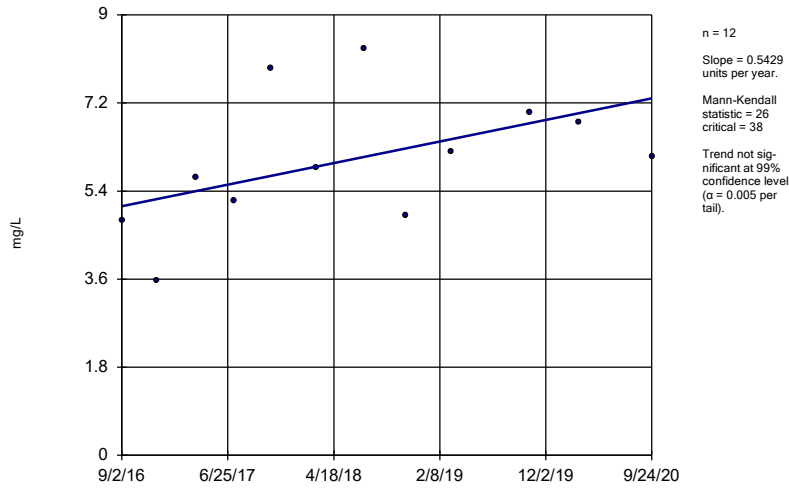
n = 12  
 Slope = 0.03879 units per year.  
 Mann-Kendall statistic = 20  
 critical = 38  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP



### Sen's Slope Estimator

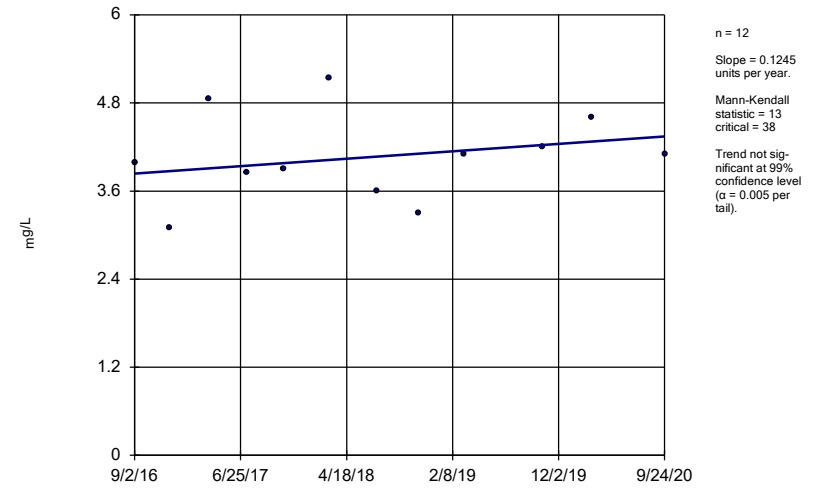
DGWC-21



Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

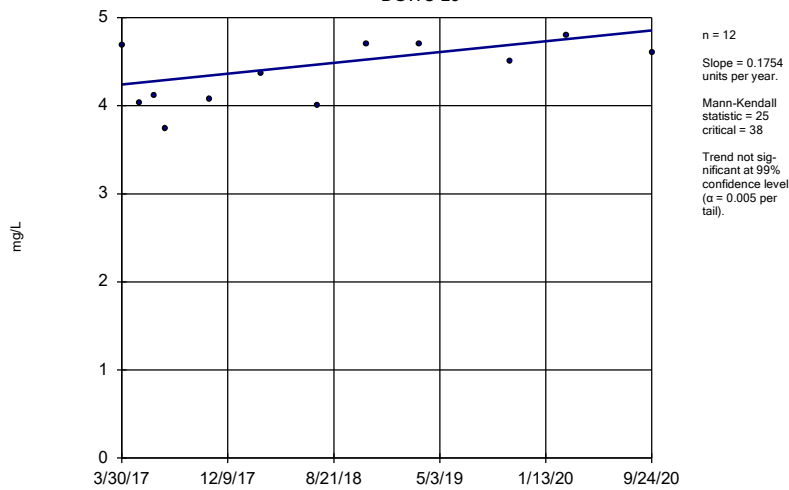
DGWC-22



Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

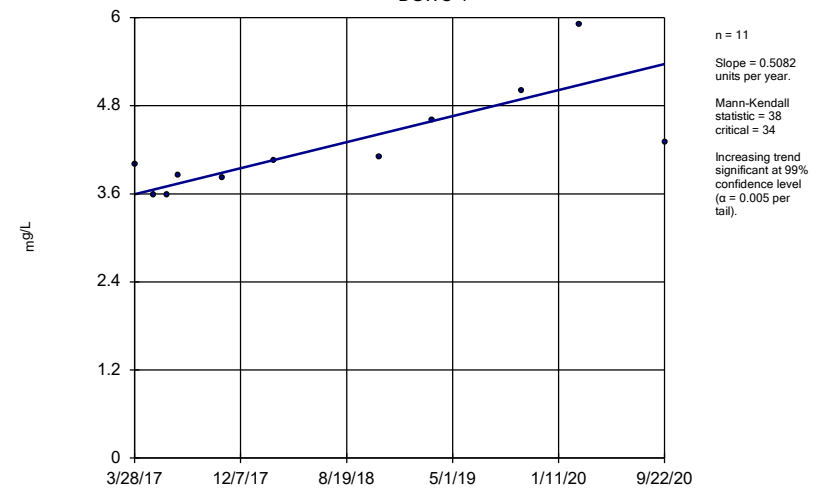
DGWC-23



Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

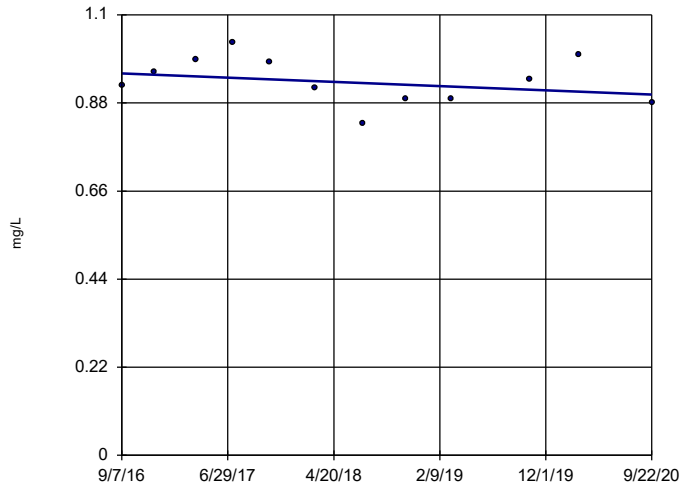
DGWC-4



Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-42

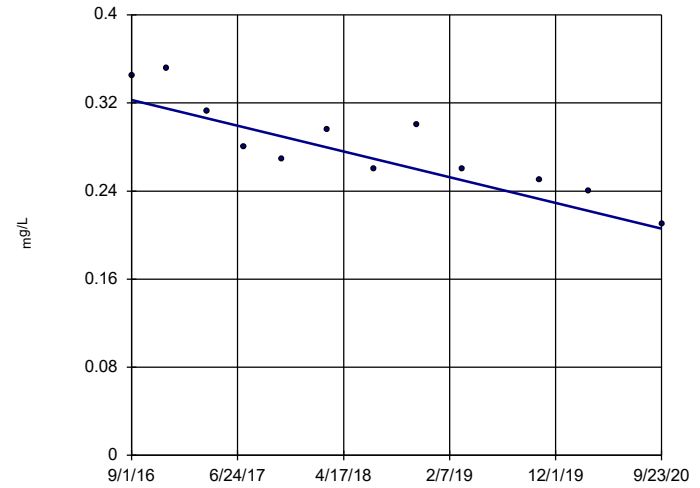


n = 12  
 Slope = -0.0129  
 units per year.  
 Mann-Kendall  
 statistic = -15  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:38 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-47

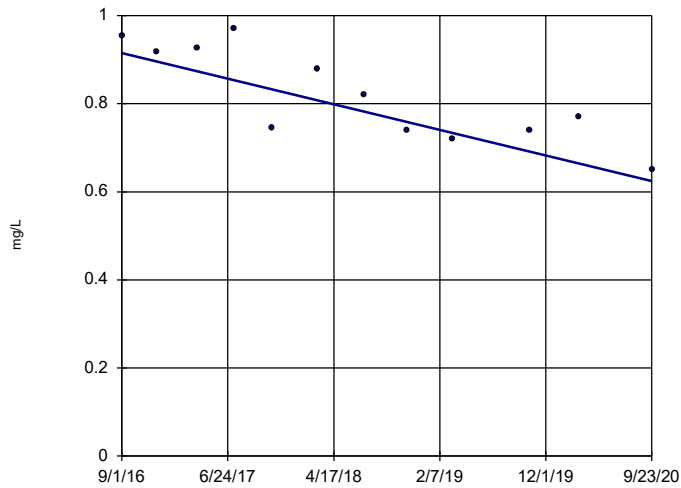


n = 12  
 Slope = -0.02874  
 units per year.  
 Mann-Kendall  
 statistic = -51  
 critical = -38  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-48

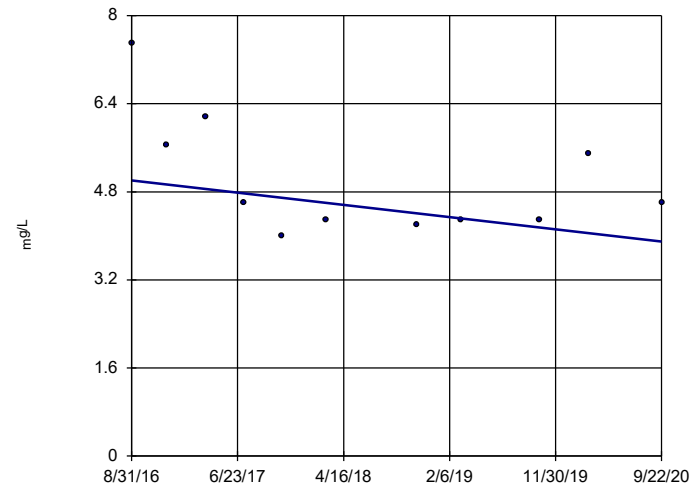


n = 12  
 Slope = -0.07167  
 units per year.  
 Mann-Kendall  
 statistic = -43  
 critical = -38  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

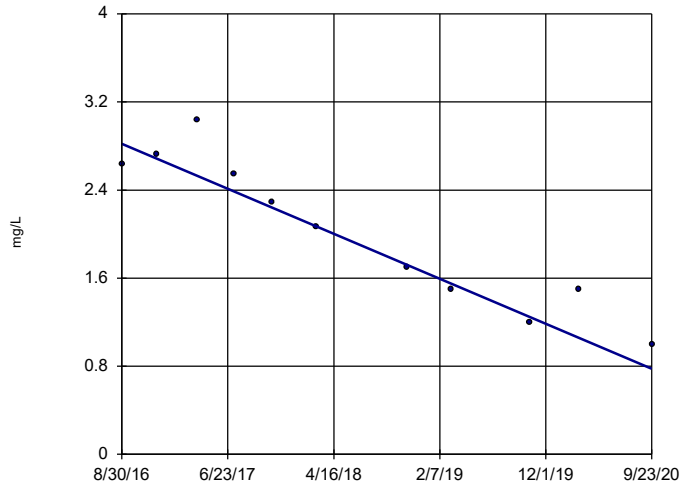
DGWC-5



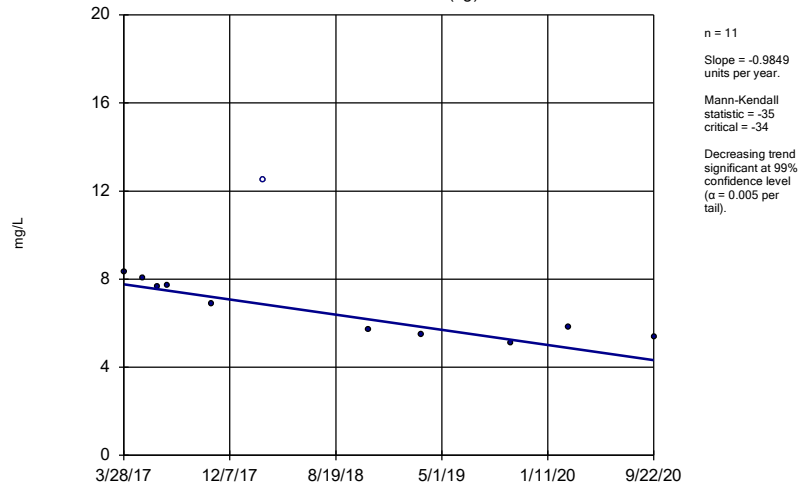
n = 11  
 Slope = -0.2739  
 units per year.  
 Mann-Kendall  
 statistic = -14  
 critical = -34  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-8

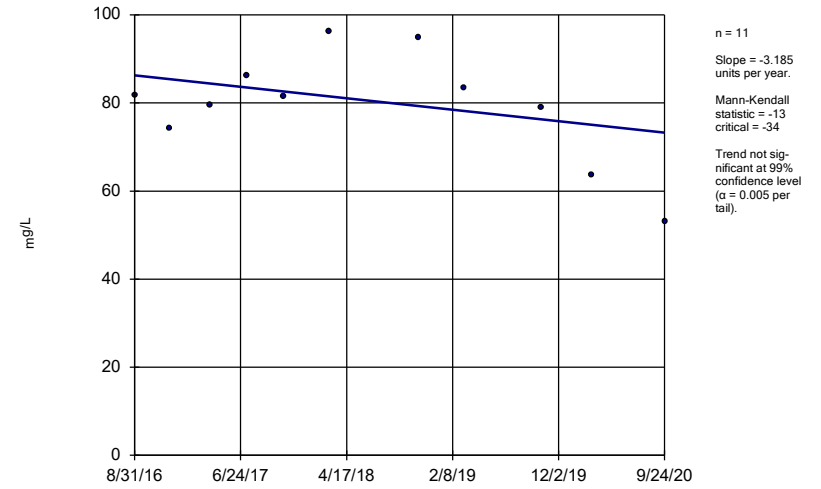


Sen's Slope Estimator  
DGWA-71 (bg)



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

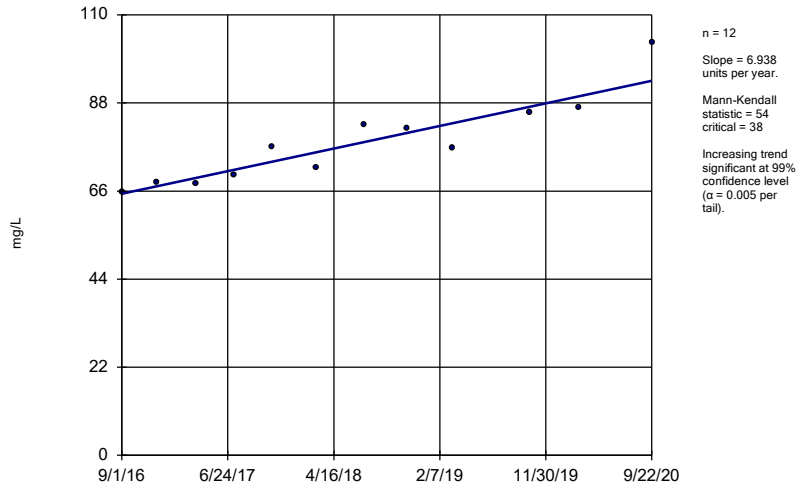
Sen's Slope Estimator  
DGWC-10





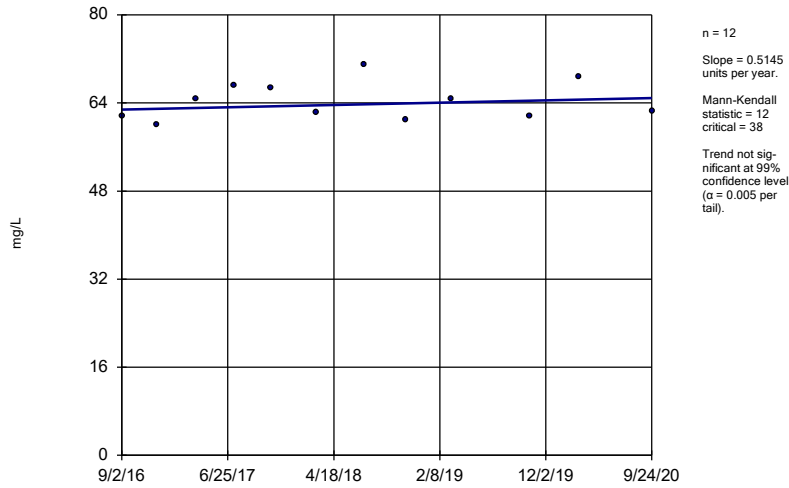
### Sen's Slope Estimator

DGWC-19



### Sen's Slope Estimator

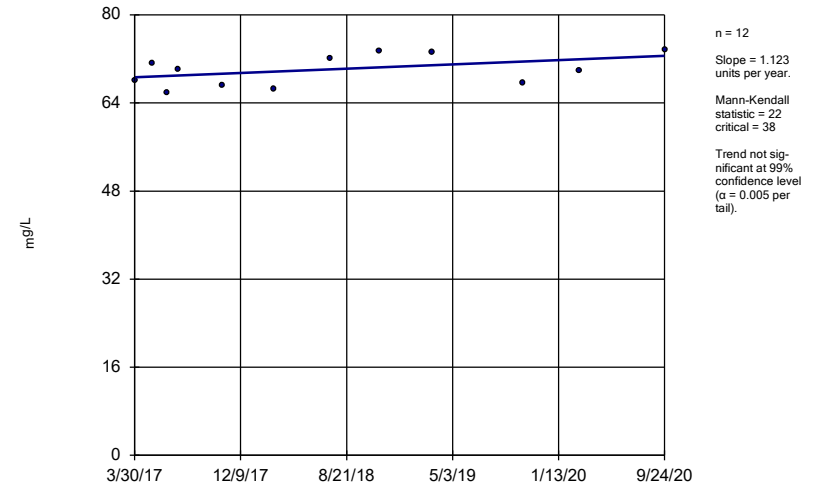
DGWC-22



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

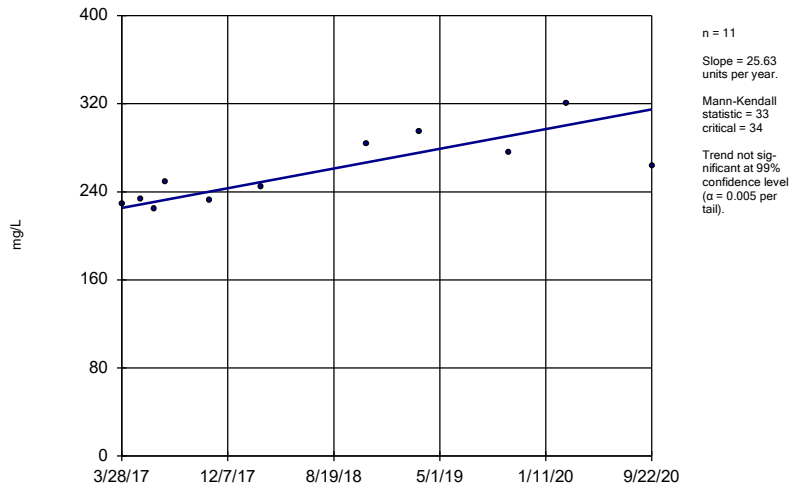
DGWC-23



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

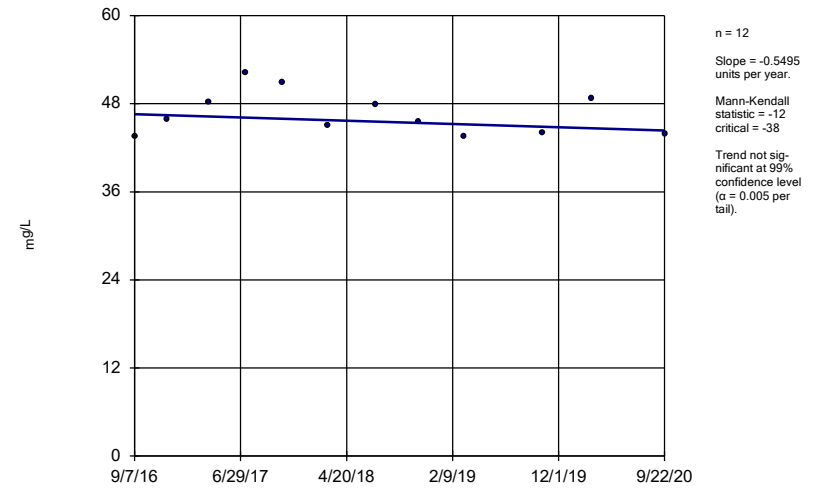
DGWC-4



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

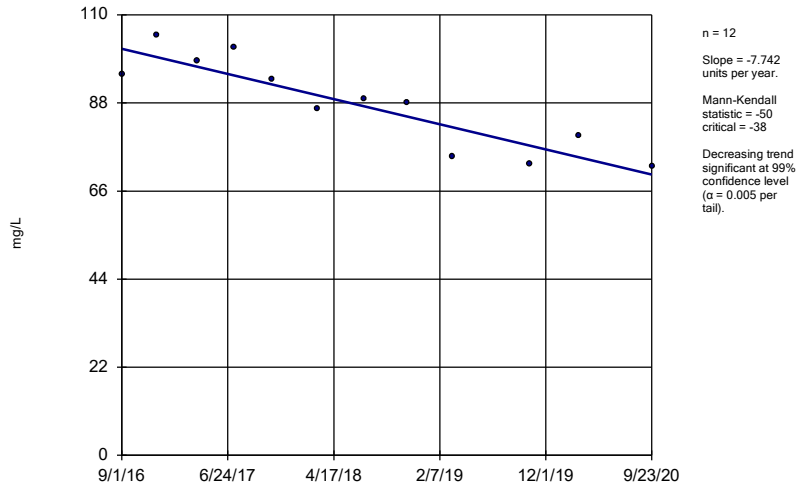
DGWC-42



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

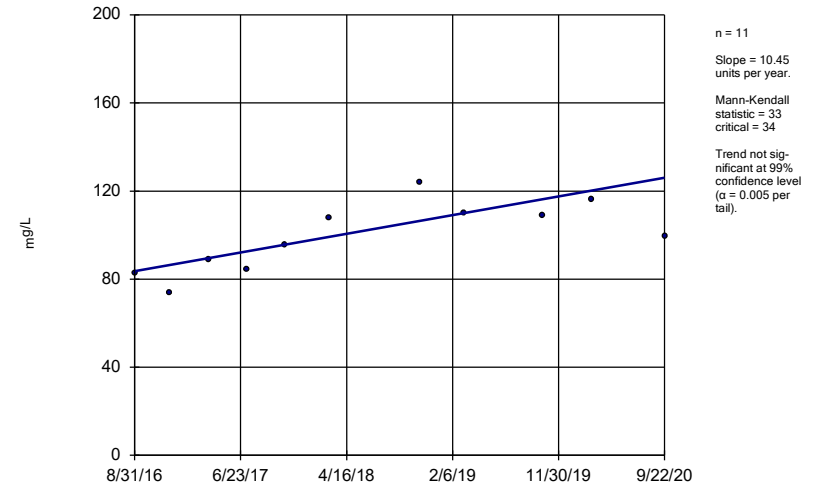
DGWC-48



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

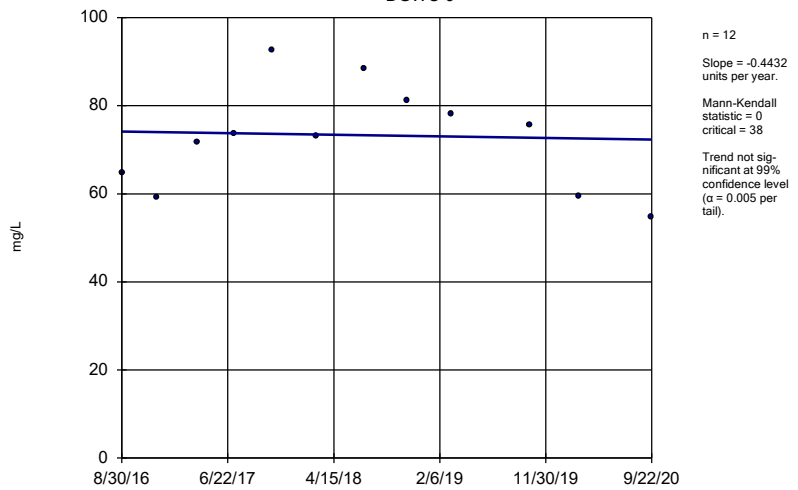
DGWC-5



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

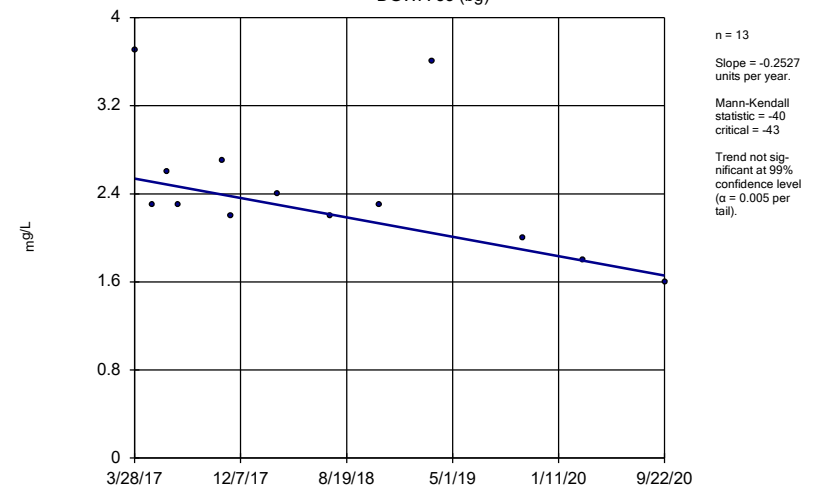
DGWC-9



Constituent: Calcium Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

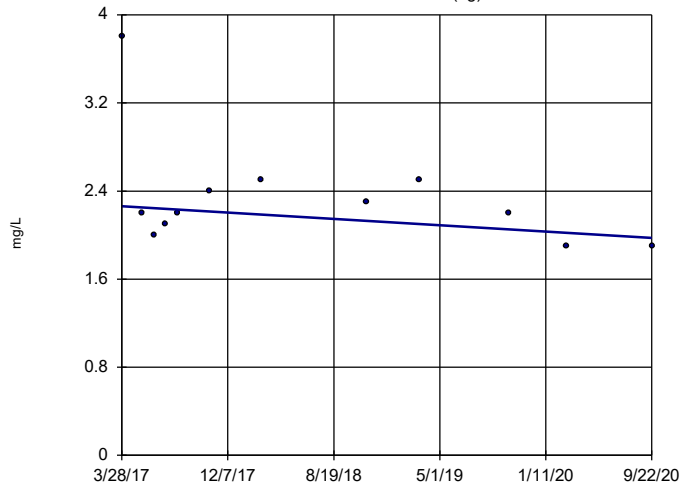
DGWA-53 (bg)



Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWA-70A (bg)

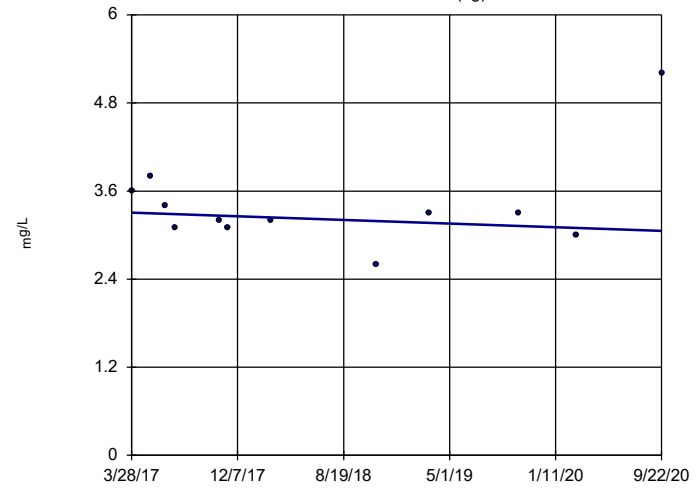


n = 12  
 Slope = -0.08248  
 units per year.  
 Mann-Kendall  
 statistic = -13  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWA-71 (bg)

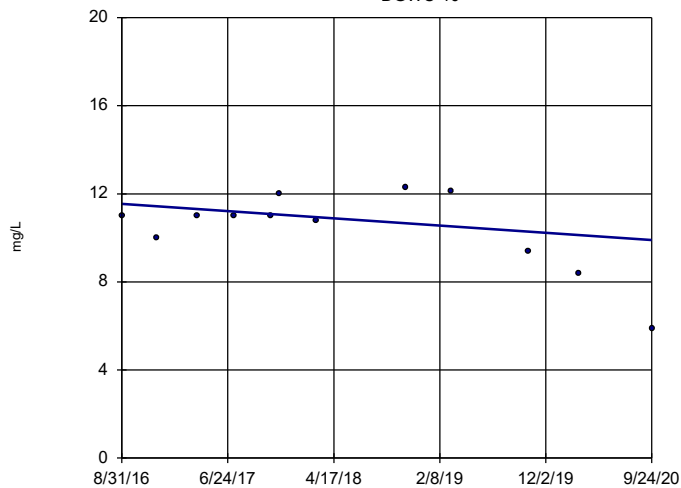


n = 12  
 Slope = -0.07123  
 units per year.  
 Mann-Kendall  
 statistic = -11  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-10

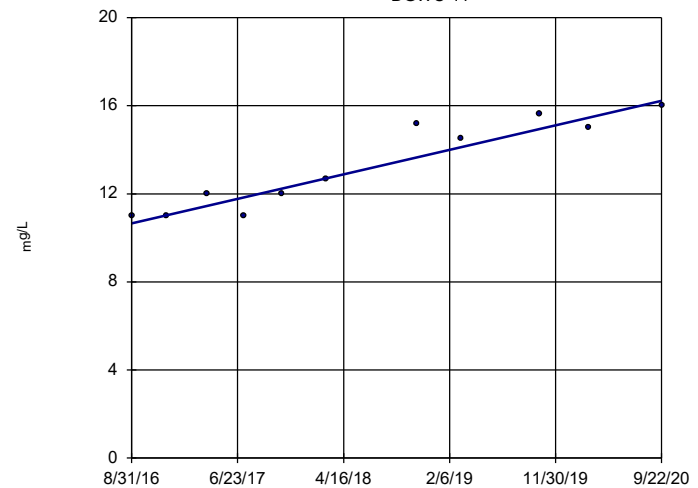


n = 12  
 Slope = -0.4055  
 units per year.  
 Mann-Kendall  
 statistic = -14  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-11

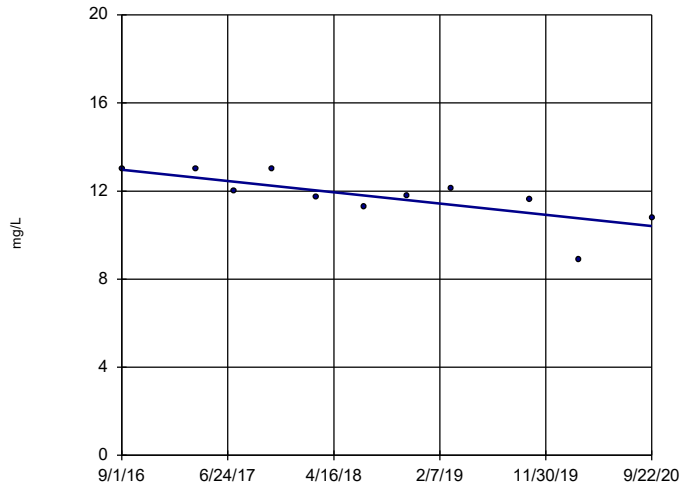


n = 11  
 Slope = 1.372  
 units per year.  
 Mann-Kendall  
 statistic = 43  
 critical = 34  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-12

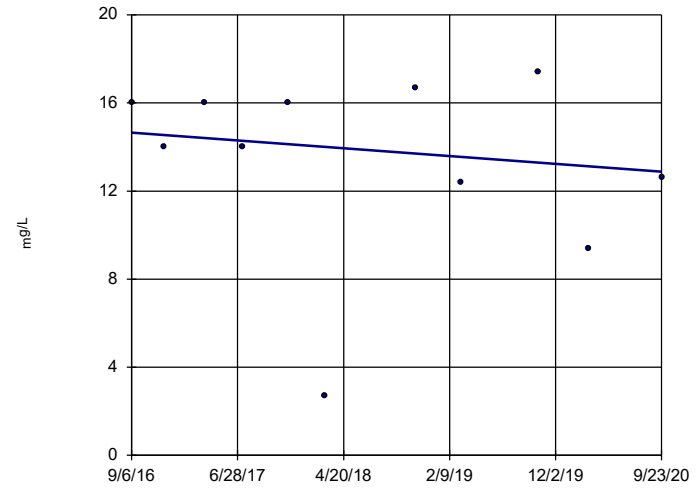


n = 11  
 Slope = -0.6308  
 units per year.  
 Mann-Kendall  
 statistic = -34  
 critical = -34  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-13

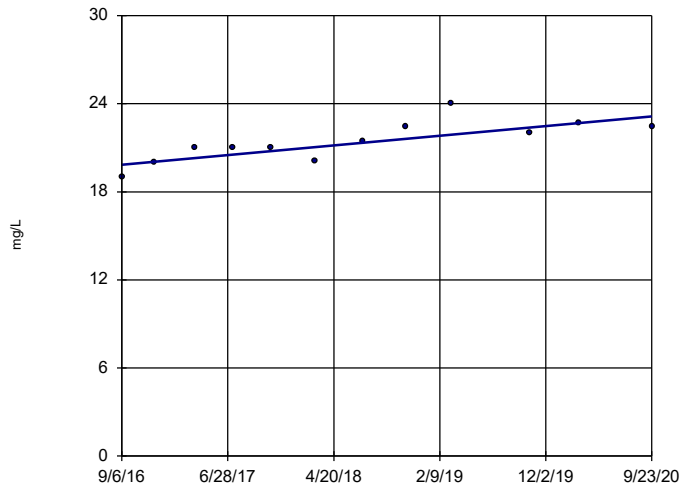


n = 11  
 Slope = -0.4371  
 units per year.  
 Mann-Kendall  
 statistic = -7  
 critical = -34  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-15

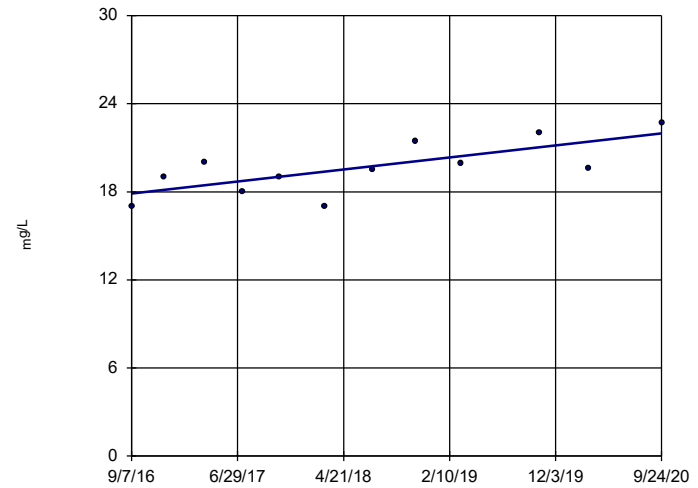


n = 12  
 Slope = 0.8116  
 units per year.  
 Mann-Kendall  
 statistic = 46  
 critical = 38  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-17

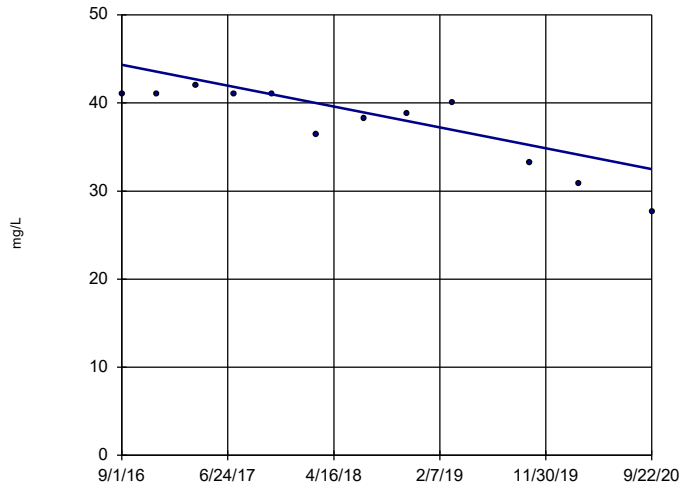


n = 12  
 Slope = 1.012  
 units per year.  
 Mann-Kendall  
 statistic = 36  
 critical = 38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-19

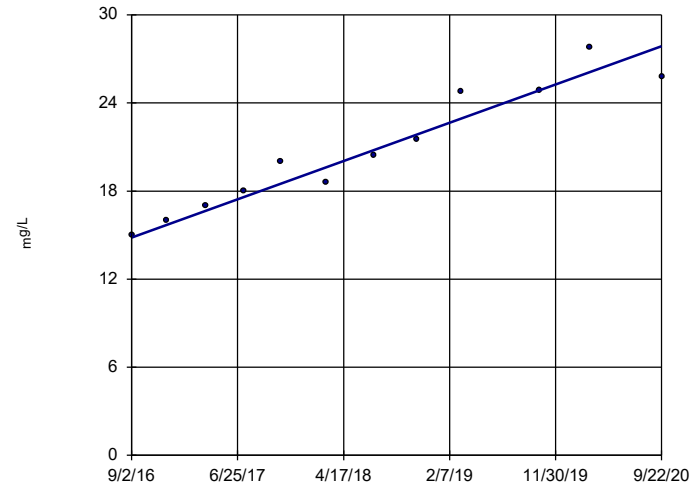


n = 12  
 Slope = -2.92 units per year.  
 Mann-Kendall statistic = -44  
 critical = -38  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-20

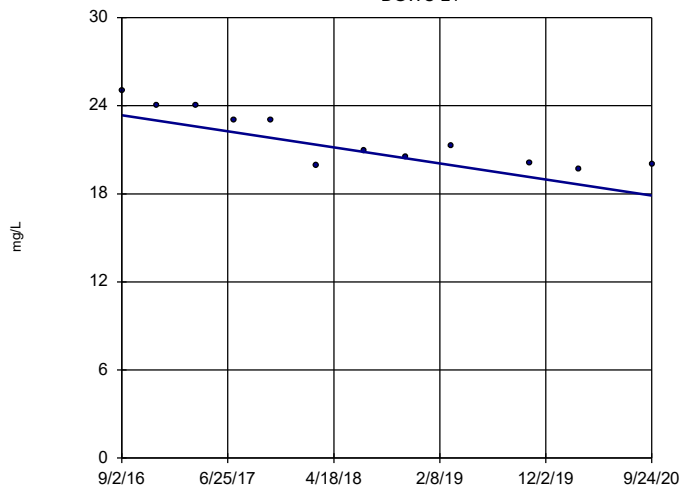


n = 12  
 Slope = 3.214 units per year.  
 Mann-Kendall statistic = 62  
 critical = 38  
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

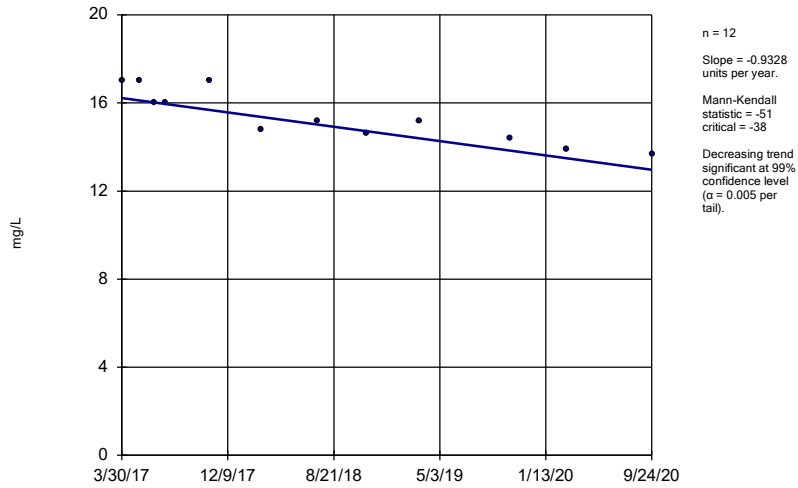
Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

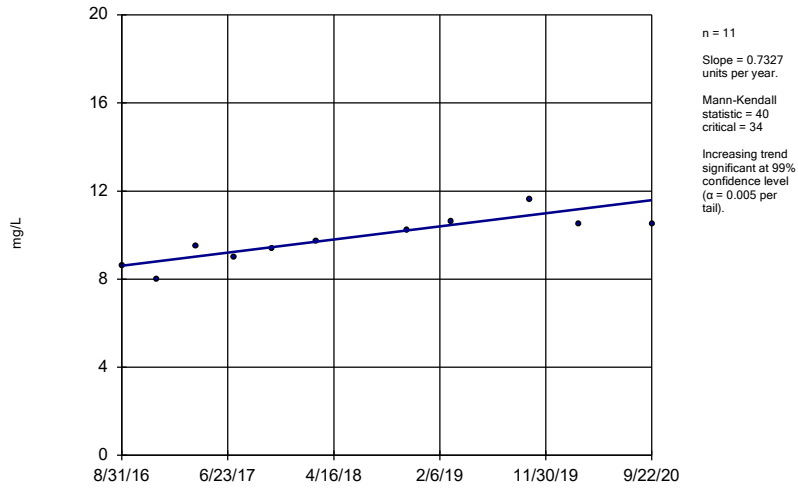
DGWC-21



Sen's Slope Estimator  
DGWC-23

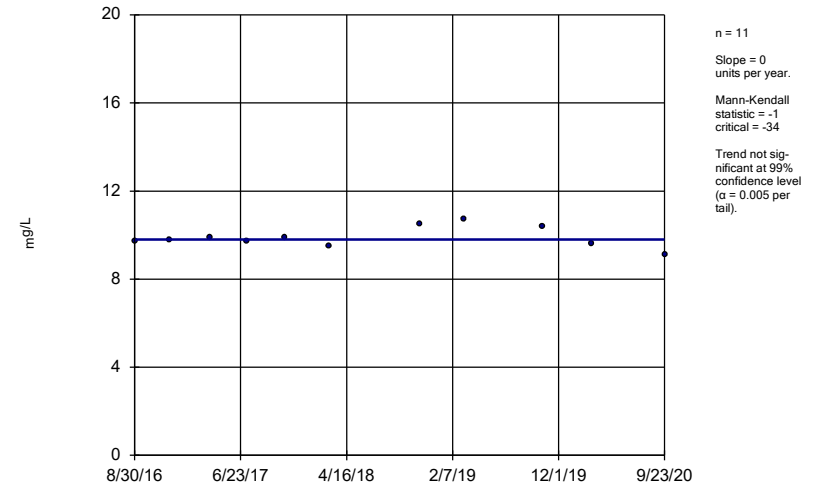


Sen's Slope Estimator  
DGWC-5



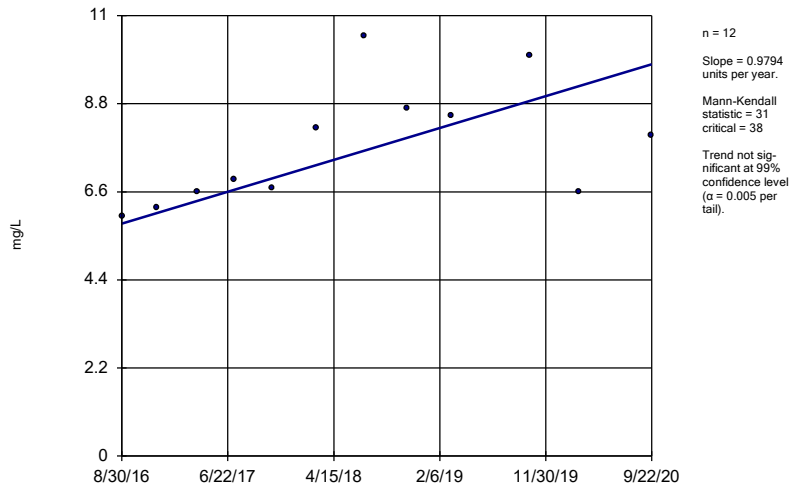
Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-8



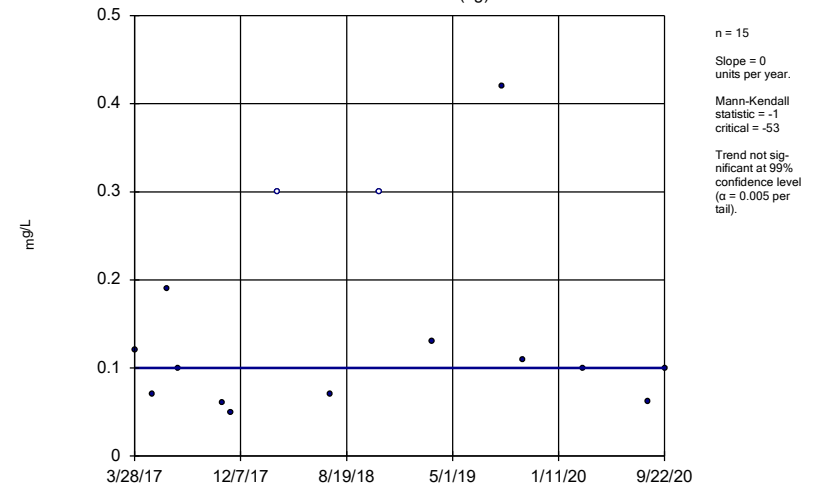
Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-9



Constituent: Chloride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

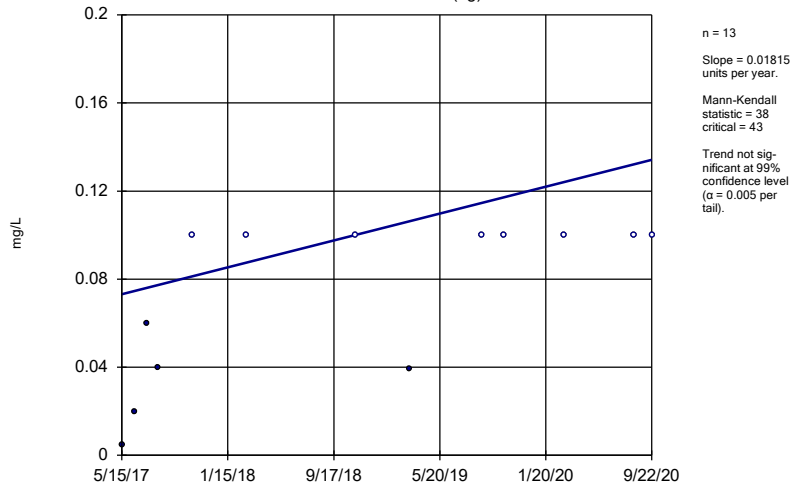
Sen's Slope Estimator  
DGWA-53 (bg)



Constituent: Fluoride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

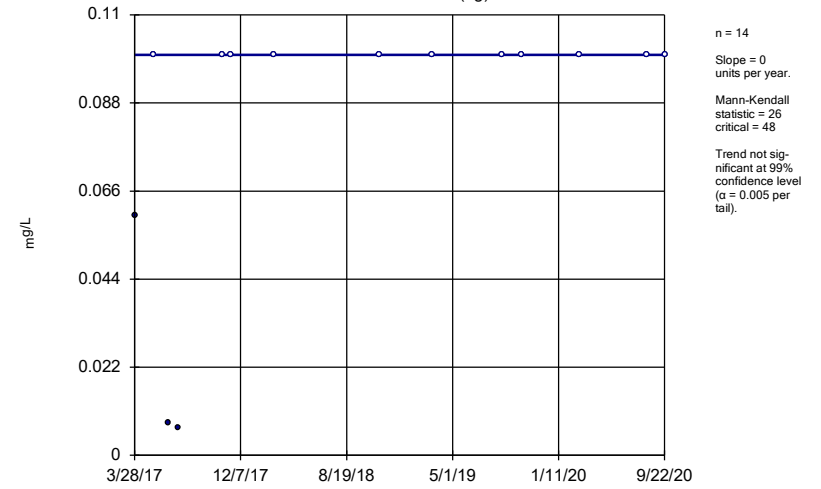


Sen's Slope Estimator  
 DGWA-70A (bg)



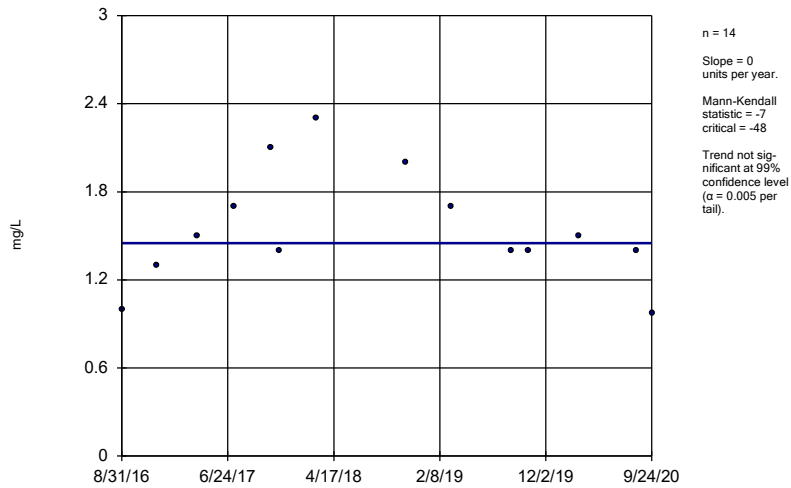
Constituent: Fluoride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
 DGWA-71 (bg)



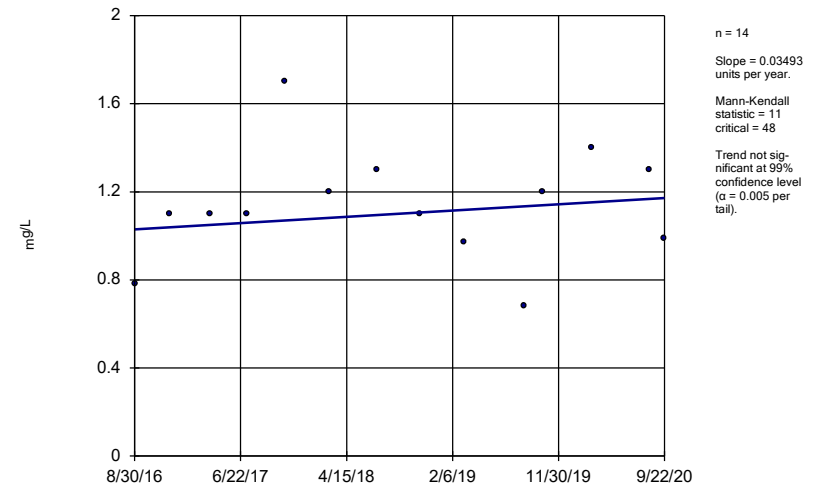
Constituent: Fluoride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
 DGWC-10



Constituent: Fluoride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

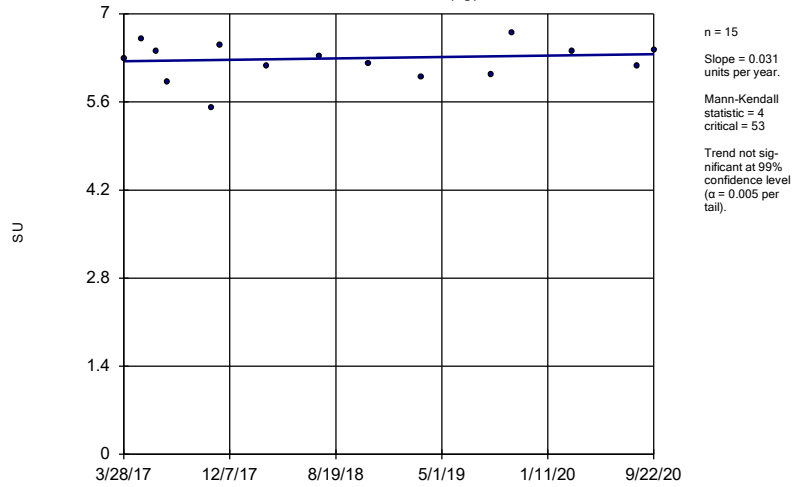
Sen's Slope Estimator  
 DGWC-9



Constituent: Fluoride Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

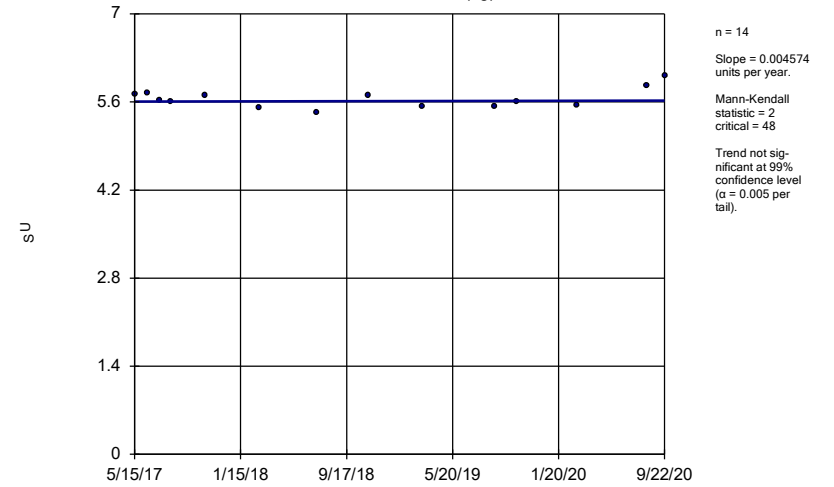
DGWA-53 (bg)



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

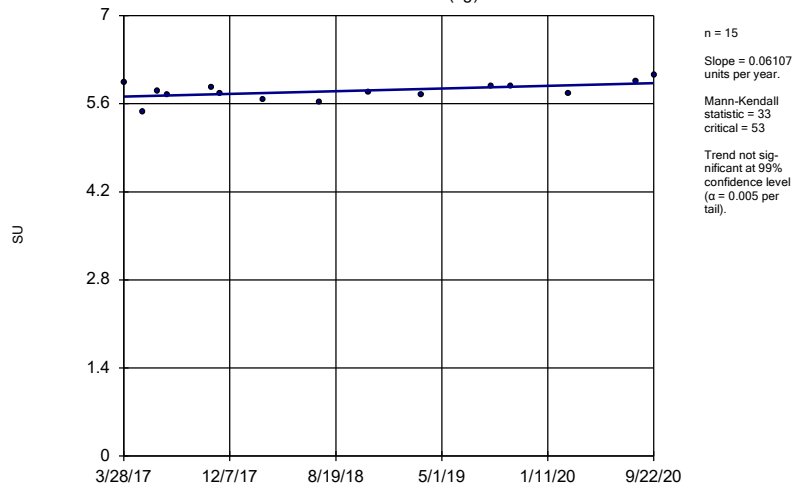
DGWA-70A (bg)



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

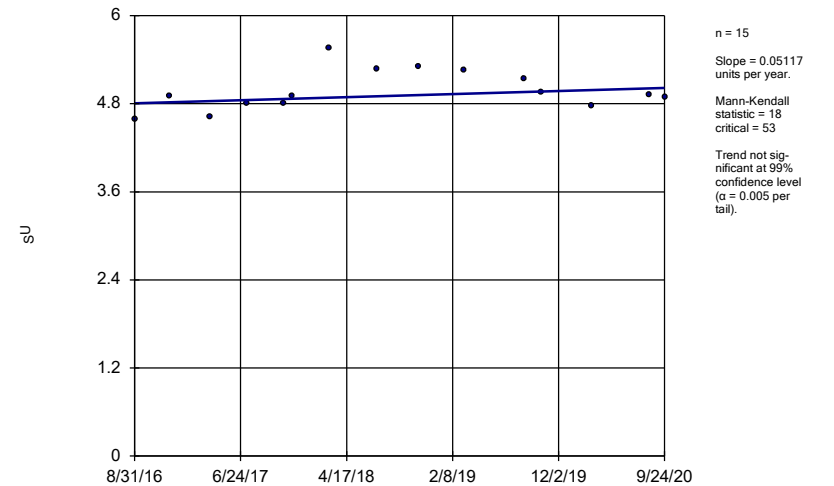
DGWA-71 (bg)



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

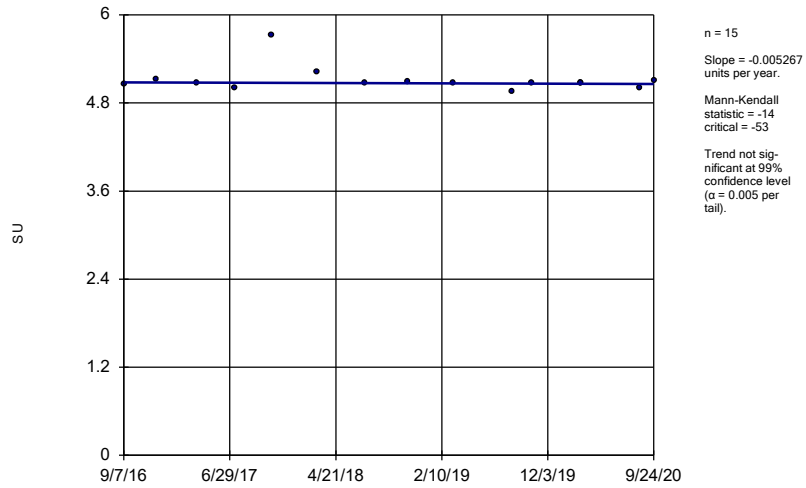
### Sen's Slope Estimator

DGWC-10



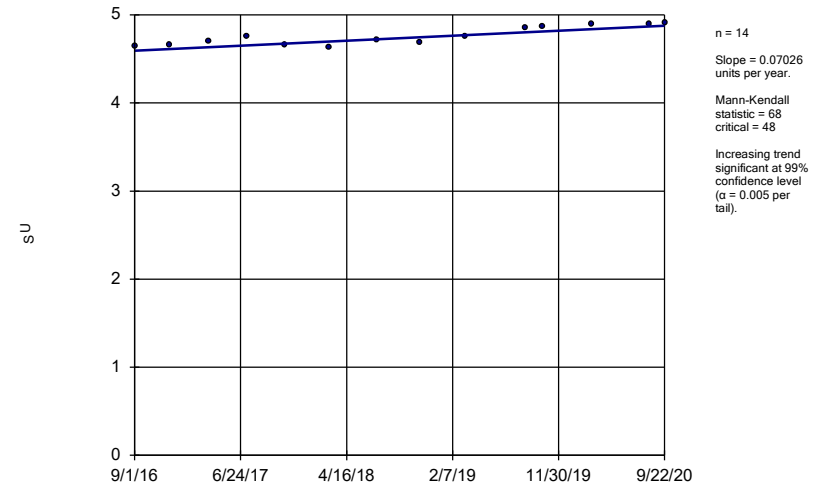
Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-17



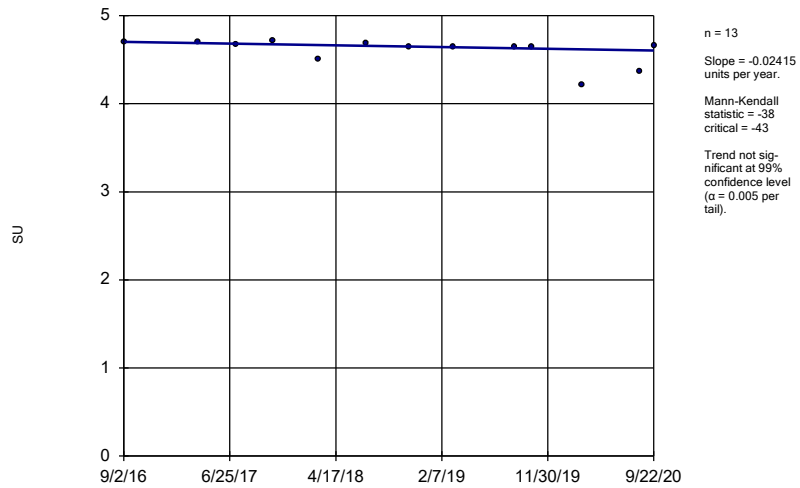
Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-19



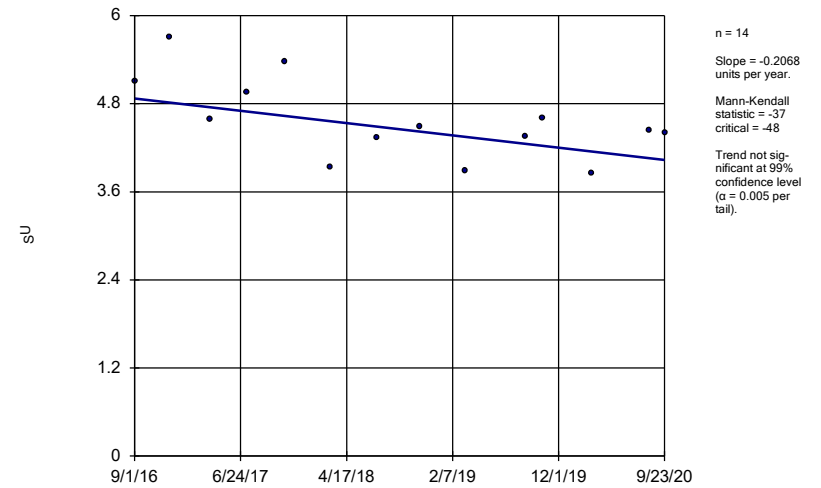
Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
DGWC-20



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

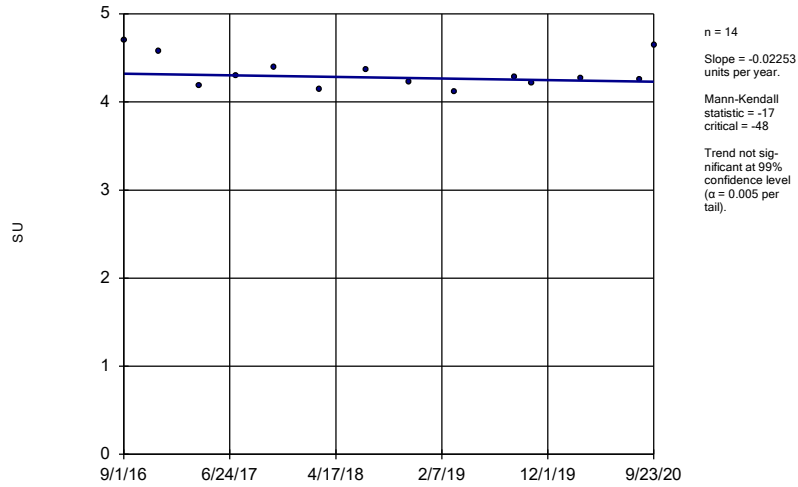
Sen's Slope Estimator  
DGWC-47



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

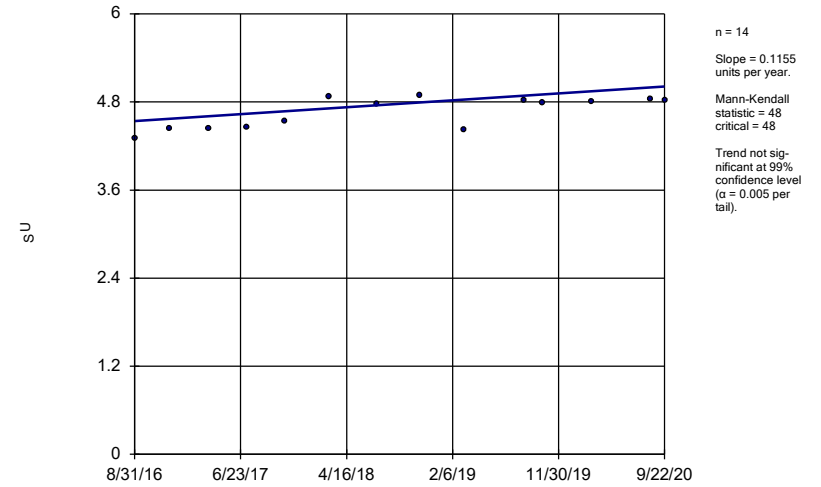
DGWC-48



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

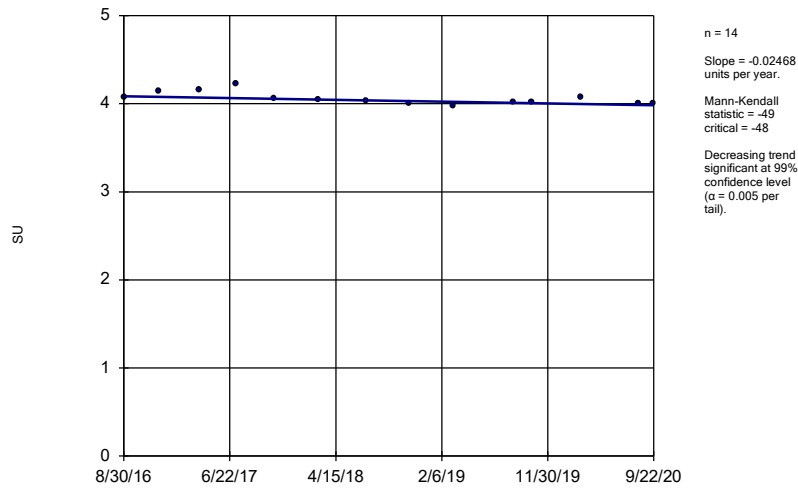
DGWC-5



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

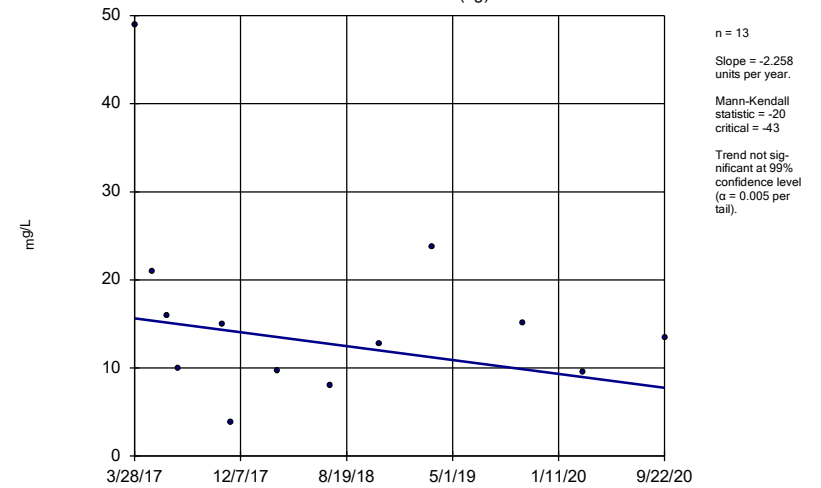
DGWC-9



Constituent: pH Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

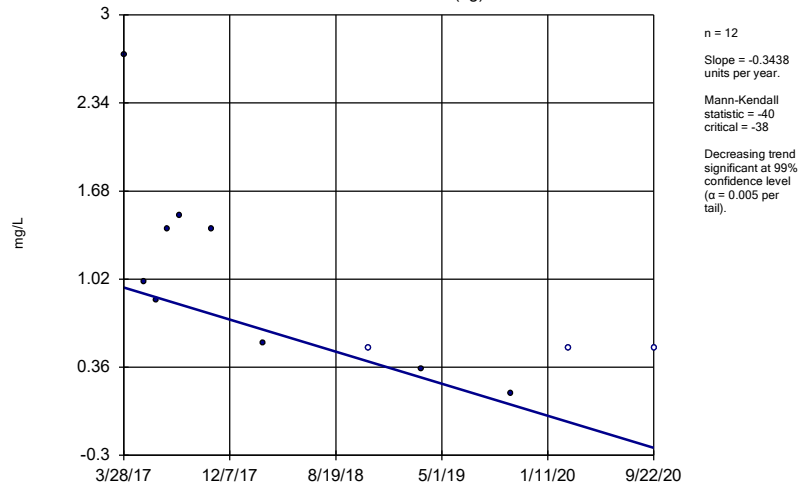
### Sen's Slope Estimator

DGWA-53 (bg)



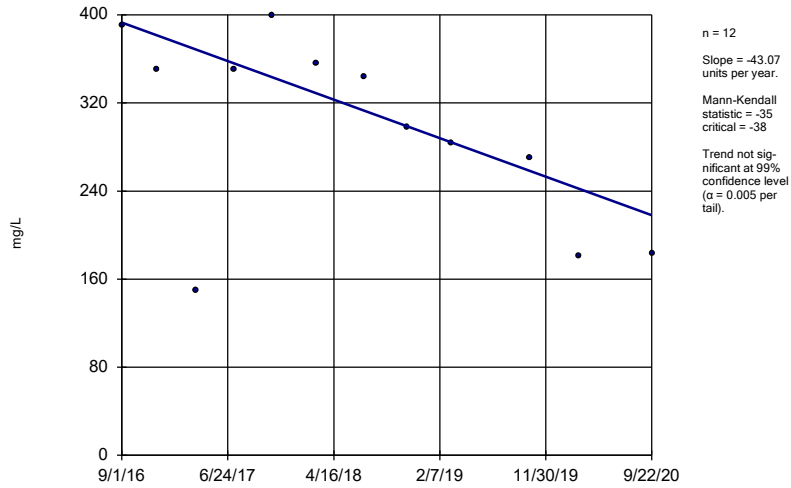
Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator  
 DGWA-70A (bg)



### Sen's Slope Estimator

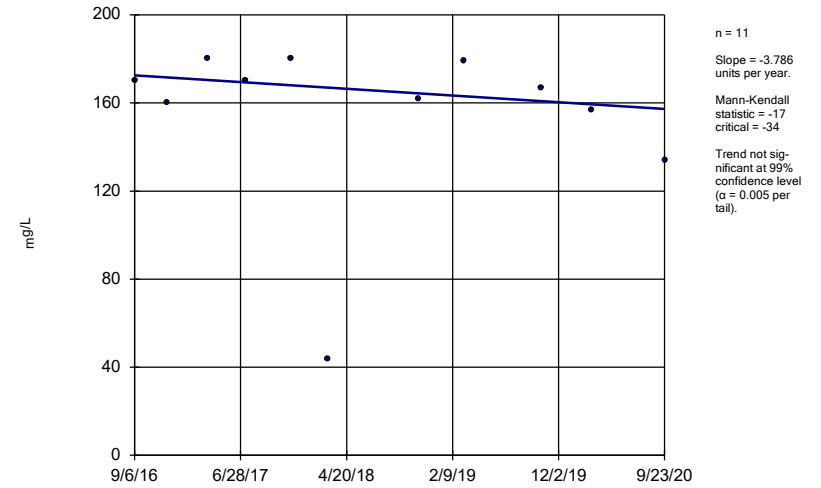
DGWC-12



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

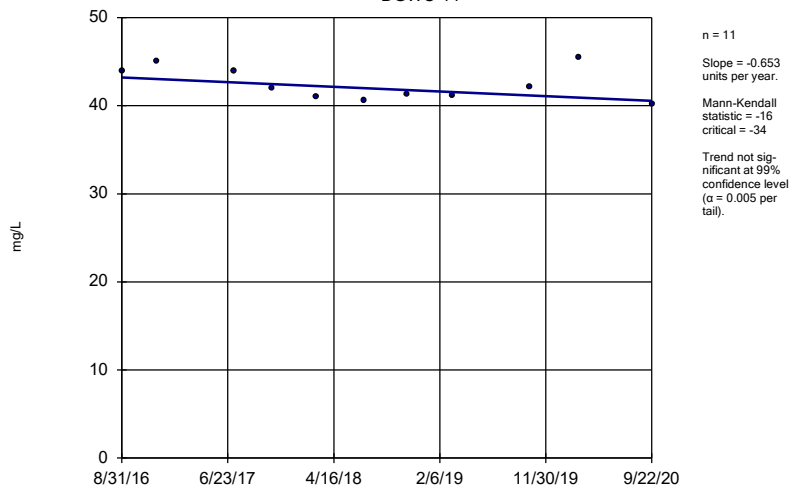
DGWC-13



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

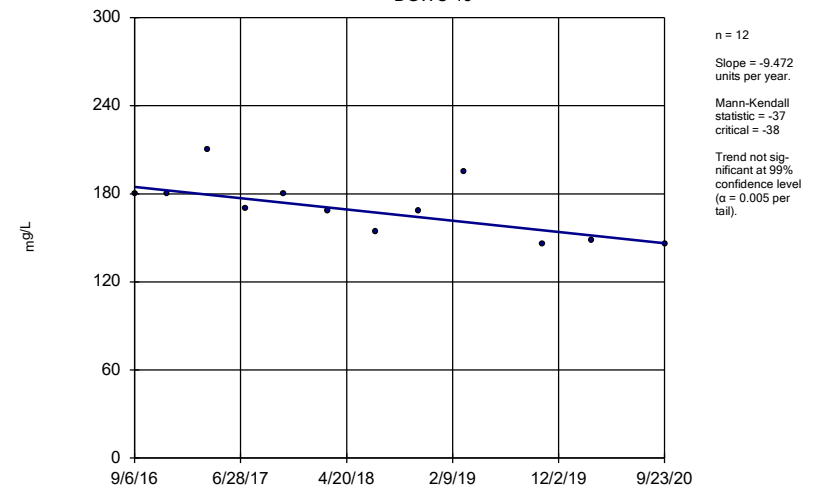
DGWC-14



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

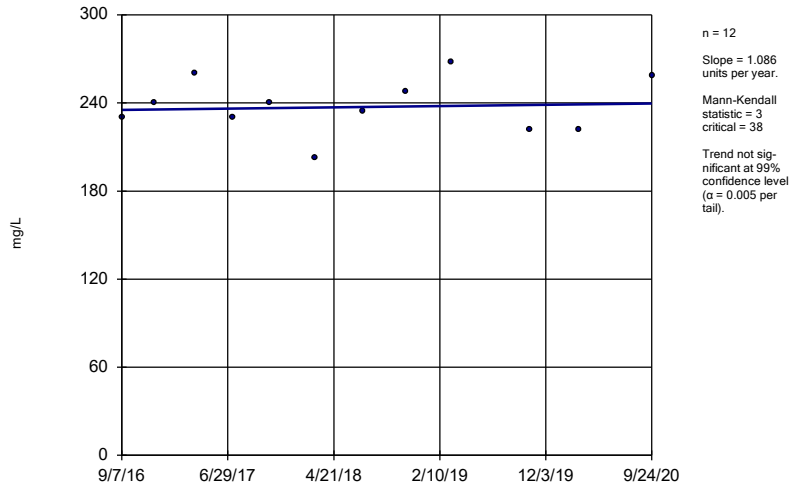
DGWC-15



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

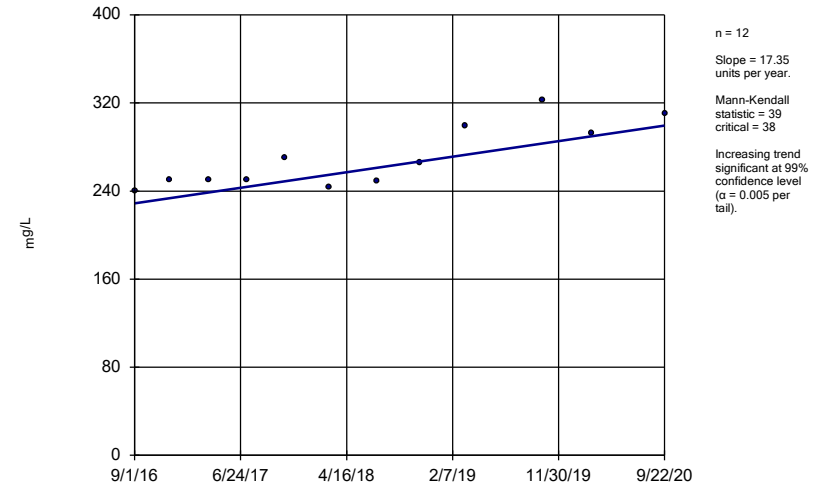
DGWC-17



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

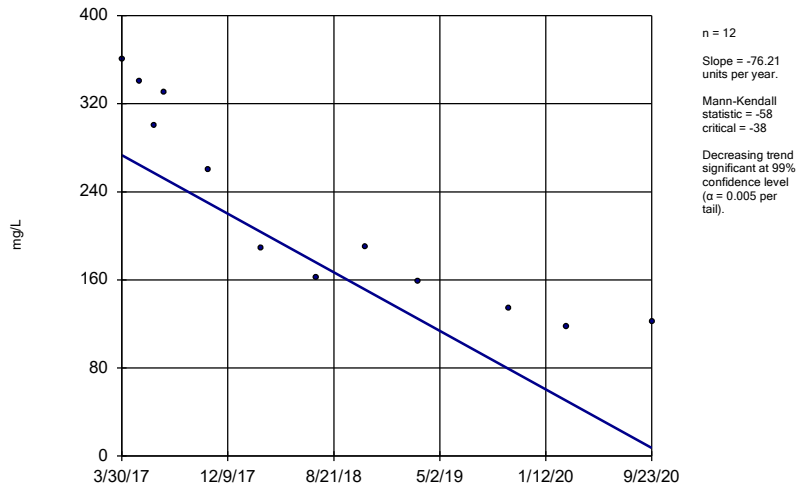
DGWC-19



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

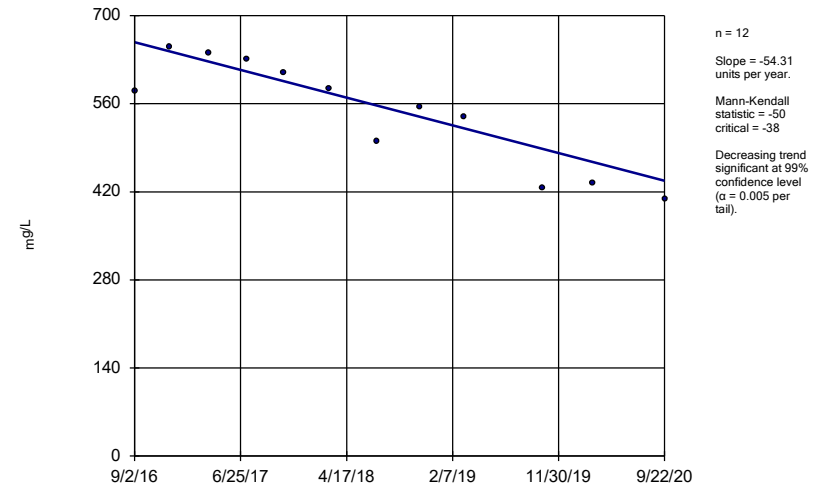
DGWC-2



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

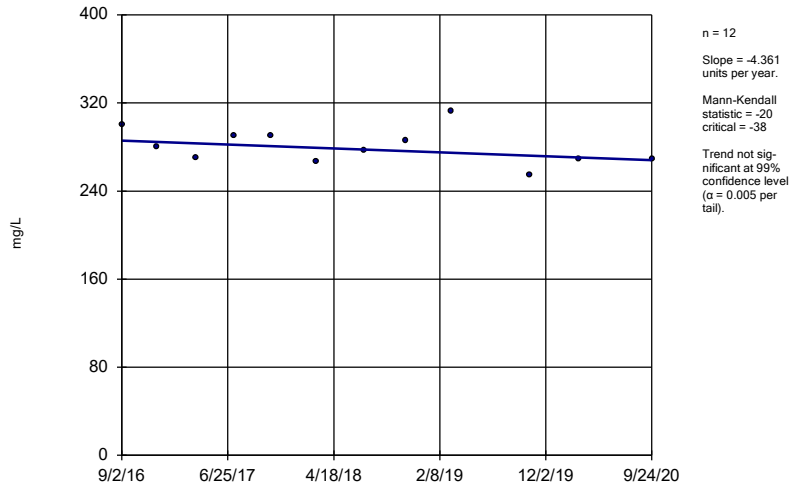
DGWC-20



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

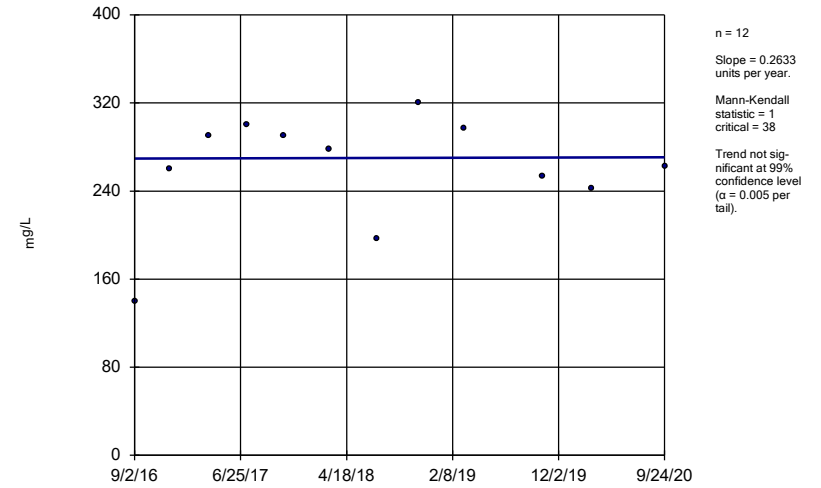
DGWC-21



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

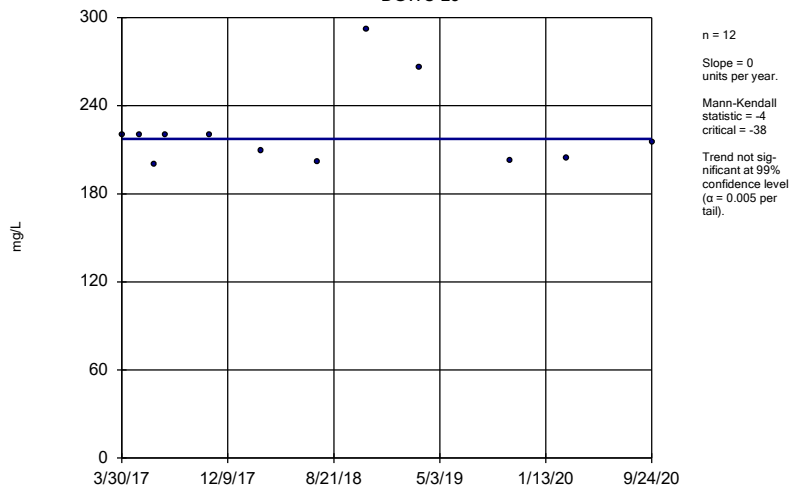
DGWC-22



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

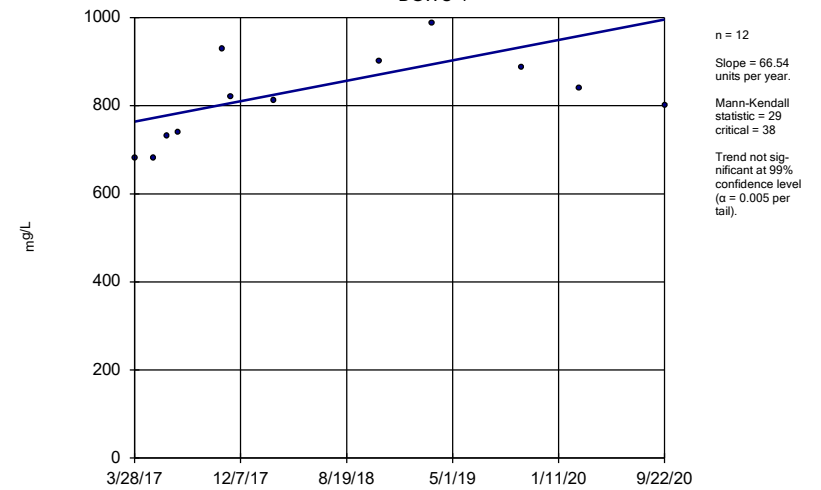
DGWC-23



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-4

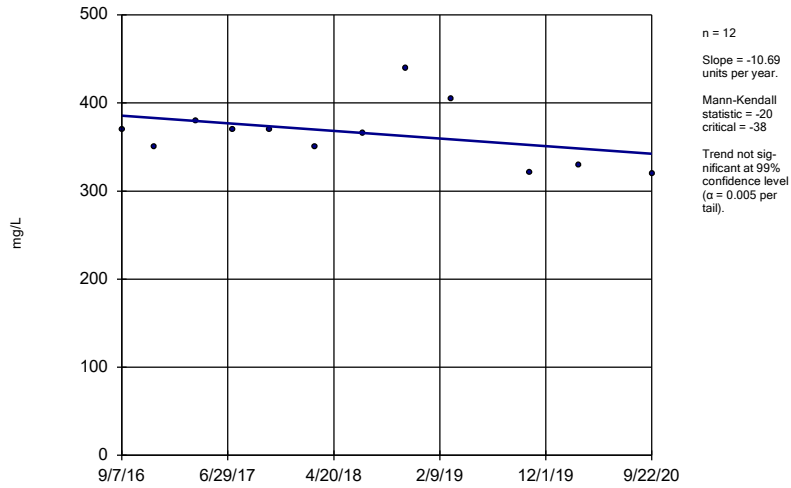


Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP



### Sen's Slope Estimator

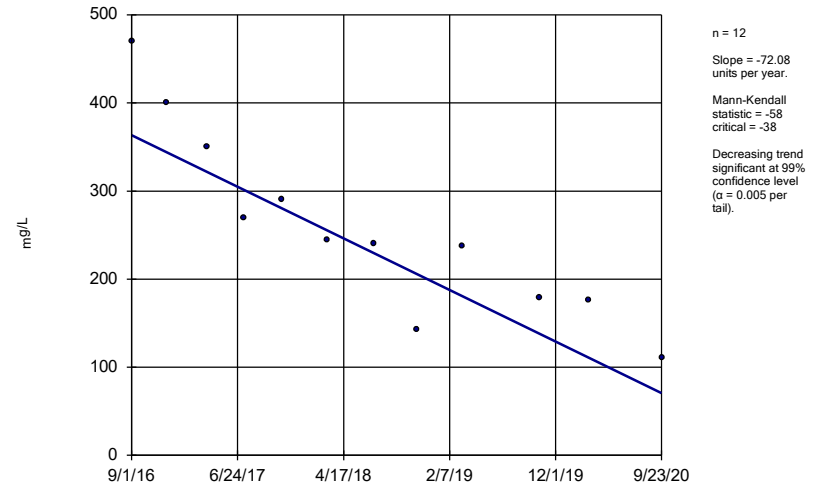
DGWC-42



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

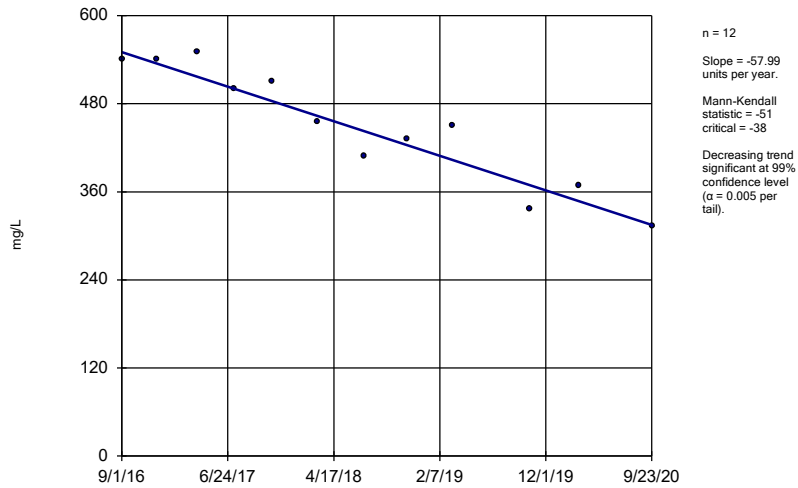
DGWC-47



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

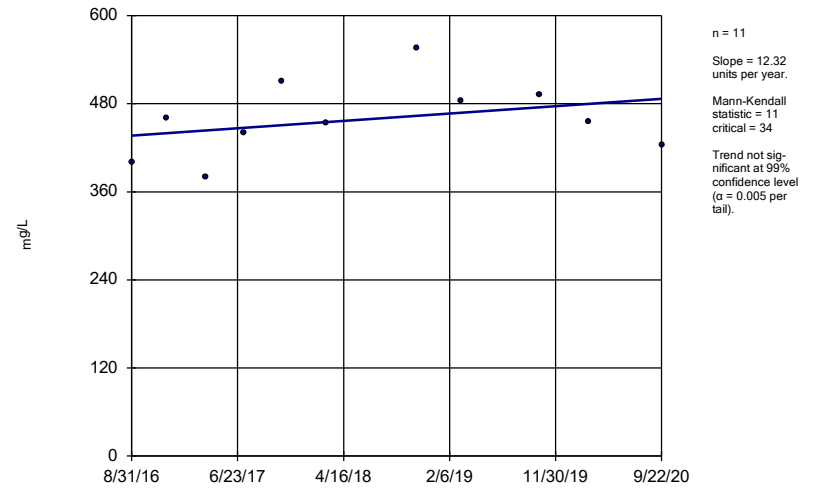
DGWC-48



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

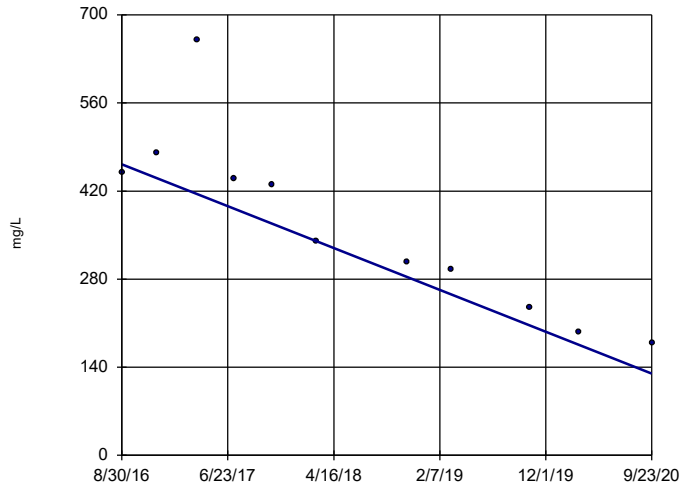
### Sen's Slope Estimator

DGWC-5



Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

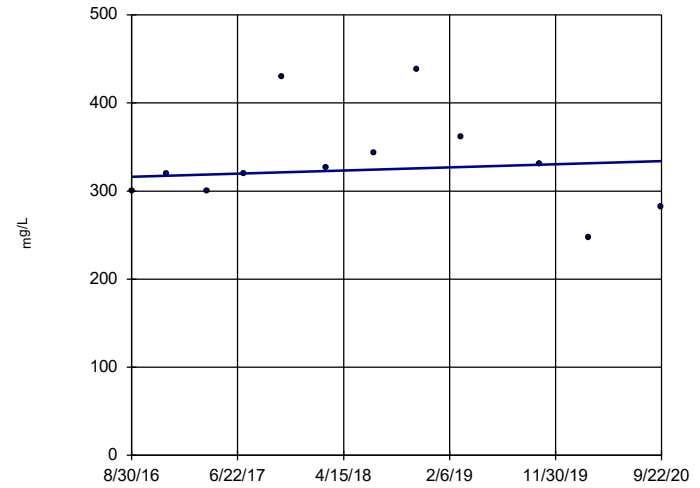
### Sen's Slope Estimator DGWC-8



n = 11  
Slope = -81.75 units per year.  
Mann-Kendall statistic = -49  
critical = -34  
Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

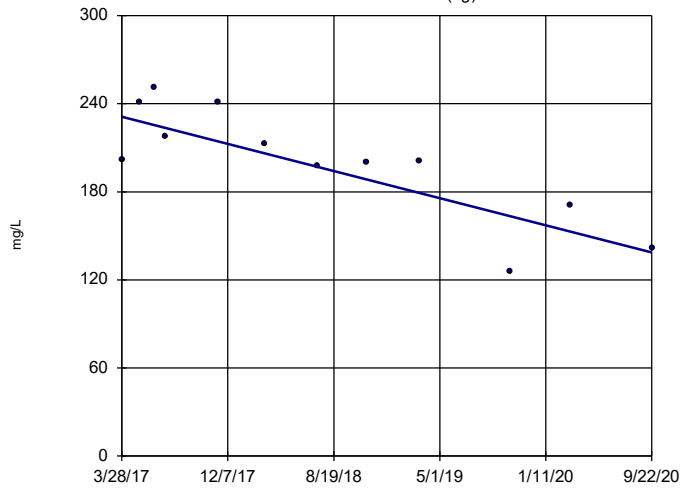
### Sen's Slope Estimator DGWC-9



n = 12  
Slope = 4.346 units per year.  
Mann-Kendall statistic = 6  
critical = 38  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Sulfate Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

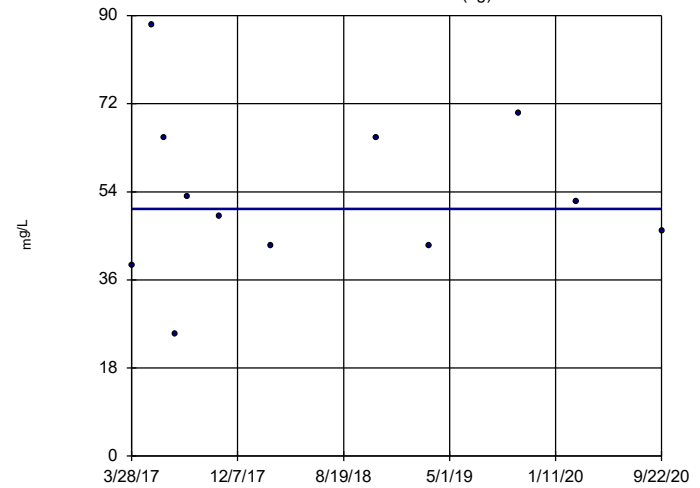
### Sen's Slope Estimator DGWA-53 (bg)



n = 12  
Slope = -26.46 units per year.  
Mann-Kendall statistic = -41  
critical = -38  
Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: TDS Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator DGWA-70A (bg)

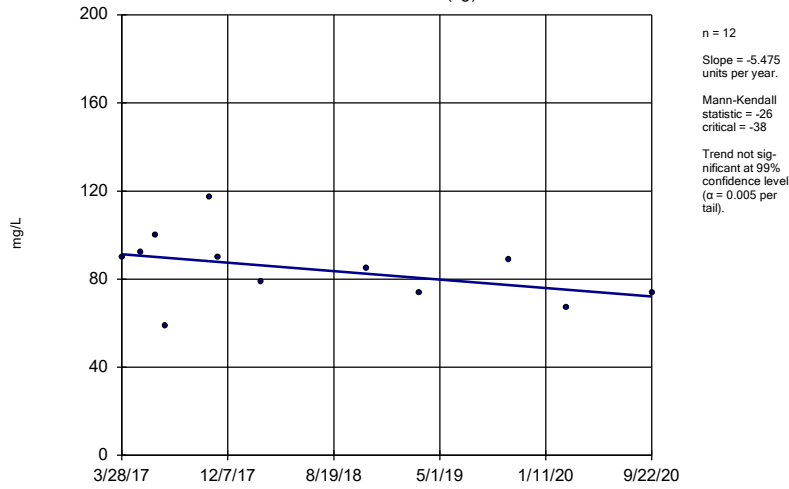


n = 12  
Slope = 0 units per year.  
Mann-Kendall statistic = 0  
critical = 38  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: TDS Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

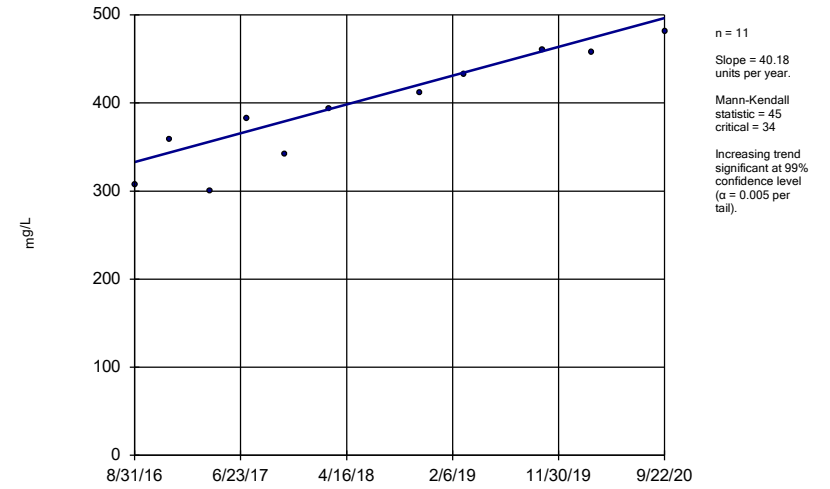
DGWA-71 (bg)



Constituent: TDS Analysis Run 11/4/2020 3:39 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

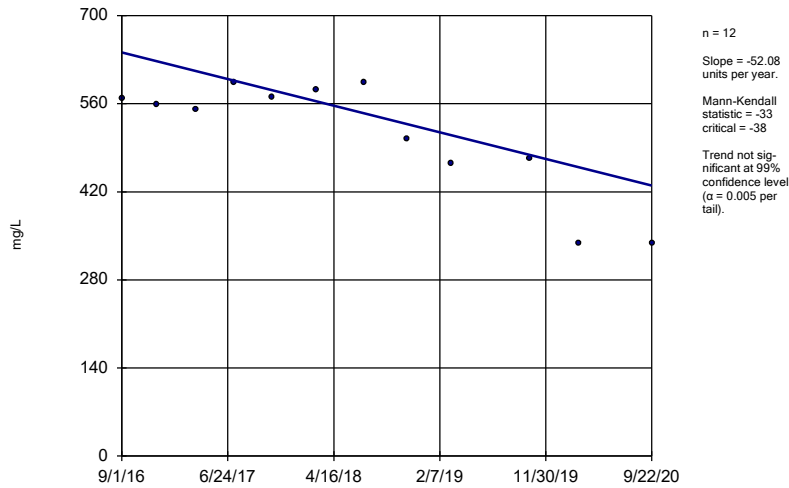
DGWC-11



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

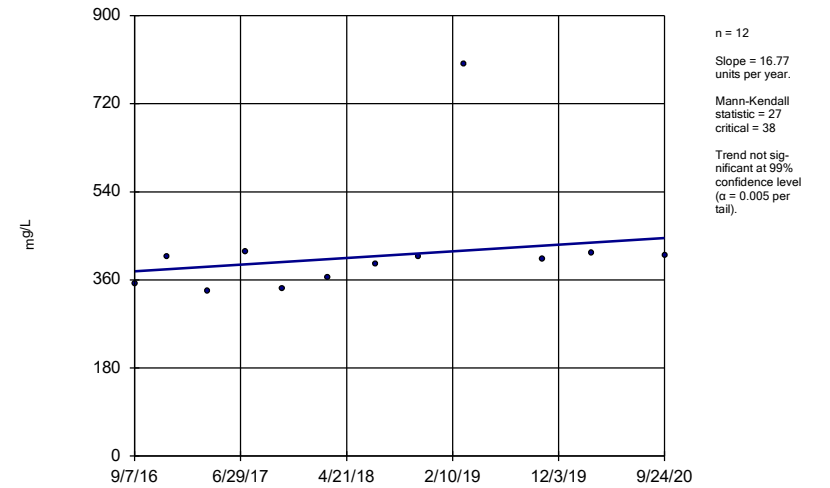
DGWC-12



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

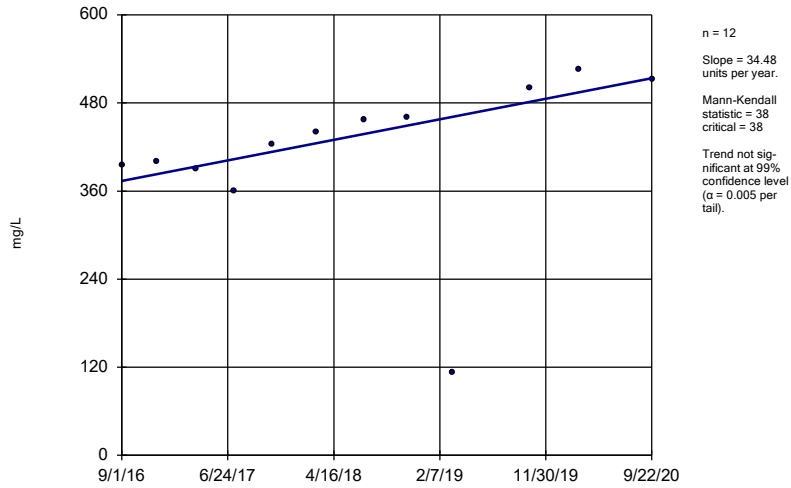
DGWC-17



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

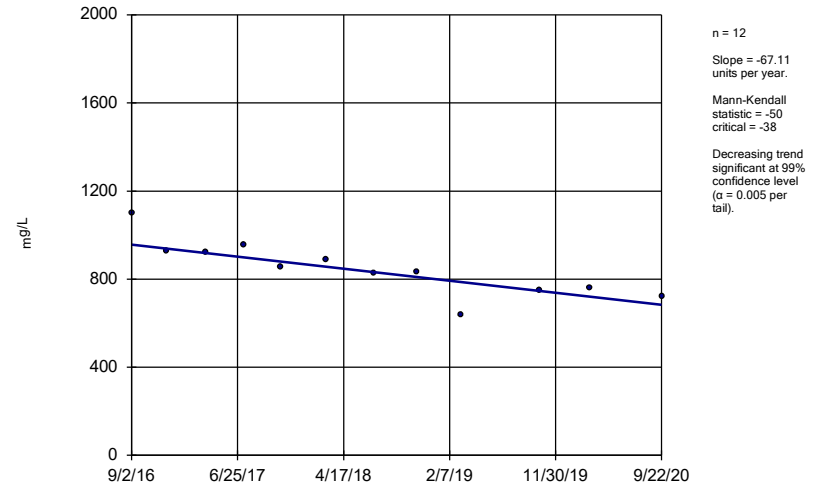
DGWC-19



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

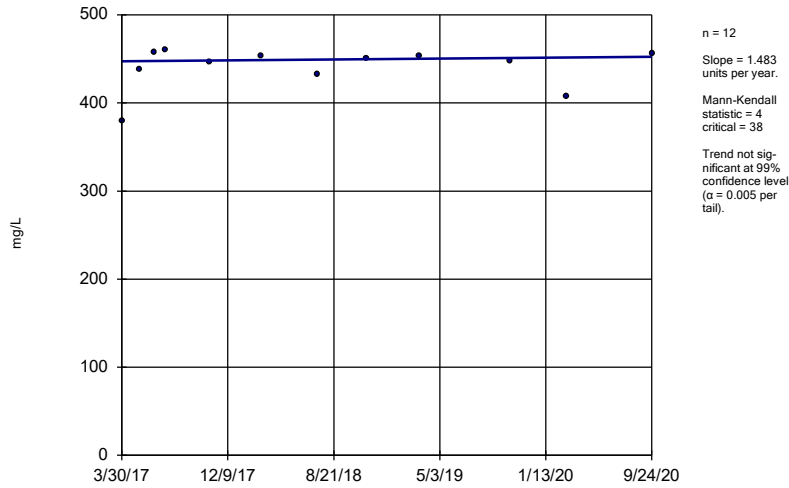
### Sen's Slope Estimator

DGWC-20



### Sen's Slope Estimator

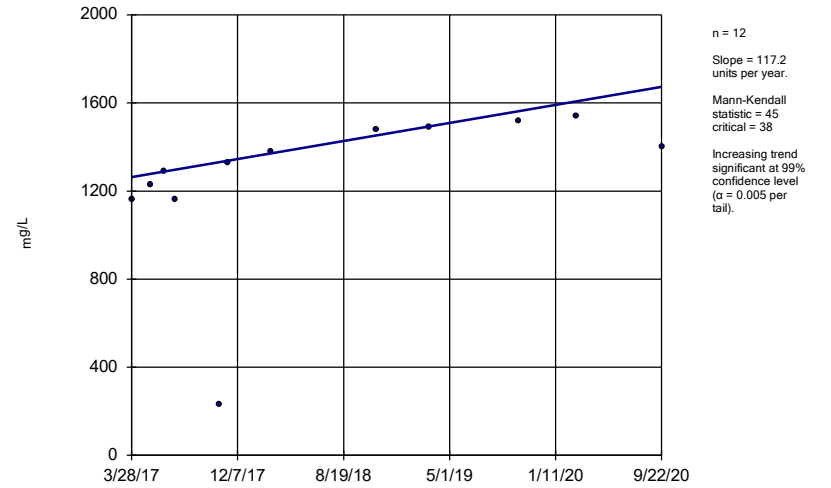
DGWC-23



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

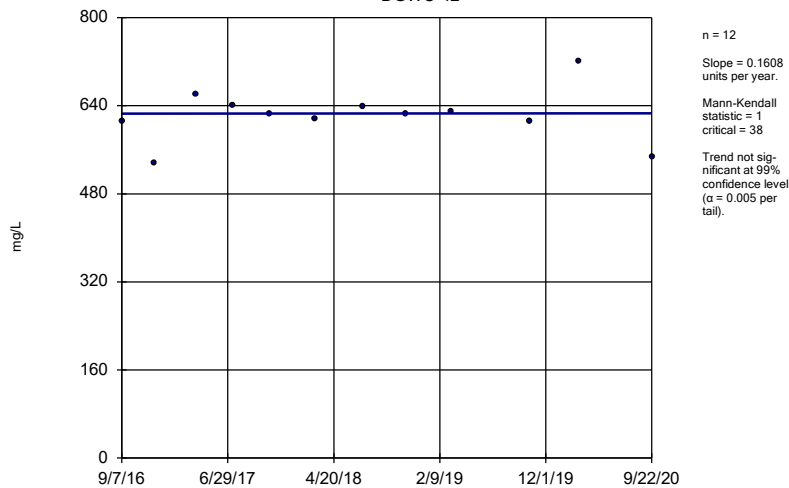
DGWC-4



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

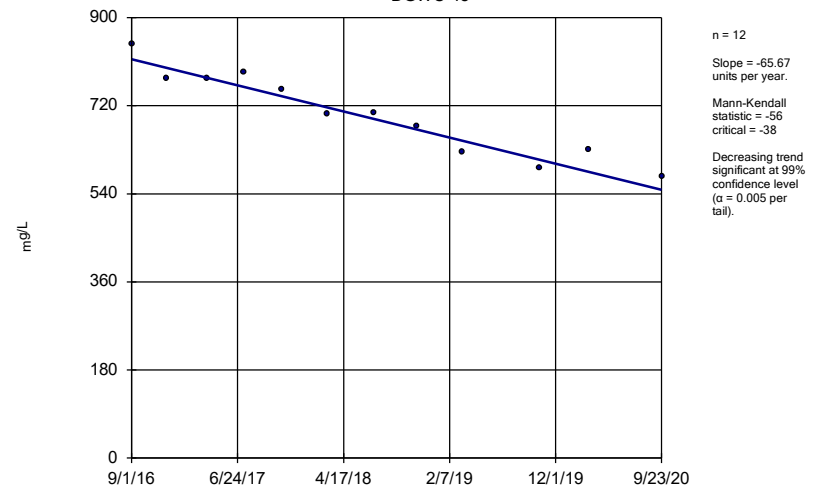
DGWC-42



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

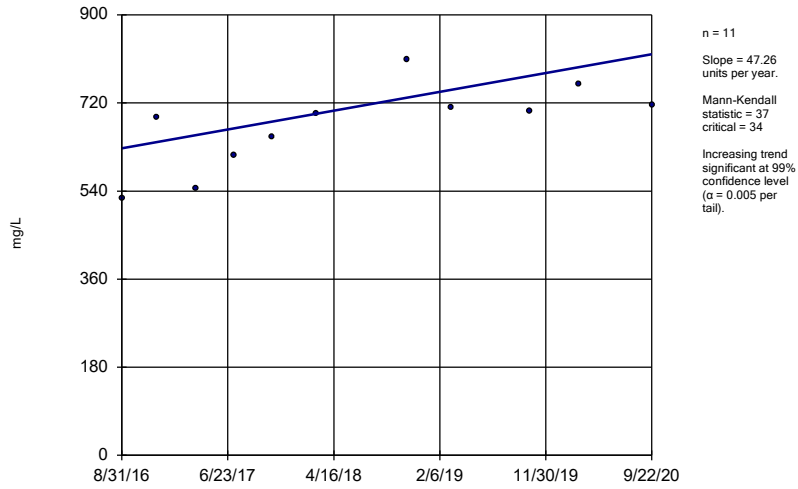
DGWC-48



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

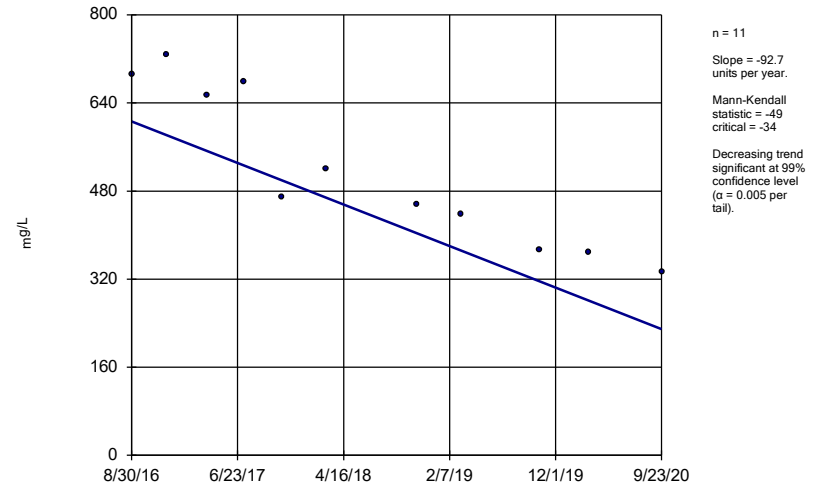
DGWC-5



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

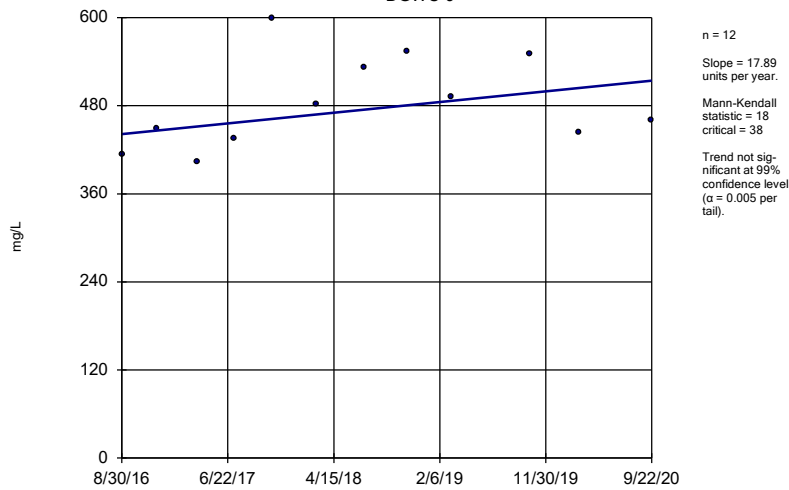
DGWC-8



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

### Sen's Slope Estimator

DGWC-9



Constituent: TDS Analysis Run 11/4/2020 3:40 PM View: Trend Tests - Federal  
 Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

# Tolerance Limit Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/4/2020, 3:11 PM

<u>Constituent</u>	<u>Well</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)	n/a	0.0030	38	n/a	n/a	81.58	n/a	n/a	0.1424	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0050	38	n/a	n/a	78.95	n/a	n/a	0.1424	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	38	n/a	n/a	0	n/a	n/a	0.1424	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0030	38	n/a	n/a	73.68	n/a	n/a	0.1424	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0025	38	n/a	n/a	92.11	n/a	n/a	0.1424	NP Inter(NDs)
Chromium (mg/L)	n/a	0.010	37	n/a	n/a	54.05	n/a	n/a	0.1499	NP Inter(normality)
Cobalt (mg/L)	n/a	0.07	38	-5.867	1.496	31.58	Kaplan-Meier	ln(x)	0.05	Inter
Combined Radium 226 + 228 (pCi/L)	n/a	5.9	40	1.062	0.3514	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	42	n/a	n/a	50	n/a	n/a	0.116	NP Inter(normality)
Lead (mg/L)	n/a	0.0050	38	n/a	n/a	76.32	n/a	n/a	0.1424	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	38	n/a	n/a	36.84	n/a	n/a	0.1424	NP Inter(normality)
Mercury (mg/L)	n/a	0.00050	38	n/a	n/a	89.47	n/a	n/a	0.1424	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.041	38	n/a	n/a	63.16	n/a	n/a	0.1424	NP Inter(normality)
Selenium (mg/L)	n/a	0.010	38	n/a	n/a	100	n/a	n/a	0.1424	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	38	n/a	n/a	94.74	n/a	n/a	0.1424	NP Inter(NDs)



FIGURE G.

<b>MCDONOUGH AP-1 GWPS TABLE</b>					
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>Federal GWPS</b>	<b>State GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01	0.01
Barium, Total (mg/L)	2		0.19	2	2
Beryllium, Total (mg/L)	0.004		0.003	0.004	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.032	0.032	0.032
Combined Radium, Total (pCi/L)	5		5.92	5.92	5.92
Fluoride, Total (mg/L)	4		0.42	4	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015	0.005
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.041	0.1	0.041
Selenium, Total (mg/L)	0.05		0.01	0.05	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002	0.002

*\*Highlighted cells indicated Background is higher than MCLs or CCR-Rule Specified levels.*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.

# Federal Confidence Interval Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.03066	0.01584	0.01	Yes 13	0.02325	0.009966	7.692	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.009456	0.005244	0.004	Yes 12	0.00735	0.002684	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01338	0.009172	0.004	Yes 13	0.01128	0.002831	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009497	0.007719	0.004	Yes 13	0.008608	0.001195	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.009007	0.00606	0.004	Yes 12	0.007533	0.001878	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006036	0.004933	0.004	Yes 13	0.005485	0.0007414	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.194	0.1479	0.032	Yes 12	0.1671	0.03784	0	None	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05328	0.04876	0.032	Yes 13	0.05102	0.003039	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6453	0.4536	0.032	Yes 13	0.5495	0.1289	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4062	0.2647	0.032	Yes 13	0.3355	0.09515	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5235	0.415	0.032	Yes 13	0.4692	0.07295	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.09482	0.04891	0.032	Yes 12	0.07187	0.02925	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2018	0.136	0.032	Yes 13	0.1689	0.04419	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.0771	0.06002	0.04	Yes 13	0.06856	0.01149	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.13	0.1093	0.04	Yes 13	0.1197	0.01391	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-9	0.1415	0.05002	0.05	Yes 13	0.09574	0.06149	0	None	No	0.01	Param.

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	DGWC-12	0.003	0.0003	0.006	No 14	0.002807	0.0007216	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-14	0.003	0.0011	0.006	No 13	0.002854	0.000527	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.00073	0.006	No 13	0.00262	0.0009312	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-17	0.003	0.00045	0.006	No 13	0.002804	0.0007072	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-19	0.003	0.00036	0.006	No 13	0.002797	0.0007322	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.0006	0.006	No 13	0.002815	0.0006656	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.0013	0.006	No 13	0.002869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.0007	0.006	No 13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No 12	0.002615	0.0009004	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-47	0.003	0.0012	0.006	No 13	0.002862	0.0004992	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-48	0.003	0.00039	0.006	No 13	0.002799	0.0007239	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.00032	0.006	No 12	0.002777	0.0007736	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.00722	0.00308	0.01	No 12	0.00515	0.002638	8.333	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No 14	0.004374	0.001592	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.00039	0.01	No 13	0.004645	0.001279	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No 13	0.004042	0.001828	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No 13	0.003148	0.00209	53.85	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-19	0.005	0.00049	0.01	No 13	0.002365	0.001645	23.08	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No 13	0.004499	0.001261	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01699	0.006683	0.01	No 13	0.01184	0.006934	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-22	0.005	0.001	0.01	No 13	0.004692	0.001109	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No 12	0.0039	0.001991	75	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No 13	0.004369	0.001542	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003855	0.001418	0.01	No 13	0.002523	0.001439	15.38	Cohen's	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No 13	0.00293	0.002018	46.15	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-5	0.0203	0.0032	0.01	No 12	0.009483	0.01044	16.67	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No 12	0.003472	0.001906	58.33	None	No	0.01	NP (normality)
<b>Arsenic (mg/L)</b>	<b>DGWC-9</b>	<b>0.03066</b>	<b>0.01584</b>	<b>0.01</b>	<b>Yes 13</b>	<b>0.02325</b>	<b>0.009966</b>	<b>7.692</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Barium (mg/L)	DGWC-10	0.03055	0.02357	2	No 12	0.02706	0.004448	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06805	0.05751	2	No 12	0.06278	0.006717	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.03036	0.02319	2	No 14	0.02691	0.005363	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	DGWC-13	0.03355	0.02707	2	No 12	0.02917	0.007981	8.333	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06272	0.05738	2	No 13	0.06005	0.003589	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05171	0.04502	2	No 13	0.04836	0.0045	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.05844	0.04436	2	No 13	0.0514	0.009465	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02536	0.02124	2	No 13	0.0233	0.002771	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02269	0.02115	2	No 13	0.02192	0.001038	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01488	0.008707	2	No 13	0.01179	0.004149	7.692	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No 13	0.02634	0.001198	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-22	0.03853	0.03293	2	No 13	0.03573	0.003765	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02432	0.01814	2	No 13	0.02131	0.004373	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.0363	0.03	2	No 12	0.03397	0.002586	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-42	0.02101	0.01682	2	No 13	0.01895	0.002948	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-47	0.01952	0.01539	2	No 13	0.01745	0.00278	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.0145	0.0129	2	No 13	0.0137	0.001075	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01858	0.01676	2	No 11	0.01767	0.001092	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.03968	0.02782	2	No 12	0.03375	0.007562	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01623	0.01485	2	No 13	0.01554	0.0009287	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-10</b>	<b>0.009456</b>	<b>0.005244</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.00735</b>	<b>0.002684</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-11	0.003	0.00012	0.004	No 12	0.001807	0.001475	58.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-12	0.00049	0.00017	0.004	No 14	0.0006153	0.001014	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.00007	0.004	No 12	0.002268	0.001324	75	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-15	0.003	0.00022	0.004	No 13	0.00256	0.001075	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.00071	0.0005	0.004	No 13	0.0009623	0.0009065	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No 13	0.002077	0.0004304	15.38	None	No	0.01	NP (normality)

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-20	0.0063	0.0026	0.004	No 13	0.003808	0.001906	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No 13	0.0005969	0.001067	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-22	0.003	0.00014	0.004	No 13	0.0006054	0.001063	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-23	0.00077	0.00038	0.004	No 13	0.0008285	0.0009694	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No 12	0.0006617	0.001093	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002873	0.002173	0.004	No 13	0.002523	0.0004711	7.692	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-47</b>	<b>0.01338</b>	<b>0.009172</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.01128</b>	<b>0.002831</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-48</b>	<b>0.009497</b>	<b>0.007719</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.008608</b>	<b>0.001195</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-5</b>	<b>0.009007</b>	<b>0.00606</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.007533</b>	<b>0.001878</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-8	0.003446	0.001804	0.004	No 12	0.002625	0.001046	8.333	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-9</b>	<b>0.006036</b>	<b>0.004933</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.005485</b>	<b>0.0007414</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	DGWC-10	0.001267	0.0008381	0.005	No 12	0.001053	0.0002733	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.00016	0.005	No 12	0.002107	0.0009187	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.001	0.00025	0.005	No 14	0.0006893	0.00079	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No 12	0.002107	0.000919	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00012	0.005	No 13	0.001648	0.001145	69.23	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-17	0.00033	0.00024	0.005	No 13	0.0006169	0.0008366	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00033	0.005	No 13	0.0005838	0.0006022	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-2	0.001	0.00013	0.005	No 13	0.0006538	0.0008526	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-20	0.002229	0.001771	0.005	No 13	0.002	0.0003082	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No 13	0.0008085	0.0005286	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-22	0.001	0.0004	0.005	No 13	0.0007354	0.0005646	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No 13	0.00047	0.0006466	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0005	0.005	No 12	0.00086	0.0005345	16.67	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-42	0.0024	0.00037	0.005	No 13	0.001042	0.0007112	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-47	0.002295	0.001198	0.005	No 13	0.001746	0.0007378	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.004529	0.002389	0.005	No 13	0.0036	0.001801	0	None	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.001	0.0002	0.005	No 12	0.0007592	0.000611	16.67	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-8	0.002601	0.002016	0.005	No 12	0.002308	0.0003728	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No 13	0.0007531	0.0005442	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No 12	0.003883	0.004519	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No 12	0.006866	0.004629	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-12	0.01	0.00094	0.1	No 14	0.009353	0.002421	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.00066	0.1	No 12	0.006907	0.004568	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No 13	0.007411	0.004182	69.23	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-17	0.0035	0.0024	0.1	No 13	0.003862	0.00275	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No 13	0.0043	0.003261	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No 13	0.006348	0.004808	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No 13	0.004985	0.004154	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No 13	0.006381	0.004767	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-22	0.01	0.0012	0.1	No 13	0.009323	0.002441	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No 13	0.00357	0.004467	30.77	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.0005	0.1	No 12	0.009208	0.002742	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No 13	0.005095	0.004745	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-47	0.01	0.0007	0.1	No 13	0.009285	0.002579	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No 13	0.008546	0.003549	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.00045	0.1	No 12	0.009204	0.002757	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No 12	0.006331	0.004571	58.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No 13	0.006792	0.004421	61.54	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>DGWC-10</b>	<b>0.194</b>	<b>0.1479</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.1671</b>	<b>0.03784</b>	<b>0</b>	<b>None</b>	<b>x^3</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-11	0.0025	0.0006	0.032	No 12	0.001606	0.0009402	50	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-12	0.0079	0.0021	0.032	No 14	0.006143	0.007268	14.29	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0025	0.0004	0.032	No 12	0.001982	0.0009381	75	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-15	0.0042	0.0018	0.032	No 13	0.003992	0.00635	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02807	0.02097	0.032	No 13	0.02399	0.006439	7.692	None	x^2	0.01	Param.

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Cobalt (mg/L)</b>	<b>DGWC-19</b>	<b>0.05328</b>	<b>0.04876</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.05102</b>	<b>0.003039</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-2	0.02786	0.01119	0.032	No 13	0.01952	0.01121	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-20</b>	<b>0.6453</b>	<b>0.4536</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.5495</b>	<b>0.1289</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-21	0.01	0.005	0.032	No 13	0.008538	0.002294	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-22	0.0106	0.005	0.032	No 13	0.008662	0.002396	15.38	None	No	0.01	NP (Cohens/xfm)
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.032	No 13	0.002044	0.001333	69.23	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-4	0.0025	0.0014	0.032	No 12	0.002033	0.000982	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-42	0.04874	0.01994	0.032	No 13	0.03434	0.01937	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-47</b>	<b>0.4062</b>	<b>0.2647</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.3355</b>	<b>0.09515</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-48</b>	<b>0.5235</b>	<b>0.415</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.4692</b>	<b>0.07295</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-5	0.03614	0.02048	0.032	No 12	0.02902	0.01169	0	None	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-8</b>	<b>0.09482</b>	<b>0.04891</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.07187</b>	<b>0.02925</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-9</b>	<b>0.2018</b>	<b>0.136</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.1689</b>	<b>0.04419</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.533	1.067	5.92	No 13	1.3	0.3132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.324	0.6257	5.92	No 13	0.975	0.4697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.119	0.3122	5.92	No 13	0.7574	0.6581	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.536	1.01	5.92	No 13	1.273	0.354	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.156	0.6832	5.92	No 13	0.9195	0.3179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.736	0.5423	5.92	No 13	1.196	0.9184	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.101	0.5388	5.92	No 13	0.8199	0.3781	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.108	0.5209	5.92	No 13	0.8143	0.3946	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.451	0.8198	5.92	No 13	1.135	0.4243	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.567	0.8478	5.92	No 13	1.207	0.4835	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.2	0.6287	5.92	No 13	0.9143	0.3841	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.462	0.779	5.92	No 13	1.121	0.4594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.482	0.6925	5.92	No 13	1.087	0.5307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.788	1.182	5.92	No 13	1.485	0.4079	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.192	0.6811	5.92	No 13	0.9368	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.046	1.811	5.92	No 13	2.428	0.8307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.561	1.567	5.92	No 13	2.064	0.6687	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	1.955	1.022	5.92	No 13	1.489	0.6279	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8387	0.4284	5.92	No 13	0.6335	0.2759	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.469	0.8959	5.92	No 13	1.182	0.3851	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.819	1.276	4	No 14	1.548	0.3832	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.1	0.04	4	No 13	0.07738	0.02685	53.85	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-12	0.3	0.071	4	No 14	0.1683	0.153	42.86	None	No	0.01	NP (Cohens/xfm)
Fluoride (mg/L)	DGWC-13	0.2371	0.08721	4	No 13	0.1683	0.1136	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.1	0.052	4	No 14	0.08386	0.02776	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.079	4	No 14	0.1061	0.04679	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3341	0.1109	4	No 14	0.2225	0.1575	14.29	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.5725	0.1743	4	No 14	0.3979	0.327	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.28	0.052	4	No 14	0.1524	0.1678	35.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9283	0.3788	4	No 14	0.6536	0.3879	7.143	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.07	4	No 14	0.108	0.07152	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-22	0.13	0.09	4	No 14	0.1211	0.06974	42.86	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.2749	0.09828	4	No 14	0.2011	0.1607	7.143	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.17	0.082	4	No 14	0.1416	0.1901	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-42	0.1	0.06	4	No 14	0.09143	0.02316	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.228	0.5388	4	No 14	0.8836	0.4867	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.27	0.6254	4	No 14	0.9479	0.4552	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	0.9221	0.2741	4	No 13	0.63	0.4591	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.4944	0.1003	4	No 13	0.3211	0.2329	15.38	Cohen's	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.317	0.9573	4	No 14	1.137	0.254	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00011	0.015	No 12	0.002974	0.002504	58.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-11	0.005	0.000076	0.015	No 12	0.002958	0.002523	58.33	None	No	0.01	NP (normality)

# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-12	0.005	0.00011	0.015	No 14	0.004301	0.001778	85.71	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.0002	0.015	No 12	0.004191	0.001888	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-14	0.005	0.000096	0.015	No 13	0.004242	0.001851	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.000082	0.015	No 13	0.002826	0.002461	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-17	0.005	0.000079	0.015	No 13	0.002742	0.002539	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-19	0.005	0.00007	0.015	No 13	0.003503	0.002337	69.23	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-2	0.005	0.000064	0.015	No 13	0.002353	0.00255	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-20	0.005	0.00013	0.015	No 13	0.003192	0.002385	61.54	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.015	No 13	0.002405	0.002502	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.000066	0.015	No 13	0.00462	0.001368	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.015	No 12	0.003779	0.002209	75	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-42	0.0016	0.0002	0.015	No 13	0.001152	0.00175	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-47	0.005	0.0005	0.015	No 13	0.001732	0.001875	23.08	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-48	0.0035	0.00092	0.015	No 13	0.002067	0.001499	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-5	0.005	0.000051	0.015	No 12	0.001941	0.00235	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.015	No 12	0.002626	0.002485	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-9	0.005	0.00017	0.015	No 13	0.004255	0.001818	84.62	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-10	0.015	0.002	0.04	No 12	0.005458	0.004637	16.67	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	DGWC-11	0.0028	0.0019	0.04	No 12	0.003333	0.003684	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-12	0.015	0.00097	0.04	No 14	0.01001	0.006944	64.29	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-13	0.015	0.0028	0.04	No 12	0.005117	0.004624	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.04	No 13	0.0048	0.003316	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-15	0.0066	0.0059	0.04	No 12	0.006392	0.0008229	0	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-17	0.015	0.00096	0.04	No 13	0.009647	0.007049	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-19	0.015	0.0031	0.04	No 13	0.004108	0.00328	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-2	0.07156	0.02739	0.04	No 13	0.05299	0.03076	7.692	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-20	0.015	0.0019	0.04	No 13	0.006369	0.005794	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.04	No 13	0.006692	0.002518	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-22	0.0047	0.0036	0.04	No 13	0.004992	0.003032	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-23	0.0162	0.0036	0.04	No 13	0.01175	0.01975	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.04	No 12	0.003833	0.003537	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-42	0.01247	0.01025	0.04	No 13	0.01136	0.001495	7.692	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>DGWC-47</b>	<b>0.0771</b>	<b>0.06002</b>	<b>0.04</b>	<b>Yes 13</b>	<b>0.06856</b>	<b>0.01149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>DGWC-48</b>	<b>0.13</b>	<b>0.1093</b>	<b>0.04</b>	<b>Yes 13</b>	<b>0.1197</b>	<b>0.01391</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	DGWC-5	0.008526	0.003793	0.04	No 12	0.006275	0.00332	8.333	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.04	No 12	0.006375	0.002911	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-9	0.02965	0.02256	0.04	No 13	0.02611	0.004768	7.692	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0005	0.00008	0.002	No 12	0.0003601	0.0002067	66.67	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-11	0.0005	0.00006	0.002	No 12	0.0003908	0.0001976	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-12	0.0005	0.00006	0.002	No 14	0.000319	0.000218	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0005	0.00009	0.002	No 12	0.00043	0.0001635	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0005	0.00006	0.002	No 13	0.0003992	0.0001916	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0005	0.00006	0.002	No 13	0.0002785	0.0002154	46.15	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-19	0.0005	0.00005	0.002	No 13	0.0003985	0.0001933	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-2	0.00064	0.00008	0.002	No 13	0.0004133	0.0001952	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-20	0.0005	0.00008	0.002	No 13	0.0004354	0.0001577	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0005	0.00006	0.002	No 13	0.0003362	0.0002163	61.54	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-22	0.0005	0.000055	0.002	No 13	0.0004004	0.0001896	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0005	0.00014	0.002	No 13	0.0002723	0.0001623	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-4	0.00059	0.000082	0.002	No 12	0.0004377	0.0001686	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-42	0.0005	0.00004	0.002	No 13	0.0004646	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0005	0.00009	0.002	No 12	0.0002417	0.0001701	16.67	None	No	0.01	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-8	0.0005	0.00006	0.002	No 12	0.0002909	0.0002192	50	None	No	0.01	NP (normality)



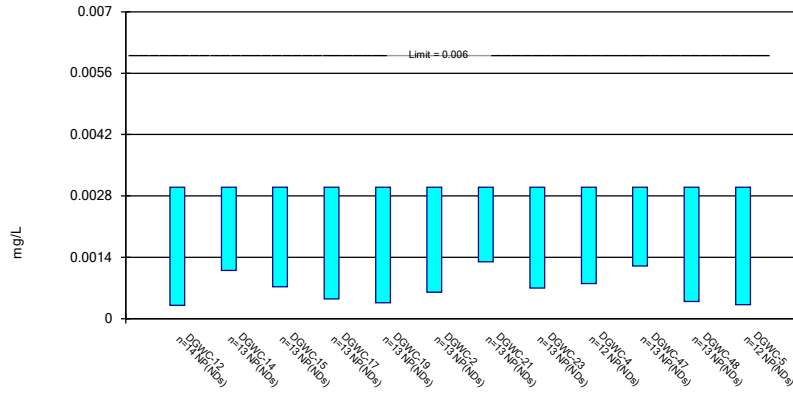
# Federal Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	DGWC-9	0.0005	0.00005	0.002	No 13	0.0003548	0.0001878	53.85	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-13	0.02834	0.01374	0.1	No 12	0.02104	0.009302	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.005	0.0018	0.1	No 13	0.003231	0.001752	46.15	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-23	0.01155	0.007262	0.1	No 13	0.009408	0.002886	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.006873	0.004594	0.1	No 12	0.005733	0.001452	8.333	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05502	0.01853	0.05	No 12	0.03678	0.02325	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No 14	0.005921	0.004238	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.01	0.0015	0.05	No 12	0.004858	0.003462	25	None	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No 13	0.007438	0.004001	69.23	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-15	0.01	0.0018	0.05	No 13	0.009369	0.002274	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.0072	0.05	No 13	0.008846	0.002183	15.38	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-19	0.009886	0.005688	0.05	No 13	0.007538	0.002479	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0046	0.05	No 13	0.007777	0.002565	53.85	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-20	0.06857	0.03146	0.05	No 13	0.05002	0.02496	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-22	0.01	0.0017	0.05	No 13	0.009362	0.002302	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-4	0.01	0.0014	0.05	No 12	0.009283	0.002483	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01444	0.006265	0.05	No 13	0.01035	0.005499	15.38	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009889	0.004257	0.05	No 13	0.006738	0.003327	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.05512	0.01002	0.05	No 12	0.03657	0.0445	8.333	None	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.01	0.0018	0.05	No 12	0.006183	0.003635	41.67	None	No	0.01	NP (normality)
<b>Selenium (mg/L)</b>	<b>DGWC-9</b>	<b>0.1415</b>	<b>0.05002</b>	<b>0.05</b>	<b>Yes 13</b>	<b>0.09574</b>	<b>0.06149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Thallium (mg/L)	DGWC-10	0.001	0.00036	0.002	No 12	0.000515	0.000237	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No 14	0.0005476	0.0004696	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No 13	0.0003692	0.0003601	23.08	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.00049	0.002	No 13	0.0005415	0.0001493	7.692	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-20	0.0016	0.00055	0.002	No 13	0.0009392	0.0005086	30.77	None	No	0.01	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-22	0.001	0.000064	0.002	No 13	0.0006411	0.0004726	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.000073	0.002	No 12	0.0009228	0.0002676	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No 13	0.0007184	0.0004397	69.23	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-47	0.00032	0.0002	0.002	No 13	0.00036	0.0002876	15.38	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No 13	0.0006466	0.0004653	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No 12	0.0007783	0.0004023	75	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-8	0.001	0.0002	0.002	No 12	0.0004217	0.0003532	25	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-9	0.0009925	0.0005252	0.002	No 13	0.0007031	0.0002337	30.77	Cohen's	No	0.01	Param.

### Non-Parametric Confidence Interval

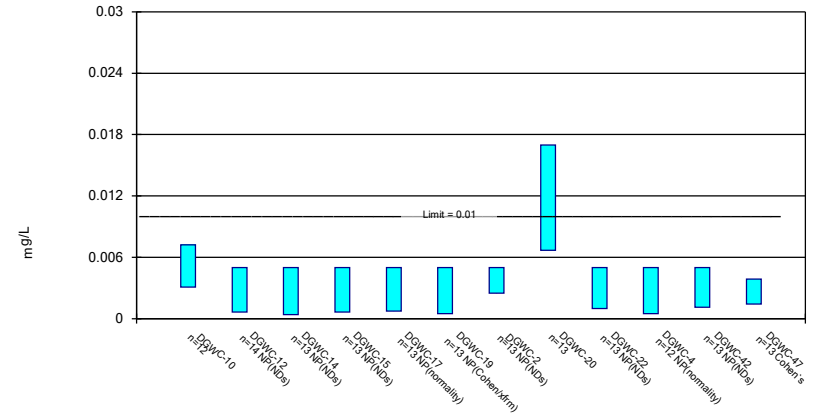
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

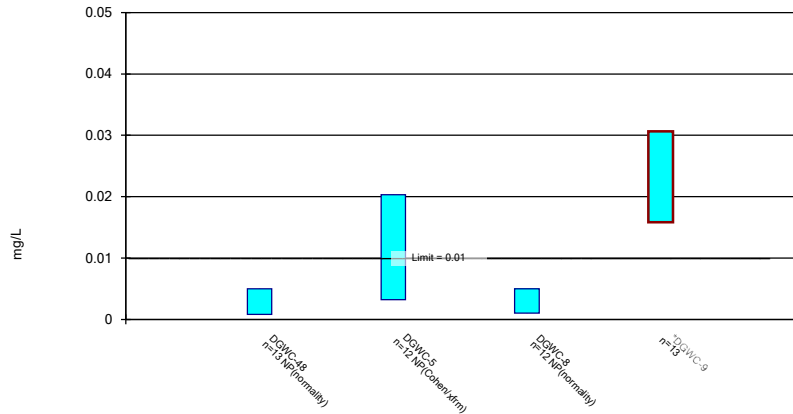
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

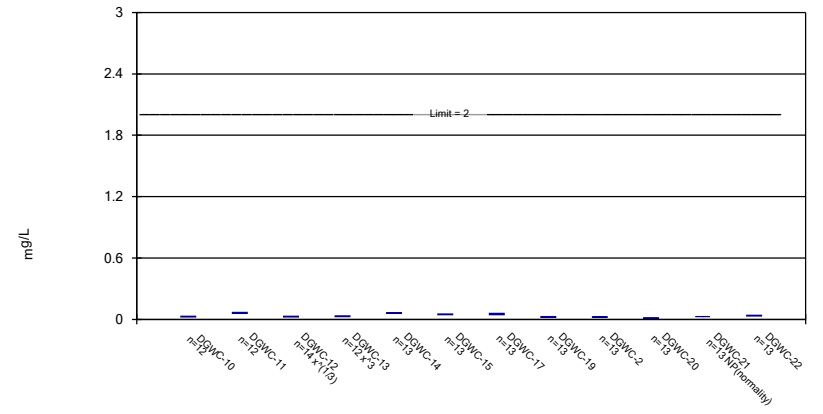
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

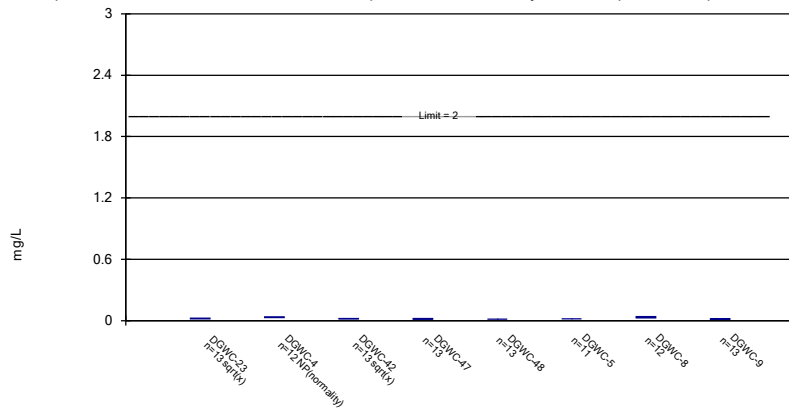
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

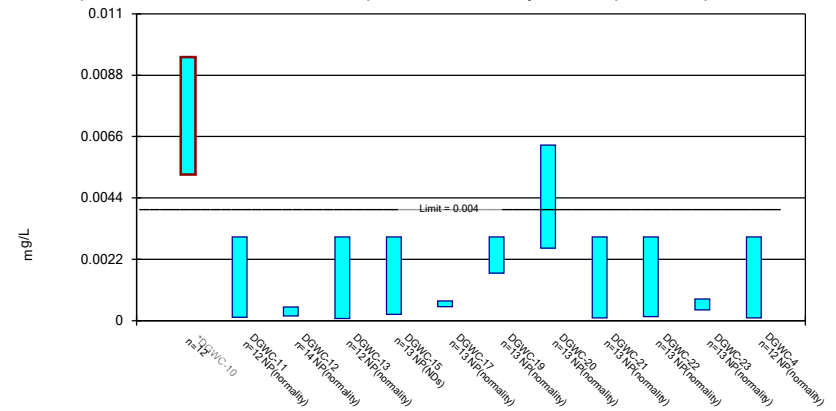
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

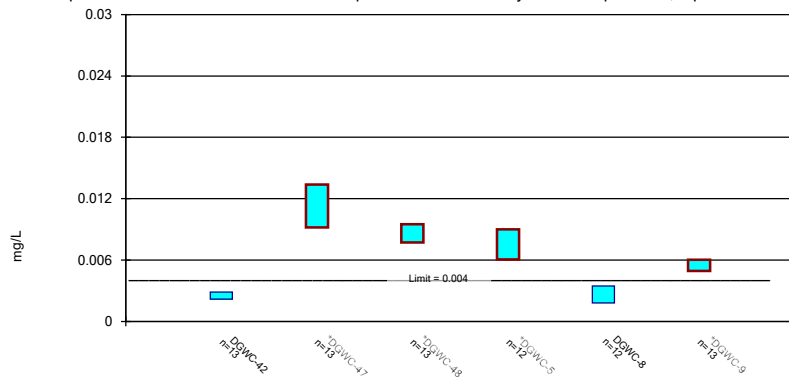
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric Confidence Interval

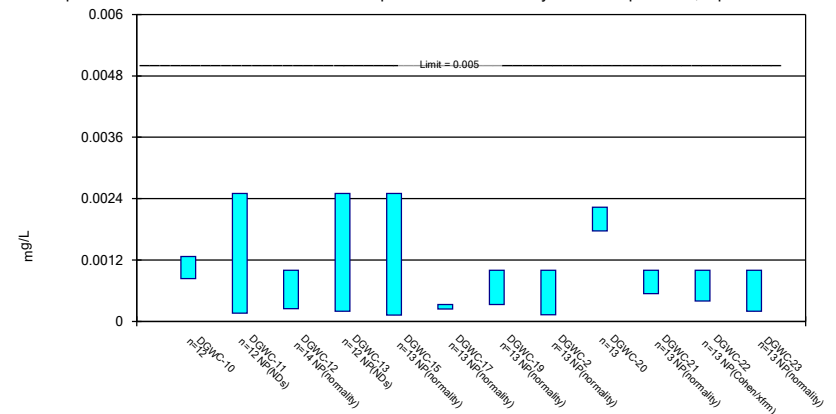
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

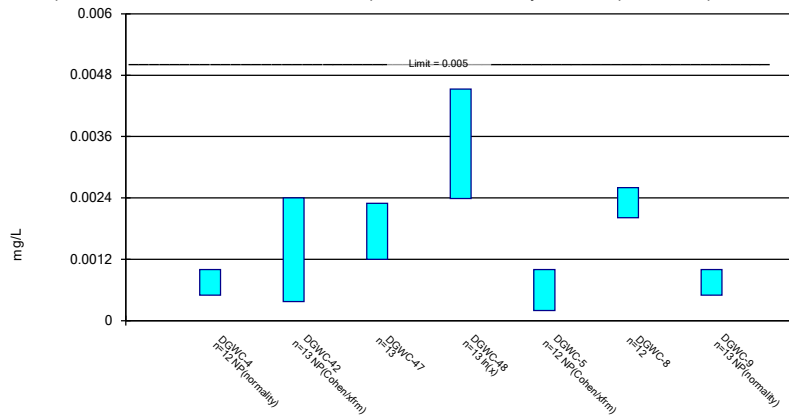
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

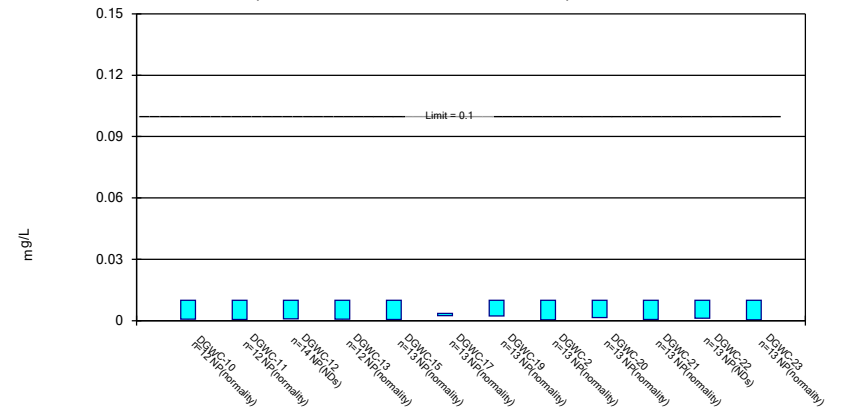
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

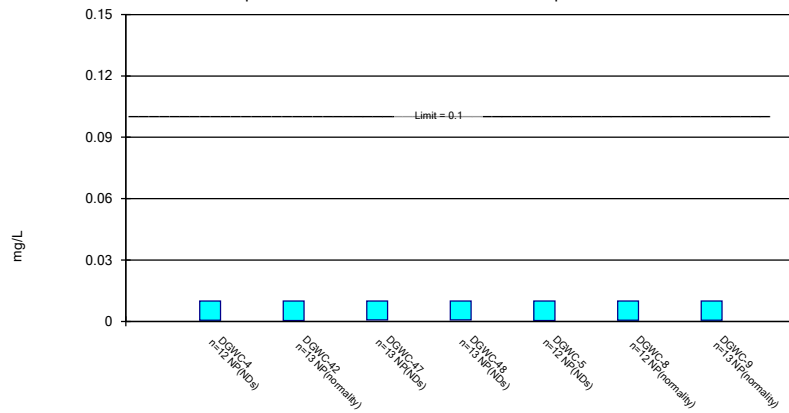
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

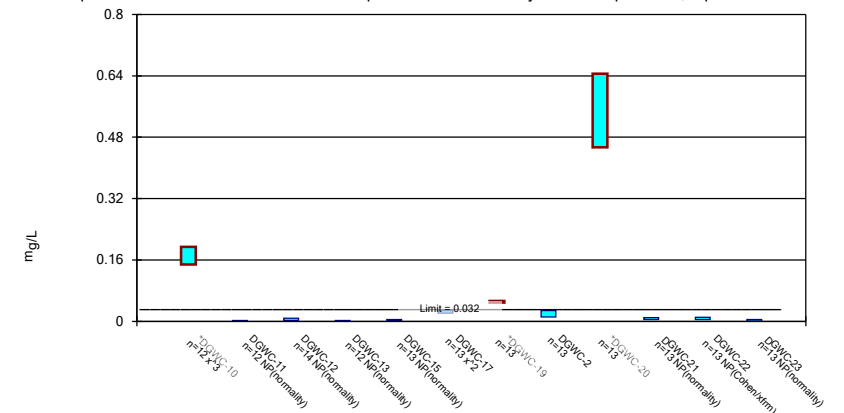
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

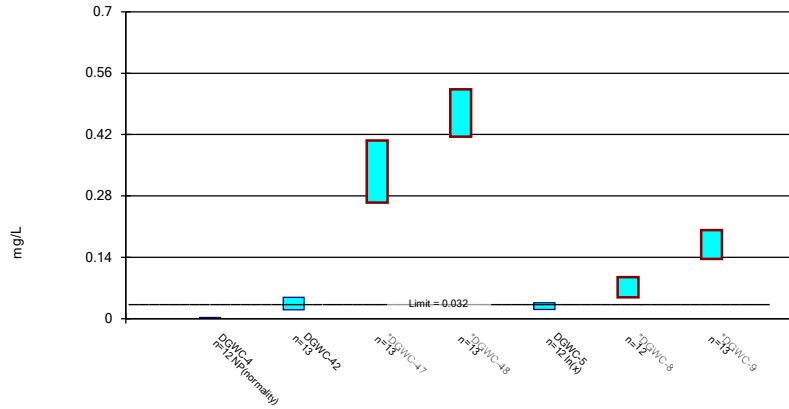
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

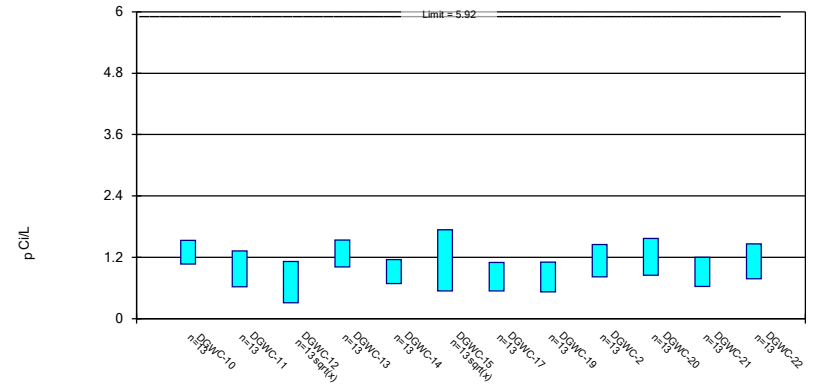
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric Confidence Interval

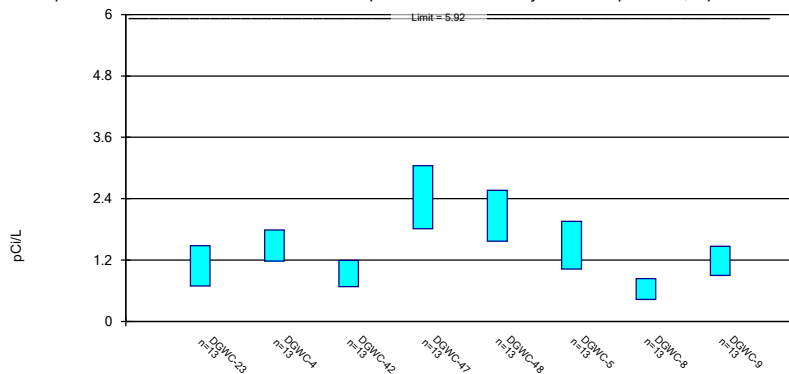
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric Confidence Interval

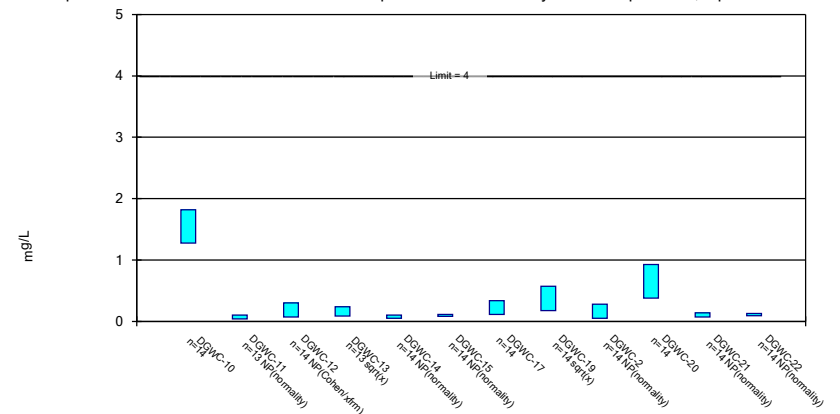
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

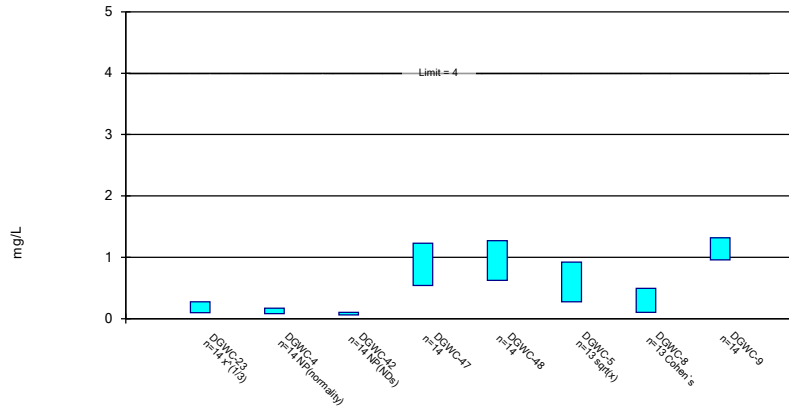
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

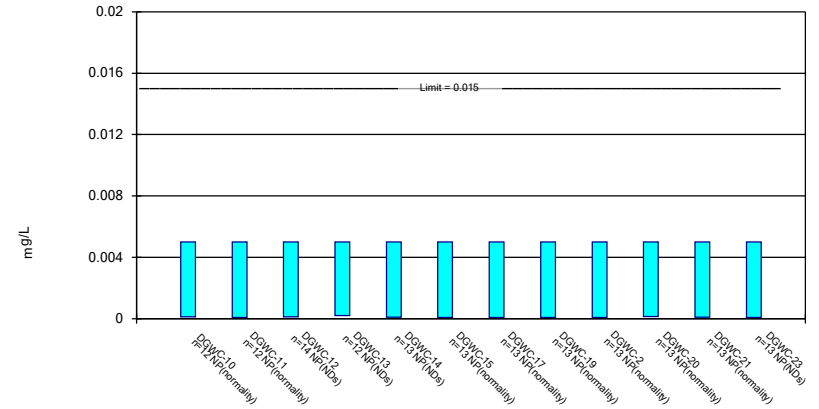
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

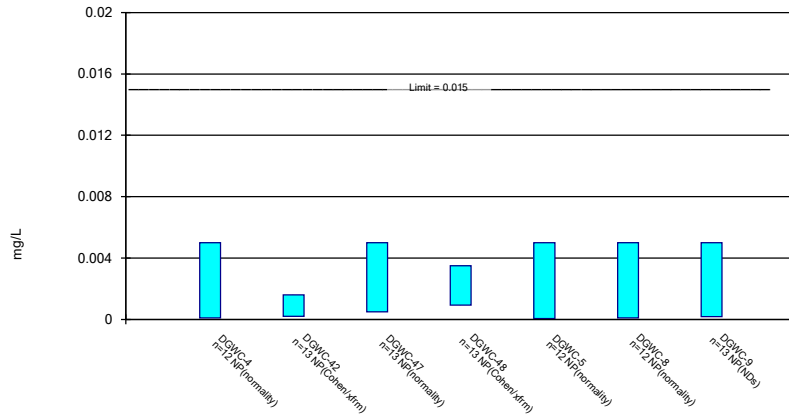
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

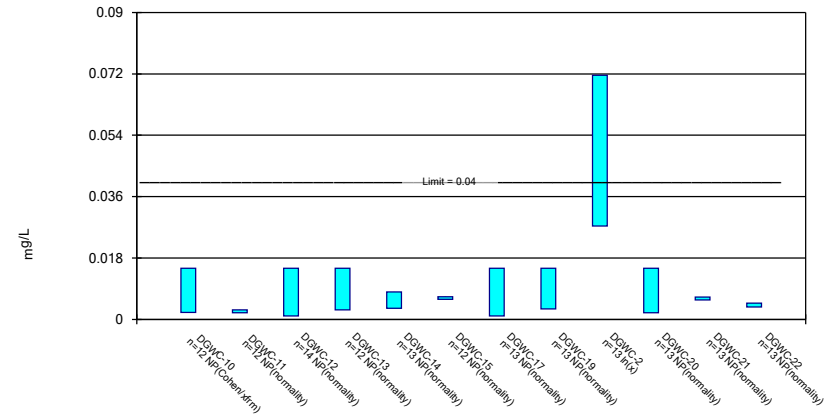
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

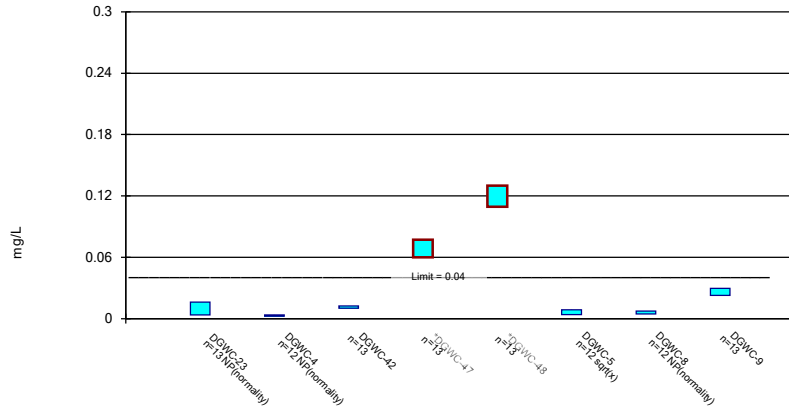
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

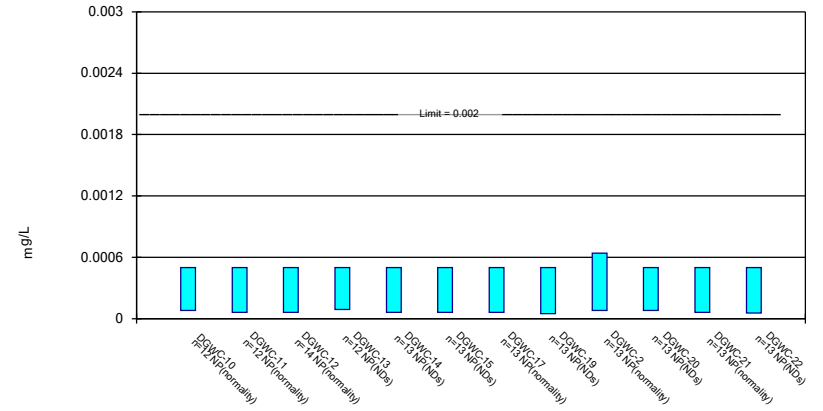
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

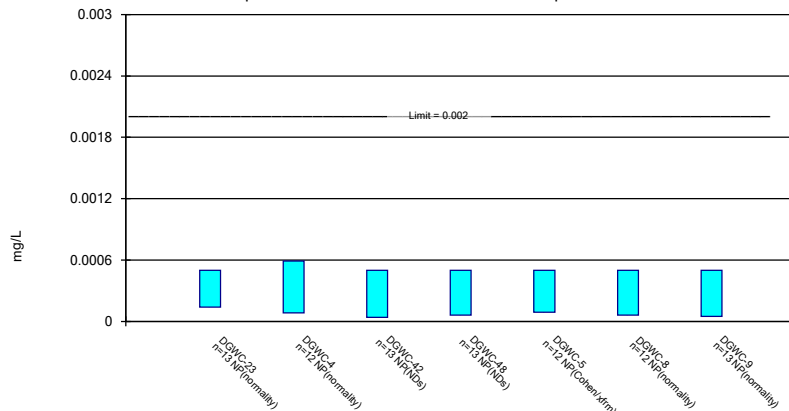
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

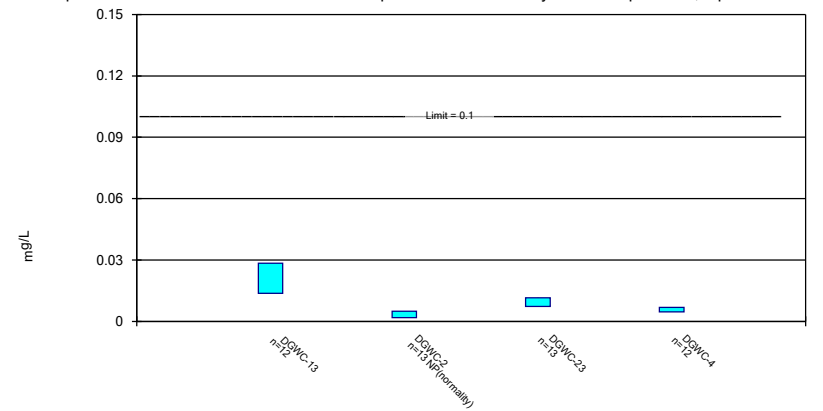
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

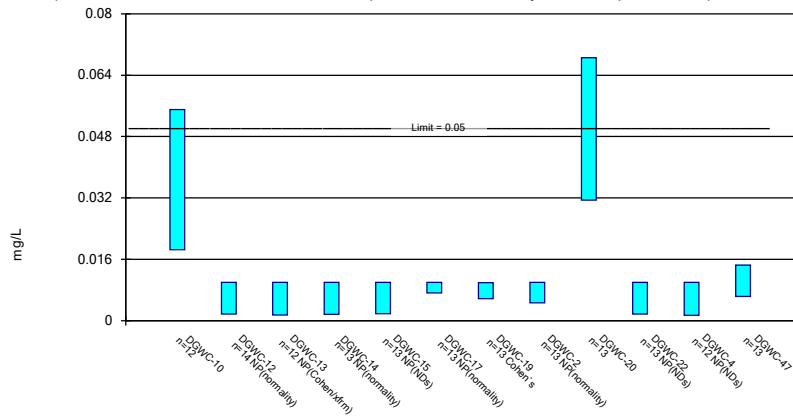
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

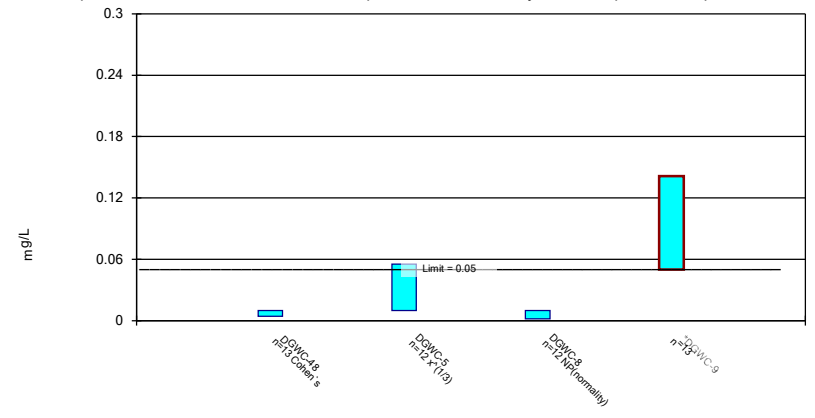
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/29/2020 3:03 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

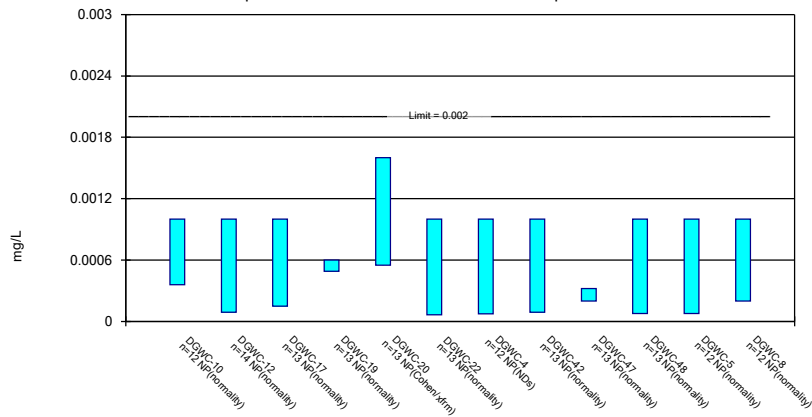
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/29/2020 3:04 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

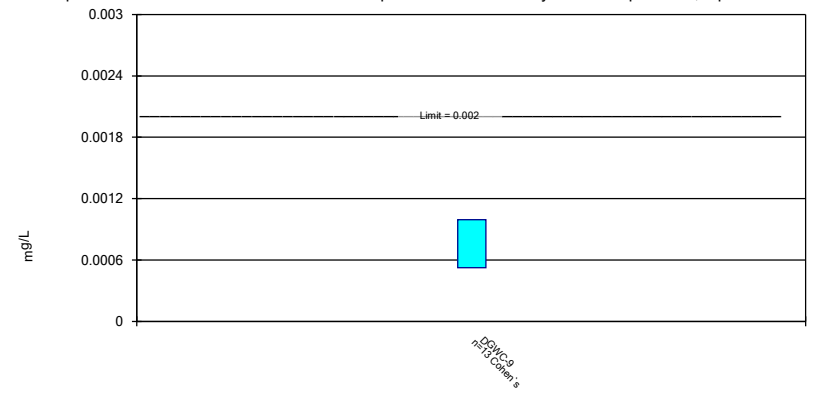
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/29/2020 3:04 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 10/29/2020 3:04 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP



FIGURE I.

# State Confidence Interval Summary - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.03066	0.01584	0.01	Yes 13	0.02325	0.009966	7.692	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.009456	0.005244	0.004	Yes 12	0.00735	0.002684	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01338	0.009172	0.004	Yes 13	0.01128	0.002831	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009497	0.007719	0.004	Yes 13	0.008608	0.001195	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.009007	0.00606	0.004	Yes 12	0.007533	0.001878	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006036	0.004933	0.004	Yes 13	0.005485	0.0007414	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.194	0.1479	0.032	Yes 12	0.1671	0.03784	0	None	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05328	0.04876	0.032	Yes 13	0.05102	0.003039	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6453	0.4536	0.032	Yes 13	0.5495	0.1289	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4062	0.2647	0.032	Yes 13	0.3355	0.09515	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5235	0.415	0.032	Yes 13	0.4692	0.07295	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.09482	0.04891	0.032	Yes 12	0.07187	0.02925	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2018	0.136	0.032	Yes 13	0.1689	0.04419	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.0771	0.06002	0.03	Yes 13	0.06856	0.01149	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.13	0.1093	0.03	Yes 13	0.1197	0.01391	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-9	0.1415	0.05002	0.05	Yes 13	0.09574	0.06149	0	None	No	0.01	Param.

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	DGWC-12	0.003	0.0003	0.006	No 14	0.002807	0.0007216	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-14	0.003	0.0011	0.006	No 13	0.002854	0.000527	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.00073	0.006	No 13	0.00262	0.0009312	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-17	0.003	0.00045	0.006	No 13	0.002804	0.0007072	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-19	0.003	0.00036	0.006	No 13	0.002797	0.0007322	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.0006	0.006	No 13	0.002815	0.0006656	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.0013	0.006	No 13	0.002869	0.0004715	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.0007	0.006	No 13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No 12	0.002615	0.0009004	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-47	0.003	0.0012	0.006	No 13	0.002862	0.0004992	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-48	0.003	0.00039	0.006	No 13	0.002799	0.0007239	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.00032	0.006	No 12	0.002777	0.0007736	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.00722	0.00308	0.01	No 12	0.00515	0.002638	8.333	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No 14	0.004374	0.001592	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.00039	0.01	No 13	0.004645	0.001279	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No 13	0.004042	0.001828	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No 13	0.003148	0.00209	53.85	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-19	0.005	0.00049	0.01	No 13	0.002365	0.001645	23.08	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No 13	0.004499	0.001261	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01699	0.006683	0.01	No 13	0.01184	0.006934	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-22	0.005	0.001	0.01	No 13	0.004692	0.001109	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No 12	0.0039	0.001991	75	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No 13	0.004369	0.001542	84.62	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003855	0.001418	0.01	No 13	0.002523	0.001439	15.38	Cohen's	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No 13	0.00293	0.002018	46.15	None	No	0.01	NP (normality)
Arsenic (mg/L)	DGWC-5	0.0203	0.0032	0.01	No 12	0.009483	0.01044	16.67	None	No	0.01	NP (Cohens/xfm)
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No 12	0.003472	0.001906	58.33	None	No	0.01	NP (normality)
<b>Arsenic (mg/L)</b>	<b>DGWC-9</b>	<b>0.03066</b>	<b>0.01584</b>	<b>0.01</b>	<b>Yes 13</b>	<b>0.02325</b>	<b>0.009966</b>	<b>7.692</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Barium (mg/L)	DGWC-10	0.03055	0.02357	2	No 12	0.02706	0.004448	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06805	0.05751	2	No 12	0.06278	0.006717	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.03036	0.02319	2	No 14	0.02691	0.005363	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	DGWC-13	0.03355	0.02707	2	No 12	0.02917	0.007981	8.333	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06272	0.05738	2	No 13	0.06005	0.003589	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05171	0.04502	2	No 13	0.04836	0.0045	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.05844	0.04436	2	No 13	0.0514	0.009465	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02536	0.02124	2	No 13	0.0233	0.002771	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02269	0.02115	2	No 13	0.02192	0.001038	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01488	0.008707	2	No 13	0.01179	0.004149	7.692	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No 13	0.02634	0.001198	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-22	0.03853	0.03293	2	No 13	0.03573	0.003765	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02432	0.01814	2	No 13	0.02131	0.004373	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.0363	0.03	2	No 12	0.03397	0.002586	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-42	0.02101	0.01682	2	No 13	0.01895	0.002948	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-47	0.01952	0.01539	2	No 13	0.01745	0.00278	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.0145	0.0129	2	No 13	0.0137	0.001075	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01858	0.01676	2	No 11	0.01767	0.001092	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.03968	0.02782	2	No 12	0.03375	0.007562	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01623	0.01485	2	No 13	0.01554	0.0009287	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-10</b>	<b>0.009456</b>	<b>0.005244</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.00735</b>	<b>0.002684</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-11	0.003	0.00012	0.004	No 12	0.001807	0.001475	58.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-12	0.00049	0.00017	0.004	No 14	0.0006153	0.001014	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.00007	0.004	No 12	0.002268	0.001324	75	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-15	0.003	0.00022	0.004	No 13	0.00256	0.001075	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.00071	0.0005	0.004	No 13	0.0009623	0.0009065	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No 13	0.002077	0.0004304	15.38	None	No	0.01	NP (normality)

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-20	0.0063	0.0026	0.004	No 13	0.003808	0.001906	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No 13	0.0005969	0.001067	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-22	0.003	0.00014	0.004	No 13	0.0006054	0.001063	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-23	0.00077	0.00038	0.004	No 13	0.0008285	0.0009694	15.38	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No 12	0.0006617	0.001093	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002873	0.002173	0.004	No 13	0.002523	0.0004711	7.692	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-47</b>	<b>0.01338</b>	<b>0.009172</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.01128</b>	<b>0.002831</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-48</b>	<b>0.009497</b>	<b>0.007719</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.008608</b>	<b>0.001195</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>DGWC-5</b>	<b>0.009007</b>	<b>0.00606</b>	<b>0.004</b>	<b>Yes 12</b>	<b>0.007533</b>	<b>0.001878</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	DGWC-8	0.003446	0.001804	0.004	No 12	0.002625	0.001046	8.333	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>DGWC-9</b>	<b>0.006036</b>	<b>0.004933</b>	<b>0.004</b>	<b>Yes 13</b>	<b>0.005485</b>	<b>0.0007414</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	DGWC-10	0.001267	0.0008381	0.005	No 12	0.001053	0.0002733	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.00016	0.005	No 12	0.002107	0.0009187	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.001	0.00025	0.005	No 14	0.0006893	0.00079	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No 12	0.002107	0.000919	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00012	0.005	No 13	0.001648	0.001145	69.23	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-17	0.00033	0.00024	0.005	No 13	0.0006169	0.0008366	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00033	0.005	No 13	0.0005838	0.0006022	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-2	0.001	0.00013	0.005	No 13	0.0006538	0.0008526	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-20	0.002229	0.001771	0.005	No 13	0.002	0.0003082	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No 13	0.0008085	0.0005286	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-22	0.001	0.0004	0.005	No 13	0.0007354	0.0005646	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No 13	0.00047	0.0006466	15.38	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0005	0.005	No 12	0.00086	0.0005345	16.67	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-42	0.0024	0.00037	0.005	No 13	0.001042	0.0007112	15.38	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-47	0.002295	0.001198	0.005	No 13	0.001746	0.0007378	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.004529	0.002389	0.005	No 13	0.0036	0.001801	0	None	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.001	0.0002	0.005	No 12	0.0007592	0.000611	16.67	None	No	0.01	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-8	0.002601	0.002016	0.005	No 12	0.002308	0.0003728	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No 13	0.0007531	0.0005442	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No 12	0.003883	0.004519	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No 12	0.006866	0.004629	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-12	0.01	0.00094	0.1	No 14	0.009353	0.002421	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.00066	0.1	No 12	0.006907	0.004568	66.67	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No 13	0.007411	0.004182	69.23	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-17	0.0035	0.0024	0.1	No 13	0.003862	0.00275	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No 13	0.0043	0.003261	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No 13	0.006348	0.004808	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No 13	0.004985	0.004154	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No 13	0.006381	0.004767	61.54	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-22	0.01	0.0012	0.1	No 13	0.009323	0.002441	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No 13	0.00357	0.004467	30.77	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.0005	0.1	No 12	0.009208	0.002742	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No 13	0.005095	0.004745	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-47	0.01	0.0007	0.1	No 13	0.009285	0.002579	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No 13	0.008546	0.003549	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.00045	0.1	No 12	0.009204	0.002757	91.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No 12	0.006331	0.004571	58.33	None	No	0.01	NP (normality)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No 13	0.006792	0.004421	61.54	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>DGWC-10</b>	<b>0.194</b>	<b>0.1479</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.1671</b>	<b>0.03784</b>	<b>0</b>	<b>None</b>	<b>x^3</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-11	0.0025	0.0006	0.032	No 12	0.001606	0.0009402	50	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-12	0.0079	0.0021	0.032	No 14	0.006143	0.007268	14.29	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0025	0.0004	0.032	No 12	0.001982	0.0009381	75	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-15	0.0042	0.0018	0.032	No 13	0.003992	0.00635	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02807	0.02097	0.032	No 13	0.02399	0.006439	7.692	None	x^2	0.01	Param.

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Cobalt (mg/L)</b>	<b>DGWC-19</b>	<b>0.05328</b>	<b>0.04876</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.05102</b>	<b>0.003039</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-2	0.02786	0.01119	0.032	No 13	0.01952	0.01121	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-20</b>	<b>0.6453</b>	<b>0.4536</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.5495</b>	<b>0.1289</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-21	0.01	0.005	0.032	No 13	0.008538	0.002294	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-22	0.0106	0.005	0.032	No 13	0.008662	0.002396	15.38	None	No	0.01	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.032	No 13	0.002044	0.001333	69.23	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-4	0.0025	0.0014	0.032	No 12	0.002033	0.000982	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-42	0.04874	0.01994	0.032	No 13	0.03434	0.01937	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-47</b>	<b>0.4062</b>	<b>0.2647</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.3355</b>	<b>0.09515</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-48</b>	<b>0.5235</b>	<b>0.415</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.4692</b>	<b>0.07295</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	DGWC-5	0.03614	0.02048	0.032	No 12	0.02902	0.01169	0	None	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>DGWC-8</b>	<b>0.09482</b>	<b>0.04891</b>	<b>0.032</b>	<b>Yes 12</b>	<b>0.07187</b>	<b>0.02925</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>DGWC-9</b>	<b>0.2018</b>	<b>0.136</b>	<b>0.032</b>	<b>Yes 13</b>	<b>0.1689</b>	<b>0.04419</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.533	1.067	5.92	No 13	1.3	0.3132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.324	0.6257	5.92	No 13	0.975	0.4697	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.119	0.3122	5.92	No 13	0.7574	0.6581	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.536	1.01	5.92	No 13	1.273	0.354	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.156	0.6832	5.92	No 13	0.9195	0.3179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.736	0.5423	5.92	No 13	1.196	0.9184	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.101	0.5388	5.92	No 13	0.8199	0.3781	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.108	0.5209	5.92	No 13	0.8143	0.3946	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.451	0.8198	5.92	No 13	1.135	0.4243	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.567	0.8478	5.92	No 13	1.207	0.4835	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.2	0.6287	5.92	No 13	0.9143	0.3841	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.462	0.779	5.92	No 13	1.121	0.4594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.482	0.6925	5.92	No 13	1.087	0.5307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.788	1.182	5.92	No 13	1.485	0.4079	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.192	0.6811	5.92	No 13	0.9368	0.3438	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.046	1.811	5.92	No 13	2.428	0.8307	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.561	1.567	5.92	No 13	2.064	0.6687	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	1.955	1.022	5.92	No 13	1.489	0.6279	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8387	0.4284	5.92	No 13	0.6335	0.2759	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.469	0.8959	5.92	No 13	1.182	0.3851	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.819	1.276	4	No 14	1.548	0.3832	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.1	0.04	4	No 13	0.07738	0.02685	53.85	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-12	0.3	0.071	4	No 14	0.1683	0.153	42.86	None	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-13	0.2371	0.08721	4	No 13	0.1683	0.1136	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.1	0.052	4	No 14	0.08386	0.02776	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.079	4	No 14	0.1061	0.04679	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3341	0.1109	4	No 14	0.2225	0.1575	14.29	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.5725	0.1743	4	No 14	0.3979	0.327	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.28	0.052	4	No 14	0.1524	0.1678	35.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9283	0.3788	4	No 14	0.6536	0.3879	7.143	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.07	4	No 14	0.108	0.07152	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-22	0.13	0.09	4	No 14	0.1211	0.06974	42.86	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.2749	0.09828	4	No 14	0.2011	0.1607	7.143	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.17	0.082	4	No 14	0.1416	0.1901	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-42	0.1	0.06	4	No 14	0.09143	0.02316	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.228	0.5388	4	No 14	0.8836	0.4867	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.27	0.6254	4	No 14	0.9479	0.4552	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	0.9221	0.2741	4	No 13	0.63	0.4591	7.692	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.4944	0.1003	4	No 13	0.3211	0.2329	15.38	Cohen's	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.317	0.9573	4	No 14	1.137	0.254	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00011	0.005	No 12	0.002974	0.002504	58.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-11	0.005	0.000076	0.005	No 12	0.002958	0.002523	58.33	None	No	0.01	NP (normality)

# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-12	0.005	0.00011	0.005	No 14	0.004301	0.001778	85.71	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.0002	0.005	No 12	0.004191	0.001888	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-14	0.005	0.000096	0.005	No 13	0.004242	0.001851	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.000082	0.005	No 13	0.002826	0.002461	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-17	0.005	0.000079	0.005	No 13	0.002742	0.002539	53.85	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-19	0.005	0.00007	0.005	No 13	0.003503	0.002337	69.23	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-2	0.005	0.000064	0.005	No 13	0.002353	0.00255	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-20	0.005	0.00013	0.005	No 13	0.003192	0.002385	61.54	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.005	No 13	0.002405	0.002502	46.15	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.000066	0.005	No 13	0.00462	0.001368	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.005	No 12	0.003779	0.002209	75	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-42	0.0016	0.0002	0.005	No 13	0.001152	0.00175	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-47	0.005	0.0005	0.005	No 13	0.001732	0.001875	23.08	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-48	0.0035	0.00092	0.005	No 13	0.002067	0.001499	15.38	None	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-5	0.005	0.000051	0.005	No 12	0.001941	0.00235	33.33	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.005	No 12	0.002626	0.002485	50	None	No	0.01	NP (normality)
Lead (mg/L)	DGWC-9	0.005	0.00017	0.005	No 13	0.004255	0.001818	84.62	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-10	0.015	0.002	0.03	No 12	0.005458	0.004637	16.67	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	DGWC-11	0.0028	0.0019	0.03	No 12	0.003333	0.003684	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-12	0.015	0.00097	0.03	No 14	0.01001	0.006944	64.29	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-13	0.015	0.0028	0.03	No 12	0.005117	0.004624	16.67	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.03	No 13	0.0048	0.003316	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-15	0.0066	0.0059	0.03	No 12	0.006392	0.0008229	0	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-17	0.015	0.00096	0.03	No 13	0.009647	0.007049	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-19	0.015	0.0031	0.03	No 13	0.004108	0.00328	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-2	0.07156	0.02739	0.03	No 13	0.05299	0.03076	7.692	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-20	0.015	0.0019	0.03	No 13	0.006369	0.005794	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.03	No 13	0.006692	0.002518	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-22	0.0047	0.0036	0.03	No 13	0.004992	0.003032	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-23	0.0162	0.0036	0.03	No 13	0.01175	0.01975	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.03	No 12	0.003833	0.003537	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-42	0.01247	0.01025	0.03	No 13	0.01136	0.001495	7.692	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>DGWC-47</b>	<b>0.0771</b>	<b>0.06002</b>	<b>0.03</b>	<b>Yes 13</b>	<b>0.06856</b>	<b>0.01149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>DGWC-48</b>	<b>0.13</b>	<b>0.1093</b>	<b>0.03</b>	<b>Yes 13</b>	<b>0.1197</b>	<b>0.01391</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	DGWC-5	0.008526	0.003793	0.03	No 12	0.006275	0.00332	8.333	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.03	No 12	0.006375	0.002911	8.333	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-9	0.02965	0.02256	0.03	No 13	0.02611	0.004768	7.692	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0005	0.00008	0.002	No 12	0.0003601	0.0002067	66.67	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-11	0.0005	0.00006	0.002	No 12	0.0003908	0.0001976	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-12	0.0005	0.00006	0.002	No 14	0.000319	0.000218	57.14	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0005	0.00009	0.002	No 12	0.00043	0.0001635	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0005	0.00006	0.002	No 13	0.0003992	0.0001916	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0005	0.00006	0.002	No 13	0.0002785	0.0002154	46.15	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-19	0.0005	0.00005	0.002	No 13	0.0003985	0.0001933	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-2	0.00064	0.00008	0.002	No 13	0.0004133	0.0001952	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-20	0.0005	0.00008	0.002	No 13	0.0004354	0.0001577	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0005	0.00006	0.002	No 13	0.0003362	0.0002163	61.54	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-22	0.0005	0.000055	0.002	No 13	0.0004004	0.0001896	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0005	0.00014	0.002	No 13	0.0002723	0.0001623	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-4	0.00059	0.000082	0.002	No 12	0.0004377	0.0001686	75	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-42	0.0005	0.00004	0.002	No 13	0.0004646	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0005	0.00006	0.002	No 13	0.0004662	0.000122	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0005	0.00009	0.002	No 12	0.0002417	0.0001701	16.67	None	No	0.01	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-8	0.0005	0.00006	0.002	No 12	0.0002909	0.0002192	50	None	No	0.01	NP (normality)

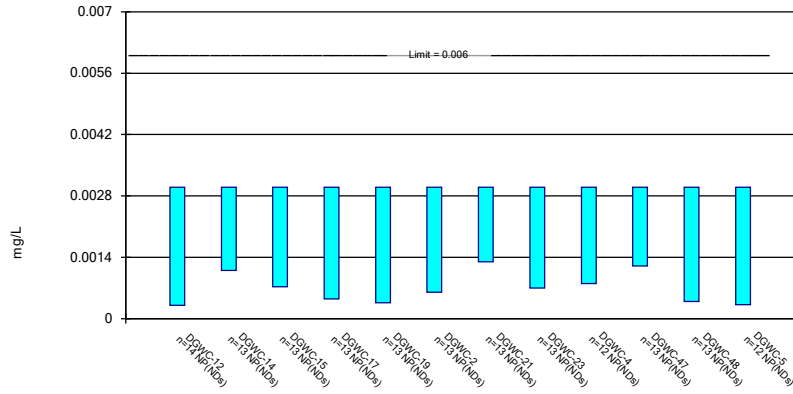
# State Confidence Interval Summary - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 10/29/2020, 2:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	DGWC-9	0.0005	0.00005	0.002	No	13	0.0003548	0.0001878	53.85	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-13	0.02834	0.01374	0.041	No	12	0.02104	0.009302	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.005	0.0018	0.041	No	13	0.003231	0.001752	46.15	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-23	0.01155	0.007262	0.041	No	13	0.009408	0.002886	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.006873	0.004594	0.041	No	12	0.005733	0.001452	8.333	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05502	0.01853	0.05	No	12	0.03678	0.02325	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No	14	0.005921	0.004238	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.01	0.0015	0.05	No	12	0.004858	0.003462	25	None	No	0.01	NP (Cohens/xfrm)
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No	13	0.007438	0.004001	69.23	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-15	0.01	0.0018	0.05	No	13	0.009369	0.002274	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.0072	0.05	No	13	0.008846	0.002183	15.38	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-19	0.009886	0.005688	0.05	No	13	0.007538	0.002479	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0046	0.05	No	13	0.007777	0.002565	53.85	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-20	0.06857	0.03146	0.05	No	13	0.05002	0.02496	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-22	0.01	0.0017	0.05	No	13	0.009362	0.002302	92.31	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-4	0.01	0.0014	0.05	No	12	0.009283	0.002483	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01444	0.006265	0.05	No	13	0.01035	0.005499	15.38	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009889	0.004257	0.05	No	13	0.006738	0.003327	15.38	Cohen's	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.05512	0.01002	0.05	No	12	0.03657	0.0445	8.333	None	x^(1/3)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.01	0.0018	0.05	No	12	0.006183	0.003635	41.67	None	No	0.01	NP (normality)
<b>Selenium (mg/L)</b>	<b>DGWC-9</b>	<b>0.1415</b>	<b>0.05002</b>	<b>0.05</b>	<b>Yes</b>	<b>13</b>	<b>0.09574</b>	<b>0.06149</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Thallium (mg/L)	DGWC-10	0.001	0.00036	0.002	No	12	0.000515	0.000237	16.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No	14	0.0005476	0.0004696	50	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No	13	0.0003692	0.0003601	23.08	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.00049	0.002	No	13	0.0005415	0.0001493	7.692	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-20	0.0016	0.00055	0.002	No	13	0.0009392	0.0005086	30.77	None	No	0.01	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-22	0.001	0.000064	0.002	No	13	0.0006411	0.0004726	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.000073	0.002	No	12	0.0009228	0.0002676	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No	13	0.0007184	0.0004397	69.23	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-47	0.00032	0.0002	0.002	No	13	0.00036	0.0002876	15.38	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No	13	0.0006466	0.0004653	61.54	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No	12	0.0007783	0.0004023	75	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-8	0.001	0.0002	0.002	No	12	0.0004217	0.0003532	25	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-9	0.0009925	0.0005252	0.002	No	13	0.0007031	0.0002337	30.77	Cohen's	No	0.01	Param.

### Non-Parametric Confidence Interval

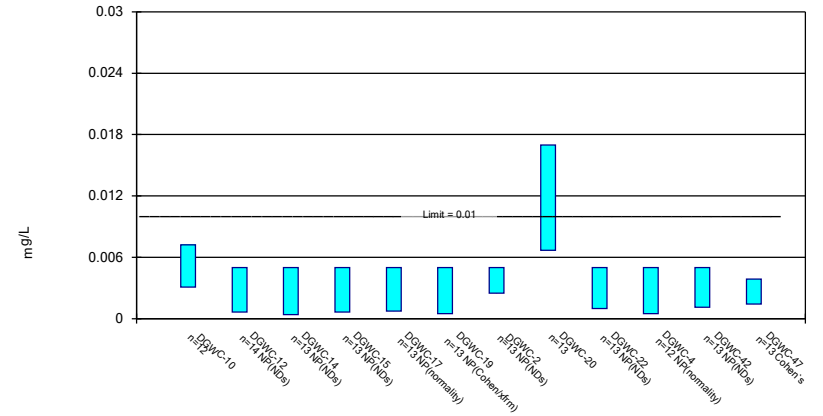
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

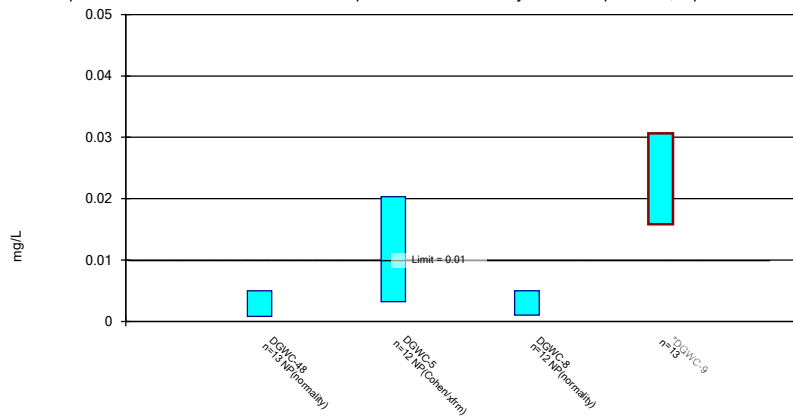
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

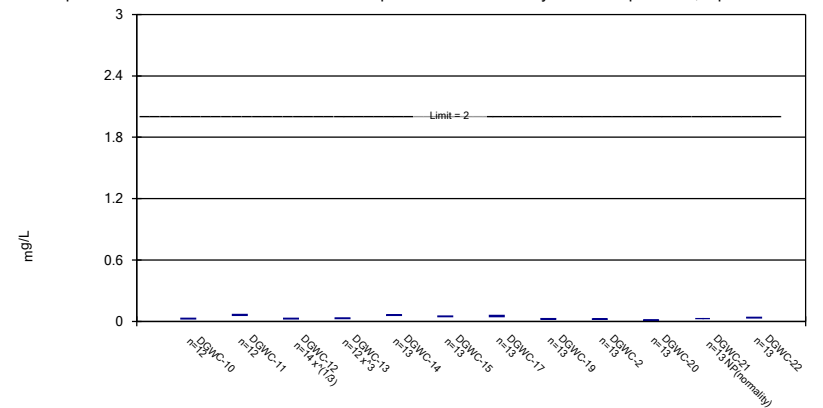
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough 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.

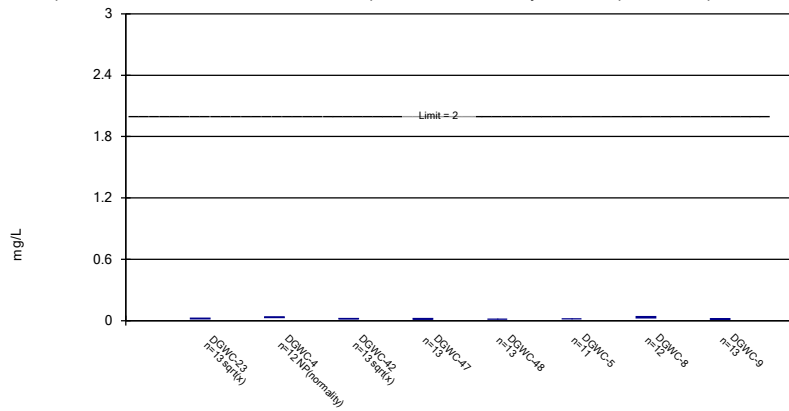


Constituent: Barium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP



### Parametric and Non-Parametric (NP) Confidence Interval

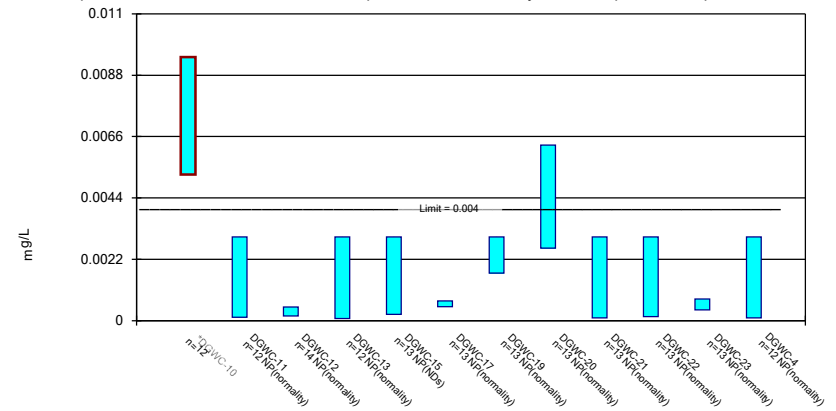
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

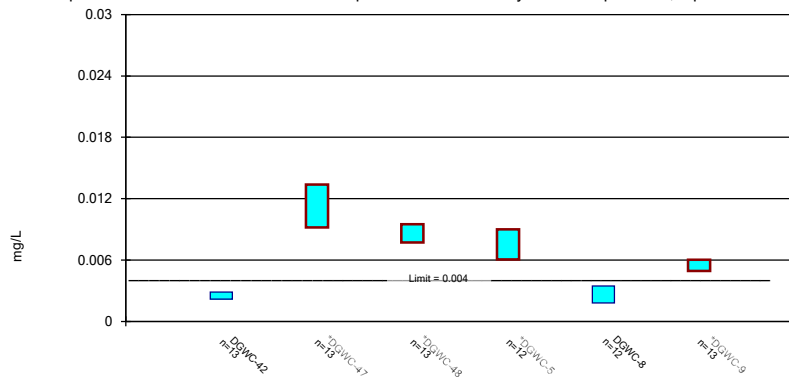
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric Confidence Interval

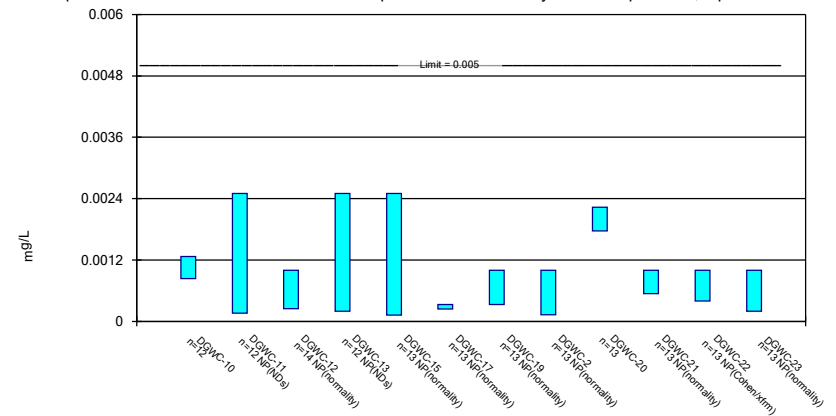
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

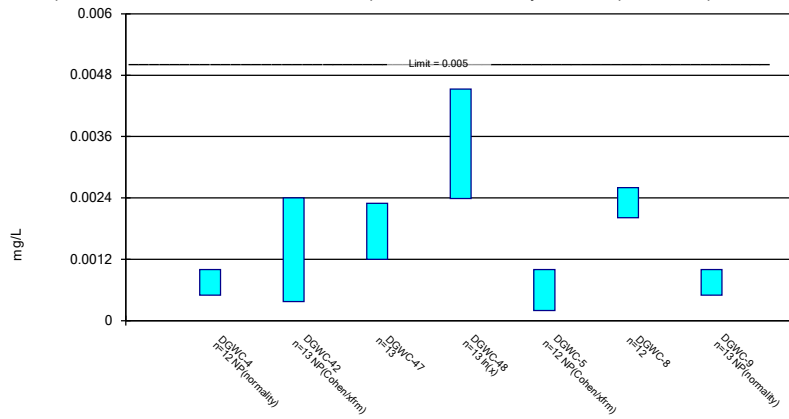
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

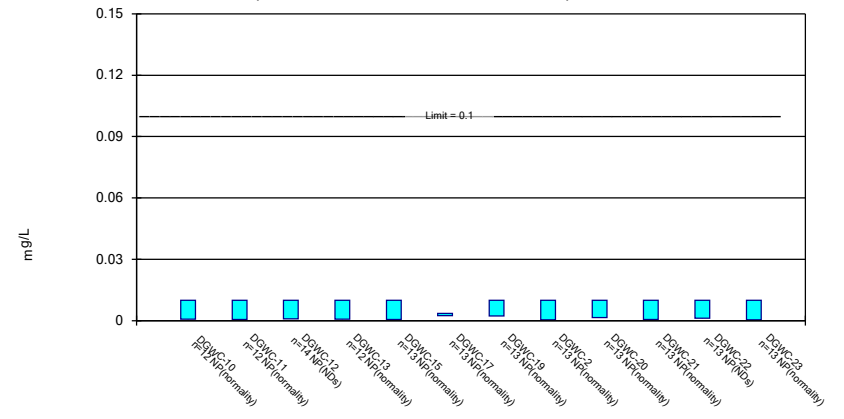
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

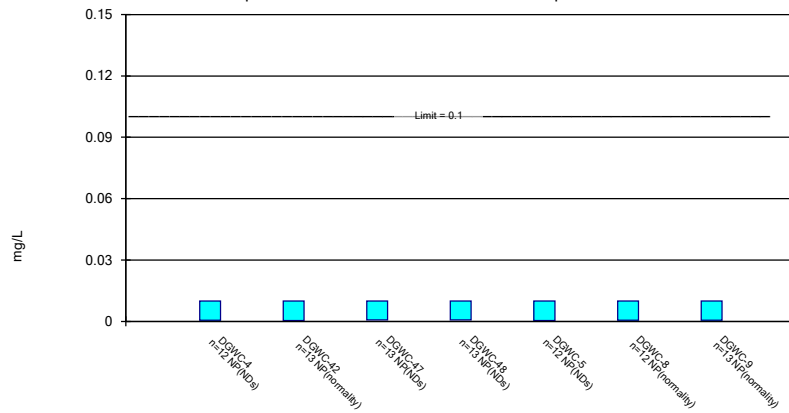
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

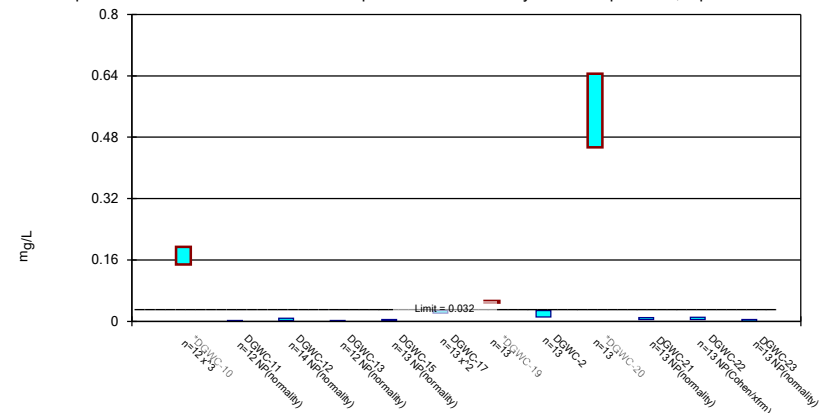
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

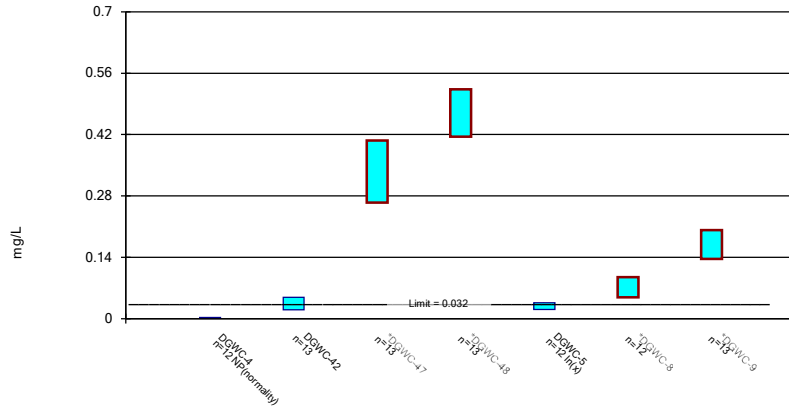
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

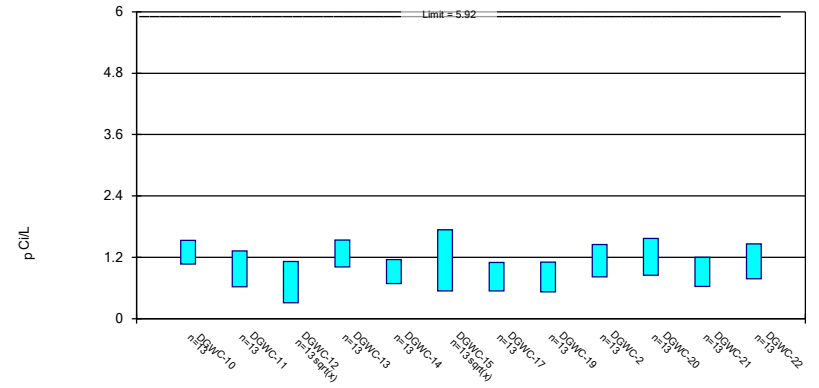
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

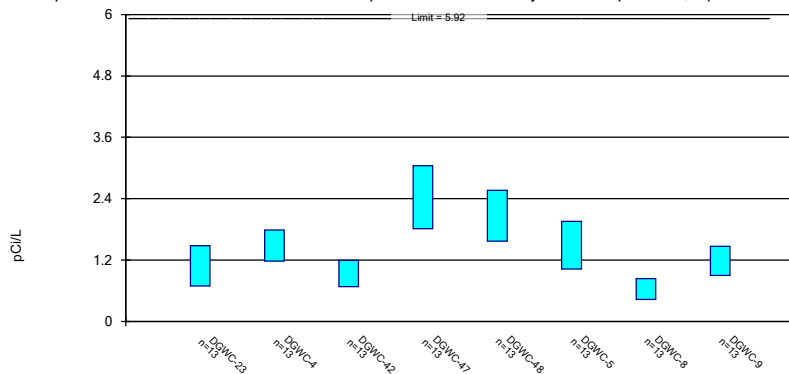
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

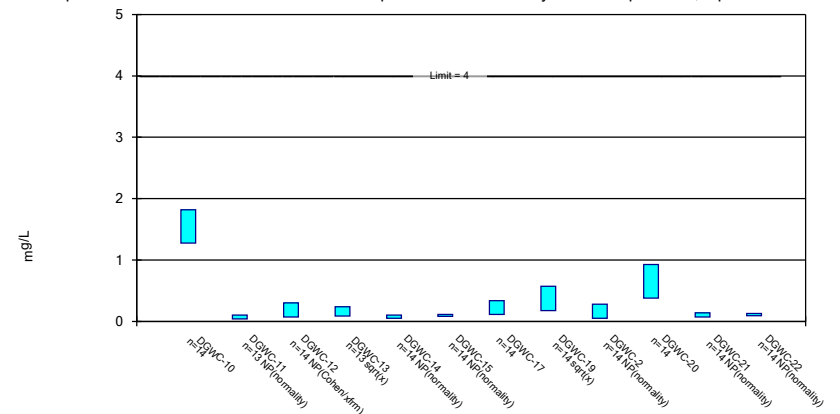
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

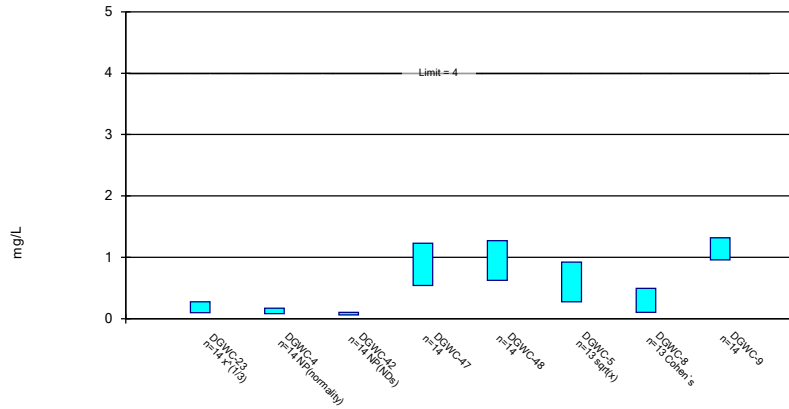
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

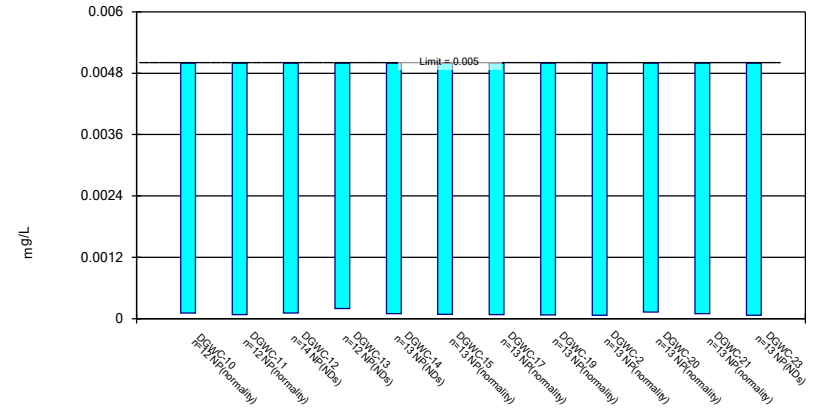
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

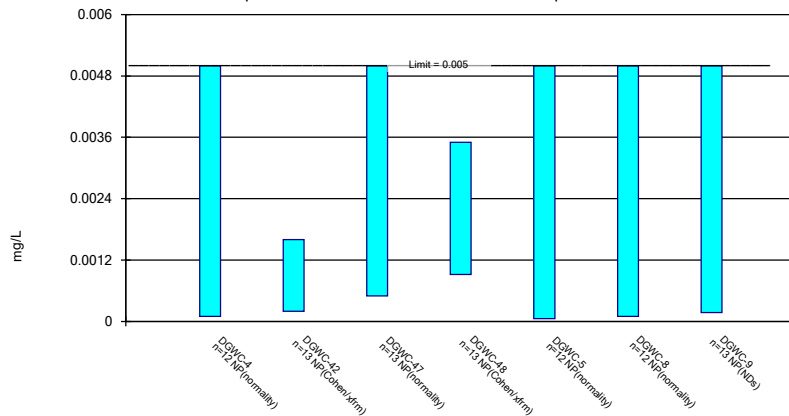
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

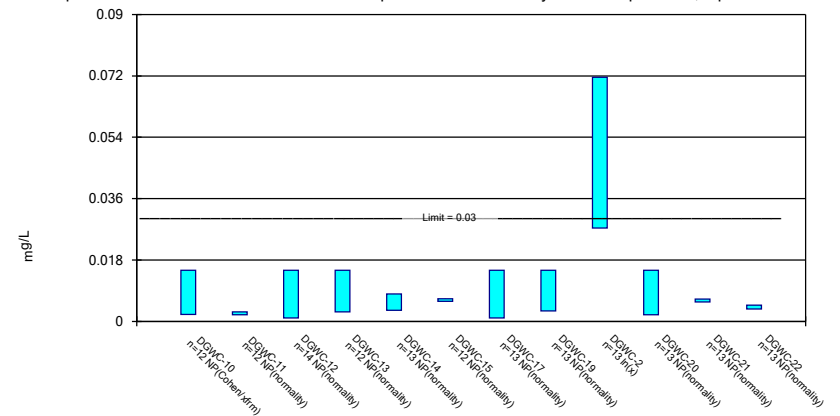
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/29/2020 2:26 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

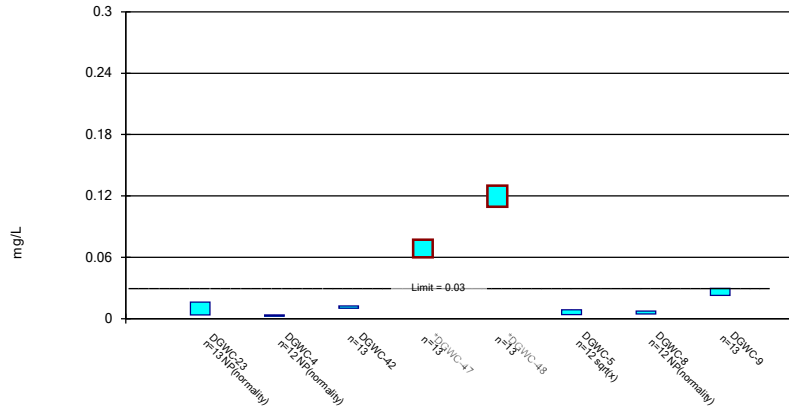
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Constituent: Lithium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

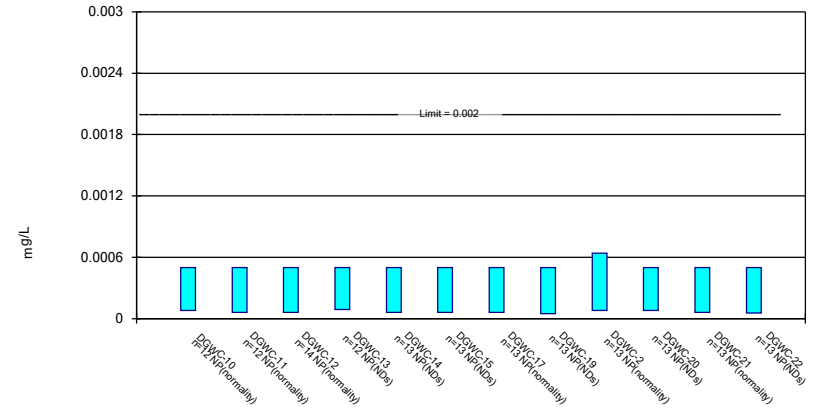
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

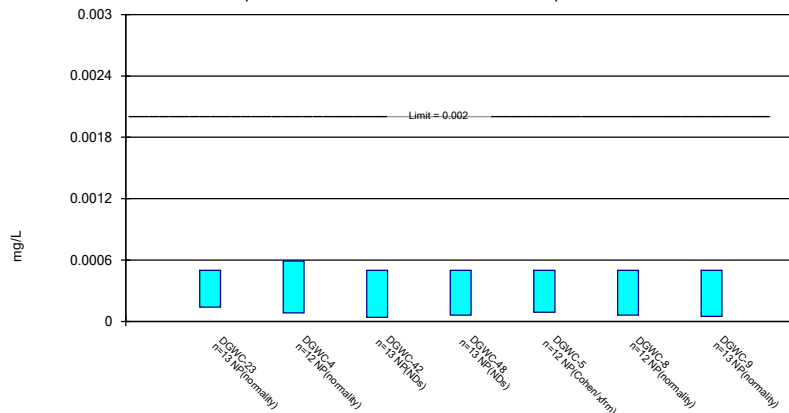
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Non-Parametric Confidence Interval

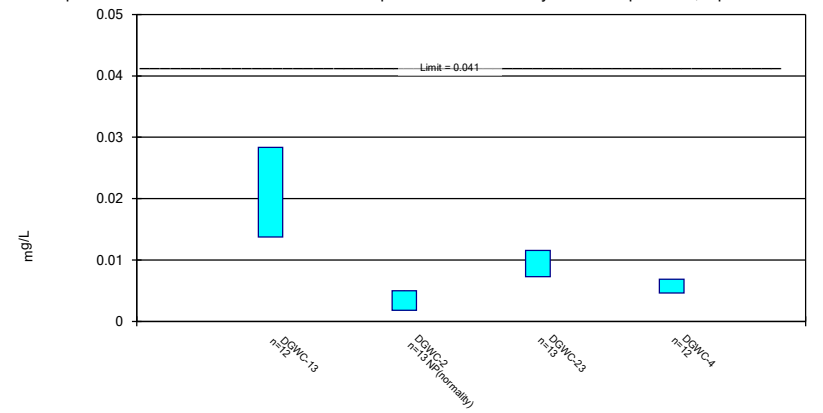
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

### Parametric and Non-Parametric (NP) Confidence Interval

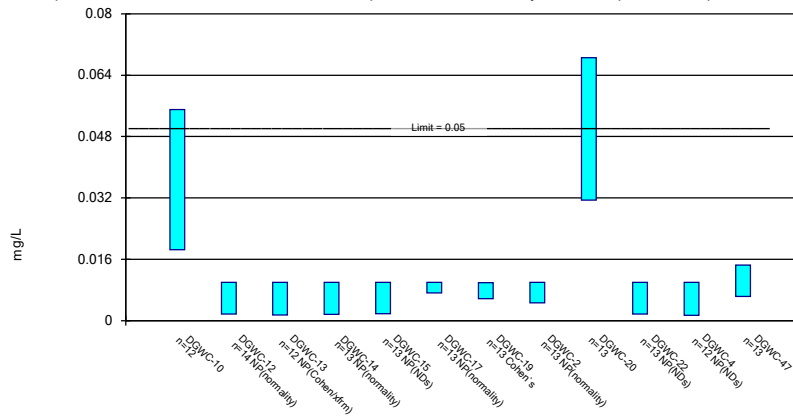
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

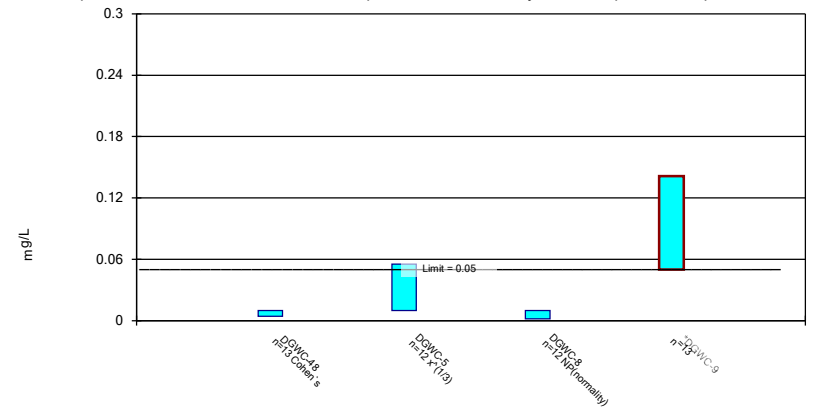
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

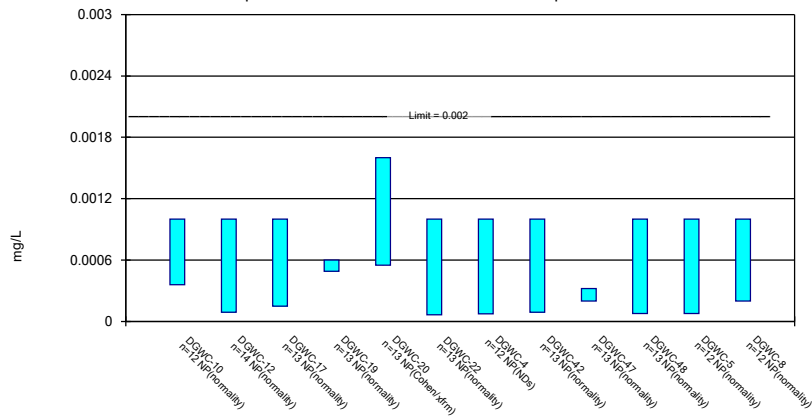
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

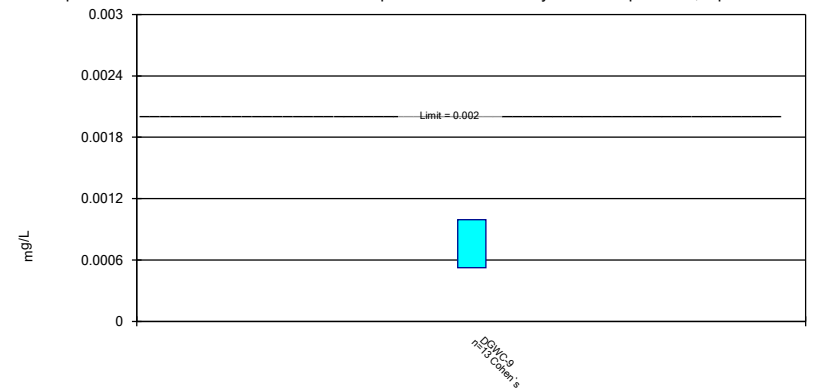
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 10/29/2020 2:27 PM View: Confidence Intervals AP-2,3,4  
Plant McDonough Client: Southern Company Data: McDonough AP

**APPENDIX E**

# Semi-Annual Remedy Selection and Design Progress Report



**REPORT**

# Semi-Annual Remedy Selection and Design Progress Report

*Plant McDonough-Atkinson Ash Pond 2 and 3/4*

Submitted to:

**Georgia Power Company**

241 Ralph McGill Boulevard, Atlanta, Georgia 30308

Submitted by:

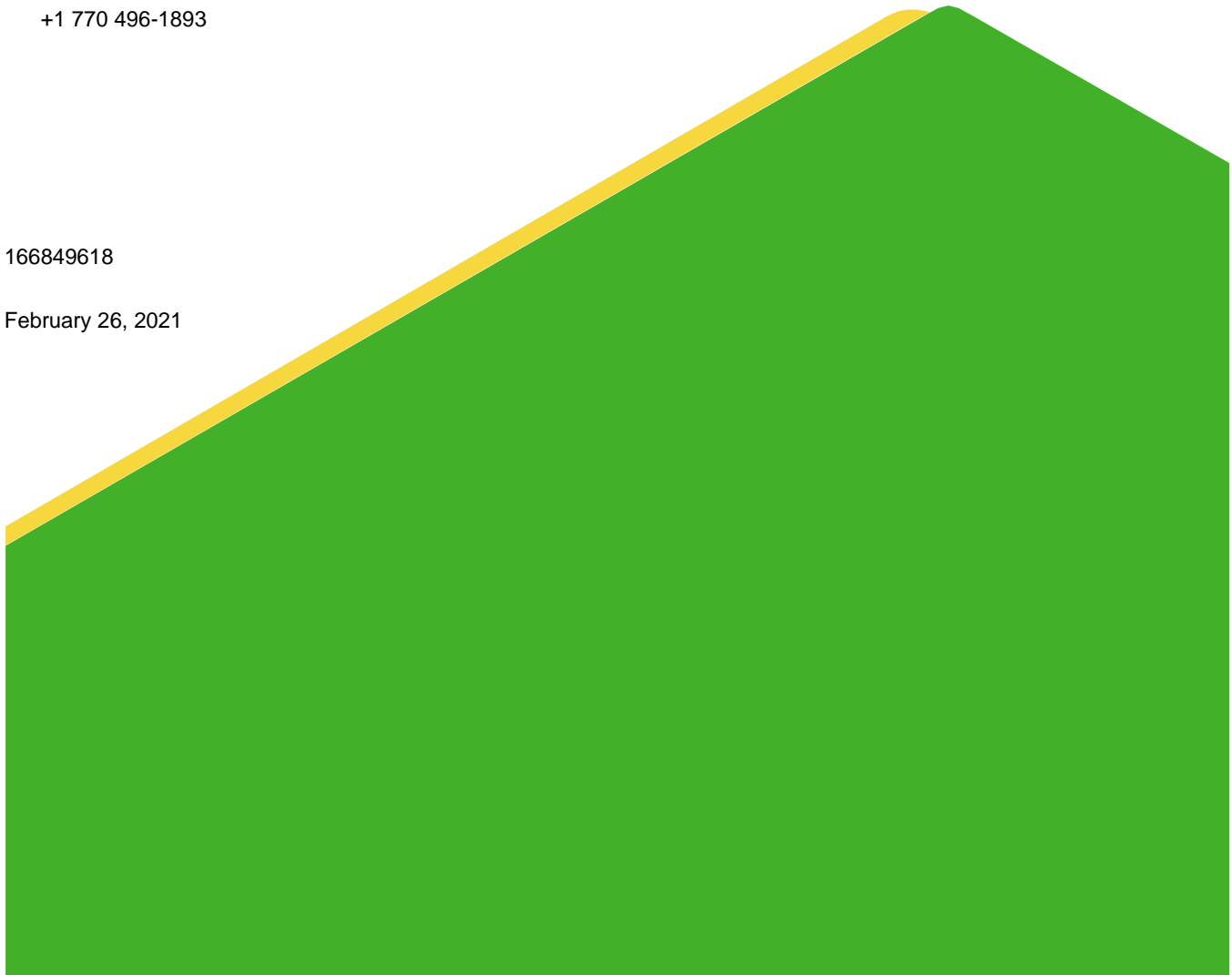
**Golder Associates Inc.**

5170 Peachtree Road Building 100 Suite 300, Atlanta, Georgia, USA 30341

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166849618

February 26, 2021





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## Certification

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant McDonough-Atkinson, Ash Pond 2 and Ash Pond 3/4 (AP-2 and 3/4)*, has been prepared in accordance with the United States Environmental Protection Agency coal combustion residual rule, specifically 40 Code of Federal (CFR) 227.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 341-3-4-.10(6)(a).

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## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule) (USEPA, 2015), Golder Associates Inc. (Golder) has prepared this Semi-Annual Remedy Selection and Design Progress Report (Semi-Annual Progress Report) for Georgia Power Company's (Georgia Power) Plant McDonough-Atkinson Ash Pond 2, Ash Pond 3 and Ash Pond 4 (AP-2 and 3/4 or Site). Specifically, this Semi-Annual Progress Report has been prepared pursuant to 40 CFR § 257.97(a) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This Semi-Annual Progress Report documents activities conducted in support of the previously submitted Assessment of Corrective Measures Report – Plant McDonough-Atkinson Ash Pond 2 and AP-3/4 (AP-2 and 3/4) (Golder, 2020a) (ACM Report).

Plant McDonough, formerly a coal-fired power generating facility, was converted to a natural gas combined-cycle power generating facility in 2011. A site location map is included as Figure 1.

Pursuant to § 257.96, Georgia Power initiated an ACM for AP-2 and 3/4 on July 9, 2020 to address the occurrence of arsenic, beryllium, cobalt and lithium in groundwater at statistically significant levels (SSL). Subsequently, Georgia Power completed an ACM report on December 4, 2020 and posted to the CCR compliance website in January 2021. Since the submission of the ACM report, selenium was identified at a SSL on January 28, 2021 at well DGWC-9. The SSL is reported in the semi-annual report for which this report is an appendix. Georgia Power conducted a human health and ecological risk evaluation to evaluate constituents that exhibit SSLs in groundwater at AP-2 and 3/4 at the time of the December 2020 ACM (arsenic, beryllium, cobalt, and lithium) and these constituents are not expected to pose a risk to human health or the environment (Wood, 2020). Delineation of the new SSL selenium is complete on site based on results from the September 2020 sampling event. An amendment to the risk assessment report will be submitted, accompanying the annual report in July 2021 to address the selenium SSL in site groundwater.

Pursuant to 40 CFR 257.97, Georgia Power is evaluating the potential corrective measures in the ACM to identify a remedy or combination of remedies as soon as possible. The following corrective measures are potentially feasible for use at AP-2 and 3/4:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- In-Situ Solidification/Stabilization
- Monitored Natural Attenuation (MNA)
- Permeable Reactive Barrier (PRB)
- Phytoremediation
- Subsurface Vertical Barrier Walls.

A comparative screening of the corrective measures as presented the ACM report is provided in Table 1. As required by the rules, this semi-annual progress report describes the progress made in selecting and designing a

remedy. This progress report also serves as an amendment to the ACM to evaluate remedial alternatives relative to the recent SSL of selenium in groundwater at well DGWC-9, downgradient of AP-2 and 3/4.

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Golder, 2020a) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate. The adaptive site management approach will take existing site conditions, including natural attenuation mechanisms into account. Characterization activities to evaluate attenuation mechanisms at the site include collection of data necessary to progressively evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the EPA guidelines for MNA (USEPA, 2015) summarized below.

**Tier I:** Constituent concentrations & plume stability

**Tier II:** Constituent attenuation mechanisms

**Tier III:** Aquifer capacity and stability

**Tier IV:** Performance monitoring

## 2.0 AP-2 AND 3/4 CLOSURE ACTIVITIES

Closure by removal of ash in AP-2 was completed in September 2016. Closure procedures included excavating all visible ash, over excavating into the subgrade soils, and placement of topsoil and seeding for vegetative cover. A closure certification report was submitted to EPD on March 30, 2020. AP-3 and adjacent AP-4 are currently being consolidated and closed in place as combined unit AP-3/4 in accordance with 257.102(d), no longer receive CCR, and are in the process of obtaining a solid waste permit under the GA Rules for Solid Waste Management 391-3-4-.10(6). CCR in the eastern portion of AP-4 will be relocated to the western portion of AP-4 as well as dry stacked on AP-3. During closure, AP-3 and AP-4 are being dewatered as required to facilitate consolidation and closure in place. CCR will be graded within the footprint of the impoundment to create a subgrade for the final cover system. The *Closure Plan* (Golder 2019) was prepared in accordance with 40 CFR 257, Subpart D and meets the requirements of 40 CFR 257.102(b).

## 3.0 SUMMARY OF WORK COMPLETED

The following sections summarize field investigation activities and data collection completed to date to support site characterization and delineation of Appendix IV SSLs, as well as evaluation of the corrective measures presented in the ACM Report. These data will be used to evaluate the feasibility, mechanisms, rates, and stability of identified remedial alternatives in combination with MNA as a corrective action for groundwater impacts from AP-2 and 3/4. An evaluation of these data as they relate to remedy selection alternatives will be presented in a future report(s).

### 3.1 Nature and Extent Delineation

CCR compliance groundwater monitoring-related activities have been performed for AP-2 and 3/4 since September 2016 pursuant to the CCR rule. Georgia Power initiated an assessment monitoring program in November 2019 after identifying statistically significant increases (SSIs) of Appendix III parameters in groundwater. Pursuant to § 257.95, samples were collected from the compliance monitoring wells and analyzed for Appendix IV constituents.

The current 2020 assessment monitoring groundwater data show SSLs, as presented in Table 3.1, at concentrations exceeding the state and/or federal Groundwater Protection Standards (GWPS). Details are provided in the *2020 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2020b).

Table 3.1: AP-2 and 3/4 Statistically Significant Level Exceedances	
AP-2 and 3/4 Monitoring Well	Appendix IV Parameter
Arsenic	DGWC-9
Beryllium	DGWC-5, DGWC-9, DGWC-10, DGWC-47, DGWC-48
Cobalt	DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47, DGWC-48
Lithium	DGWC-47, DGWC-48
Selenium	DGWC-9

The locations of the site monitoring wells and piezometers are shown on Figure 2. Tables 2A and 2B provide a summary of well construction details for each of the site wells and piezometers, respectively. A potentiometric surface map illustrating the September 2020 potentiometric surface elevations is provided on Figure 3.

### Horizontal and Vertical Delineation Well Installation

To characterize the nature and extent of target constituents, shallow and deep piezometers were installed and sampled. In addition, surface water was sampled at multiple locations to demonstrate horizontal delineation in surface water bodies where proximity to surface water prevented installation of additional wells. Figures 4 through 8 present iso-concentration contours for of each of the constituents with an exceedance of the GWPS, arsenic, beryllium, cobalt, lithium and selenium, respectively.

Detection monitoring wells DGWC-5, DGWC-8, DGWC-9, DGWC-10, DGWC-19, DGWC-20, DGWC-47 and DGWC-48 show concentrations of arsenic, beryllium, cobalt, lithium and selenium (as presented above) exceeding site GWPS during the current reporting period (Golder, 2020b). In response, vertical delineation wells, were installed within the weathered/fractured bedrock, adjacent to locations DGWC-5 (B-111D), DGWC-8 (B-106D), DGWC-9 (B-101D), DGWC-10 (B-102D), DGWC-19 (B-107D), DGWC-20 (B-108D), DGWC-47 (B-103D) and DGWC-48 (B-104D) resulting in a shallow and deep well pair at each of these locations.

A summary of well installation details for each of the site wells and piezometers (e.g., boring logs) are documented within separate well installation reports (Golder, 2020c, Golder, 2021).

### Groundwater Sampling

In December 2020 and January 2021, groundwater samples were collected from newly installed delineation wells and analyzed for Appendix III and Appendix IV constituents. Samples were collected from B-57 as a substitute for B-103D, which did not produce sufficient water for well development or sampling. Results of this sampling event are presented in Appendix A and will be further discussed in the July 2021 annual report. Additionally, statistical analysis of the Appendix IV data is pending until four sampling events are completed in order to construct the confidence intervals required to evaluate and confirm potential SSLs. Vertical delineation activities for SSLs at AP-2 and 3/4 is ongoing. Georgia Power will continue to monitor the delineation wells and adaptively manage the Site as new data become available.

## Surface Water Sampling

Due to the proximity of the Chattahoochee River in the downgradient direction of the wells showing SSLs of cobalt, installation of additional wells to horizontally characterize this area is infeasible. In response, Georgia Power collected surface water samples from the Chattahoochee River downgradient of AP-2 and 3/4 on November 10, 2020 and February 2, 2021. Results of these sampling events are presented in Appendix A and summarized on Tables 3A and 3B. Based on data collected to date, no impacts to surface water have been identified and horizontal delineation is complete. Monitoring of these surface water locations will continue as part of the assessment monitoring program for the site.

## 3.2 Supplemental Data Collection

Additional field investigation activities and data analyses have been performed to evaluate possible remedial alternatives. A summary of these data is included below.

### Mineralogical Analysis

The mineralogical composition of soil and rock samples from select boreholes located around AP-2 and 3/4 was assessed using quantitative X-Ray Diffraction (XRD) with Rietveld refinement. Cores from background borings DGWA-53 and DGWA-70A as well as cores from additional boreholes completed around AP-2 and 3/4 were analyzed to determine the general mineralogy of bedrock and soils. The purpose of the mineralogical analysis was to identify and quantify the crystalline mineral phases in each sample.

Results of these analyses are presented in Appendix A. Evaluation of this data as it relates to evaluation of remedy selection alternatives will be presented in a future report(s).

### Chemical Analysis and Sequential Extraction

Chemical analysis of soils/rock for total metals and Sequential Extraction Procedure (SEP) analysis was conducted on solid samples collected from locations around AP-2 and 3/4. The SEP consists of a seven-step metals extraction from solids to determine their potential environmental stability. The seven-step SEP is defined by specific extraction steps and is based on a modified Tessier method (Tessier et al., 1979).

Results of these analyses are presented in Appendix A. Evaluation of this data as it relates to evaluation of remedy selection alternatives will be presented in a future report(s).

### Aquifer Testing Activities

Aquifer tests (slug tests) were performed in January 2021 for several of the newly installed piezometers. The purpose of the testing was to estimate the horizontal hydraulic conductivity of aquifer materials encountered at the site. In situ rising- and falling-head tests provide a quantitative estimate of horizontal hydraulic conductivity and a qualitative estimate of aquifer anisotropy in water-bearing units. The slug test data were analyzed using the mathematical solution by Bouwer and Rice (Bouwer and Rice, 1976 and 1989), which is applicable to fully or partially penetrating piezometers in unconfined or confined aquifers.

The computer software program AQTESOLV®, produced by HydroSOLVE, Inc., was used to assist in the analysis and plotting of data. The best fit lines were initially calculated by the computer software and were then adjusted manually, where necessary. A summary of the aquifer testing and the calculated geometric mean ( $1.15E^{-04}$  centimeters/second) for hydraulic conductivity is presented in Table 4. These new data will be used to supplement existing hydraulic conductivity data. An updated understanding of aquifer properties, including

conductivity will help refine the conceptual site model, and support assessment of certain groundwater corrective measures, such as hydraulic containment, in-situ injection, MNA, phytoremediation or a subsurface vertical barrier wall.

## 4.0 UPDATED SITE CONCEPTUAL SITE MODEL

The additional data collected since the issuance of the ACM, together with new data evaluation tools and interpretations (described above) allow the development of a more refined conceptual site model (CSM). The following summarizes the current understanding of the CSM within the context of selecting an appropriate groundwater corrective measure for AP-2 and 3/4.

- The September 2020 potentiometric surface shows groundwater flow is generally south towards the Chattahoochee river, as shown on Figure 3. The latest water level data collected in 2020 confirmed groundwater flow in the uppermost aquifer to be consistent with the CSM.
- Additional data (e.g., slug tests) have been evaluated to refine the hydraulic conductivities at the site (Table 4). These slug tests were consistent with historic slug tests reported for the respective lithological units across the site.
- The boring logs from the newly installed vertical delineation wells have provided a more refined top of bedrock surface and have confirmed geology consistent with that presented the CSM (i.e., gneiss).

## 5.0 CORRECTIVE MEASURES ALTERNATIVES

Based on the data collected to date, six of the seven potential corrective measures being evaluated for AP-2 and 3/4 will be retained for further evaluation. Table 1 presents a summary of each of the remedial alternatives presented as part of the ACM. Table 5 provides a summary of additional data planned to be collected to further evaluate the feasibility of the remaining alternatives. The retention evaluation (Retained for Further Evaluation or Not Retained) for each potential remedial alternative is included on Table 1. The following remedial alternative has been eliminated from further consideration:

**Permeable Reactive Barrier (PRB)** - PRB technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater flows through the media. There is potential for biofouling and mineral precipitation, which reduces the effectiveness of media over time. This can increase the amount of maintenance needed for media changeouts. Further, there is lack of available space between the AP-2 and 3/4 boundary and the property boundary in several locations for an effective installation and functioning of a PRB wall. As such, other retained options are more suitable for corrective action rather than the installation of a PRB.

Given that groundwater conditions and/or statistical results continue to change and are likely to also be affected by closure and construction activities at AP-2 and 3/4, an adaptive site management approach will be used to address groundwater conditions as a consequence of closure activities. Continued groundwater monitoring and updates to the statistical analyses will further refine the CSM and allow for the continued evaluation of an appropriate groundwater corrective measure at the Site. This may include additional tests using the unconsolidated aquifer materials to further demonstrate the viability of MNA according to USEPA's tiered approach for the use of MNA in groundwater.



## 6.0 PLANNED ACTIVITIES

Georgia Power has initiated activities as outlined in the ACM Report (Golder, 2020a) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate. The adaptive site management approach toward remedy selection may be adjusted over the site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary in support of efforts to refine the CSM and to further evaluate the feasibility of each corrective measure identified in the ACM Report. At this time, and as discussed in Section 5.0, six of the corrective measures outlined in the ACM Report are being retained for further evaluation, including:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- In-Situ Solidification/Stabilization
- Monitored Natural Attenuation (MNA)
- Phytoremediation
- Subsurface Vertical Barrier Walls

Supplementary data collection and evaluation activities proposed to be completed within the next 6 months are presented on Table 5, with the key elements summarized below.

- Additional vertical delineation points will be evaluated. New monitoring wells, as appropriate, will be installed.
- Groundwater samples will be collected from the existing detection and assessment well network to evaluate geochemical characteristics of the aquifer. In addition to Appendix III/IV constituents, wells may also be analyzed for major cations/anions and other parameters for characterization of groundwater and evaluating the potential remedies.
- Groundwater flow conditions will be evaluated based on data collected from newly installed horizontal and vertical delineation wells (as needed).
- Bedrock surface will be refined based on data collected from newly installed horizontal and vertical delineation wells (as needed).
- Evaluate Site data for attenuation mechanism and rates, aquifer capacity for attenuation, and mineralogical characterization.

Georgia Power will continue to prepare semi-annual progress reports to document AP-2 and 3/4 groundwater conditions, results associated with additional data collection, and the progress in selecting and designing a groundwater remedy in accordance with § 257.97(a). Georgia Power will include future semi-annual progress reports in routine groundwater monitoring and corrective action reports to meet the requirements of § 257.105(h)(12), § 257.106(h)(9), and § 257.107(h)(9), respectively.

## 7.0 REFERENCES

- Bouwer, H. and R.C. Rice, 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, *Water Resources Research*, vol. 12, no. 3, pp. 423-428.
- Bouwer, H., 1989. The Bouwer and Rice slug test--an update, *Ground Water*, vol. 27, no. 3, pp. 304-309.
- Golder, 2019. *Amended Written Closure Plan 40 CFR 257.102, Plant McDonough Ash Pond 2 and 3/4*, April 2019.
- Golder, 2020a. *Assessment of Corrective Measures Report – Plant McDonough-Atkinson Ash Pond 2 and 3/4*, Golder Associates Inc., December 4, 2020.
- Golder, 2020b. *Annual Groundwater Monitoring and Corrective Action Report, Plant McDonough-Atkinson, Ash Pond 2 and 3/4*, Golder Associates, Inc., July 2020.
- Golder, 2020c. *Well Installation and Design Report – Addendum, Georgia Power Company-Plant McDonough-Atkinson, Ash Pond 2 and 3/4*, Golder Associates Inc., Revised September 2020
- Golder, 2021. *Piezometer Installation Report (B-101D thorough B-111D)*, Georgia Power Company – Plant McDonough-Atkinson, Golder Associates Inc., February 12, 2021.
- Tessier, 1979. Tessier, A., Campbell, P.G. and Bisson, M., 1979. Sequential extraction procedure for the speciation of particulate trace metals. *Analytical chemistry*, 51(7), pp.844-851.
- U.S. Environmental Protection Agency. 2015a. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81, April 2015.
- Wood, 2020. Risk Evaluation Report Plant McDonough Ash Pond 2 and 3/4, Wood Environment & Infrastructure Solutions, Inc., December 2020.

## TABLES AND FIGURES

**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
<b>Geochemical Approaches (in situ injection)</b>	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of As, Be, Co, Li and Se. Under anaerobic conditions, As would be attenuated within sparingly soluble sulfide minerals. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of As, Be, Co, Se and to a lesser degree Li onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. In-situ chemical oxidation (ISCO) or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including As.	The effective immobilization of As, Be, Co, Li and Se has been shown under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options.	Reliability dependent on permeability of the subsurface and the amount and distribution of secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench- and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of As, Be, Co, Li and Se in groundwater.
<b>Hydraulic Containment (pump- and-treat)</b>	Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). It is applicable to a variable mix of inorganic constituents, including dissolved As, Be, Co, Li and Se.	Pump and treat (P&T) is effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At AP-2 & 3/4, implementation of the corrective measure is contingent on completing additional assessment activities (i.e. high-resolution site characterization, additional pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/ effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.
<b>In-Situ Solidification / Stabilization</b>	In-situ stabilization is a technique that uses mixing of the CCR with additives to solidify the material in place and reduce future dissolution of CCR compounds from the stabilized material. Additives typically include Portland cement, and the solidification is completed in-situ using large diameter augers. CCR located beneath the water table would be isolated by ISS.	Medium to high, groundwater impacts would be addressed through the processes of natural attenuation. This alternative would isolate/secure the source in a bound matrix, and over time, allow the concentrations of COCs in downgradient groundwater to decline to below applicable standards.	In-situ stabilization can be a reliable corrective measure for As, Be, Co, Li and Se in groundwater. Reliability is dependent on the permeability of the subsurface and mechanics of injection.

**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
<b>Monitored Natural Attenuation (MNA)</b>	<p>MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including As, Be, Co, Li and Se at AP-2 &amp; 3/4, are either physical (e.g. dilution, dispersion, flushing, and related processes) or chemical (sorption or oxidation reduction reactions). Chemical attenuation processes include precipitation, and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Be and Li, the main attenuation processes include sorption to iron and manganese oxides.</p>	<p>Physical and chemical MNA mechanisms for As, Be, Co, Li and Se, including dilution, dispersion, sorption, and oxidation reduction reactions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for As, Be, Co, Li and Se are already occurring at the site as evidenced by groundwater data from the delineation wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for As, Be, Co, Li and Se at AP-2 &amp; 3/4 will further enhance ongoing MNA.</p>	<p>Reliable as long as the aquifer conditions that result in As, Be, Co, Li and Se attenuation remain favorable and/or are being enhanced and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved As, Be, Co, Li and Se, or in combination with a second technology.</p>
<b>Permeable Reactive Barrier (PRB)</b>	<p>Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI-Carbon matrix or solid carbon (bio-barrier) are currently proposed for the concurrent removal of As, Be, Co, Li and Se. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB is contingent on finalization of the nature and extent characterization. PRB walls are typically keyed into the bedrock. While the shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. PRBs can also be constructed as “funnel and gate” systems, where a barrier wall directs groundwater to a smaller “treatment gate” filled with reactive media.</p>	<p>PRBs have been shown to effectively address As, Be, Co, Li and Se in groundwater, but additional testing is required for Be and Li to select the appropriate reactive media. The approach is expected to achieve GWPS for both constituents as impacted groundwater passes through the reactive barrier. Certain redox kinetics may be slow and hence a thicker wall might be needed. Furthermore, additional testing is required to select the appropriate sorptive media mix, especially related to Be and Li.</p>	<p>Reliable groundwater corrective measure technology, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall.</p>

**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
<b>Phyto Remediation (TreeWall®)</b>	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of AP-2 & 3/4, this corrective measure would likely use an engineered (proprietary) TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of As, Be, Co, Li and Se within the root zone as well as incidental uptake of dissolved As, Be, Co, Li and Se with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell® system is effective for providing hydraulic containment of groundwater, and potential reduction of As, Be, Co, Li and Se concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the current groundwater flow velocities, the approach is currently not considered viable. However, changing site conditions may make the corrective measure viable for the area downgradient of AP-2 & 3/4. Additional aquifer testing and/or groundwater flow modeling may be needed to confirm the suitability at that time.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell® units.
<b>Subsurface Vertical Barrier Wells</b>	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. Barrier walls can also be used in downgradient applications to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.	Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 ft bgs. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations. Additional subsurface investigations, aquifer testing, and compatibility testing with site-specific groundwater will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.

**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
<b>Geochemical Approaches (in situ injection)</b>	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. Potential for clogging of aquifer matrix and/or injection well infrastructure. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly studied and implemented.	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot-testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.
<b>Hydraulic Containment (pump- and-treat)</b>	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of As, Be, Co, Li and Se. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone.	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for As, Be, Co, Li and Se.
<b>Monitored Natural Attenuation (MNA)</b>	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame following pond closure. Engineering measures will be implemented during closure of AP-2 & 3/4 to minimize potential impacts to the subsurface during closure activities and routine groundwater monitoring will be used to verify that groundwater impacts remain stable or decrease over time.
<b>In-Situ Solidification / Stabilization</b>	Easy to moderate, implementation of ISS will require a detailed design effort with bench scale testing to determine the appropriate amendment mix for a variety of overburden geologic materials. Pilot testing will also be needed to verify the ability of equipment to solidify material at depth. ISS has not been commonly used to stabilize entire ash units as part of a closure strategy.	Potential impacts of the remedy will be negligible.	In-situ stabilization of AP-2 & 3/4 is predicted to take a number of years to complete, depending on the availability of specialized contractors and equipment.



**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
<b>Permeable Reactive Barrier (PRB)</b>	Moderate to difficult. Trenching would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive naturally-occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot-testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.
<b>Phyto Remediation (TreeWall®)</b>	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above and below-ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.	The design phase will require some groundwater modeling for optimal placement of the TreeWell® units, which may take up to 6 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.
<b>Subsurface Vertical Barrier Wells</b>	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer or bedrock. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will be required. O&M requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone that may result in the mobilization of other constituents that may require treatment.	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, some design phase and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained long-term and coupled with other approaches.



**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)			Retention Evaluation
	Institutional Requirements	Other Env. Or Public Health Requirements	Relative Costs	
<b>Geochemical Approaches (in situ injection)</b>	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. A new UIC permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Potential for mobilization of redox-sensitive constituents exists during implementation of an anerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Retained for further analysis; can be applied to As, Be, Co, and Se as a sparingly-soluble mineral, or could be applied to raise the groundwater pH to promote immobilization through sorption mechanisms. Additional evaluation required to determine likelihood to treat Li.
<b>Hydraulic Containment (pump- and-treat)</b>	Depending on the effluent management strategy, modifications to the existing NPDES permit may be required, or obtaining a new underground injection control (UIC) permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on remedy duration, complexity of above-ground treatment system, and volume of water processed)	Retained for further analysis; extracted water could be routed to wastewater treatment infrastructure built for dewatering and closure of ponds at the site. Could be considered an effective measure to maintain hydraulic control.
<b>Monitored Natural Attenuation (MNA)</b>	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding community.	Low to medium	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
<b>In-Situ Solidification / Stabilization</b>	Deed restrictions may be necessary until groundwater concentrations are below GWPS. No other institutional requirements that may limit application of this technology are expected at this time.	Changes to groundwater chemistry relative to the mobility of Appendix IV constituents following completion of ISS, where large volumes of amendments (typically Portland cement) are added to the subsurface, are unknown and would require pilot testing.	Medium, depending on permeability of aquifer	Retained for further analysis. Reliant on the final closure schedule and construction for AP-2 and 3/4. This option may not be implemented until construction progresses.
<b>Permeable Reactive Barrier (PRB)</b>	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive. However, certain treatment media (such as ZVI) have the potential to mobilize naturally-occurring constituents downgradient of the PRB.	Medium to high (for installation) - minimal O&M requirements if replacement is not necessary	Not retained for further analysis; a PRB cannot treat groundwater downgradient of the constructable alignment; there is minimal space available downgradient of the impacted wells; potential for increased maintenance due to potential biofouling and mineral precipitation.
<b>Phyto Remediation (TreeWell®)</b>	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell® system. No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements	Retained for further analysis; feasible through targeted placement of TreeWell® units downgradient of AP-234; may require combination with other potential corrective measures; could be effective for hydraulic control.

**TABLE 1**  
**Evaluation of Remedial Technologies**  
 Georgia Power – Plant McDonough-Atkinson Ash Pond 2 and 3/4  
 Atlanta, Georgia

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)			Retention Evaluation
	Institutional Requirements	Other Env. Or Public Health Requirements	Relative Costs	
<b>Subsurface Vertical Barrier Wells</b>	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on length and depth of wall, remedy duration and complexity of above-ground treatment system)	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.

**TABLE 2A**  
**DETECTION AND ASSESSMENT MONITORING NETWORK SUMMARY**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
<b>ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK</b>											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-37	Downgradient	Overburden	1390482.2	2200919.8	766.21	763.7	39.7	734.4	724.4	10	11/28/2012
DGWC-38	Downgradient	Overburden	1390362.7	2201148.6	757.43	754.7	25.0	740.0	730.0	10	11/29/2012
DGWC-39	Downgradient	Overburden	1390303.6	2201540.1	759.89	757.0	21.2	746.2	736.2	10	11/6/2012
DGWC-40	Downgradient	Overburden	1390625.7	2201825.9	779.06	776.2	34.9	751.7	741.7	10	11/5/2012
DGWC-67	Downgradient	Overburden	1390953.8	2200830.7	766.70	767.0	56.3	720.7	710.7	10	3/14/2017
DGWC-68A	Downgradient	Overburden	1391301.2	2200734.9	765.33	765.4	29.8	746.0	736.0	10	4/20/2017
DGWC-69	Downgradient	Overburden	1391585.0	2200657.1	763.75	764.0	24.3	749.7	739.7	10	3/16/2017
<b>ASH POND 1 (AP-1) ASSESSMENT MONITORING NETWORK</b>											
B-100	Downgradient	Overburden	1390254.8	2202242.1	777.95	775.3	44.8	740.5	730.5	10	7/8/2020
B-105D	Downgradient	Bedrock	1390633.9	2201832.7	779.01	776.0	70	716.0	706.0	10	10/19/2020
B-110D	Downgradient	Bedrock	1391294.0	2200734.6	764.61	764.7	63	711.7	701.7	10	11/17/2020
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) DETECTION MONITORING WELL NETWORK</b>											
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.3	28.9	823.7	813.7	10	9/24/2016
DGWA-70A	Upgradient	Overburden	1390481.4	2200591.6	808.52	805.8	59.3	756.9	746.9	10	5/10/2017
DGWA-71	Upgradient	Overburden	1393963.3	2201714.8	863.84	861.2	43.8	827.8	817.8	10	2/28/2017
DGWC-2	Downgradient	Overburden/Upper Bedrock	1393958.0	2202119.5	850.88	848.3	49.0	809.6	799.6	10	10/2/2012
DGWC-4	Downgradient	Overburden	1394171.5	2202662.4	814.85	812.1	45.0	777.4	767.4	10	10/3/2012
DGWC-5	Downgradient	Overburden/Upper Bedrock	1394306.3	2202965.1	791.75	788.7	30.0	769.0	759.0	10	10/4/2012
DGWC-8	Downgradient	Overburden	1394322.2	2203882.1	826.38	824.1	49.1	785.4	775.4	10	10/10/2012
DGWC-9	Downgradient	Overburden	1394055.9	2204170.0	824.35	821.8	30.0	802.2	792.2	10	10/10/2012
DGWC-10	Downgradient	Overburden	1393818.3	2204201.1	823.55	820.9	45.4	785.9	775.9	10	10/11/2012
DGWC-11	Downgradient	Overburden	1393547.1	2204166.2	800.57	798.1	49.1	759.3	749.3	10	10/15/2012
DGWC-12	Downgradient	Overburden	1393149.4	2204128.3	773.86	771.2	25.1	756.5	746.5	10	10/15/2012
DGWC-13	Downgradient	Overburden	1392881.1	2204084.6	794.10	791.3	43.8	757.9	747.9	10	11/29/2012
DGWC-14	Downgradient	Overburden/Upper Bedrock	1392574.2	2204013.3	792.40	789.8	34.3	765.9	755.9	10	12/18/2012

**TABLE 2A**  
**DETECTION AND ASSESSMENT MONITORING NETWORK SUMMARY**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
DGWC-15	Downgradient	Overburden	1392544.1	2203679.0	824.50	821.5	67.1	764.8	754.8	10	11/29/2012
DGWC-17	Downgradient	Overburden	1392645.6	2203051.0	837.05	834.2	44.5	800.0	790.0	10	1/9/2013
DGWC-19	Downgradient	Overburden	1392342.6	2202601.0	825.46	822.9	39.8	793.5	783.5	10	3/12/2013
DGWC-20	Downgradient	Overburden	1392164.5	2202315.6	822.14	819.8	39.7	790.7	780.7	10	3/5/2013
DGWC-21	Downgradient	Overburden/Upper Bedrock	1392067.5	2202063.5	816.28	813.5	69.0	754.9	744.9	10	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.7	60.0	764.0	754.0	10	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.7	60.1	765.9	755.9	10	10/25/2012
DGWC-42	Downgradient	Overburden	1391327.8	2201870.2	804.68	802.0	50.4	762.1	752.1	10	11/12/2012
DGWC-47	Downgradient	Overburden/Upper Bedrock	1391553.8	2202610.5	797.45	794.3	28.8	775.9	765.9	10	6/23/2016
DGWC-48	Downgradient	Overburden/Upper Bedrock	1391314.6	2202290.2	788.33	785.2	30.0	765.6	755.6	10	6/22/2016
<b>ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) ASSESSMENT MONITORING WELL NETWORK</b>											
B-56	Downgradient	Overburden	1393957.9	2204187.8	823.59	821.0	45.0	786.4	776.4	10	10/3/2016
B-77	Downgradient	Overburden	1390948.7	2202942.0	776.86	777.1	42	745.1	735.1	10	9/17/2019
B-83	Downgradient	Overburden	1390735.5	2202695.6	776.98	777.1	48.6	738.5	728.5	10	9/30/2019
B-88	Downgradient	Overburden	1394401.1	2203738.3	820.07	817.0	72	755.0	745.0	10	11/15/2019
B-93	Downgradient	Overburden	1394348.7	2202946.7	789.07	789.2	28.9	770.3	760.3	10	12/12/2019
B-101D	Downgradient	Bedrock	1394063.3	2204167.1	824.29	821.2	74.9	756.3	746.3	10	11/12/2020
B-102D	Downgradient	Bedrock	1393828.2	2204199.0	823.42	820.6	84.4	745.2	736.2	9	11/10/2020
B-104D	Downgradient	Bedrock	1391317.9	2202297.4	787.90	785.3	60	735.3	725.3	10	10/20/2020
B-106D	Downgradient	Bedrock	1394328.3	2203869.6	826.21	823.5	79.4	754.1	744.1	10	11/13/2020
B-107D	Downgradient	Bedrock	1392333.6	2202597.0	823.38	820.6	85.1	745.5	735.5	10	10/28/2020
B-108D	Downgradient	Bedrock	1392155.6	2202313.1	821.13	818.4	79	749.4	739.4	10	10/27/2020
B-109D	Downgradient	Bedrock	1393956.4	2202127.0	850.73	847.8	99.4	759.4	748.4	11	10/31/2020
B-111D	Downgradient	Bedrock	1394302.6	2202956.5	791.87	789.1	84.15	714.9	704.9	10	11/3/2020

**Notes:**

1. bgs = below ground surface
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
3. NAD - North American Datum; NAVD - North American Vertical Datum

**TABLE 2B**  
**PIEZOMETER NETWORK SUMMARY**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
<b>PIEZOMETERS</b>											
B-3	Downgradient	Overburden/Upper Bedrock	1394045.1	2202411.5	837.78	835.0	37.0	808.3	798.3	10	10/3/2012
B-6	Downgradient	Overburden	1394419.5	2203266.5	789.47	786.5	35.4	761.5	751.5	10	10/9/2012
B-7	Downgradient	Overburden	1394374.6	2203596.1	809.16	806.1	25.2	791.3	781.3	10	10/9/2012
B-16	Downgradient	Overburden	1392595.1	2203315.4	826.47	823.6	43.7	790.2	780.2	10	12/19/2012
B-18	Downgradient	Overburden	1392521.0	2202875.5	826.56	823.9	32.6	801.5	791.5	10	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.3	79.1	751.0	741.0	10	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.5	54.8	789.1	779.1	10	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.6	49.3	811.7	801.7	10	10/23/2012
B-28	Downgradient	Overburden/Upper Bedrock	1391967.4	2201679.2	816.08	813.3	69.4	754.3	744.3	10	10/31/2012
B-29	Downgradient	Overburden	1391890.0	2201422.0	816.43	813.5	54.4	769.4	759.4	10	1/11/2013
B-31	Downgradient	Upper Bedrock	1392034.3	2200928.5	797.47	794.9	45.1	760.2	750.2	10	1/22/2013
B-41	Downgradient	Overburden	1390920.8	2201751.9	795.20	792.4	60.0	743.0	733.0	10	11/14/2012
B-50	Downgradient	Overburden	1391657.1	2201841.0	809.67	809.2	36.0	784.4	774.4	10	6/24/2016
B-51	Downgradient	Overburden	1390501.2	2200906.5	765.92	763.3	65.0	708.3	698.3	10	6/27/2016
B-52	Downgradient	Overburden	1392308.3	2201314.8	822.89	820.3	50.0	781.4	771.4	10	9/28/2016
B-54	Downgradient	Overburden/Upper Bedrock	1394423.5	2203140.7	785.46	782.6	34.2	758.8	748.8	10	9/26/2016
B-55	Downgradient	Overburden	1394142.6	2204147.9	825.12	822.9	52.0	781.9	771.9	10	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.0	50.5	746.0	736.0	10	9/24/2016
B-58	Downgradient	Overburden	1391125.7	2202426.5	788.17	785.2	45.0	750.7	740.7	10	9/23/2016
B-59	Downgradient	Overburden/Upper Bedrock	1394349.1	2203001.1	788.00	785.5	30.3	765.3	755.3	10	9/23/2016
B-60	Downgradient	Overburden	1391100.7	2202881.6	782.13	779.2	49.8	739.9	729.9	10	9/29/2016
B-61	Downgradient	Overburden	1390957.8	2202505.8	782.09	779.0	51.9	737.5	727.5	10	9/29/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.4	39.9	730.7	720.7	10	10/4/2016
B-63	Downgradient	Overburden	1390999.1	2202978.1	777.10	777.3	46.0	741.8	731.8	10	10/6/2016
B-64	Downgradient	Overburden	1394381.9	2203031.3	785.83	786.1	30.4	766.1	756.1	10	11/2/2016
B-65	Downgradient	Overburden/Upper Bedrock	1394381.2	2204050.8	821.95	822.3	45.4	787.9	777.9	10	11/15/2016
B-66	Downgradient	Overburden	1393858.2	2204277.5	815.90	813.3	55.3	768.3	758.3	10	11/16/2016
B-68	Downgradient	Overburden	1391298.2	2200714.2	758.68	759.0	18.0	751.0	741.0	10	3/16/2017



**TABLE 2B**  
**PIEZOMETER NETWORK SUMMARY**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, GA**

Well-ID	Hydraulic Location	Screened Media	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Screen Length (feet)	Date of Installation
B-72	Downgradient	Overburden	1391241.2	2200724.9	758.46	758.52	21.9	746.6	736.6	10	4/19/2017
B-73	Downgradient	Overburden	1391351.5	2200698.5	759.21	759.23	15.8	753.5	743.5	10	4/19/2017
B-74	Downgradient	Overburden	1391278.9	2200666.3	759.06	759.21	16.5	748.2	743.2	5	4/25/2017
B-78	Downgradient	Overburden/Upper Bedrock	1394328.2	2202958.2	790.75	788.0	30	768.0	758.5	10	9/22/2019
B-79	Downgradient	Overburden	1394458.6	2203223.0	788.66	785.9	34.93	761.0	751.5	10	9/21/2019
B-80	Downgradient	Overburden	1394372.6	2203533.9	804.47	801.8	30	782.0	772.5	10	9/20/2019
B-81	Downgradient	Overburden	1394364.9	2203741.1	820.56	817.7	50	778.5	768.5	10	9/22/2019
B-82	Downgradient	Overburden	1393750.0	2204258.1	810.07	807.5	45	773.0	763.0	10	9/21/2019
B-84	Downgradient	Overburden	1390411.9	2202241.9	776.34	776.6	49.1	737.5	727.5	10	10/1/2019
B-85	Downgradient	Overburden/Upper Bedrock	1394433.4	2203134.5	782.54	782.7	34.5	758.5	748.5	10	11/18/2019
B-86	Downgradient	Overburden/Upper Bedrock	1394480.0	2203206.6	784.29	784.6	34.1	760.5	750.5	10	11/18/2019
B-87	Downgradient	Overburden	1394401.9	2203531.3	803.37	800.4	42	768.7	758.7	10	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.6	49.5	783.1	773.1	10	11/19/2019
B-90	Downgradient	Overburden	1394501.0	2203212.6	784.00	784.2	33.4	760.8	750.8	10	12/10/2019
B-91	Downgradient	Overburden	1394447.1	2203123.9	782.98	783.1	34.6	758.5	748.5	10	12/11/2019
B-92	Downgradient	Overburden	1394392.7	2203026.7	785.08	785.3	24.6	770.7	760.7	10	12/11/2019
B-94	Downgradient	Overburden	1394402.0	2203513.7	801.74	799.2	45.24	764.6	754.6	10	1/23/2020
B-95	Downgradient	Overburden	1394518.6	2203167.7	784.00	784.3	33.3	761.3	751.3	10	2/11/2020
B-96	Downgradient	Overburden	1394478.7	2203099.3	784.92	785.3	33.1	762.2	752.2	10	2/10/2020
B-97	Downgradient	Overburden/Upper Bedrock	1394430.0	2203008.3	786.29	786.6	31	765.3	755.3	10	2/11/2020
B-98	Downgradient	Overburden	1394392.5	2202934.0	789.67	789.8	19.4	780.8	770.8	10	2/10/2020
B-99	Downgradient	Overburden	1394524.2	2203084.5	782.39	782.6	12.3	775.3	770.3	5	7/7/2020
B-103D	Downgradient	Bedrock	1391542.8	2202615.0	795.96	793.8	70.0	733.8	723.8	10	10/15/2020

**Notes:**

1. bgs = below ground surface
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
3. NAD - North American Datum; NAVD - North American Vertical Datum

**TABLE 3A**  
**SURFACE WATER ANALYTICAL DATA SUMMARY - NOVEMBER 2020**  
**Ash Pond 2 and 3/4**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA



Analyte	Units	SURFACE WATER SAMPLES						
		CR+0.4	CR+0.2	Dewatering Upstream	Dewatering Downstream	CR-0.2	CR-0.5	CR-0.8
		11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020	11/10/2020
<b>Appendix III</b>								
pH	SU	7.35	7.42	6.9	7.03	7.82	7.4	7.62
<b>Appendix IV</b>								
Beryllium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Cobalt	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
<b>Major Ions</b>								
Magnesium	mg/L	2	2	2	2	2.1	2	2
Potassium	mg/L	2.6	2.5	2.7	2.6	2.6	2.8	2.6
Sodium	mg/L	5.4	5.5	5.5	5.6	5.9	5.7	5.6

Notes:

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

"--" = analysis was not performed

**TABLE 3B**  
**SURFACE WATER ANALYTICAL DATA SUMMARY - FEBRUARY 2021**  
**Ash Pond 2 and 3/4**  
 Georgia Power Company - Plant McDonough  
 Atlanta, GA



Analyte	Units	SURFACE WATER SAMPLES							
		CR+0.4	CR+0.2	CR-0.1	Dewatering Downstream	Dewatering Upstream	CR-0.2	CR-0.5	CR-0.8
		2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021	2/2/2021
<b>Field Parameters</b>									
Temperature	F	46.16	46.24	46.43	46.41	46.52	46.6	46.75	46.98
pH	S.U.	7.65	7.57	7.78	7.7	7.51	7.48	7.46	7.15
ORP	mv	-4.8	-3.4	-8.1	-11	-9.8	-19.3	-20.8	-21.3
Dissolved Oxygen	mg/L	13.02	13.08	12.92	14.72	12.87	13.00	13.05	13.97
Turbidity	NTU	14.2	13.7	16.0	11.8	12.3	14.0	14.4	14.0
Specific Conductance	mS/cm	0.080	0.080	0.083	0.079	0.079	0.079	0.078	0.080
<b>Appendix III</b>									
Boron	mg/L	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Calcium	mg/L	5.3	5	5.2	5.1	4.9	5	5.2	4.9
Chloride	mg/L	6.3	6.2	6.6	6.1	6.1	6.2	6.2	6.4
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	4.5	4.4	4.8	4.3	4.3	4.3	4.3	4.5
Total Dissolved Solids	mg/L	27	41	25	30	29	38	31	30
<b>Appendix IV</b>									
Arsenic	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Beryllium	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
<b>Major Ions</b>									
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	20.5	20.4	20.7	16.7	20.1	17.2	17	17
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	20.5	20.4	20.7	16.7	20.1	17.2	17	17
Magnesium	mg/L	2.1	2	2.1	2	2	2.1	2.1	2.1
Potassium	mg/L	2.8	2.7	2.8	2.7	2.7	2.8	2.8	2.8
Sodium	mg/L	7	6.8	7	6.9	6.8	6.8	7	7

Notes:

F = Fahrenheit; S.U. = Standard Units; mV = Millivolts; mg/L = milligrams per liter; mS/cm = Milisemens per centimeter; NTU = nephelometric turbidity unit

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

"--" = analysis was not performed



**Table 4**  
**Summary of Aquifer (Slug) Test Data**  
**Georgia Power Company - Plant McDonough**  
**Atlanta, Georgia**

Piezometer ID	Saturated Aquifer Thickness (feet)	Screen Length (feet)	Aquifer Test Type	Hydraulic Conductivity (cm/sec)
B-101D	100	10	Falling	4.30E-05
			Rising	1.05E-05
B-102D	100	10	Falling	7.21E-05
			Falling	8.75E-05
			Falling	7.80E-05
			Rising	2.41E-04
			Falling	2.30E-05
B-104D	100	10	Rising	3.46E-05
			Falling	1.56E-05
			Rising	4.65E-05
			Falling	1.15E-04
B-105D	100	10	Rising	1.34E-04
			Falling	1.22E-04
			Rising	1.27E-04
			Falling	7.98E-05
B-106D	100	10	Rising	9.17E-05
			Falling	2.05E-04
			Rising	2.24E-04
			Falling	3.69E-05
B-107D	100	10	Rising	4.08E-03
			Falling	1.23E-04
			Rising	4.60E-03
			Falling	8.19E-04
			Rising	1.61E-03
			Falling	2.58E-05
B-108D	100	10	Rising	1.67E-04
			Falling	1.50E-04
			Rising	2.69E-04
			Falling	2.61E-05
B-109D	100	10	Rising	1.66E-05
			Falling	3.70E-04
B-111D	100	10	Rising	1.19E-04
			Falling	6.49E-05
			Rising	1.80E-04
			<b>Geomean</b>	<b>1.15E-04</b>

**NOTES:**

1. Geomean = geometric mean
2. cm/sec = centimeters per second
3. Aquifer testing not performed at B-103D

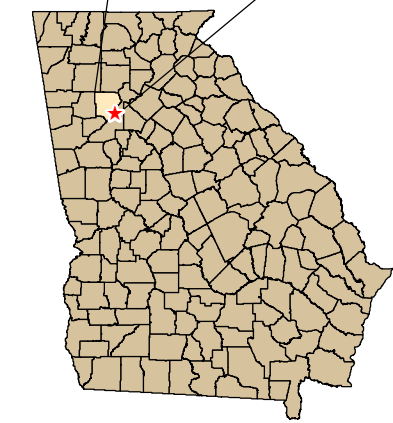
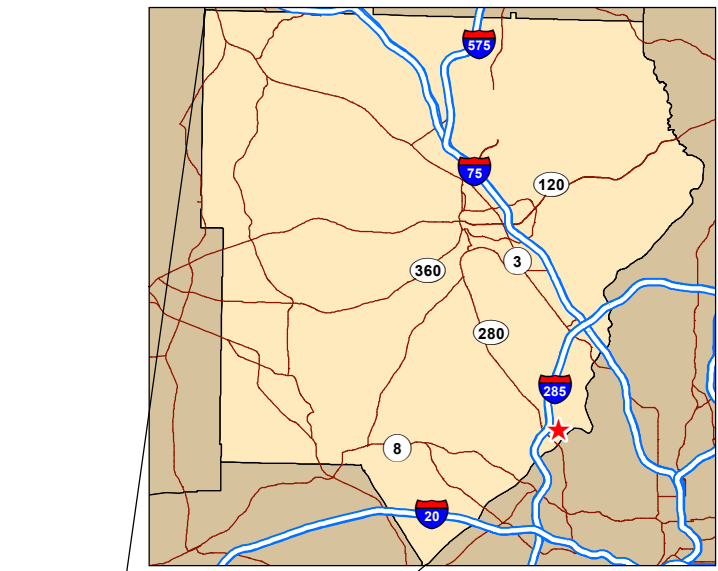
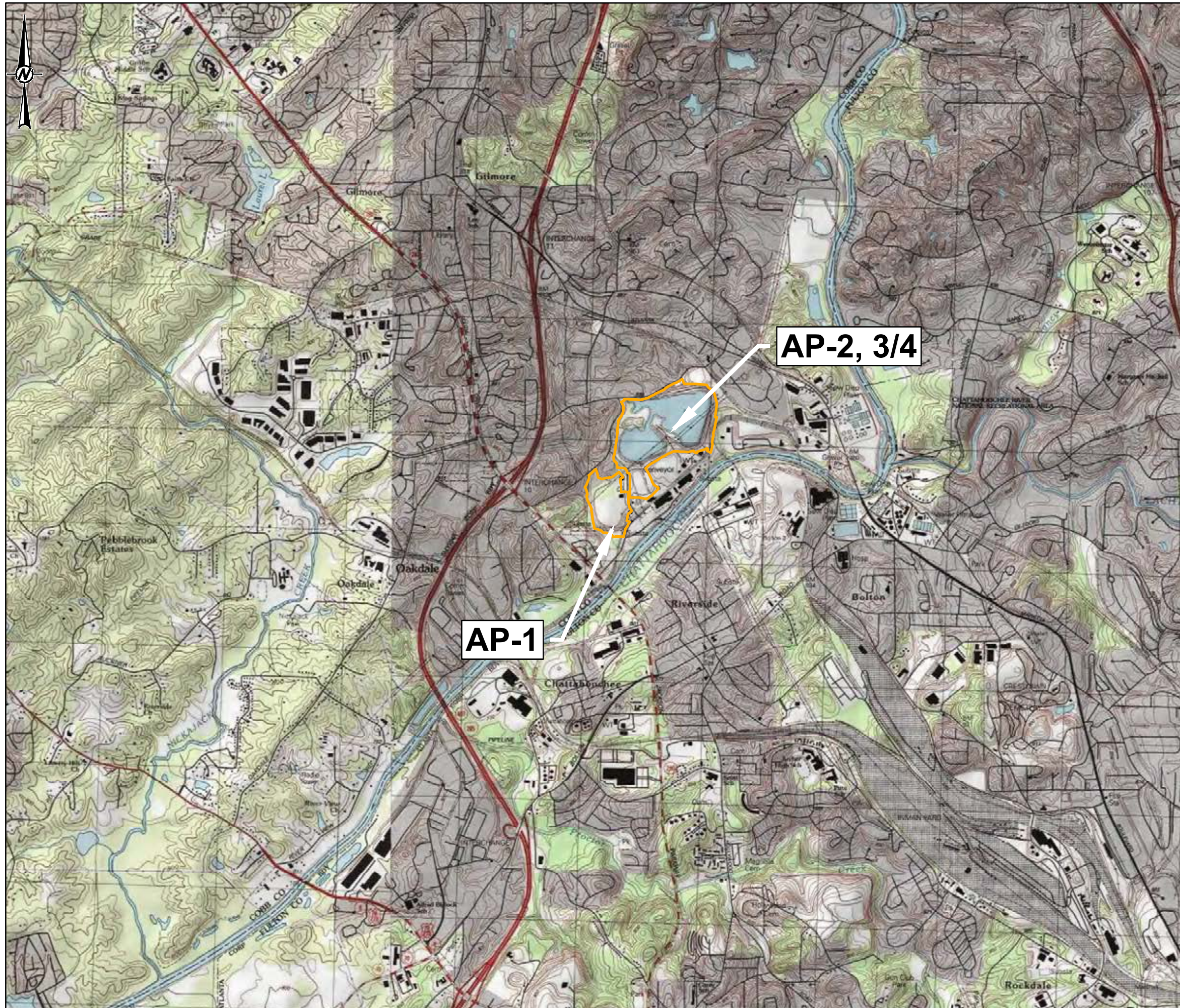
**TABLE 5**  
**Proposed ACM Supplemental Data Collection Tasks for January through June 2021**  
 Georgia Power – Plant McDonough-Atkinson AP-2 and 3/4  
 Atlanta, Georgia

Data Collection Event	Applicable CMs	Applicability / Rationale	Field Component	Parameters of Interest (POI)
<b>Well Installation</b>	ISI P&T MNA Phyto SVBW	Nature and Extent: Install vertical delineation wells both upgradient and downgradient of AP-2 and 3/4.	Install wells to total well depths ranging approximately from 40 to 80 feet below ground surface, screened at least 20-feet below the top of adjacent wells.	Vertical delineation
<b>Groundwater Sampling</b>	ISI MNA Phyto	Evaluation of: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) in situ conditions to establish evaluate PRB options and phytoremediation measures downgradient of unit	Collect groundwater samples from existing well network currently sampled under the assessment monitoring program as well as additional site piezometers within migration pathway.	In addition to routine App III/IV parameters: orthophosphate, phosphorous, sulfide, iron, manganese, magnesium, sodium, potassium, total alkalinity, bicarbonate, dissolved organic carbon (DOC), nitrate/nitrite.
<b>Aquifer solids sampling (Collect/Submit archived soil/rock cores) as needed</b>	ISI MNA Phyto	Evaluation of soils within aquifer matrix: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) mineralogy characterization	Collect samples from previously extracted soil/rock cores from selected boring locations.	Sequential extraction procedure (SEP) for analysis of arsenic (As), beryllium (Be), cobalt (Co), lithium (Li) and selenium (Se) to characterize the aquifer solid matrix; x-ray diffraction (XRD) analysis for mineralogy; total As, Be, Co, Li, Se, aluminum, iron, and manganese.
<b>Evaluation of the analytical results from specialized analysis of collected saturated unconsolidated aquifer matrix samples</b>	ISI P&T MNA	Evaluation of aquifer matrix for: (i) attenuation mechanisms and rates, and aquifer capacity for attenuation; and (ii) mineralogical characterization.	No Field Component: Aquifer matrix samples collected and submitted to the lab in November 2019.	Conceptually identify attenuation rates and aquifer capacity for As, Be, Co, Li and Se. Evaluate long term stability of attenuation.

Applicable Corrective Measures (CM):

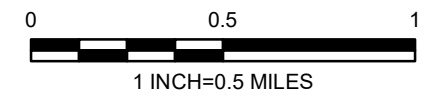
- ISS - Geochemical Approaches (In-Situ Injection) **(RETAINED)**
- P&T - Hydraulic Containment (Pump and Treat) **(RETAINED)**
- ISS – Insitu Solidification/Stabilization **(RETAINED)**
- MNA - Monitored Natural Attenuation **(RETAINED)**
- PRB - Permeable Reactive Barrier ( **NOT RETAINED**)
- Phytoremediation (TreeWells®) **(RETAINED)**
- SVBW - Subsurface Vertical Barrier Walls **(RETAINED)**





**REFERENCE**

SERVICE LAYER CREDITS: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT MCDONOUGH

PROJECT  
 PLANT MCDONOUGH  
 REMEDY SELECTION REPORT

TITLE  
**SITE LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2019-1-31
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	KNJ
	APPROVED	TIR

THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN. THE SHEET HAS BEEN MODIFIED FROM ANS1.B





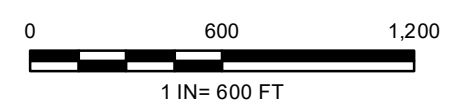
- LEGEND**
- + AP-1 MONITORING WELL
  - + PIEZOMETER
  - + AP-2,3/4 MONITORING WELL
  - + UPGRADIENT WELL
  - + SURFACE WATER MONITORING LOCATION
  - STAFF GAUGE
  - PROPERTY BOUNDARY
  - PERMIT BOUNDARY

**NOTES**

- ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE

**REFERENCE**

- SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGGRID, IGN, AND THE GIS USER COMMUNITY
- COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
- MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING 08/10/2020.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT MCDONOUGH

PROJECT  
 PLANT MCDONOUGH REMEDY SELECTION

**TITLE**  
**MONITORING WELL, PIEZOMETER AND SURFACE WATER LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2021-02-03
<b>GOLDER</b>	PREPARED	DJC
	DESIGN	DLP
	REVIEW	DP/RK
	APPROVED	

Path: C:\Users\jcooper\Documents\1668496\_SCS Plant McDonough GW Cone Svcs GA - Project File\800\_Shapefiles\MXD\Remedy Selection Work Plan\Figure 2 - Proposed Investigation Location Map.mxd

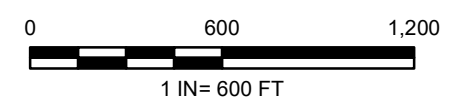




- LEGEND**
- PIEZOMETER
  - AP-1 MONITORING WELL
  - AP-2,3/4 MONITORING WELL
  - UPGRADIENT WELL
  - PERMIT BOUNDARY
  - PROPERTY BOUNDARY
  - APPROXIMATE GROUNDWATER FLOW DIRECTION
  - GROUNDWATER SURFACE CONTOUR (FT NAVD)

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
  2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED SEPTEMBER 21, 2020 BY GOLDER ASSOCIATES.
  3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT NAVD).
  4. B-27, B-68, AND DGWA-70 ARE NOT USED AS MONITORING WELLS DUE TO WELL REPLACEMENT, PROXIMITY TO CLOSURE ACTIVITIES, OR MODIFICATIONS TO THE PROPOSED WELL NETWORK.
  5. B-72 THROUGH B-74 WATER LEVELS NOT TAKEN DURING SEPTEMBER 21ST, 2020 EVENT.
  6. INTERSTITIAL WELLS GROUNDWATER ELEVATION DETERMINED USING TOPOGRAPHY.

- REFERENCE**
1. AERIAL IMAGE DATED NOVEMBER 2018 FROM GOOGLE EARTH.
  2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
  3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020.



CLIENT  
SOUTHERN COMPANY SERVICES, INC.  
PLANT MCDONOUGH

PROJECT  
REMEDY SELECTION REPORT



TITLE  
**SITE POTENTIOMETRIC MAP  
SEPTEMBER 21, 2020**

CONSULTANT	YYYY-MM-DD	2020-09-21
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	BAS
	REVIEWED/APPROVED	DLP

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**LEGEND**

- PIEZOMETER
- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- SURFACE WATER MONITORING LOCATIONS
- 0.01 ARSENIC GWPS ISOCONTOUR (INFERRED)
- PROPERTY BOUNDARY
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 20)
- PERMIT BOUNDARY

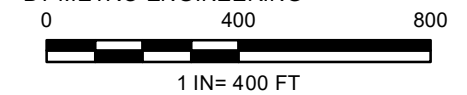
**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.
3. DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA. SURFACE WATER QUALITY DATA COLLECTED BY ARCADIS ON FEBRUARY 2, 2021

Analyte	Units	GWPS
Arsenic	mg/L	0.01

**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 PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT MCDONOUGH



PROJECT  
 PLANT MCDONOUGH REMEDY SELECTION

TITLE  
**ARSENIC ISOCONCENTRATION CONTOUR MAP**  
**SEPTEMBER 2020**

CONSULTANT	YYYY-MM-DD	2021-02-15
	PREPARED	DJC
	DESIGN	BAS
	REVIEW	DLP
	APPROVED	TIR

PROJECT No. 166849621 Rev. 0 FIGURE 4

Path: C:\Users\vidoras\OneDrive\Documents\166849621\_SCS Plant McDonough GW Cont. Svcs GA - Project File\800\_Shapefiles\MXD\Remedy Selection Work Plan\AP-234\Figure 4 - AP234 Arsenic Isoconcentration Map September 2020 - Copy.mxd

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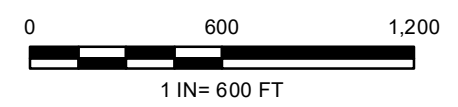
**LEGEND**

- ⊕ PIEZOMETER
- ⊕ AP-1 MONITORING WELL
- ⊕ AP-2,3/4 MONITORING WELL
- ⊕ UPGRADE WELL
- ⊕ SURFACE WATER MONITORING LOCATIONS
- 0.004 BERYLLIUM GWPS ISOCONTOUR (INFERRED)
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 20)
- - - PROPERTY BOUNDARY
- - - PERMIT BOUNDARY

- NOTES**
- ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
  - GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.
  - DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA. SURFACE WATER QUALITY DATA COLLECTED BY ARCADIS ON FEBRUARY 2, 2021

Analyte	Units	GWPS
Beryllium	mg/L	0.004

- REFERENCE**
- SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
  - COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
  - MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT MCDONOUGH



PROJECT  
**PLANT MCDONOUGH REMEDY SELECTION**

TITLE  
**BERYLLIUM ISOCONCENTRATION CONTOUR MAP**  
**SEPTEMBER 2020**

CONSULTANT	YYYY-MM-DD	2020-06-17
GOLDER	PREPARED	DJC
	DESIGN	BAS
	REVIEW	DLP
	APPROVED	TIR

Path: C:\Users\jdozier\Documents\166849621\_SCS Plant McDonough GW Cont. Svcs GA - Project File\800\_Shapefiles\MXD\Remedy Selection Work Plan\AP 234\Figure 5 - AP234 Beryllium Isoconcentration Map September 2020.mxd

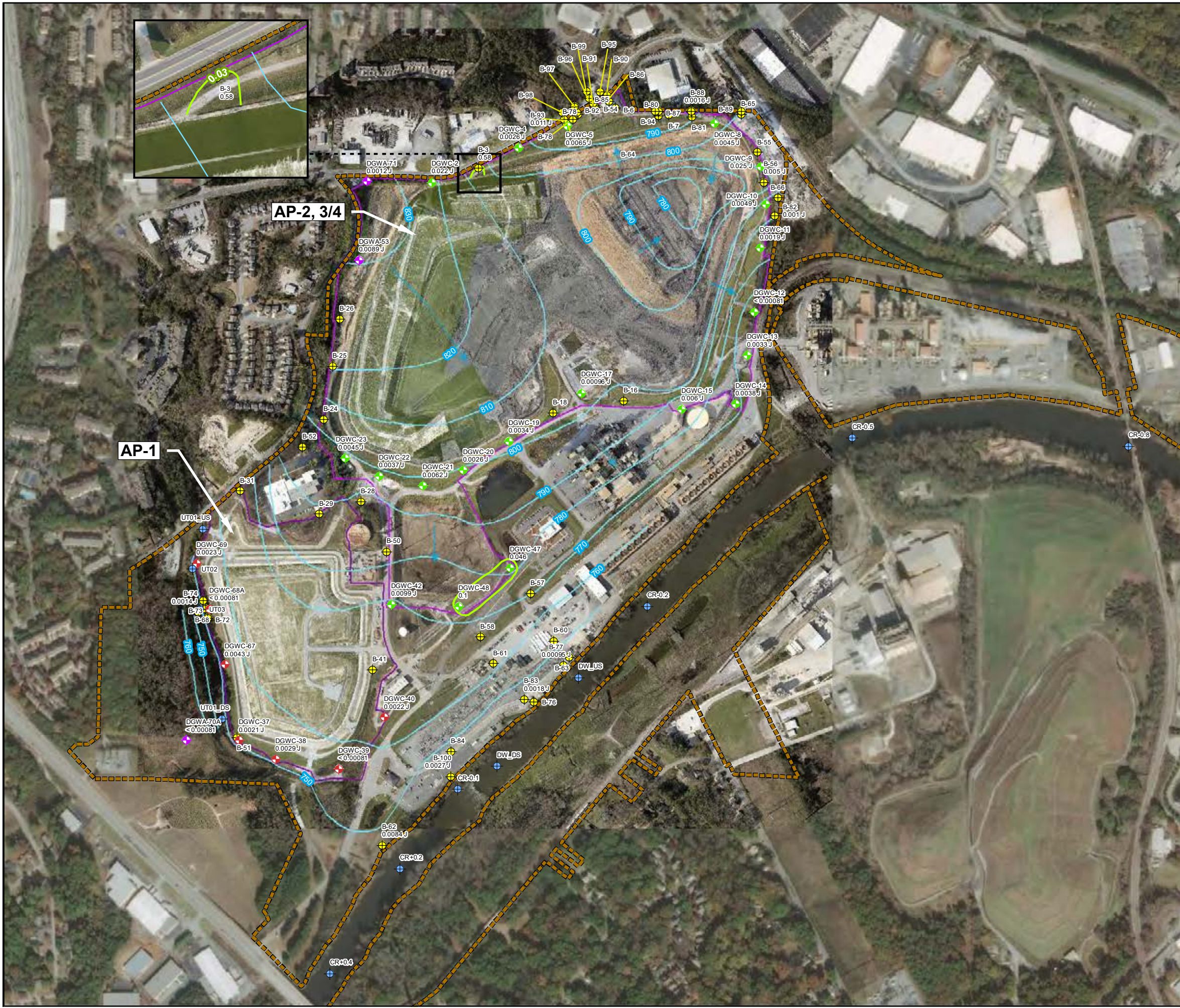
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM: ANS18







Path: C:\Users\jdoles\Documents\166849621\_SCS Plant McDonough GW Cont. Svcs GA - Project File\800\_Shapefiles\MXD\Remedy Selection Work Plan\AP 234\Figure 7 - AP234 Lithium Isoconcentration Map September 2020.mxd



**LEGEND**

- ⊕ PIEZOMETER
- ⊕ AP-1 MONITORING WELL
- ⊕ AP-2,3/4 MONITORING WELL
- ⊕ UPGRADE WELL
- ⊕ SURFACE WATER MONITORING LOCATIONS
- 0.03 LITHIUM GWPS ISOCONTOUR (INFERRED)
- - - PROPERTY BOUNDARY
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 20)
- PERMIT BOUNDARY

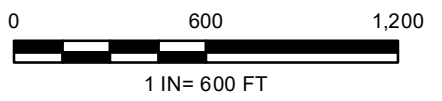
**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.
3. DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA. SURFACE WATER QUALITY DATA COLLECTED BY ARCADIS ON FEBRUARY 2, 2021
4. WHEN CONSIDERING THE REGIONAL SCREENING LEVEL (RSL), (0.04 MG/L) FOR LITHIUM FOLLOWING FEDERAL RULES, LITHIUM CONCENTRATIONS AT DGWC-2 WOULD NOT RESULT IN AN SSL.

Analyte	Units	FED GWPS	STATE GWPS
Lithium	mg/L	0.04	0.03

**REFERENCE**

1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT MCDONOUGH

PROJECT  
 PLANT MCDONOUGH REMEDY SELECTION

TITLE  
**LITHIUM ISOCONCENTRATION CONTOUR MAP**  
**SEPTEMBER 2020**

CONSULTANT	YYYY-MM-DD	2021-02-15
<b>GOLDER</b>	PREPARED	DJC
	DESIGN	BAS
	REVIEW	DLP
	APPROVED	TIR

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



Path: C:\Users\jdores\Documents\166849621\_SCS Plant McDonough\GIS\Map\AP-234\Figure 8 - AP234 Selenium Isoconcentration Map September 2020.mxd



**LEGEND**

- ⊕ PIEZOMETER
- ⊕ AP-1 MONITORING WELL
- ⊕ AP-2,3/4 MONITORING WELL
- ⊕ UPGRADIENT WELL
- ⊕ SURFACE WATER MONITORING LOCATIONS
- 0.05 SELENIUM GWPS ISOCONTOUR (INFERRED)
- 0.2 SELENIUM GWPS ISOCONTOUR (INFERRED)
- PROPERTY BOUNDARY
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPT 20)
- PERMIT BOUNDARY

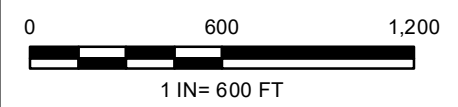
**NOTES**

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE
2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.
3. DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA. SURFACE WATER QUALITY DATA COLLECTED BY ARCADIS ON FEBRUARY 2, 2021

Analyte	Units	GWPS
Selenium	mg/L	0.05

**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 PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS SURVEYED BY METRO ENGINEERING 8/10/2020.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT MCDONOUGH

PROJECT  
 PLANT MCDONOUGH REMEDY SELECTION

TITLE  
**SELENIUM ISOCONCENTRATION CONTOUR MAP**  
**SEPTEMBER 2020**

<b>CONSULTANT</b>	YYYY-MM-DD	2021-02-15
	PREPARED	DJC
	DESIGN	DLP
	REVIEW	DLP
	APPROVED	TIR



# APPENDIX A

February 20, 2018

Joju Abraham  
Georgia Power - Coal Combustion Residuals  
2480 Maner Road  
Atlanta, GA 30339

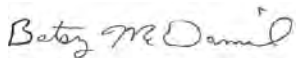
RE: Project: Plant McDonough Ash Ponds  
Pace Project No.: 261016

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 22, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Kristen Jurinko, Golder Associates Inc.  
Maria Padilla, Georgia Power - Coal Combustion  
Residuals  
Dawn Prell, Golder Associates Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

---

### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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### Pennsylvania Certification IDs

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

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Lab ID	Sample ID	Matrix	Date Collected	Date Received
261016001	DGWC-68	Water	01/22/18 11:50	01/22/18 17:10
261016002	EB-1	Water	01/22/18 12:30	01/22/18 17:10
261016003	FB-1	Water	01/22/18 11:35	01/22/18 17:10
261016004	FD-1	Water	01/22/18 00:00	01/22/18 17:10
261016005	DGWC-68	Water	01/22/18 11:50	01/22/18 17:10
261016006	EB-1	Water	01/22/18 12:30	01/22/18 17:10
261016007	FB-1	Water	01/22/18 11:35	01/22/18 17:10
261016008	FD-1	Water	01/22/18 00:00	01/22/18 17:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
261016001	DGWC-68	EPA 6020B	KLH	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
261016002	EB-1	EPA 6020B	KLH	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
261016003	FB-1	EPA 6020B	KLH	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
261016004	FD-1	EPA 6020B	KLH	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
261016005	DGWC-68	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
261016006	EB-1	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
261016007	FB-1	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
261016008	FD-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Sample: DGWC-68		Lab ID: 261016001		Collected: 01/22/18 11:50		Received: 01/22/18 17:10		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.60	1	01/31/18 15:28	02/01/18 14:28	7440-36-0		
Arsenic	<b>536</b>	ug/L	5.0	0.52	1	01/31/18 15:28	02/01/18 14:28	7440-38-2		
Barium	<b>117</b>	ug/L	10.0	0.42	1	01/31/18 15:28	02/01/18 14:28	7440-39-3		
Beryllium	ND	ug/L	3.0	0.091	1	01/31/18 15:28	02/01/18 14:28	7440-41-7		
Boron	<b>1530</b>	ug/L	40.0	6.0	1	01/31/18 15:28	02/02/18 17:53	7440-42-8		
Cadmium	ND	ug/L	1.0	0.14	1	01/31/18 15:28	02/01/18 14:28	7440-43-9		
Calcium	<b>53400</b>	ug/L	25000	2020	50	01/31/18 15:28	02/01/18 14:34	7440-70-2	M6	
Chromium	ND	ug/L	10.0	0.45	1	01/31/18 15:28	02/01/18 14:28	7440-47-3		
Cobalt	<b>3.2J</b>	ug/L	10.0	0.26	1	01/31/18 15:28	02/01/18 14:28	7440-48-4		
Lead	ND	ug/L	5.0	0.067	1	01/31/18 15:28	02/01/18 14:28	7439-92-1		
Lithium	ND	ug/L	50.0	1.5	1	01/31/18 15:28	02/01/18 14:28	7439-93-2	N2	
Molybdenum	<b>225</b>	ug/L	10.0	1.0	1	01/31/18 15:28	02/01/18 14:28	7439-98-7		
Selenium	ND	ug/L	10.0	1.8	1	01/31/18 15:28	02/01/18 14:28	7782-49-2		
Thallium	ND	ug/L	1.0	0.052	1	01/31/18 15:28	02/01/18 14:28	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	<b>0.060J</b>	ug/L	0.20	0.036	1	02/07/18 09:48	02/07/18 15:23	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>263</b>	mg/L	10.0	10.0	1		01/26/18 18:10			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>3.8</b>	mg/L	1.0	0.024	1		01/31/18 06:16	16887-00-6		
Fluoride	<b>0.65</b>	mg/L	0.10	0.029	1		01/31/18 06:16	16984-48-8		
Sulfate	<b>28.4J</b>	mg/L	50.0	0.17	10		02/05/18 18:00	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Sample: EB-1		Lab ID: 261016002		Collected: 01/22/18 12:30		Received: 01/22/18 17:10		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	<b>0.96J</b>	ug/L	3.0	0.60	1	01/31/18 15:28	02/01/18 15:25	7440-36-0		
Arsenic	ND	ug/L	5.0	0.52	1	01/31/18 15:28	02/01/18 15:25	7440-38-2		
Barium	<b>0.61J</b>	ug/L	10.0	0.42	1	01/31/18 15:28	02/01/18 15:25	7440-39-3		
Beryllium	ND	ug/L	3.0	0.091	1	01/31/18 15:28	02/01/18 15:25	7440-41-7		
Boron	ND	ug/L	40.0	6.0	1	01/31/18 15:28	02/01/18 15:25	7440-42-8		
Cadmium	ND	ug/L	1.0	0.14	1	01/31/18 15:28	02/01/18 15:25	7440-43-9		
Calcium	<b>45.4J</b>	ug/L	500	40.4	1	01/31/18 15:28	02/01/18 15:25	7440-70-2		
Chromium	ND	ug/L	10.0	0.45	1	01/31/18 15:28	02/01/18 15:25	7440-47-3		
Cobalt	ND	ug/L	10.0	0.26	1	01/31/18 15:28	02/01/18 15:25	7440-48-4		
Lead	<b>0.28J</b>	ug/L	5.0	0.067	1	01/31/18 15:28	02/01/18 15:25	7439-92-1		
Lithium	ND	ug/L	50.0	1.5	1	01/31/18 15:28	02/01/18 15:25	7439-93-2	N2	
Molybdenum	ND	ug/L	10.0	1.0	1	01/31/18 15:28	02/01/18 15:25	7439-98-7		
Selenium	ND	ug/L	10.0	1.8	1	01/31/18 15:28	02/01/18 15:25	7782-49-2		
Thallium	ND	ug/L	1.0	0.052	1	01/31/18 15:28	02/01/18 15:25	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	<b>0.076J</b>	ug/L	0.20	0.036	1	02/07/18 09:48	02/07/18 15:26	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		01/26/18 18:10			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.025J</b>	mg/L	1.0	0.024	1		02/05/18 18:23	16887-00-6	B	
Fluoride	ND	mg/L	0.10	0.029	1		02/05/18 18:23	16984-48-8		
Sulfate	ND	mg/L	5.0	0.017	1		02/05/18 18:23	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Sample: <b>FB-1</b>		Lab ID: <b>261016003</b>		Collected: 01/22/18 11:35		Received: 01/22/18 17:10		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.60	1	01/31/18 15:28	02/01/18 15:31	7440-36-0		
Arsenic	ND	ug/L	5.0	0.52	1	01/31/18 15:28	02/01/18 15:31	7440-38-2		
Barium	<b>0.62J</b>	ug/L	10.0	0.42	1	01/31/18 15:28	02/01/18 15:31	7440-39-3		
Beryllium	ND	ug/L	3.0	0.091	1	01/31/18 15:28	02/01/18 15:31	7440-41-7		
Boron	ND	ug/L	40.0	6.0	1	01/31/18 15:28	02/01/18 15:31	7440-42-8		
Cadmium	ND	ug/L	1.0	0.14	1	01/31/18 15:28	02/01/18 15:31	7440-43-9		
Calcium	ND	ug/L	500	40.4	1	01/31/18 15:28	02/01/18 15:31	7440-70-2		
Chromium	ND	ug/L	10.0	0.45	1	01/31/18 15:28	02/01/18 15:31	7440-47-3		
Cobalt	ND	ug/L	10.0	0.26	1	01/31/18 15:28	02/01/18 15:31	7440-48-4		
Lead	<b>0.074J</b>	ug/L	5.0	0.067	1	01/31/18 15:28	02/01/18 15:31	7439-92-1		
Lithium	ND	ug/L	50.0	1.5	1	01/31/18 15:28	02/01/18 15:31	7439-93-2	N2	
Molybdenum	ND	ug/L	10.0	1.0	1	01/31/18 15:28	02/01/18 15:31	7439-98-7		
Selenium	ND	ug/L	10.0	1.8	1	01/31/18 15:28	02/01/18 15:31	7782-49-2		
Thallium	ND	ug/L	1.0	0.052	1	01/31/18 15:28	02/01/18 15:31	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	<b>0.050J</b>	ug/L	0.20	0.036	1	02/07/18 09:48	02/07/18 15:35	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		01/30/18 15:59		H1	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.028J</b>	mg/L	1.0	0.024	1		01/31/18 07:47	16887-00-6	B	
Fluoride	ND	mg/L	0.10	0.029	1		01/31/18 07:47	16984-48-8		
Sulfate	ND	mg/L	5.0	0.017	1		01/31/18 07:47	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

**Sample: FD-1**      **Lab ID: 261016004**      Collected: 01/22/18 00:00      Received: 01/22/18 17:10      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6020B MET ICPMS</b> Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Antimony	ND	ug/L	3.0	0.60	1	01/31/18 15:28	02/01/18 15:37	7440-36-0	
Arsenic	<b>473</b>	ug/L	5.0	0.52	1	01/31/18 15:28	02/01/18 15:37	7440-38-2	
Barium	<b>107</b>	ug/L	10.0	0.42	1	01/31/18 15:28	02/01/18 15:37	7440-39-3	
Beryllium	ND	ug/L	3.0	0.091	1	01/31/18 15:28	02/01/18 15:37	7440-41-7	
Boron	<b>1420</b>	ug/L	40.0	6.0	1	01/31/18 15:28	02/02/18 17:59	7440-42-8	
Cadmium	ND	ug/L	1.0	0.14	1	01/31/18 15:28	02/01/18 15:37	7440-43-9	
Calcium	<b>46600</b>	ug/L	25000	2020	50	01/31/18 15:28	02/01/18 15:42	7440-70-2	
Chromium	ND	ug/L	10.0	0.45	1	01/31/18 15:28	02/01/18 15:37	7440-47-3	
Cobalt	<b>3.0J</b>	ug/L	10.0	0.26	1	01/31/18 15:28	02/01/18 15:37	7440-48-4	
Lead	ND	ug/L	5.0	0.067	1	01/31/18 15:28	02/01/18 15:37	7439-92-1	
Lithium	ND	ug/L	50.0	1.5	1	01/31/18 15:28	02/01/18 15:37	7439-93-2	
Molybdenum	<b>215</b>	ug/L	10.0	1.0	1	01/31/18 15:28	02/01/18 15:37	7439-98-7	
Selenium	ND	ug/L	10.0	1.8	1	01/31/18 15:28	02/01/18 15:37	7782-49-2	
Thallium	ND	ug/L	1.0	0.052	1	01/31/18 15:28	02/01/18 15:37	7440-28-0	
<b>7470 Mercury</b> Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Mercury	<b>0.057J</b>	ug/L	0.20	0.036	1	02/07/18 09:48	02/07/18 15:37	7439-97-6	
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C									
Total Dissolved Solids	<b>266</b>	mg/L	10.0	10.0	1		01/26/18 18:11		
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Chloride	<b>3.8</b>	mg/L	1.0	0.024	1		02/06/18 18:08	16887-00-6	
Fluoride	<b>0.57</b>	mg/L	0.10	0.029	1		02/06/18 18:08	16984-48-8	
Sulfate	<b>28.7J</b>	mg/L	50.0	0.17	10		02/05/18 18:45	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

QC Batch: 630 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

METHOD BLANK: 5209 Matrix: Water  
 Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.036	02/07/18 15:07	

LABORATORY CONTROL SAMPLE: 5210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5211 5212

Parameter	Units	261048001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.5	2.5	98	101	75-125	3	20	

SAMPLE DUPLICATE: 5213

Parameter	Units	261048001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds  
Pace Project No.: 261016

QC Batch: 310 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

METHOD BLANK: 1716 Matrix: Water  
Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	3.0	0.60	02/01/18 14:05	
Arsenic	ug/L	ND	5.0	0.52	02/01/18 14:05	
Barium	ug/L	ND	10.0	0.42	02/01/18 14:05	
Beryllium	ug/L	ND	3.0	0.091	02/01/18 14:05	
Boron	ug/L	ND	40.0	6.0	02/01/18 14:05	
Cadmium	ug/L	ND	1.0	0.14	02/01/18 14:05	
Calcium	ug/L	ND	500	40.4	02/01/18 14:05	
Chromium	ug/L	ND	10.0	0.45	02/01/18 14:05	
Cobalt	ug/L	ND	10.0	0.26	02/01/18 14:05	
Lead	ug/L	ND	5.0	0.067	02/01/18 14:05	
Lithium	ug/L	ND	50.0	1.5	02/01/18 14:05	
Molybdenum	ug/L	ND	10.0	1.0	02/01/18 14:05	
Selenium	ug/L	ND	10.0	1.8	02/01/18 14:05	
Thallium	ug/L	ND	1.0	0.052	02/01/18 14:05	

LABORATORY CONTROL SAMPLE: 1717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	113	113	80-120	
Arsenic	ug/L	100	103	103	80-120	
Barium	ug/L	100	105	105	80-120	
Beryllium	ug/L	100	109	109	80-120	
Boron	ug/L	1000	1110	111	80-120	
Cadmium	ug/L	100	105	105	80-120	
Calcium	ug/L	1000	1050	105	80-120	
Chromium	ug/L	100	106	106	80-120	
Cobalt	ug/L	100	102	102	80-120	
Lead	ug/L	100	101	101	80-120	
Lithium	ug/L	100	107	107	80-120	
Molybdenum	ug/L	100	107	107	80-120	
Selenium	ug/L	100	103	103	80-120	
Thallium	ug/L	100	103	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1766 1765

Parameter	Units	261016001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	ug/L	ND	100	111	113	113	111	113	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds  
Pace Project No.: 261016

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1766												1765	
Parameter	Units	261016001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD			
Arsenic	ug/L	536	100	100	606	624	70	88	75-125	3	20		
Barium	ug/L	117	100	100	215	222	98	105	75-125	3	20		
Beryllium	ug/L	ND	100	100	99.5	103	99	103	75-125	3	20		
Boron	ug/L	1530	1000	1000	2470	2470	94	93	75-125	0	20		
Cadmium	ug/L	ND	100	100	101	105	101	105	75-125	3	20		
Calcium	ug/L	53400	1000	1000	50100	52600	-321	-79	75-125	5	20 M6		
Chromium	ug/L	ND	100	100	103	105	103	105	75-125	2	20		
Cobalt	ug/L	3.2J	100	100	102	103	99	100	75-125	1	20		
Lead	ug/L	ND	100	100	97.4	99.2	97	99	75-125	2	20		
Lithium	ug/L	ND	100	100	97.4	99.9	96	99	75-125	3	20		
Molybdenum	ug/L	225	100	100	316	322	91	97	75-125	2	20		
Selenium	ug/L	ND	100	100	98.9	100	98	100	75-125	2	20		
Thallium	ug/L	ND	100	100	100	99.6	100	100	75-125	0	20		

SAMPLE DUPLICATE: 1718

Parameter	Units	92371048001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	23.1	22.6	2	20	
Beryllium	ug/L	ND	ND		20	
Boron	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Calcium	ug/L	2390	2460	3	20	
Chromium	ug/L	ND	0.56J		20	
Cobalt	ug/L	43.6	43.5	0	20	
Lead	ug/L	ND	0.11J		20	
Lithium	ug/L	ND	ND		20	
Molybdenum	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Thallium	ug/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

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QC Batch: 227	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 261016003	

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LABORATORY CONTROL SAMPLE: 1281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	378	94	84-108	

---

SAMPLE DUPLICATE: 1282

Parameter	Units	261016003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	H1

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### QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

QC Batch: 263 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

METHOD BLANK: 1503 Matrix: Water

Associated Lab Samples: 261016001, 261016002, 261016003, 261016004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	01/31/18 04:48	
Fluoride	mg/L	ND	0.10	0.029	01/31/18 04:48	
Sulfate	mg/L	ND	5.0	0.017	01/31/18 04:48	

LABORATORY CONTROL SAMPLE: 1504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1505 1506

Parameter	Units	1505		1506		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		261016001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	3.8	10	10	13.9	14.0	101	101	90-110	1	15
Fluoride	mg/L	0.65	10	10	10.7	10.8	101	102	90-110	1	15
Sulfate	mg/L	28.4J	10	10	37.8	38.1	94	97	90-110	1	15

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

**Sample: DGWC-68**      **Lab ID: 261016005**      Collected: 01/22/18 11:50      Received: 01/22/18 17:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.829 ± 0.347 (0.357)</b> C:91% T:NA	pCi/L	02/09/18 08:29	13982-63-3	
Radium-228	EPA 9320	<b>0.447 ± 0.306 (0.580)</b> C:81% T:85%	pCi/L	02/12/18 14:57	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.28 ± 0.653 (0.937)</b>	pCi/L	02/14/18 13:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

**Sample: EB-1**      **Lab ID: 261016006**      Collected: 01/22/18 12:30      Received: 01/22/18 17:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.397 ± 0.262 (0.387)</b> <b>C:81% T:NA</b>	pCi/L	02/09/18 08:29	13982-63-3	
Radium-228	EPA 9320	<b>0.310 ± 0.276 (0.553)</b> <b>C:79% T:90%</b>	pCi/L	02/12/18 14:57	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.707 ± 0.538 (0.940)</b>	pCi/L	02/14/18 13:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

**Sample: FB-1**      **Lab ID: 261016007**      Collected: 01/22/18 11:35      Received: 01/22/18 17:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.0991 ± 0.176 (0.397)</b> C:83% T:NA	pCi/L	02/09/18 08:29	13982-63-3	
Radium-228	EPA 9320	<b>0.348 ± 0.325 (0.662)</b> C:82% T:81%	pCi/L	02/12/18 14:58	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.447 ± 0.501 (1.06)</b>	pCi/L	02/14/18 13:59	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>1.31 ± 0.488 (0.441)</b> C:67% T:NA	pCi/L	02/09/18 09:59	13982-63-3	
Radium-228	EPA 9320	<b>0.293 ± 0.263 (0.525)</b> C:79% T:89%	pCi/L	02/12/18 14:58	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.60 ± 0.751 (0.966)</b>	pCi/L	02/14/18 13:59	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

QC Batch: 287241 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 261016005, 261016006, 261016007, 261016008

METHOD BLANK: 1408135 Matrix: Water

Associated Lab Samples: 261016005, 261016006, 261016007, 261016008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.203 ± 0.190 (0.337) C:93% T:NA	pCi/L	02/09/18 08:29	

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## QUALIFIERS

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

---

### 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.

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.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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.

### LABORATORIES

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

H1 Analysis conducted outside the EPA method holding time.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

N2 The lab does not hold NELAC/TNI accreditation for this parameter.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Ash Ponds

Pace Project No.: 261016

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
261016001	DGWC-68	EPA 3005A	310	EPA 6020B	327
261016002	EB-1	EPA 3005A	310	EPA 6020B	327
261016003	FB-1	EPA 3005A	310	EPA 6020B	327
261016004	FD-1	EPA 3005A	310	EPA 6020B	327
261016001	DGWC-68	EPA 7470A	630	EPA 7470A	644
261016002	EB-1	EPA 7470A	630	EPA 7470A	644
261016003	FB-1	EPA 7470A	630	EPA 7470A	644
261016004	FD-1	EPA 7470A	630	EPA 7470A	644
261016005	DGWC-68	EPA 9315	287241		
261016006	EB-1	EPA 9315	287241		
261016007	FB-1	EPA 9315	287241		
261016008	FD-1	EPA 9315	287241		
261016005	DGWC-68	EPA 9320	287242		
261016006	EB-1	EPA 9320	287242		
261016007	FB-1	EPA 9320	287242		
261016008	FD-1	EPA 9320	287242		
261016005	DGWC-68	Total Radium Calculation	288095		
261016006	EB-1	Total Radium Calculation	288095		
261016007	FB-1	Total Radium Calculation	288095		
261016008	FD-1	Total Radium Calculation	288095		
261016001	DGWC-68	SM 2540C	128		
261016002	EB-1	SM 2540C	128		
261016003	FB-1	SM 2540C	227		
261016004	FD-1	SM 2540C	128		
261016001	DGWC-68	EPA 300.0	263		
261016002	EB-1	EPA 300.0	263		
261016003	FB-1	EPA 300.0	263		
261016004	FD-1	EPA 300.0	263		

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**CHAIN OF CUSTODY RECORD**



Pace Analytical Services, Inc.  
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092  
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:						ANALYSIS REQUESTED										L A B  I D  N U M B E R	CONTAINER TYPE		PRESERVATION			
Georgia Power						CONTAINER TYPE:		P	P	P												
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:						PRESERVATION:		3	7	3												
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239						CONTAINERS	# of															
REPORT TO:			CC:				C O N T A I N E R S															
Tim Richards			Rachel Kirkman																			
REQUESTED COMPLETION DATE:			PO#:																			
laburch@southernco.com																						
PROJECT NAME/STATE:																						
Plant McDonough AP																						
PROJECT #																						
Phase II CCR																						
1668496																						
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION																	
01/22/18	1150	GW		x	DGWC-88	6	1	1	4												1	
01/22/18	1230	W		x	EB-1	4	1	1	2												2	
01/22/18	1135	W		x	FB-1	4	1	1	2												3	
01/22/18	-	GW		x	FD-1	4	1	1	2												4	

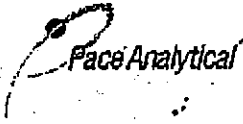
SAMPLED BY AND TITLE:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
Ben Hodges Field Lead		1/22/18 1700		<i>[Signature]</i>		1/22/18 1716	
RECEIVED BY:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
<i>[Signature]</i>		01/22/18 1710		<i>[Signature]</i>			
RECEIVED BY LAB:		DATE/TIME:		SAMPLE SHIPPED VIA:		CLIENT OTHER FS	
<i>[Signature]</i>		01/22/18 1710		UPS FED-EX USPS COURIER		CLIENT OTHER FS	
Checked:		Temperature:		Custody Seal:		# of Coolers	
Yes No NA		Min: 4.3 Max:		Intact Broken Not Present		Cooler ID:	

**WO#: 261016**



261016

**Sample Condition Upon Receipt**



Client Name: GIA Power

Project # \_\_\_\_\_

**WO#: 261016**

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

PM: BM Due Date: 01/30/18

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes

CLIENT: GAPower-CCR

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used THA-083 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 4.3 Biological Tissue is Frozen: Yes No  
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 1/22/18 MR

Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>GIA</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased): _____			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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)

February 08, 2018

Kristen Jurinko  
Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta, GA 30341

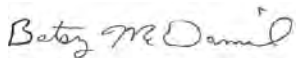
RE: Project: McDonough Advanced Engineering  
Pace Project No.: 261081

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory on January 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Lab ID	Sample ID	Matrix	Date Collected	Date Received
261081001	DGWC-42	Water	01/23/18 13:35	01/24/18 13:00
261081002	B-50	Water	01/23/18 10:35	01/24/18 13:00
261081003	DGWA-70A	Water	01/23/18 09:05	01/24/18 13:00
261081004	B-28	Water	01/23/18 15:10	01/24/18 13:00
261081005	DGWC-37	Water	01/23/18 14:30	01/24/18 13:00
261081006	DGWC-38	Water	01/23/18 12:30	01/24/18 13:00
261081007	DGWC-39	Water	01/23/18 10:25	01/24/18 13:00

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### SAMPLE ANALYTE COUNT

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Lab ID	Sample ID	Method	Analysts	Analytes Reported
261081001	DGWC-42	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081002	B-50	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081003	DGWA-70A	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081004	B-28	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081005	DGWC-37	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081006	DGWC-38	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261081007	DGWC-39	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2

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## ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Sample: DGWC-42		Lab ID: 261081001		Collected: 01/23/18 13:35		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 17:24	7440-38-2	
Calcium	<b>45700</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 17:29	7440-70-2	
Iron	<b>523</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 17:24	7439-89-6	N2
Magnesium	<b>36500</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 17:29	7439-95-4	
Manganese	<b>11100</b>	ug/L	500	38.2	50	01/29/18 12:37	02/05/18 17:29	7439-96-5	
Potassium	<b>5970</b>	ug/L	100	16.5	1	01/29/18 12:37	02/05/18 17:24	7440-09-7	
Sodium	<b>58700</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 17:29	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 22:17	7440-38-2	
Iron, Dissolved	<b>415</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 22:17	7439-89-6	N2
Manganese, Dissolved	<b>10500</b>	ug/L	500	38.2	50	01/31/18 15:52	02/02/18 19:20	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>26.2</b>	mg/L	12.5	1.2	50		02/05/18 19:08	16887-00-6	M1
Sulfate	<b>349</b>	mg/L	50.0	0.85	50		02/05/18 19:08	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Sample: B-50		Lab ID: 261081002		Collected: 01/23/18 10:35		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>4.3J</b>	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 17:52	7440-38-2	
Calcium	<b>64800</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 17:58	7440-70-2	
Iron	<b>3590</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 17:52	7439-89-6	N2
Magnesium	<b>24500</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 17:58	7439-95-4	
Manganese	<b>12200</b>	ug/L	500	38.2	50	01/29/18 12:37	02/05/18 17:58	7439-96-5	
Potassium	<b>9460</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:15	7440-09-7	
Sodium	<b>21600</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 17:58	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>4.5J</b>	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 22:22	7440-38-2	
Iron, Dissolved	<b>3700</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 22:22	7439-89-6	N2
Manganese, Dissolved	<b>11600</b>	ug/L	500	38.2	50	01/31/18 15:52	02/02/18 19:26	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>16.3</b>	mg/L	0.25	0.024	1		01/26/18 20:11	16887-00-6	M1
Sulfate	<b>426</b>	mg/L	50.0	0.85	50		02/05/18 19:31	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

Sample: DGWA-70A		Lab ID: 261081003		Collected: 01/23/18 09:05		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 18:04	7440-38-2	
Calcium	<b>4950</b>	ug/L	500	40.4	1	01/29/18 12:37	02/05/18 18:04	7440-70-2	
Iron	<b>182</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 18:04	7439-89-6	N2
Magnesium	<b>2180</b>	ug/L	50.0	6.3	1	01/29/18 12:37	02/05/18 18:04	7439-95-4	
Manganese	<b>21.2</b>	ug/L	10.0	0.76	1	01/29/18 12:37	02/05/18 18:04	7439-96-5	
Potassium	<b>1660</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:21	7440-09-7	
Sodium	<b>3610</b>	ug/L	100	13.5	1	01/29/18 12:37	02/05/18 18:04	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 22:28	7440-38-2	
Iron, Dissolved	<b>27.9J</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 22:28	7439-89-6	N2
Manganese, Dissolved	<b>18.1</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/01/18 22:28	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>2.4</b>	mg/L	0.25	0.024	1		01/26/18 20:32	16887-00-6	
Sulfate	<b>0.67J</b>	mg/L	1.0	0.017	1		01/26/18 20:32	14808-79-8	

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## ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Sample: B-28		Lab ID: 261081004		Collected: 01/23/18 15:10		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 18:15	7440-38-2	
Calcium	<b>52100</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 18:21	7440-70-2	
Iron	<b>6.4J</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 18:15	7439-89-6	N2
Magnesium	<b>27700</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 18:21	7439-95-4	
Manganese	<b>1010</b>	ug/L	500	38.2	50	01/29/18 12:37	02/05/18 18:21	7439-96-5	
Potassium	<b>4910</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:27	7440-09-7	
Sodium	<b>22700</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 18:21	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 22:34	7440-38-2	
Iron, Dissolved	ND	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 22:34	7439-89-6	N2
Manganese, Dissolved	<b>1010</b>	ug/L	50.0	3.8	5	01/31/18 15:52	02/02/18 19:14	7439-96-5	M1
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>27.0</b>	mg/L	6.2	0.60	25		02/05/18 19:54	16887-00-6	
Sulfate	<b>277</b>	mg/L	25.0	0.42	25		02/05/18 19:54	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Sample: DGWC-37		Lab ID: 261081005		Collected: 01/23/18 14:30		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 18:27	7440-38-2	
Calcium	<b>57700</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 18:32	7440-70-2	
Iron	<b>122</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 18:27	7439-89-6	N2
Magnesium	<b>12300</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 18:32	7439-95-4	
Manganese	<b>154</b>	ug/L	10.0	0.76	1	01/29/18 12:37	02/05/18 18:27	7439-96-5	
Potassium	<b>4160</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:32	7440-09-7	
Sodium	<b>10500</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 18:32	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 23:08	7440-38-2	
Iron, Dissolved	<b>70.5</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 23:08	7439-89-6	N2
Manganese, Dissolved	<b>153</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/01/18 23:08	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>6.3</b>	mg/L	0.25	0.024	1		01/26/18 21:16	16887-00-6	
Sulfate	<b>102</b>	mg/L	10.0	0.17	10		02/05/18 20:17	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

<b>Sample: DGWC-38</b>		<b>Lab ID: 261081006</b>		Collected: 01/23/18 12:30	Received: 01/24/18 13:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 18:38	7440-38-2		
Calcium	<b>79900</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 18:44	7440-70-2		
Iron	<b>22.1J</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 18:38	7439-89-6	N2	
Magnesium	<b>27200</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 18:44	7439-95-4		
Manganese	<b>649</b>	ug/L	10.0	0.76	1	01/29/18 12:37	02/05/18 18:38	7439-96-5		
Potassium	<b>4180</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:38	7440-09-7		
Sodium	<b>10900</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 18:44	7440-23-5		
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 23:14	7440-38-2		
Iron, Dissolved	ND	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 23:14	7439-89-6	N2	
Manganese, Dissolved	<b>645</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/01/18 23:14	7439-96-5		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>8.2</b>	mg/L	0.25	0.024	1		01/26/18 21:38	16887-00-6		
Sulfate	<b>238</b>	mg/L	25.0	0.42	25		02/05/18 20:39	14808-79-8		

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261081

Sample: DGWC-39		Lab ID: 261081007		Collected: 01/23/18 10:25		Received: 01/24/18 13:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 19:27	7440-38-2	
Calcium	<b>81500</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 19:33	7440-70-2	
Iron	<b>11300</b>	ug/L	2000	214	50	01/29/18 12:37	02/05/18 19:33	7439-89-6	N2
Magnesium	<b>19700</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 19:33	7439-95-4	
Manganese	<b>11300</b>	ug/L	500	38.2	50	01/29/18 12:37	02/05/18 19:33	7439-96-5	
Potassium	<b>2360</b>	ug/L	100	16.5	1	01/29/18 12:37	02/06/18 15:44	7440-09-7	
Sodium	<b>11000</b>	ug/L	5000	674	50	01/29/18 12:37	02/05/18 19:33	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 23:20	7440-38-2	
Iron, Dissolved	<b>9350</b>	ug/L	2000	214	50	01/31/18 15:52	02/02/18 19:31	7439-89-6	N2
Manganese, Dissolved	<b>11300</b>	ug/L	500	38.2	50	01/31/18 15:52	02/02/18 19:31	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>8.2</b>	mg/L	0.25	0.024	1		01/26/18 21:59	16887-00-6	
Sulfate	<b>181</b>	mg/L	10.0	0.17	10		02/05/18 21:02	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: McDonough Advanced Engineering

Pace Project No.: 261081

QC Batch: 121 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
 Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

METHOD BLANK: 806 Matrix: Water  
 Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	0.52	02/06/18 13:34	
Calcium	ug/L	ND	500	40.4	02/06/18 13:34	
Iron	ug/L	ND	40.0	4.3	02/06/18 13:34	N2
Magnesium	ug/L	ND	50.0	6.3	02/06/18 13:34	
Manganese	ug/L	ND	10.0	0.76	02/06/18 13:34	
Potassium	ug/L	ND	100	16.5	02/06/18 13:34	
Sodium	ug/L	ND	100	13.5	02/06/18 13:34	

LABORATORY CONTROL SAMPLE: 807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	100	96.7	97	80-120	
Calcium	ug/L	1000	942	94	80-120	
Iron	ug/L	1000	988	99	80-120	N2
Magnesium	ug/L	1000	1000	100	80-120	
Manganese	ug/L	100	102	102	80-120	
Potassium	ug/L	1000	925	92	80-120	
Sodium	ug/L	1000	977	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 808 809

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Arsenic	ug/L	ND	100	100	98.1	99.8	98	100	75-125	2	20
Calcium	ug/L	5800	1000	1000	6660	6870	85	106	75-125	3	20
Iron	ug/L	57.6	1000	1000	1270	1280	100	101	75-125	1	20 N2
Magnesium	ug/L	941	1000	1000	1940	1950	100	101	75-125	1	20
Manganese	ug/L	98.7	100	100	200	206	100	106	75-125	3	20
Potassium	ug/L	745	1000	1000	1760	1760	102	101	75-125	0	20
Sodium	ug/L	8970	1000	1000	9730	9950	76	97	75-125	2	20

SAMPLE DUPLICATE: 810

Parameter	Units	261048003 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Calcium	ug/L	3860	3890	1	20	
Iron	ug/L	841	884	5	20	N2

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

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

SAMPLE DUPLICATE: 810

Parameter	Units	261048003 Result	Dup Result	RPD	Max RPD	Qualifiers
Magnesium	ug/L	1360	1420	4	20	
Manganese	ug/L	16.9	18.2	7	20	
Potassium	ug/L	2630	2660	1	20	
Sodium	ug/L	5090	5270	3	20	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

QC Batch: 262 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET Dissolved  
Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

METHOD BLANK: 1501 Matrix: Water  
Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	0.52	02/01/18 21:48	
Iron, Dissolved	ug/L	ND	40.0	4.3	02/01/18 21:48	N2
Manganese, Dissolved	ug/L	ND	10.0	0.76	02/01/18 21:48	

LABORATORY CONTROL SAMPLE: 1502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	104	104	80-120	
Iron, Dissolved	ug/L	1000	1090	109	80-120	N2
Manganese, Dissolved	ug/L	100	109	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1781 1782

Parameter	Units	261081004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	100	100	107	104	107	104	75-125	2	20	
Iron, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	N2
Manganese, Dissolved	ug/L	1010	100	100	1100	1070	86	60	75-125	2	20	M1

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

QC Batch: 137 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

METHOD BLANK: 893 Matrix: Water  
Associated Lab Samples: 261081001, 261081002, 261081003, 261081004, 261081005, 261081006, 261081007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	01/26/18 17:40	
Sulfate	mg/L	ND	1.0	0.017	01/26/18 17:40	

LABORATORY CONTROL SAMPLE: 894

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 895 896

Parameter	Units	261081001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	26.2	10	10	35.0	35.0	88	88	90-110	0	15	M1
Sulfate	mg/L	349	10	10	229	229	-1200	-1200	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 897

Parameter	Units	261081002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	16.3	10	24.1	78	90-110	M1
Sulfate	mg/L	426	10	251	-1750	90-110	M1

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## QUALIFIERS

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

---

### 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.

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.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

N2 The lab does not hold NELAC/TNI accreditation for this parameter.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McDonough Advanced Engineering  
Pace Project No.: 261081

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
261081001	DGWC-42	EPA 3005A	121	EPA 6020B	191
261081002	B-50	EPA 3005A	121	EPA 6020B	191
261081003	DGWA-70A	EPA 3005A	121	EPA 6020B	191
261081004	B-28	EPA 3005A	121	EPA 6020B	191
261081005	DGWC-37	EPA 3005A	121	EPA 6020B	191
261081006	DGWC-38	EPA 3005A	121	EPA 6020B	191
261081007	DGWC-39	EPA 3005A	121	EPA 6020B	191
261081001	DGWC-42	EPA 3005A	262	EPA 6020B	328
261081002	B-50	EPA 3005A	262	EPA 6020B	328
261081003	DGWA-70A	EPA 3005A	262	EPA 6020B	328
261081004	B-28	EPA 3005A	262	EPA 6020B	328
261081005	DGWC-37	EPA 3005A	262	EPA 6020B	328
261081006	DGWC-38	EPA 3005A	262	EPA 6020B	328
261081007	DGWC-39	EPA 3005A	262	EPA 6020B	328
261081001	DGWC-42	EPA 300.0	137		
261081002	B-50	EPA 300.0	137		
261081003	DGWA-70A	EPA 300.0	137		
261081004	B-28	EPA 300.0	137		
261081005	DGWC-37	EPA 300.0	137		
261081006	DGWC-38	EPA 300.0	137		
261081007	DGWC-39	EPA 300.0	137		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN OF CUSTODY RECORD**



Pace Analytical Services, Inc.  
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092  
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

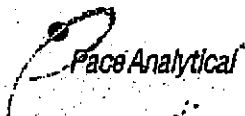
CLIENT NAME:					ANALYSIS REQUESTED										L A B  I D  N U M B E R	CONTAINER TYPE		PRESERVATION			
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:					CONTAINER TYPE:	P	P	P													
Georgia Power					PRESERVATION:					7	3&7	3&7									
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-508-7239					# of	CONTAINERS	Cl, SO4 EPA 9056	*Metals, Dissolved (EPA 6010/8020) (field filtered) As, Fe, Mn	*Metals (EPA 6010/8020) As, Ca, Fe, Mg, Mn, Na, K												
REPORT TO: Tim Richards (Tim_Richards@golder.com)		CC: KJurinko@golder.com																			
REQUESTED COMPLETION DATE:		PO #:																			
PROJECT NAME/STATE: Plant McDonough AP- AE Sampling																					
PROJECT #: 1779172																					
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	# of															
01/23/18	1335	GW		x	DGWC-42	3	1	1	1												1
01/23/18	1035	GW		x	B-50	3	1	1	1												2
01/23/18	0905	GW		x	DGWA-70A	3	1	1	1												3
01/23/18	1510	GW		x	B-28	3	1	1	1												4
01/23/18	1430	GW		x	DGWC-37	3	1	1	1												5
01/23/18	1230	GW		x	DGWC-38	3	1	1	1												6
01/23/18	1025	GW		x	DGWC-39	3	1	1	1												7
SAMPLED BY AND TITLE: Ben Hodges Field Lead					DATE/TIME: 1/24/18 1000					RELINQUISHED BY: <i>[Signature]</i>					DATE/TIME: 1/24/18 093						
RECEIVED BY: Mike Nguyen					DATE/TIME: 1/24/18 0930					RELINQUISHED BY:					DATE/TIME:						
RECEIVED BY LAB: M. Salzman					DATE/TIME: 01/24/18 1300					SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER F:					COURIER: Pace						
Custody Seal: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Broken <input type="checkbox"/> Not Present					Temperature: Min: 23 Max:					# of Cores:					Color ID:						

**WO#: 261081**



Page 18 of 19

**Sample Condition Upon Receipt**



Client Name: Golder Associates Project # \_\_\_\_\_

**WO#: 261081**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

PM: BM Due Date: 01/31/18  
CLIENT: Golder-ATL

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used THR-083 Type of Ice:  Wet  Blue  None

Samples on ice, cooling process has begun

Cooler Temperature \_\_\_\_\_

Biological Tissue Is Frozen: Yes No

Date and Initials of person examining contents: 1/24/18 MR

Temp should be above freezing to 6°C

Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-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	10.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix	<u>GW</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, G&G, W-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):	_____		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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)

February 09, 2018

Kristen Jurinko  
Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta, GA 30341

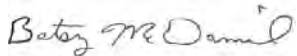
RE: Project: McDonough Advanced Engineering  
Pace Project No.: 261131

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: McDonough Advanced Engineering

Pace Project No.: 261131

---

### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: McDonough Advanced Engineering  
Pace Project No.: 261131

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
261032003	DGWC-68	Water	01/22/18 11:50	01/23/18 12:20

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### SAMPLE ANALYTE COUNT

Project: McDonough Advanced Engineering

Pace Project No.: 261131

---

Lab ID	Sample ID	Method	Analysts	Analytes Reported
261032003	DGWC-68	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering  
Pace Project No.: 261131

Sample: DGWC-68		Lab ID: 261032003		Collected: 01/22/18 11:50		Received: 01/23/18 12:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>467</b>	ug/L	5.0	0.52	1	01/29/18 12:37	02/05/18 17:12	7440-38-2	
Calcium	<b>49700</b>	ug/L	25000	2020	50	01/29/18 12:37	02/05/18 17:18	7440-70-2	
Iron	<b>5260</b>	ug/L	40.0	4.3	1	01/29/18 12:37	02/05/18 17:12	7439-89-6	
Magnesium	<b>12100</b>	ug/L	2500	314	50	01/29/18 12:37	02/05/18 17:18	7439-95-4	
Manganese	<b>5520</b>	ug/L	500	38.2	50	01/29/18 12:37	02/05/18 17:18	7439-96-5	
Potassium	<b>4750</b>	ug/L	100	16.5	1	01/29/18 12:37	02/05/18 17:12	7440-09-7	
Sodium	<b>8000</b>	ug/L	100	13.5	1	01/29/18 12:37	02/05/18 17:12	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>447</b>	ug/L	5.0	0.52	1	01/31/18 15:52	02/01/18 22:11	7440-38-2	
Iron, Dissolved	<b>4760</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/01/18 22:11	7439-89-6	
Manganese, Dissolved	<b>5130</b>	ug/L	100	7.6	10	01/31/18 15:52	02/05/18 14:15	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>3.8</b>	mg/L	0.25	0.024	1		01/24/18 21:31	16887-00-6	
Sulfate	<b>30.2</b>	mg/L	10.0	0.17	10		02/05/18 16:31	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261131

QC Batch: 121 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 261032003

METHOD BLANK: 806 Matrix: Water  
Associated Lab Samples: 261032003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	0.52	02/06/18 13:34	
Calcium	ug/L	ND	500	40.4	02/06/18 13:34	
Iron	ug/L	ND	40.0	4.3	02/06/18 13:34	
Magnesium	ug/L	ND	50.0	6.3	02/06/18 13:34	
Manganese	ug/L	ND	10.0	0.76	02/06/18 13:34	
Potassium	ug/L	ND	100	16.5	02/06/18 13:34	
Sodium	ug/L	ND	100	13.5	02/06/18 13:34	

LABORATORY CONTROL SAMPLE: 807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	100	96.7	97	80-120	
Calcium	ug/L	1000	942	94	80-120	
Iron	ug/L	1000	988	99	80-120	
Magnesium	ug/L	1000	1000	100	80-120	
Manganese	ug/L	100	102	102	80-120	
Potassium	ug/L	1000	925	92	80-120	
Sodium	ug/L	1000	977	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 808 809

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Arsenic	ug/L	ND	100	100	98.1	99.8	98	100	75-125	2	20
Calcium	ug/L	5800	1000	1000	6660	6870	85	106	75-125	3	20
Iron	ug/L	57.6	1000	1000	1270	1280	100	101	75-125	1	20
Magnesium	ug/L	941	1000	1000	1940	1950	100	101	75-125	1	20
Manganese	ug/L	98.7	100	100	200	206	100	106	75-125	3	20
Potassium	ug/L	745	1000	1000	1760	1760	102	101	75-125	0	20
Sodium	ug/L	8970	1000	1000	9730	9950	76	97	75-125	2	20

SAMPLE DUPLICATE: 810

Parameter	Units	261048003 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Calcium	ug/L	3860	3890	1	20	
Iron	ug/L	841	884	5	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering

Pace Project No.: 261131

SAMPLE DUPLICATE: 810

Parameter	Units	261048003 Result	Dup Result	RPD	Max RPD	Qualifiers
Magnesium	ug/L	1360	1420	4	20	
Manganese	ug/L	16.9	18.2	7	20	
Potassium	ug/L	2630	2660	1	20	
Sodium	ug/L	5090	5270	3	20	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261131

QC Batch: 262 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET Dissolved  
Associated Lab Samples: 261032003

METHOD BLANK: 1501 Matrix: Water  
Associated Lab Samples: 261032003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	0.52	02/01/18 21:48	
Iron, Dissolved	ug/L	ND	40.0	4.3	02/01/18 21:48	
Manganese, Dissolved	ug/L	ND	10.0	0.76	02/01/18 21:48	

LABORATORY CONTROL SAMPLE: 1502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	104	104	80-120	
Iron, Dissolved	ug/L	1000	1090	109	80-120	
Manganese, Dissolved	ug/L	100	109	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1781 1782

Parameter	Units	261081004		1782		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Arsenic, Dissolved	ug/L	ND	100	100	107	104	107	104	75-125	2	20		
Iron, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20		
Manganese, Dissolved	ug/L	1010	100	100	1100	1070	86	60	75-125	2	20	M1	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering

Pace Project No.: 261131

QC Batch: 39	Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0	Analysis Description: 300.0 IC Anions
Associated Lab Samples: 261032003	

METHOD BLANK: 291 Matrix: Water  
Associated Lab Samples: 261032003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	01/24/18 17:11	
Sulfate	mg/L	ND	1.0	0.017	01/24/18 17:11	

LABORATORY CONTROL SAMPLE: 292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 293 294

Parameter	Units	261032001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.8	10	10	13.5	13.4	96	96	90-110	0	15	
Sulfate	mg/L	7.6	10	10	17.2	17.2	96	96	90-110	0	15	

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## QUALIFIERS

Project: McDonough Advanced Engineering  
Pace Project No.: 261131

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McDonough Advanced Engineering

Pace Project No.: 261131

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
261032003	DGWC-68	EPA 3005A	121	EPA 6020B	191
261032003	DGWC-68	EPA 3005A	262	EPA 6020B	328
261032003	DGWC-68	EPA 300.0	39		

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**CHAIN OF CUSTODY RECORD**



Pace Analytical Services, Inc.  
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092  
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: \_\_\_\_\_ OF \_\_\_\_\_

CLIENT NAME:					ANALYSIS REQUESTED										L A B I D N U M B E R	CONTAINER TYPE		PRESERVATION		
Georgia Power					CONTAINER TYPE:	P	P	P												
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:					PRESERVATION:															
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239					# of															
REPORT TO:					C O N T A I N E R S	C I S O 1 E P A 8 0 5 6	*Metals, Dissolved (EPA 6010/6020) (field filtered) As, Fe, Mn	*Metals (EPA 6010/6020) As, Ca, Fe, Mg, Mn, Na, K											P - PLASTIC	1 - HCl, ≤8°C
Tim Richards (Tim_Richards@golder.com)																			A - AMBER GLASS	2 - H <sub>2</sub> SO <sub>4</sub> , ≤8°C
REQUESTED COMPLETION DATE:															G - CLEAR GLASS	3 - HNO <sub>3</sub>				
PROJECT NAME/STATE:															V - VOA VIAL	4 - NaOH, ≤8°C				
Plant McDonough AP- AE Sampling															S - STERILE	5 - NaOH/ZnAc, ≤8°C				
PROJECT #:															O - OTHER	6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤8°C				
1779172															*MATRIX CODES:					
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION															
01/22/18	1130	GW		x	DGWA-71	3	1	1	1											
01/22/18	1335	GW		x	DGWC-68A	3	1	1	1											
01/22/18	1150	GW		x	DGWC-68	3	1	1	1											
SAMPLED BY AND TITLE:					DATE/TIME:					RELINQUISHED BY:					DATE/TIME:					
Ben Hodges Field Lead					1/23/18 1000					<i>[Signature]</i>					1/23/18 0945					
RECEIVED BY: Mike Niquera					DATE/TIME: 1/23/18 0945					RECEIVED BY:					DATE/TIME:					
RECEIVED BY LAB: <i>[Signature]</i>					DATE/TIME: 01/23/18 1220					SAMPLE SHIPPED VIA:					DATE/TIME:					
Checked: Yes No NA					Temperature: Min: 1.3 Max:					Custody Seal: Intact Broken Not Present					Cooler ID:					

WO#: 261032



Received by lab: *[Signature]*

Page 1 of 13

**Sample Condition Upon Receipt**



Client Name: Golder Associates Project # \_\_\_\_\_

**WO#: 261032**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: \_\_\_\_\_

PM: **BM** Due Date: **01/30/18**

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes

**CLIENT: Golder-ATL**

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used THA-083 Type of Ice:  Blue  None  Samples on ice, cooling process has begun

Cooler Temperature 1.3  
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No  
Comments: \_\_\_\_\_

Date and Initials of person examining contents: 1/23/18 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>GTW</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:** \_\_\_\_\_ **Field Data Required?** Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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)

February 08, 2018

Kristen Jurinko  
Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta, GA 30341

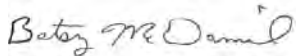
RE: Project: McDonough Advanced Engineering  
Pace Project No.: 261197

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: McDonough Advanced Engineering

Pace Project No.: 261197

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: McDonough Advanced Engineering

Pace Project No.: 261197

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
261197001	AP-1 B-3	Water	01/24/18 13:50	01/26/18 11:30
261197002	AP-1 B-7	Water	01/25/18 11:05	01/26/18 11:30

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### SAMPLE ANALYTE COUNT

Project: McDonough Advanced Engineering

Pace Project No.: 261197

Lab ID	Sample ID	Method	Analysts	Analytes Reported
261197001	AP-1 B-3	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261197002	AP-1 B-7	EPA 6020B	KLH	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering  
Pace Project No.: 261197

Sample: AP-1 B-3		Lab ID: 261197001		Collected: 01/24/18 13:50		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>2070</b>	ug/L	250	26.1	50	02/02/18 08:44	02/05/18 22:19	7440-38-2	
Calcium	<b>65400</b>	ug/L	25000	2020	50	02/02/18 08:44	02/05/18 22:19	7440-70-2	
Iron	<b>28200</b>	ug/L	2000	214	50	02/02/18 08:44	02/05/18 22:19	7439-89-6	N2
Magnesium	<b>20300</b>	ug/L	2500	314	50	02/02/18 08:44	02/05/18 22:19	7439-95-4	
Manganese	<b>2710</b>	ug/L	500	38.2	50	02/02/18 08:44	02/05/18 22:19	7439-96-5	
Potassium	<b>8140</b>	ug/L	5000	825	50	02/02/18 08:44	02/06/18 16:54	7440-09-7	
Sodium	<b>11200</b>	ug/L	5000	674	50	02/02/18 08:44	02/05/18 22:19	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>2140</b>	ug/L	50.0	5.2	10	01/31/18 15:52	02/02/18 19:43	7440-38-2	
Iron, Dissolved	<b>28300</b>	ug/L	400	42.7	10	01/31/18 15:52	02/02/18 19:43	7439-89-6	N2
Manganese, Dissolved	<b>2690</b>	ug/L	100	7.6	10	01/31/18 15:52	02/02/18 19:43	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>9.1</b>	mg/L	0.25	0.024	1		02/01/18 00:05	16887-00-6	
Sulfate	<b>173</b>	mg/L	10.0	0.17	10		02/06/18 16:59	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261197

Sample: AP-1 B-7		Lab ID: 261197002		Collected: 01/25/18 11:05		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>1930</b>	ug/L	250	26.1	50	02/02/18 08:44	02/05/18 22:30	7440-38-2	
Calcium	<b>52100</b>	ug/L	25000	2020	50	02/02/18 08:44	02/05/18 22:30	7440-70-2	
Iron	<b>11000</b>	ug/L	2000	214	50	02/02/18 08:44	02/05/18 22:30	7439-89-6	N2
Magnesium	<b>9730</b>	ug/L	50.0	6.3	1	02/02/18 08:44	02/05/18 22:24	7439-95-4	
Manganese	<b>3000</b>	ug/L	500	38.2	50	02/02/18 08:44	02/05/18 22:30	7439-96-5	
Potassium	<b>9520</b>	ug/L	5000	825	50	02/02/18 08:44	02/06/18 17:00	7440-09-7	
Sodium	<b>5970</b>	ug/L	100	13.5	1	02/02/18 08:44	02/05/18 22:24	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>1880</b>	ug/L	50.0	5.2	10	01/31/18 15:52	02/02/18 19:49	7440-38-2	
Iron, Dissolved	<b>9240</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:00	7439-89-6	N2
Manganese, Dissolved	<b>2980</b>	ug/L	100	7.6	10	01/31/18 15:52	02/02/18 19:49	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>3.5</b>	mg/L	0.25	0.024	1		02/01/18 00:26	16887-00-6	
Sulfate	<b>63.0</b>	mg/L	5.0	0.085	5		02/06/18 18:31	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: McDonough Advanced Engineering  
Pace Project No.: 261197

QC Batch: 391 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 261197001, 261197002

METHOD BLANK: 2160 Matrix: Water  
Associated Lab Samples: 261197001, 261197002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	0.52	02/05/18 20:53	
Calcium	ug/L	ND	500	40.4	02/05/18 20:53	
Iron	ug/L	ND	40.0	4.3	02/05/18 20:53	N2
Magnesium	ug/L	ND	50.0	6.3	02/05/18 20:53	
Manganese	ug/L	ND	10.0	0.76	02/05/18 20:53	
Potassium	ug/L	ND	100	16.5	02/06/18 16:31	
Sodium	ug/L	ND	100	13.5	02/05/18 20:53	

LABORATORY CONTROL SAMPLE: 2161

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	100	100	100	80-120	
Calcium	ug/L	1000	1040	104	80-120	
Iron	ug/L	1000	1010	101	80-120	N2
Magnesium	ug/L	1000	1020	102	80-120	
Manganese	ug/L	100	105	105	80-120	
Potassium	ug/L	1000	1010	101	80-120	
Sodium	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4201 4202

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		261118002 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	ug/L	ND	100	100	99.8	100	100	75-125	0	20	
Calcium	ug/L	6130	1000	1000	7870	7270	174	75-125	8	20	M1
Iron	ug/L	347	1000	1000	1330	1410	99	75-125	5	20	N2
Magnesium	ug/L	2020	1000	1000	3030	3170	101	75-125	5	20	
Manganese	ug/L	11.2	100	100	113	120	102	75-125	6	20	
Potassium	ug/L	3590	1000	1000	4580	4800	99	75-125	5	20	
Sodium	ug/L	8760	1000	1000	9530	9950	76	75-125	4	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.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261197

QC Batch: 262 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET Dissolved  
Associated Lab Samples: 261197001, 261197002

METHOD BLANK: 1501 Matrix: Water  
Associated Lab Samples: 261197001, 261197002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	0.52	02/01/18 21:48	
Iron, Dissolved	ug/L	ND	40.0	4.3	02/01/18 21:48	N2
Manganese, Dissolved	ug/L	ND	10.0	0.76	02/01/18 21:48	

LABORATORY CONTROL SAMPLE: 1502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	104	104	80-120	
Iron, Dissolved	ug/L	1000	1090	109	80-120	N2
Manganese, Dissolved	ug/L	100	109	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1781 1782

Parameter	Units	261081004 Result	MS		MSD		% Rec		% Rec Limits	Max		Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec		RPD	RPD	
Arsenic, Dissolved	ug/L	ND	100	100	107	104	107	104	75-125	2	20	
Iron, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	N2
Manganese, Dissolved	ug/L	1010	100	100	1100	1070	86	60	75-125	2	20	M1

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261197

QC Batch: 291 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 261197001, 261197002

METHOD BLANK: 1608 Matrix: Water  
Associated Lab Samples: 261197001, 261197002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	01/31/18 21:20	
Sulfate	mg/L	ND	1.0	0.017	01/31/18 21:20	

LABORATORY CONTROL SAMPLE: 1609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610 1611

Parameter	Units	261248001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.3	10	10	16.3	16.3	100	100	90-110	0	15	
Sulfate	mg/L	20.5	10	10	28.6	28.6	80	80	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 1612

Parameter	Units	261248002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.3	10	16.7	105	90-110	
Sulfate	mg/L	20.5	10	28.8	84	90-110	M1

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

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## QUALIFIERS

Project: McDonough Advanced Engineering

Pace Project No.: 261197

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

N2 The lab does not hold NELAC/TNI accreditation for this parameter.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McDonough Advanced Engineering

Pace Project No.: 261197

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
261197001	AP-1 B-3	EPA 3005A	391	EPA 6020B	517
261197002	AP-1 B-7	EPA 3005A	391	EPA 6020B	517
261197001	AP-1 B-3	EPA 3005A	262	EPA 6020B	328
261197002	AP-1 B-7	EPA 3005A	262	EPA 6020B	328
261197001	AP-1 B-3	EPA 300.0	291		
261197002	AP-1 B-7	EPA 300.0	291		

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**Sample Condition Upon Receipt**



Client Name: Golder Associates Project # \_\_\_\_\_

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

**WO#: 261197**

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes

PM: **BM** Due Date: **02/02/18**  
 CLIENT: **Golder-ATL**

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used THA-083 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process was begun

Cooler Temperature 0.5 Biological Tissue Is Frozen: Yes No  
 Temp should be above freezing to 5°C

Date and Initials of person examining contents: 1/26/18 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-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	10.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>GWA</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>8mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? **Y / N**  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

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

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):



February 08, 2018

Kristen Jurinko  
Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta, GA 30341

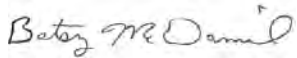
RE: Project: McDonough Advanced Engineering  
Pace Project No.: 261198

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Lab ID	Sample ID	Matrix	Date Collected	Date Received
261198001	B-51	Water	01/25/18 10:20	01/26/18 11:30
261198002	B-73	Water	01/25/18 13:00	01/26/18 11:30
261198003	B-72	Water	01/25/18 15:40	01/26/18 11:30
261198004	FB-2	Water	01/25/18 15:30	01/26/18 11:30
261198005	EB-2	Water	01/25/18 16:10	01/26/18 11:30
261198006	FD-2	Water	01/25/18 00:00	01/26/18 11:30
261198007	B-31	Water	01/25/18 15:15	01/26/18 11:30
261198008	FD-1	Water	01/25/18 00:00	01/26/18 11:30
261198009	FB-1	Water	01/25/18 14:45	01/26/18 11:30
261198010	EB-1	Water	01/25/18 16:00	01/26/18 11:30

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### SAMPLE ANALYTE COUNT

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Lab ID	Sample ID	Method	Analysts	Analytes Reported
261198001	B-51	EPA 6020B	CSW	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261198002	B-73	EPA 6020B	CSW	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261198003	B-72	EPA 6020B	CSW	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261198004	FB-2	EPA 6020B	CSW	7
		EPA 300.0	RLC	2
261198005	EB-2	EPA 6020B	CSW	7
		EPA 300.0	RLC	2
261198006	FD-2	EPA 6020B	CSW	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261198007	B-31	EPA 6020B	CSW	7
		EPA 6020B	KLH	3
		EPA 300.0	RLC	2
261198008	FD-1	EPA 6020B	CSW	7
		EPA 6020B	CSW	3
		EPA 300.0	RLC	2
261198009	FB-1	EPA 6020B	CSW	7
		EPA 300.0	RLC	2
261198010	EB-1	EPA 6020B	CSW	7
		EPA 300.0	RLC	2

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: B-51		Lab ID: 261198001		Collected: 01/25/18 10:20		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 19:51	7440-38-2	
Calcium	<b>54500</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 19:57	7440-70-2	
Iron	<b>56.2</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 19:51	7439-89-6	N2
Magnesium	<b>8010</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 19:51	7439-95-4	
Manganese	<b>194</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 19:51	7439-96-5	
Potassium	<b>4040</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 19:51	7440-09-7	
Sodium	<b>13400</b>	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 19:51	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/02/18 00:05	7440-38-2	
Iron, Dissolved	<b>45.2</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:05	7439-89-6	N2
Manganese, Dissolved	<b>177</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/02/18 00:05	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>5.6</b>	mg/L	0.25	0.024	1		02/01/18 00:47	16887-00-6	
Sulfate	<b>92.6</b>	mg/L	5.0	0.085	5		02/06/18 18:54	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: B-73		Lab ID: 261198002		Collected: 01/25/18 13:00		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>12.5</b>	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 20:03	7440-38-2	
Calcium	<b>45000</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 20:08	7440-70-2	
Iron	<b>291</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 20:03	7439-89-6	N2
Magnesium	<b>14100</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 20:03	7439-95-4	
Manganese	<b>3640</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 20:03	7439-96-5	
Potassium	<b>3700</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 20:03	7440-09-7	
Sodium	<b>8110</b>	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 20:03	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>12.5</b>	ug/L	5.0	0.52	1	01/31/18 15:52	02/02/18 00:11	7440-38-2	
Iron, Dissolved	<b>20.9J</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:11	7439-89-6	N2
Manganese, Dissolved	<b>3570</b>	ug/L	100	7.6	10	01/31/18 15:52	02/02/18 19:54	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>3.8</b>	mg/L	0.25	0.024	1		02/01/18 01:07	16887-00-6	
Sulfate	<b>41.5</b>	mg/L	5.0	0.085	5		02/06/18 19:16	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: B-72		Lab ID: 261198003		Collected: 01/25/18 15:40		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 20:14	7440-38-2	
Calcium	<b>38100</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 20:20	7440-70-2	
Iron	<b>60.3</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 20:14	7439-89-6	N2
Magnesium	<b>13200</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 20:14	7439-95-4	
Manganese	<b>368</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 20:14	7439-96-5	
Potassium	<b>3930</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 20:14	7440-09-7	
Sodium	<b>14000</b>	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 20:14	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/02/18 00:17	7440-38-2	
Iron, Dissolved	<b>27.0J</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:17	7439-89-6	N2
Manganese, Dissolved	<b>343</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/02/18 00:17	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>5.4</b>	mg/L	0.25	0.024	1		02/01/18 01:28	16887-00-6	
Sulfate	<b>96.0</b>	mg/L	10.0	0.17	10		02/06/18 19:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: <b>FB-2</b>		Lab ID: <b>261198004</b>		Collected: 01/25/18 15:30	Received: 01/26/18 11:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 20:25	7440-38-2		
Calcium	ND	ug/L	500	40.4	1	02/05/18 10:25	02/07/18 20:25	7440-70-2		
Iron	ND	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 20:25	7439-89-6	N2	
Magnesium	ND	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 20:25	7439-95-4		
Manganese	ND	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 20:25	7439-96-5		
Potassium	ND	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 20:25	7440-09-7		
Sodium	ND	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 20:25	7440-23-5		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.028J</b>	mg/L	0.25	0.024	1		02/01/18 01:48	16887-00-6		
Sulfate	<b>0.069J</b>	mg/L	1.0	0.017	1		02/01/18 01:48	14808-79-8		

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: EB-2		Lab ID: 261198005		Collected: 01/25/18 16:10		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 20:31	7440-38-2	
Calcium	ND	ug/L	500	40.4	1	02/05/18 10:25	02/07/18 20:31	7440-70-2	
Iron	<b>5.3J</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 20:31	7439-89-6	N2
Magnesium	ND	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 20:31	7439-95-4	
Manganese	ND	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 20:31	7439-96-5	
Potassium	ND	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 20:31	7440-09-7	
Sodium	ND	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 20:31	7440-23-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	ND	mg/L	0.25	0.024	1		02/01/18 03:32	16887-00-6	
Sulfate	ND	mg/L	1.0	0.017	1		02/01/18 03:32	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: <b>FD-2</b>		Lab ID: <b>261198006</b>		Collected: 01/25/18 00:00		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 20:48	7440-38-2	
Calcium	<b>37800</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 20:54	7440-70-2	
Iron	<b>62.5</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 20:48	7439-89-6	N2
Magnesium	<b>13600</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 20:48	7439-95-4	
Manganese	<b>365</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 20:48	7439-96-5	
Potassium	<b>4110</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 20:48	7440-09-7	
Sodium	<b>14300</b>	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 20:48	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/02/18 00:23	7440-38-2	
Iron, Dissolved	<b>72.5</b>	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:23	7439-89-6	N2
Manganese, Dissolved	<b>340</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/02/18 00:23	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>5.4</b>	mg/L	0.25	0.024	1		02/01/18 03:52	16887-00-6	
Sulfate	<b>94.3</b>	mg/L	10.0	0.17	10		02/06/18 17:22	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: B-31		Lab ID: 261198007		Collected: 01/25/18 15:15		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 21:00	7440-38-2	
Calcium	<b>68300</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 21:06	7440-70-2	
Iron	<b>8.7J</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 21:00	7439-89-6	N2
Magnesium	<b>15100</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 21:00	7439-95-4	
Manganese	<b>25.6</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 21:00	7439-96-5	
Potassium	<b>4470</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 21:00	7440-09-7	
Sodium	<b>29300</b>	ug/L	5000	674	50	02/05/18 10:25	02/07/18 21:06	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	ND	ug/L	5.0	0.52	1	01/31/18 15:52	02/02/18 00:28	7440-38-2	
Iron, Dissolved	ND	ug/L	40.0	4.3	1	01/31/18 15:52	02/02/18 00:28	7439-89-6	N2
Manganese, Dissolved	<b>25.3</b>	ug/L	10.0	0.76	1	01/31/18 15:52	02/02/18 00:28	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>7.3</b>	mg/L	0.25	0.024	1		02/01/18 04:34	16887-00-6	
Sulfate	<b>281</b>	mg/L	20.0	0.34	20		02/06/18 20:01	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: <b>FD-1</b>		Lab ID: <b>261198008</b>		Collected: 01/25/18 00:00		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 21:11	7440-38-2	
Calcium	<b>72400</b>	ug/L	25000	2020	50	02/05/18 10:25	02/07/18 21:17	7440-70-2	
Iron	<b>13.2J</b>	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 21:11	7439-89-6	N2
Magnesium	<b>15200</b>	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 21:11	7439-95-4	
Manganese	<b>25.8</b>	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 21:11	7439-96-5	
Potassium	<b>4470</b>	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 21:11	7440-09-7	
Sodium	<b>31300</b>	ug/L	5000	674	50	02/05/18 10:25	02/07/18 21:17	7440-23-5	
<b>6020B MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic, Dissolved	<b>0.54J</b>	ug/L	5.0	0.52	1	02/05/18 10:44	02/07/18 23:52	7440-38-2	
Iron, Dissolved	<b>10.0J</b>	ug/L	40.0	4.3	1	02/05/18 10:44	02/07/18 23:52	7439-89-6	N2
Manganese, Dissolved	<b>25.7</b>	ug/L	10.0	0.76	1	02/05/18 10:44	02/07/18 23:52	7439-96-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>7.3</b>	mg/L	0.25	0.024	1		02/01/18 04:54	16887-00-6	
Sulfate	<b>280</b>	mg/L	20.0	0.34	20		02/06/18 20:23	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: <b>FB-1</b>		Lab ID: <b>261198009</b>		Collected: 01/25/18 14:45		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 21:23	7440-38-2	
Calcium	ND	ug/L	500	40.4	1	02/05/18 10:25	02/07/18 21:23	7440-70-2	
Iron	ND	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 21:23	7439-89-6	N2
Magnesium	ND	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 21:23	7439-95-4	
Manganese	ND	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 21:23	7439-96-5	
Potassium	ND	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 21:23	7440-09-7	
Sodium	ND	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 21:23	7440-23-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>0.047J</b>	mg/L	0.25	0.024	1		02/01/18 05:15	16887-00-6	
Sulfate	ND	mg/L	1.0	0.017	1		02/01/18 05:15	14808-79-8	

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### ANALYTICAL RESULTS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Sample: EB-1		Lab ID: 261198010		Collected: 01/25/18 16:00		Received: 01/26/18 11:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	0.52	1	02/05/18 10:25	02/07/18 21:28	7440-38-2	
Calcium	ND	ug/L	500	40.4	1	02/05/18 10:25	02/07/18 21:28	7440-70-2	
Iron	ND	ug/L	40.0	4.3	1	02/05/18 10:25	02/07/18 21:28	7439-89-6	N2
Magnesium	ND	ug/L	50.0	6.3	1	02/05/18 10:25	02/07/18 21:28	7439-95-4	
Manganese	ND	ug/L	10.0	0.76	1	02/05/18 10:25	02/07/18 21:28	7439-96-5	
Potassium	ND	ug/L	100	16.5	1	02/05/18 10:25	02/07/18 21:28	7440-09-7	
Sodium	ND	ug/L	100	13.5	1	02/05/18 10:25	02/07/18 21:28	7440-23-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>0.027J</b>	mg/L	0.25	0.024	1		02/01/18 05:35	16887-00-6	
Sulfate	ND	mg/L	1.0	0.017	1		02/01/18 05:35	14808-79-8	

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**QUALITY CONTROL DATA**

Project: McDonough Advanced Engineering

Pace Project No.: 261198

QC Batch:	416	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
Associated Lab Samples:	261198001, 261198002, 261198003, 261198004, 261198005, 261198006, 261198007, 261198008, 261198009, 261198010		

METHOD BLANK:	4267	Matrix:	Water
Associated Lab Samples:	261198001, 261198002, 261198003, 261198004, 261198005, 261198006, 261198007, 261198008, 261198009, 261198010		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	0.52	02/07/18 19:40	
Calcium	ug/L	ND	500	40.4	02/07/18 19:40	
Iron	ug/L	ND	40.0	4.3	02/07/18 19:40	N2
Magnesium	ug/L	ND	50.0	6.3	02/07/18 19:40	
Manganese	ug/L	ND	10.0	0.76	02/07/18 19:40	
Potassium	ug/L	ND	100	16.5	02/07/18 19:40	
Sodium	ug/L	ND	100	13.5	02/07/18 19:40	

LABORATORY CONTROL SAMPLE: 4268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	100	102	102	80-120	
Calcium	ug/L	1000	1020	102	80-120	
Iron	ug/L	1000	1020	102	80-120	N2
Magnesium	ug/L	1000	1050	105	80-120	
Manganese	ug/L	100	105	105	80-120	
Potassium	ug/L	1000	1070	107	80-120	
Sodium	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4269 4270

Parameter	Units	261140001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Conc.	Spike Conc.	MSD Conc.						
Arsenic	ug/L	ND	100	100	102	101	101	101	75-125	0	20	
Calcium	ug/L	2190	1000	1000	3130	3260	94	107	75-125	4	20	
Iron	ug/L	33.6J	1000	1000	1050	1080	102	105	75-125	3	20	N2
Magnesium	ug/L	1830	1000	1000	2780	2880	95	104	75-125	4	20	
Manganese	ug/L	1.6J	100	100	106	108	105	106	75-125	1	20	
Potassium	ug/L	1630	1000	1000	2690	2800	106	117	75-125	4	20	
Sodium	ug/L	4300	1000	1000	5330	5510	103	121	75-125	3	20	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261198

QC Batch: 262 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET Dissolved  
Associated Lab Samples: 261198001, 261198002, 261198003, 261198006, 261198007

METHOD BLANK: 1501 Matrix: Water  
Associated Lab Samples: 261198001, 261198002, 261198003, 261198006, 261198007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	0.52	02/01/18 21:48	
Iron, Dissolved	ug/L	ND	40.0	4.3	02/01/18 21:48	N2
Manganese, Dissolved	ug/L	ND	10.0	0.76	02/01/18 21:48	

LABORATORY CONTROL SAMPLE: 1502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	104	104	80-120	
Iron, Dissolved	ug/L	1000	1090	109	80-120	N2
Manganese, Dissolved	ug/L	100	109	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1781 1782

Parameter	Units	261081004		1782		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Arsenic, Dissolved	ug/L	ND	100	100	107	104	107	104	75-125	2	20		
Iron, Dissolved	ug/L	ND	1000	1000	1030	1020	103	102	75-125	1	20	N2	
Manganese, Dissolved	ug/L	1010	100	100	1100	1070	86	60	75-125	2	20	M1	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering

Pace Project No.: 261198

QC Batch: 414

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020B MET Dissolved

Associated Lab Samples: 261198008

METHOD BLANK: 4261

Matrix: Water

Associated Lab Samples: 261198008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	0.52	02/07/18 23:40	
Iron, Dissolved	ug/L	ND	40.0	4.3	02/07/18 23:40	N2
Manganese, Dissolved	ug/L	ND	10.0	0.76	02/07/18 23:40	

LABORATORY CONTROL SAMPLE: 4262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	98.9	99	80-120	
Iron, Dissolved	ug/L	1000	1010	101	80-120	N2
Manganese, Dissolved	ug/L	100	102	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4416

4417

Parameter	Units	261218001		261218001		261218001		261218001		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec						
Arsenic, Dissolved	ug/L	7.1	100	100	109	111	102	104	75-125	2	20		
Iron, Dissolved	ug/L	709	1000	1000	1700	1720	99	102	75-125	1	20	N2	
Manganese, Dissolved	ug/L	2530	100	100	2290	2520	-241	-13	75-125	9	20	M6	

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### QUALITY CONTROL DATA

Project: McDonough Advanced Engineering  
Pace Project No.: 261198

QC Batch: 291 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 261198001, 261198002, 261198003, 261198004, 261198005, 261198006, 261198007, 261198008, 261198009, 261198010

METHOD BLANK: 1608 Matrix: Water  
Associated Lab Samples: 261198001, 261198002, 261198003, 261198004, 261198005, 261198006, 261198007, 261198008, 261198009, 261198010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	01/31/18 21:20	
Sulfate	mg/L	ND	1.0	0.017	01/31/18 21:20	

LABORATORY CONTROL SAMPLE: 1609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610 1611

Parameter	Units	261248001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.3	10	10	16.3	16.3	100	100	90-110	0	15	
Sulfate	mg/L	20.5	10	10	28.6	28.6	80	80	90-110	0	15 M1	

MATRIX SPIKE SAMPLE: 1612

Parameter	Units	261248002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.3	10	16.7	105	90-110	
Sulfate	mg/L	20.5	10	28.8	84	90-110 M1	

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## QUALIFIERS

Project: McDonough Advanced Engineering

Pace Project No.: 261198

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

N2 The lab does not hold NELAC/TNI accreditation for this parameter.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McDonough Advanced Engineering

Pace Project No.: 261198

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
261198001	B-51	EPA 3005A	416	EPA 6020B	665
261198002	B-73	EPA 3005A	416	EPA 6020B	665
261198003	B-72	EPA 3005A	416	EPA 6020B	665
261198004	FB-2	EPA 3005A	416	EPA 6020B	665
261198005	EB-2	EPA 3005A	416	EPA 6020B	665
261198006	FD-2	EPA 3005A	416	EPA 6020B	665
261198007	B-31	EPA 3005A	416	EPA 6020B	665
261198008	FD-1	EPA 3005A	416	EPA 6020B	665
261198009	FB-1	EPA 3005A	416	EPA 6020B	665
261198010	EB-1	EPA 3005A	416	EPA 6020B	665
261198001	B-51	EPA 3005A	262	EPA 6020B	328
261198002	B-73	EPA 3005A	262	EPA 6020B	328
261198003	B-72	EPA 3005A	262	EPA 6020B	328
261198006	FD-2	EPA 3005A	262	EPA 6020B	328
261198007	B-31	EPA 3005A	262	EPA 6020B	328
261198008	FD-1	EPA 3005A	414	EPA 6020B	670
261198001	B-51	EPA 300.0	291		
261198002	B-73	EPA 300.0	291		
261198003	B-72	EPA 300.0	291		
261198004	FB-2	EPA 300.0	291		
261198005	EB-2	EPA 300.0	291		
261198006	FD-2	EPA 300.0	291		
261198007	B-31	EPA 300.0	291		
261198008	FD-1	EPA 300.0	291		
261198009	FB-1	EPA 300.0	291		
261198010	EB-1	EPA 300.0	291		

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PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED										LAB ID NUMBER	CONTAINER TYPE		PRESERVATION											
Georgia Power		CONTAINER TYPE:	P	P	P									P - PLASTIC	1 - HCl, ≤8°C											
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		PRESERVATION:	7	3&7	3&7								A - AMBER GLASS	2 - H <sub>2</sub> SO <sub>4</sub> , ≤8°C												
241 Ralph McGill Blvd SE B10185		# of											G - CLEAR GLASS	3 - HNO <sub>3</sub>												
Atlanta, GA 30308		CONTAINERS	↓	Cl, SO <sub>4</sub> EPA 9058	*Metals, Dissolved (EPA 6010/6020) (field filtered) As, Fe, Mn	*Metals (EPA 6010/6020) As, Ca, Fe, Mg, Mn, Na, K							V - VOA VIAL	4 - NaOH, ≤8°C												
404-508-7239																							S - STERILE	5 - NaOH/ZnAc, ≤8°C		
REPORT TO:																							O - OTHER	6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤8°C		
Tim Richards (Tim_Richards@golder.com)																								7 - ≤8°C not frozen		
CC: KJurinko@golder.com																							*MATRIX CODES:			
REQUESTED COMPLETION DATE:																										
PROJECT NAME/STATE:																							WW - WASTEWATER	SL - SLUDGE		
Plant McDonough AP-AE Sampling																							GW - GROUNDWATER	SD - SOLID		
PROJECT #:																							SW - SURFACE WATER	A - AIR		
1779172																							ST - STORM WATER	L - LIQUID		
												W - WATER	P - PRODUCT													
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION								REMARKS/ADDITIONAL INFORMATION													
01/25/18	1020	GW		x	B-51	3	1	1	1				1													
01/25/18	1300	GW		x	B-73	3	1	1	1				2													
01/25/18	1540	GW		x	B-72	3	1	1	1				3													
01/25/18	1530	W		x	FB-2	2	1		1				4													
01/25/18	1610	W		x	EB-2	2	1		1				5													
01/25/18	-	GW		x	FD-2	3	1	1	1				6													
01/25/18	1515	GW		x	B-31	3	1	1	1				7													
01/25/18	-	GW		x	FD-1	3	1	1	1				8													
01/25/18	1445	W		x	FB-1	2	1		1				9													
01/25/18	1600	W		x	EB-1	2	1		1				10													

SAMPLED BY AND TITLE:		DATE/TIME:	RELINQUISHED BY:	DATE/TIME:	WO#: 261198
Ben Hodges Field Lead		1/25/18 1700	<i>[Signature]</i>	1/26/18 1000	
RECEIVED BY: Mike Nguyen		DATE/TIME: 1/26/18 1000	RELINQUISHED BY:	DATE/TIME:	
RECEIVED BY LAB: <i>[Signature]</i>		DATE/TIME: 01/26/18 1130	SAMPLE SHIPPED VIA:	DATE/TIME:	 261198
Checked: Yes No NA		Temperature: Min: 0.3 Max:	UPS FED-EX USPS COURIER CLIENT OTHER FS		
Custody Seal: Intact Broken Not Present		Cooler ID:			

**Sample Condition Upon Receipt**



Client Name: Golder Associates Project # \_\_\_\_\_

**WO#: 261198**

PM: BM Due Date: 02/02/18  
 CLIENT: Golder-ATL

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

Tracking #: \_\_\_\_\_  
 Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used THA-08<sup>m</sup> Type of Ice: (wet) Blue None  Samples on ice, cooling process has begun

Cooler Temperature 0.3 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 1/26/18 BM

Temp should be above freezing to 6°C **Comments:**

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>GLW</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, calform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

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

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).



18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

July 24, 2017

Golder Associates - Greensboro  
ATTN: Rachel Kirkman  
5B Oak Branch Drive  
Greensboro, NC, 27407  
Rachel.Kirkman@golder.com

RE: Project GOL-GB1701

Dear Rachel Kirkman,

On July 7, 2017, Brooks Applied Labs (BAL) received four (4) water samples in a sealed container with a temperature of 3.0°C. The samples were logged-in for total recoverable and dissolved arsenic [As] and arsenic speciation analyses, including arsenite [As(III)], arsenate [As(V)], monomethylarsonic acid [MMAs], and dimethylarsinic acid [DMAs].

The samples submitted for dissolved arsenic and arsenic speciation analyses were filtered in the field by the client.

All samples were received, prepared, analyzed, and stored according to BAL SOPs and EPA methodology. Reagent water for dilutions and sample preservatives is monitored for contamination to account for any biases associated with the sample results.

#### Total Recoverable and Dissolved Arsenic Quantitation by ICP-QQQ-MS

Arsenic quantitation was performed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website, [brooksapplied.com](http://brooksapplied.com). Prior to analysis all total recoverable arsenic sample fractions were preserved to (1% HNO<sub>3</sub> (v/v) + 1% HCl (v/v)) and oven digested in the same containers the samples were received in.

The total recoverable and dissolved arsenic results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

#### Arsenic Speciation Analysis by IC-ICP-CRC-MS

Arsenic speciation analysis was performed by ion chromatography coupled to an inductively coupled plasma collision reaction cell mass spectrometer (IC-ICP-CRC-MS).

The arsenic speciation results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

If the native sample result and/or the DUP result is not detected (ND) above the MDL, then the associated RPD is not calculated (N/C).

All data was reported without qualification (aside from concentration qualifiers) and all associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report.

Please feel free to contact me if you have any questions regarding this report.

Sincerely,



Jeremy Maute  
Project Manager  
Brooks Applied Labs, LLC  
jeremy@brooksapplied.com



Anna Prestbo  
Project Coordinator  
Brooks Applied Labs, LLC  
annap@brooksapplied.com





## Report Information

### Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. Results reported relate only to the samples listed in the report.

### Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

### Common Abbreviations

<b>AR</b>	as received	<b>MS</b>	matrix spike
<b>BAL</b>	Brooks Applied Labs	<b>MSD</b>	matrix spike duplicate
<b>BLK</b>	method blank	<b>ND</b>	non-detect
<b>BS</b>	blank spike	<b>NR</b>	non-reportable
<b>CAL</b>	calibration standard	<b>N/C</b>	not calculated
<b>CCB</b>	continuing calibration blank	<b>PS</b>	post preparation spike
<b>CCV</b>	continuing calibration verification	<b>REC</b>	percent recovery
<b>COC</b>	chain of custody record	<b>RPD</b>	relative percent difference
<b>D</b>	dissolved fraction	<b>SCV</b>	secondary calibration verification
<b>DUP</b>	duplicate	<b>SOP</b>	standard operating procedure
<b>IBL</b>	instrument blank	<b>SRM</b>	standard reference material
<b>ICV</b>	initial calibration verification	<b>T</b>	total fraction
<b>MDL</b>	method detection limit	<b>TR</b>	total recoverable fraction
<b>MRL</b>	method reporting limit		

### Definition of Data Qualifiers

(Effective 9/23/09)

<b>E</b>	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
<b>H</b>	Holding time and/or preservation requirements not met. Result is estimated.
<b>J</b>	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
<b>J-1</b>	Estimated value. A full explanation is presented in the narrative.
<b>J-M</b>	Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
<b>J-N</b>	Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
<b>M</b>	Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
<b>N</b>	Spike recovery was not within acceptance criteria. Result is estimated.
<b>R</b>	Rejected, unusable value. A full explanation is presented in the narrative.
<b>U</b>	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
<b>X</b>	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.



## Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
FB-1	1727041-01	Water	Sample	07/06/2017	07/07/2017
FB-1	1727041-02	Water	Sample	07/06/2017	07/07/2017
B-70A	1727041-03	Water	Sample	07/06/2017	07/07/2017
B-70A	1727041-04	Water	Sample	07/06/2017	07/07/2017
B-70A	1727041-05	Water	Sample	07/06/2017	07/07/2017
B-69	1727041-06	Water	Sample	07/06/2017	07/07/2017
B-69	1727041-07	Water	Sample	07/06/2017	07/07/2017
B-69	1727041-08	Water	Sample	07/06/2017	07/07/2017
B-68	1727041-09	Water	Sample	07/06/2017	07/07/2017
B-68	1727041-10	Water	Sample	07/06/2017	07/07/2017
B-68	1727041-11	Water	Sample	07/06/2017	07/07/2017

## Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As	Water	EPA 1638 Mod	07/14/2017	07/18/2017	B171701	1700855
As	Water	EPA 1638 Mod	07/14/2017	07/20/2017	B171701	1700863
As(III)	Water	SOP BAL-4100	07/11/2017	07/12/2017	B171687	1700824
As(V)	Water	SOP BAL-4100	07/11/2017	07/12/2017	B171687	1700824
DMAs	Water	SOP BAL-4100	07/11/2017	07/12/2017	B171687	1700824
MMAs	Water	SOP BAL-4100	07/11/2017	07/12/2017	B171687	1700824



## Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
<b>B-68</b>										
1727041-09	As	Water	TR	552		0.112	0.408	µg/L	B171701	1700855
1727041-10	As	Water	D	533		0.112	0.408	µg/L	B171701	1700855
1727041-11	As(III)	Water	D	504		0.200	1.00	µg/L	B171687	1700824
1727041-11	As(V)	Water	D	38.3		0.200	1.00	µg/L	B171687	1700824
1727041-11	DMAs	Water	D	≤ 0.250	U	0.250	1.05	µg/L	B171687	1700824
1727041-11	MMAs	Water	D	≤ 0.200	U	0.200	1.15	µg/L	B171687	1700824
<b>B-69</b>										
1727041-06	As	Water	TR	21.8		0.112	0.408	µg/L	B171701	1700855
1727041-07	As	Water	D	23.0		0.112	0.408	µg/L	B171701	1700855
1727041-08	As(III)	Water	D	20.6		0.200	1.00	µg/L	B171687	1700824
1727041-08	As(V)	Water	D	2.02		0.200	1.00	µg/L	B171687	1700824
1727041-08	DMAs	Water	D	≤ 0.250	U	0.250	1.05	µg/L	B171687	1700824
1727041-08	MMAs	Water	D	≤ 0.200	U	0.200	1.15	µg/L	B171687	1700824
<b>B-70A</b>										
1727041-03	As	Water	TR	≤ 0.112	U	0.112	0.408	µg/L	B171701	1700863
1727041-04	As	Water	D	≤ 0.112	U	0.112	0.408	µg/L	B171701	1700863
1727041-05	As(III)	Water	D	≤ 0.080	U	0.080	0.400	µg/L	B171687	1700824
1727041-05	As(V)	Water	D	0.121	J	0.080	0.400	µg/L	B171687	1700824
1727041-05	DMAs	Water	D	≤ 0.100	U	0.100	0.420	µg/L	B171687	1700824
1727041-05	MMAs	Water	D	≤ 0.080	U	0.080	0.460	µg/L	B171687	1700824
<b>FB-1</b>										
1727041-01	As	Water	TR	≤ 0.112	U	0.112	0.408	µg/L	B171701	1700863
1727041-02	As(III)	Water	D	≤ 0.080	U	0.080	0.400	µg/L	B171687	1700824
1727041-02	As(V)	Water	D	0.096	J	0.080	0.400	µg/L	B171687	1700824
1727041-02	DMAs	Water	D	≤ 0.100	U	0.100	0.420	µg/L	B171687	1700824
1727041-02	MMAs	Water	D	≤ 0.080	U	0.080	0.460	µg/L	B171687	1700824



## Accuracy & Precision Summary

Batch: B171687  
 Lab Matrix: Water  
 Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
<b>B171687-BS1</b>	<b>Blank Spike, (1714053)</b>						
	As(III)		5.000	5.138	µg/L	103% 75-125	
	As(V)		5.000	4.431	µg/L	89% 75-125	
	DMAs		3.198	2.805	µg/L	88% 75-125	
<b>B171687-BS2</b>	<b>Blank Spike, (1714054)</b>						
	As(V)		0.3510	0.280	µg/L	80% 75-125	
	MMAs		4.554	4.641	µg/L	102% 75-125	
<b>B171687-DUP1</b>	<b>Duplicate, (1727041-11)</b>						
	As(III)	504.1		498.1	µg/L		1% 25
	As(V)	38.27		38.53	µg/L		0.7% 25
	DMAs	ND		ND	µg/L		N/C 25
	MMAs	ND		ND	µg/L		N/C 25
<b>B171687-MS1</b>	<b>Matrix Spike, (1727041-11)</b>						
	As(III)	504.1	50.00	543.2	µg/L	NR 75-125	
	As(V)	38.27	50.00	86.89	µg/L	97% 75-125	
	DMAs	ND	49.00	48.01	µg/L	98% 75-125	
	MMAs	ND	50.35	49.88	µg/L	99% 75-125	
<b>B171687-MSD1</b>	<b>Matrix Spike Duplicate, (1727041-11)</b>						
	As(III)	504.1	50.00	550.4	µg/L	NR 75-125	N/C 25
	As(V)	38.27	50.00	87.68	µg/L	99% 75-125	0.9% 25
	DMAs	ND	49.00	49.04	µg/L	100% 75-125	2% 25
	MMAs	ND	50.35	50.45	µg/L	100% 75-125	1% 25



## Accuracy & Precision Summary

Batch: B171701  
 Lab Matrix: Water  
 Method: EPA 1638 Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B171701-BS1	Blank Spike, (1727001) As		20.41	21.02	µg/L	103% 75-125	
B171701-SRM1	Standard Reference Material (1724007, T221 as SRM) As		17.70	18.31	µg/L	103% 75-125	
B171701-SRM2	Standard Reference Material (1721039, NIST 1640a (batch SRM)) As		8.075	8.057	µg/L	100% 75-125	
B171701-SRM3	Standard Reference Material (1724007, T221 as SRM) As		17.70	18.84	µg/L	106% 75-125	
B171701-SRM4	Standard Reference Material (1721039, NIST 1640a (batch SRM)) As		8.075	7.761	µg/L	96% 75-125	
B171701-DUP2	Duplicate, (1727041-03) As	ND		ND	µg/L		N/C 20
B171701-MS2	Matrix Spike, (1727041-03) As	ND	102.0	99.99	µg/L	98% 75-125	
B171701-MSD2	Matrix Spike Duplicate, (1727041-03) As	ND	102.0	101.3	µg/L	99% 75-125	1% 20



## Method Blanks & Reporting Limits

**Batch:** B171687  
**Matrix:** Water  
**Method:** SOP BAL-4100  
**Analyte:** As(III)

Sample	Result	Units	
B171687-BLK1	0.00	µg/L	
B171687-BLK2	0.00	µg/L	
B171687-BLK3	0.00	µg/L	
B171687-BLK4	0.00	µg/L	
<b>Average:</b>	0.000		<b>MDL:</b> 0.004
<b>Limit:</b>	0.020		<b>MRL:</b> 0.020

**Analyte:** As(V)

Sample	Result	Units	
B171687-BLK1	0.001	µg/L	
B171687-BLK2	0.0005	µg/L	
B171687-BLK3	0.00009	µg/L	
B171687-BLK4	-0.0008	µg/L	
<b>Average:</b>	0.000		<b>MDL:</b> 0.004
<b>Limit:</b>	0.020		<b>MRL:</b> 0.020

**Analyte:** DMA<sub>s</sub>

Sample	Result	Units	
B171687-BLK1	0.00	µg/L	
B171687-BLK2	0.00	µg/L	
B171687-BLK3	0.00	µg/L	
B171687-BLK4	0.00	µg/L	
<b>Average:</b>	0.000		<b>MDL:</b> 0.005
<b>Limit:</b>	0.021		<b>MRL:</b> 0.021

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1727041  
**Client PM:** Rachel Kirkman  
**Client Project:** GPC-Plant McDonough

## Method Blanks & Reporting Limits

**Analyte:** MMAs

<b>Sample</b>	<b>Result</b>	<b>Units</b>	
B171687-BLK1	0.00	µg/L	
B171687-BLK2	0.00	µg/L	
B171687-BLK3	0.00	µg/L	
B171687-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.023</b>		<b>MRL: 0.023</b>

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1727041  
**Client PM:** Rachel Kirkman  
**Client Project:** GPC-Plant McDonough

## Method Blanks & Reporting Limits

**Batch:** B171701  
**Matrix:** Water  
**Method:** EPA 1638 Mod  
**Analyte:** As

Sample	Result	Units
B171701-BLK5	-0.001	µg/L
B171701-BLK6	0.002	µg/L
B171701-BLK7	-0.002	µg/L
B171701-BLK8	-0.004	µg/L

**Average:** -0.001  
**Limit:** 0.040

**MDL:** 0.011  
**MRL:** 0.040



Project ID: GOL-GB1701  
PM: Jeremy Maute



BAL Report 1727041  
Client PM: Rachel Kirkman  
Client Project: GPC-Plant McDonough

## Sample Containers

<b>Lab ID:</b> 1727041-01	<b>Report Matrix:</b> Water	<b>Collected:</b> 07/06/2017				
<b>Sample:</b> FB-1	<b>Sample Type:</b> Sample	<b>Received:</b> 07/07/2017				
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2	Cooler

**Comments:** Half Filtered into 1727041-12

<b>Lab ID:</b> 1727041-02	<b>Report Matrix:</b> Water	<b>Collected:</b> 07/06/2017				
<b>Sample:</b> FB-1	<b>Sample Type:</b> Sample	<b>Received:</b> 07/07/2017				
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Vacutainer	6 mL	16-0257	EDTA (PP)	NA	4-6	Cooler
B EXTRA_VOL	6 mL	16-0257	EDTA (PP)	NA	4-6	Cooler

<b>Lab ID:</b> 1727041-03	<b>Report Matrix:</b> Water	<b>Collected:</b> 07/06/2017				
<b>Sample:</b> B-70A	<b>Sample Type:</b> Sample	<b>Received:</b> 07/07/2017				
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2	Cooler

<b>Lab ID:</b> 1727041-04	<b>Report Matrix:</b> Water	<b>Collected:</b> 07/06/2017				
<b>Sample:</b> B-70A	<b>Sample Type:</b> Sample	<b>Received:</b> 07/07/2017				
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2	Cooler

<b>Lab ID:</b> 1727041-05	<b>Report Matrix:</b> Water	<b>Collected:</b> 07/06/2017				
<b>Sample:</b> B-70A	<b>Sample Type:</b> Sample	<b>Received:</b> 07/07/2017				
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Vacutainer	6 mL	16-0257	EDTA (PP)	NA	4-6	Cooler
B EXTRA_VOL	6 mL	16-0257	EDTA (PP)	NA	4-6	Cooler



## Sample Containers

<b>Lab ID:</b> 1727041-06			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-69			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2 Cooler

<b>Lab ID:</b> 1727041-07			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-69			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2 Cooler

<b>Lab ID:</b> 1727041-08			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-69			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Vacutainer	6 mL	16-0257	EDTA (PP)	NA	4-6 Cooler
B EXTRA_VOL	6 mL	16-0257	EDTA (PP)	NA	4-6 Cooler

<b>Lab ID:</b> 1727041-09			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-68			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2 Cooler

<b>Lab ID:</b> 1727041-10			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-68			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Bottle HDPE ICP-W	125 mL	17-0079	0.2% HNO3 (BAL)	1724042	<2 Cooler

<b>Lab ID:</b> 1727041-11			<b>Report Matrix:</b> Water		<b>Collected:</b> 07/06/2017
<b>Sample:</b> B-68			<b>Sample Type:</b> Sample		<b>Received:</b> 07/07/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>Pres-Lot</b>	<b>pH Ship. Cont.</b>
A Vacutainer	6 mL	16-0257	EDTA (PP)	NA	4-6 Cooler
B EXTRA_VOL	6 mL	16-0257	EDTA (PP)	NA	4-6 Cooler

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1727041  
**Client PM:** Rachel Kirkman  
**Client Project:** GPC-Plant McDonough

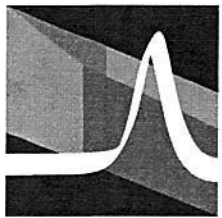
## Shipping Containers

### Cooler

**Received:** July 7, 2017 9:30  
**Tracking No:** 787106210796 via FedEx  
**Coolant Type:** Ice  
**Temperature:** 3.0 °C

**Description:** Cooler  
**Damaged in transit?** No  
**Returned to client?** No  
**Comments:** IR#15

**Custody seals present?** Yes  
**Custody seals intact?** Yes  
**COC present?** Yes



**BROOKS  
APPLIED  
LABS**

# Chain-of-Custody Form

Ship samples to:  
18804 North Creek Parkway, Suite 100  
Bothell, WA 98011

For BAL use only  
Received by: [Signature] Date: 7/7/17 BAL Report 1727041  
Work Order ID: 1727091 Time: 9:30  
Project ID: 526-GB1701

Client: Georgia Power Company PO Number: 1779172 Mailing Address: 241 Ralph McGill Blvd  
Contact: John Abraham Phone: \_\_\_\_\_ Atlanta, GA 30308  
Client Project ID: \_\_\_\_\_ Email: j.abraham@southern.com Email Receipt Confirmation? (Yes/No)  
Samples Collected By: Ben Hodges - Golder Associates BAL PM: \_\_\_\_\_

Requested TAT (business days)		Collection		Client Sample Info				BAL Analyses Required					Comments		
		Date	Time	Matrix Type	Number of Containers	Field Filtered? (Yes/No)	Preservation Type HCl/HNO <sub>3</sub> /Other	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify) <u>Arsenic</u>	As Species (specify) InOrg, III, V, MMA, DMA	Se Species (specify) Se(IV), Se(VI), SeCN, Unknown		Filtration	Other (specify)
<input checked="" type="checkbox"/> 20 (standard) <input type="checkbox"/> 15* <input type="checkbox"/> 10* <input type="checkbox"/> 5* <input type="checkbox"/> Other _____ <small>*Surcharges may apply to expedited TATs</small>		Specify Here													
1	FB-1	7/6/17	0900	water	3	No/Yes			1	2	<del>X</del>				
2	B-70A	7/6/17	0955	water	4	Yes/No			2	2					Filtered/unfiltered As
3	B-69	7/6/17	1515	water	4	Yes/No			2	2					(Total/Dissolved)
4	B-68	7/6/17	1335	water	4	Yes/No			2	2					on all samples
5															
6															
7															
8															
9															
10															
Trip Blank															
Relinquished By: <u>[Signature]</u>		Date: <u>7/6/17</u>		Time: <u>1700</u>		Relinquished By:			Date:		Time:				
Received By:		Date:		Time:		Total Number of Packages:									



18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • [info@brooksapplied.com](mailto:info@brooksapplied.com)

December 11, 2017

Golder Associates - Greensboro  
ATTN: Rachel Kirkman  
5B Oak Branch Drive  
Greensboro, NC, 27407  
[RachelKirkman@golder.com](mailto:RachelKirkman@golder.com)

RE: Project GOL-GB1701

Dear Rachel Kirkman,

On November 14, 2017, Brooks Applied Labs (BAL) received one (1) water sample in a sealed container with a temperature of 3.0°C. The sample was logged-in for total recoverable and dissolved arsenic [As] and arsenic speciation analyses, including arsenite [As(III)], arsenate [As(V)], monomethylarsonic acid [MMAs], and dimethylarsinic acid [DMAs].

The fractions submitted for dissolved arsenic and arsenic speciation analyses were filtered in the field by the client.

All samples were received, prepared, analyzed, and stored according to BAL SOPs and EPA methodology. Reagent water for dilutions and sample preservatives is monitored for contamination to account for any biases associated with the sample results.

#### Total Recoverable and Dissolved Arsenic Quantitation by ICP-QQQ-MS

Arsenic quantitation was performed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website, [brooksapplied.com](http://brooksapplied.com). Prior to analysis all total recoverable arsenic sample fractions were preserved to (1%  $HNO_3$  (v/v) + 1%  $HCl$  (v/v)) and oven digested in the same containers the samples were received in.

The total recoverable and dissolved arsenic results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

The matrix spike and matrix spike duplicate (B173142-MS2/B173142-MSD2) associated with sample 1746012-01 were spiked below the native sample concentration. Recoveries are not valid indicators of data quality but have been included as a demonstration of instrument precision.

#### Arsenic Speciation Analysis by IC-ICP-CRC-MS

Arsenic speciation analysis was performed by ion chromatography coupled to an inductively coupled plasma collision reaction cell mass spectrometer (IC-ICP-CRC-MS).

The blank spike (B173144-BS1) for DMA yielded an elevated recovery (129%). Sample results were non-detect for DMA and were determined to not have been adversely affected, therefore no qualification is necessary.

The arsenic speciation results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

If the native sample result and/or the DUP result is not detected (ND) above the MDL, then the associated RPD is not calculated (N/C).

All data was reported without qualification (aside from concentration qualifiers) and all associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report.

Please feel free to contact me if you have any questions regarding this report.

Sincerely,



Jeremy Maute  
Senior Project Manager  
Brooks Applied Labs, LLC  
jeremy@brooksapplied.com



Margaret Shultz  
Project Coordinator  
Brooks Applied Labs, LLC  
margaret@brooksapplied.com



## Report Information

### Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. Results reported relate only to the samples listed in the report.

### Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

### Common Abbreviations

<b>AR</b>	as received	<b>MS</b>	matrix spike
<b>BAL</b>	Brooks Applied Labs	<b>MSD</b>	matrix spike duplicate
<b>BLK</b>	method blank	<b>ND</b>	non-detect
<b>BS</b>	blank spike	<b>NR</b>	non-reportable
<b>CAL</b>	calibration standard	<b>N/C</b>	not calculated
<b>CCB</b>	continuing calibration blank	<b>PS</b>	post preparation spike
<b>CCV</b>	continuing calibration verification	<b>REC</b>	percent recovery
<b>COC</b>	chain of custody record	<b>RPD</b>	relative percent difference
<b>D</b>	dissolved fraction	<b>SCV</b>	secondary calibration verification
<b>DUP</b>	duplicate	<b>SOP</b>	standard operating procedure
<b>IBL</b>	instrument blank	<b>SRM</b>	standard reference material
<b>ICV</b>	initial calibration verification	<b>T</b>	total fraction
<b>MDL</b>	method detection limit	<b>TR</b>	total recoverable fraction
<b>MRL</b>	method reporting limit		

### Definition of Data Qualifiers

(Effective 9/23/09)

<b>E</b>	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
<b>H</b>	Holding time and/or preservation requirements not met. Result is estimated.
<b>J</b>	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
<b>J-1</b>	Estimated value. A full explanation is presented in the narrative.
<b>J-M</b>	Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
<b>J-N</b>	Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
<b>M</b>	Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
<b>N</b>	Spike recovery was not within acceptance criteria. Result is estimated.
<b>R</b>	Rejected, unusable value. A full explanation is presented in the narrative.
<b>U</b>	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
<b>X</b>	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.



## Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
AP-1 B-3A	1746012-01	Groundwater	Sample	11/13/2017	11/14/2017
AP-1 B-3A	1746012-02	Groundwater	Sample	11/13/2017	11/14/2017

## Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As	Water	EPA 1638 Mod	11/21/2017	11/28/2017	B173142	1701480
As(III)	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
As(V)	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
DMAs	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
MMAs	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421

## Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
<b>AP-1 B-3A</b> 1746012-01	As	Groundwater	TR	2220		0.561	2.04	µg/L	B173142	1701480
<b>AP-1 B-3A</b> 1746012-02	As	Groundwater	D	2130		0.561	2.04	µg/L	B173142	1701480
1746012-02	As(III)	Groundwater	D	1660		2.00	10.0	µg/L	B173144	1701421
1746012-02	As(V)	Groundwater	D	214		2.00	10.0	µg/L	B173144	1701421
1746012-02	DMAs	Groundwater	D	≤ 2.50	U	2.50	10.5	µg/L	B173144	1701421
1746012-02	MMAs	Groundwater	D	≤ 2.00	U	2.00	11.5	µg/L	B173144	1701421





## Accuracy & Precision Summary

Batch: B173142  
 Lab Matrix: Water  
 Method: EPA 1638 Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B173142-BS1	Blank Spike, (1747054) As		25.00	19.18	µg/L	77% 75-125	
B173142-BS2	Blank Spike, (1747054) As		25.00	19.31	µg/L	77% 75-125	
B173142-BS3	Blank Spike, (1747054) As		25.00	18.89	µg/L	76% 75-125	
B173142-DUP2	Duplicate, (1746012-01) As	2222		2226	µg/L		0.2% 20
B173142-MS2	Matrix Spike, (1746012-01) As	2222	1020	3362	µg/L	112% 75-125	
B173142-MSD2	Matrix Spike Duplicate, (1746012-01) As	2222	1020	3314	µg/L	107% 75-125	1% 20

Batch: B173144  
 Lab Matrix: Water  
 Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B173144-BS1	Blank Spike, (1736006) As(III)		5.010	4.760	µg/L	95% 75-125	
	As(V)		5.000	4.681	µg/L	94% 75-125	
	DMAAs		3.198	4.121	µg/L	129% 75-125	
B173144-BS2	Blank Spike, (1714054) MMAAs		4.634	4.904	µg/L	106% 75-125	



## Accuracy & Precision Summary

**Batch:** B173144  
**Lab Matrix:** Water  
**Method:** SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
<b>B173144-DUP1</b>	<b>Duplicate, (1746039-01)</b>						
	As(III)	ND		ND	µg/L		N/C 25
	As(V)	0.215		0.205	µg/L		5% 25
	DMAAs	ND		ND	µg/L		N/C 25
	MMAAs	ND		ND	µg/L		N/C 25
<b>B173144-MS1</b>	<b>Matrix Spike, (1746039-01)</b>						
	As(III)	ND	20.00	19.15	µg/L	96% 75-125	
	As(V)	0.215	20.00	19.72	µg/L	98% 75-125	
	DMAAs	ND	20.40	19.52	µg/L	96% 75-125	
	MMAAs	ND	20.00	19.25	µg/L	96% 75-125	
<b>B173144-MSD1</b>	<b>Matrix Spike Duplicate, (1746039-01)</b>						
	As(III)	ND	20.00	19.10	µg/L	96% 75-125	0.2% 25
	As(V)	0.215	20.00	19.34	µg/L	96% 75-125	2% 25
	DMAAs	ND	20.40	19.63	µg/L	96% 75-125	0.5% 25
	MMAAs	ND	20.00	19.33	µg/L	97% 75-125	0.4% 25

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1746012  
**Client PM:** Rachel Kirkman  
**Client Project:** GOL-GB1701

## Method Blanks & Reporting Limits

**Batch:** B173142  
**Matrix:** Water  
**Method:** EPA 1638 Mod  
**Analyte:** As

Sample	Result	Units
B173142-BLK1	0.004	µg/L
B173142-BLK2	0.005	µg/L
B173142-BLK3	0.006	µg/L
B173142-BLK4	0.005	µg/L

**Average:** 0.005  
**Limit:** 0.040

**MDL:** 0.011  
**MRL:** 0.040



## Method Blanks & Reporting Limits

**Batch:** B173144  
**Matrix:** Water  
**Method:** SOP BAL-4100  
**Analyte:** As(III)

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.020</b>		<b>MRL: 0.020</b>

**Analyte:** As(V)

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.020</b>		<b>MRL: 0.020</b>

**Analyte:** DMAs

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.005</b>
<b>Limit:</b>	<b>0.021</b>		<b>MRL: 0.021</b>



## Method Blanks & Reporting Limits

**Analyte:** MMAs

<b>Sample</b>	<b>Result</b>	<b>Units</b>	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.023</b>		<b>MRL: 0.023</b>

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1746012  
**Client PM:** Rachel Kirkman  
**Client Project:** GOL-GB1701

## Sample Containers

<b>Lab ID:</b> 1746012-01			<b>Report Matrix:</b> Groundwater			<b>Collected:</b> 11/13/2017
<b>Sample:</b> AP-1 B-3A			<b>Sample Type:</b> Sample			<b>Received:</b> 11/14/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>P-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Bottle HDPE ICP-W	125mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746012

<b>Lab ID:</b> 1746012-02			<b>Report Matrix:</b> Groundwater			<b>Collected:</b> 11/13/2017
<b>Sample:</b> AP-1 B-3A			<b>Sample Type:</b> Sample			<b>Received:</b> 11/14/2017
<b>Des Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>P-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A Bottle HDPE ICP-W	125mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746012
B Vacutainer	6mL	16-0257	EDTA (PP)			Cooler - 1746012
C EXTRA_VOL	6mL	16-0257	EDTA (PP)			Cooler - 1746012

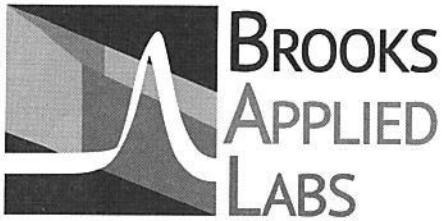
## Shipping Containers

### Cooler - 1746012

**Received:** November 14, 2017 9:30  
**Tracking No:** 788444303244 via FedEx  
**Coolant Type:** Ice  
**Temperature:** 3.0 °C

**Description:** Cooler  
**Damaged in transit?** No  
**Returned to client?** No  
**Comments:** IR#8

**Custody seals present?** Yes  
**Custody seals intact?** Yes  
**COC present?** Yes



# Chain-of-Custody Form

BAL Report 1746012

Ship samples to:  
18804 North Creek Parkway, Suite 100  
Bothell, WA 98011

Received by: Maclain One For BAL use only Date: 11/14/17  
 Work Order ID: \_\_\_\_\_ Time: 9:30  
 Project ID: \_\_\_\_\_

Client: Golder Associates PO Number: 1779172 Mailing Address: 3730 Chamblee Tucker Rd  
 Contact: Rachel Kirkman Phone: 336-402-5542 Atlanta GA 30341  
 Client Project ID: \_\_\_\_\_ Email: rachel\_kirkman@golder.com Email Receipt Confirmation? (Yes/No)  
 Samples Collected By: Ben Hodges BAL PM: \_\_\_\_\_

Requested TAT (business days)		Collection		Client Sample Info				BAL Analyses Required						Comments			
		Date	Time	Matrix Type	Number of Containers	Field Filtered? (Yes/No)	Preservation Type HCl/HNO <sub>3</sub> /Other	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As Species (specify) InOrg, II, V, MMA, DMA	Se Species (specify) Se(IV), Se(VI), SeCN, Unknown	Filtration		Other (specify)	Other (specify)	
<input checked="" type="checkbox"/> 20 (standard)																	Samples for dissolved and As Speciation were field filtered Specify Here
<input type="checkbox"/> 15*																	
<input type="checkbox"/> 10*																	
<input type="checkbox"/> 5*																	
<input type="checkbox"/> Other _____																	
*Surcharges may apply to expedited TATs																	
Sample ID																	
1	AP-1 B-3A	11/13/17	1400	GW	4	Yes/No				T/D*	X						
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Trip Blank																	

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Total Number of Packages: \_\_\_\_\_



18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • [info@brooksapplied.com](mailto:info@brooksapplied.com)

December 11, 2017

Golder Associates - Greensboro  
ATTN: Rachel Kirkman  
5B Oak Branch Drive  
Greensboro, NC, 27407  
[RachelKirkman@golder.com](mailto:RachelKirkman@golder.com)

RE: Project GOL-GB1701

Dear Rachel Kirkman,

On November 15, 2017, Brooks Applied Labs (BAL) received four (4) water samples in a sealed container with a temperature of 1.5°C. The sample was logged-in for total recoverable and dissolved arsenic [As] and arsenic speciation analyses, including arsenite [As(III)], arsenate [As(V)], monomethylarsonic acid [MMAs], and dimethylarsinic acid [DMAs].

The fractions submitted for dissolved arsenic and arsenic speciation analyses were filtered in the field by the client.

All samples were received, prepared, analyzed, and stored according to BAL SOPs and EPA methodology. Reagent water for dilutions and sample preservatives is monitored for contamination to account for any biases associated with the sample results.

#### Total Recoverable and Dissolved Arsenic Quantitation by ICP-QQQ-MS

Arsenic quantitation was performed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). The ICP-QQQ-MS uses advanced interference removal techniques to ensure accuracy of the sample results. For more information, please visit the *Interference Reduction Technology* section on our website, [brooksapplied.com](http://brooksapplied.com). Prior to analysis all total recoverable arsenic sample fractions were preserved to (1% HNO<sub>3</sub> (v/v) + 1% HCl (v/v)) and oven digested in the same containers the samples were received in.

The total recoverable and dissolved arsenic results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

The matrix spike and matrix spike duplicate (B173142-MS1/B173142-MSD1) associated with sample 1746016-01 were spiked at a level  $\leq 25\%$  of the native sample concentration, therefore the recoveries are not reported (NR) and the RPDs are not calculated (N/C). The actual recoveries were 87% and 75%, respectively, and the RPD between the MS and MSD was 2%.

#### Arsenic Speciation Analysis by IC-ICP-CRC-MS

Arsenic speciation analysis was performed by ion chromatography coupled to an inductively coupled plasma collision reaction cell mass spectrometer (IC-ICP-CRC-MS).



The blank spike (B173144-BS1) for DMAs yielded an elevated recovery (129%). Sample results were non-detect for DMA and were determined to not have been adversely affected, therefore no qualification is necessary.

The spiking level of the matrix spike and matrix spike duplicate (B173144-MS2/B173144-MSD2) for As(III) was below the native sample concentration (1746016-06). Recoveries are not valid indicators of data quality, but have been included as a demonstration of instrument precision.

The arsenic speciation results were *not* method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

If the native sample result and/or the DUP result is not detected (ND) above the MDL, then the associated RPD is not calculated (N/C).

All data was reported without qualification (aside from concentration qualifiers) and all associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report.

Please feel free to contact me if you have any questions regarding this report.

Sincerely,



Jeremy Maute  
Senior Project Manager  
Brooks Applied Labs, LLC  
jeremy@brooksapplied.com



Margaret Shultz  
Project Coordinator  
Brooks Applied Labs, LLC  
margaret@brooksapplied.com



## Report Information

### Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. Results reported relate only to the samples listed in the report.

### Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

### Common Abbreviations

<b>AR</b>	as received	<b>MS</b>	matrix spike
<b>BAL</b>	Brooks Applied Labs	<b>MSD</b>	matrix spike duplicate
<b>BLK</b>	method blank	<b>ND</b>	non-detect
<b>BS</b>	blank spike	<b>NR</b>	non-reportable
<b>CAL</b>	calibration standard	<b>N/C</b>	not calculated
<b>CCB</b>	continuing calibration blank	<b>PS</b>	post preparation spike
<b>CCV</b>	continuing calibration verification	<b>REC</b>	percent recovery
<b>COC</b>	chain of custody record	<b>RPD</b>	relative percent difference
<b>D</b>	dissolved fraction	<b>SCV</b>	secondary calibration verification
<b>DUP</b>	duplicate	<b>SOP</b>	standard operating procedure
<b>IBL</b>	instrument blank	<b>SRM</b>	standard reference material
<b>ICV</b>	initial calibration verification	<b>T</b>	total fraction
<b>MDL</b>	method detection limit	<b>TR</b>	total recoverable fraction
<b>MRL</b>	method reporting limit		

### Definition of Data Qualifiers

(Effective 9/23/09)

<b>E</b>	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
<b>H</b>	Holding time and/or preservation requirements not met. Result is estimated.
<b>J</b>	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
<b>J-1</b>	Estimated value. A full explanation is presented in the narrative.
<b>J-M</b>	Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
<b>J-N</b>	Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
<b>M</b>	Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
<b>N</b>	Spike recovery was not within acceptance criteria. Result is estimated.
<b>R</b>	Rejected, unusable value. A full explanation is presented in the narrative.
<b>U</b>	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
<b>X</b>	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.



## Sample Information

<b>Sample</b>	<b>Lab ID</b>	<b>Report Matrix</b>	<b>Type</b>	<b>Sampled</b>	<b>Received</b>
AP-1 B-7A	1746016-01	Groundwater	Sample	11/14/2017	11/15/2017
AP-1 B-7A	1746016-02	Groundwater	Sample	11/14/2017	11/15/2017
AP-1 B-7B	1746016-03	Groundwater	Sample	11/14/2017	11/15/2017
AP-1 B-7B	1746016-04	Groundwater	Sample	11/14/2017	11/15/2017
AP-1 B-3B	1746016-05	Groundwater	Sample	11/14/2017	11/15/2017
AP-1 B-3B	1746016-06	Groundwater	Sample	11/14/2017	11/15/2017
FB-1	1746016-07	Water	Field Blank	11/14/2017	11/15/2017
FB-1	1746016-08	Water	Field Blank	11/14/2017	11/15/2017

## Batch Summary

<b>Analyte</b>	<b>Lab Matrix</b>	<b>Method</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Batch</b>	<b>Sequence</b>
As	Water	EPA 1638 Mod	11/21/2017	11/28/2017	B173142	1701471
As(III)	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
As(V)	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
DMAs	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421
MMAAs	Water	SOP BAL-4100	11/16/2017	11/17/2017	B173144	1701421



## Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
<b>AP-1 B-7A</b>										
1746016-01	As	Groundwater	TR	1110		0.112	0.408	µg/L	B173142	1701471
<b>AP-1 B-7A</b>										
1746016-02	As	Groundwater	D	1000		0.112	0.408	µg/L	B173142	1701471
1746016-02	As(III)	Groundwater	D	848		0.200	1.00	µg/L	B173144	1701421
1746016-02	As(V)	Groundwater	D	96.7		0.200	1.00	µg/L	B173144	1701421
1746016-02	DMAs	Groundwater	D	≤ 0.250	U	0.250	1.05	µg/L	B173144	1701421
1746016-02	MMAAs	Groundwater	D	≤ 0.200	U	0.200	1.15	µg/L	B173144	1701421
<b>AP-1 B-7B</b>										
1746016-03	As	Groundwater	TR	1190		0.112	0.408	µg/L	B173142	1701471
<b>AP-1 B-7B</b>										
1746016-04	As	Groundwater	D	1120		0.112	0.408	µg/L	B173142	1701471
1746016-04	As(III)	Groundwater	D	947		0.200	1.00	µg/L	B173144	1701421
1746016-04	As(V)	Groundwater	D	98.5		0.200	1.00	µg/L	B173144	1701421
1746016-04	DMAs	Groundwater	D	≤ 0.250	U	0.250	1.05	µg/L	B173144	1701421
1746016-04	MMAAs	Groundwater	D	≤ 0.200	U	0.200	1.15	µg/L	B173144	1701421
<b>AP-1 B-3B</b>										
1746016-05	As	Groundwater	TR	1850		0.112	0.408	µg/L	B173142	1701471
<b>AP-1 B-3B</b>										
1746016-06	As	Groundwater	D	1800		0.112	0.408	µg/L	B173142	1701471
1746016-06	As(III)	Groundwater	D	1600		2.00	10.0	µg/L	B173144	1701421
1746016-06	As(V)	Groundwater	D	170		2.00	10.0	µg/L	B173144	1701421
1746016-06	DMAs	Groundwater	D	≤ 2.50	U	2.50	10.5	µg/L	B173144	1701421
1746016-06	MMAAs	Groundwater	D	≤ 2.00	U	2.00	11.5	µg/L	B173144	1701421
<b>FB-1</b>										
1746016-07	As	Water	TR	≤ 0.112	U	0.112	0.408	µg/L	B173142	1701471
<b>FB-1</b>										
1746016-08	As	Water	D	≤ 0.112	U	0.112	0.408	µg/L	B173142	1701471
1746016-08	As(III)	Water	D	≤ 0.200	U	0.200	1.00	µg/L	B173144	1701421
1746016-08	As(V)	Water	D	0.345	J	0.200	1.00	µg/L	B173144	1701421
1746016-08	DMAs	Water	D	≤ 0.250	U	0.250	1.05	µg/L	B173144	1701421
1746016-08	MMAAs	Water	D	≤ 0.200	U	0.200	1.15	µg/L	B173144	1701421



## Accuracy & Precision Summary

Batch: B173142  
 Lab Matrix: Water  
 Method: EPA 1638 Mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B173142-BS1	Blank Spike, (1747054) As		25.00	19.18	µg/L	77% 75-125	
B173142-BS2	Blank Spike, (1747054) As		25.00	19.31	µg/L	77% 75-125	
B173142-BS3	Blank Spike, (1747054) As		25.00	18.89	µg/L	76% 75-125	
B173142-DUP1	Duplicate, (1746016-01) As	1111		1092	µg/L		2% 20
B173142-MS1	Matrix Spike, (1746016-01) As	1111	204.1	1289	µg/L	NR 75-125	
B173142-MSD1	Matrix Spike Duplicate, (1746016-01) As	1111	204.1	1265	µg/L	NR 75-125	N/C 20

Batch: B173144  
 Lab Matrix: Water  
 Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B173144-BS1	Blank Spike, (1736006) As(III)		5.010	4.760	µg/L	95% 75-125	
	As(V)		5.000	4.681	µg/L	94% 75-125	
	DMAs		3.198	4.121	µg/L	129% 75-125	
B173144-BS2	Blank Spike, (1714054) MMAs		4.634	4.904	µg/L	106% 75-125	



## Accuracy & Precision Summary

Batch: B173144  
 Lab Matrix: Water  
 Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
<b>B173144-DUP3</b>	<b>Duplicate, (1746016-06)</b>						
	As(III)	1595		1590	µg/L		0.3% 25
	As(V)	169.7		163.8	µg/L		4% 25
	DMAAs	ND		ND	µg/L		N/C 25
	MMAAs	ND		ND	µg/L		N/C 25
<b>B173144-MS2</b>	<b>Matrix Spike, (1746016-06)</b>						
	As(III)	1595	500.0	2065	µg/L	94% 75-125	
	As(V)	169.7	500.0	644.9	µg/L	95% 75-125	
	DMAAs	ND	510.0	488.9	µg/L	96% 75-125	
	MMAAs	ND	500.0	473.5	µg/L	95% 75-125	
<b>B173144-MSD2</b>	<b>Matrix Spike Duplicate, (1746016-06)</b>						
	As(III)	1595	500.0	2047	µg/L	90% 75-125	0.9% 25
	As(V)	169.7	500.0	651.8	µg/L	96% 75-125	1% 25
	DMAAs	ND	510.0	482.8	µg/L	95% 75-125	1% 25
	MMAAs	ND	500.0	481.2	µg/L	96% 75-125	2% 25

**Project ID:** GOL-GB1701  
**PM:** Jeremy Maute



BAL Report 1746016  
**Client PM:** Rachel Kirkman  
**Client Project:** GOL-GB1701

## Method Blanks & Reporting Limits

**Batch:** B173142  
**Matrix:** Water  
**Method:** EPA 1638 Mod  
**Analyte:** As

Sample	Result	Units
B173142-BLK1	0.004	µg/L
B173142-BLK2	0.005	µg/L
B173142-BLK3	0.006	µg/L
B173142-BLK4	0.005	µg/L

**Average:** 0.005  
**Limit:** 0.040

**MDL:** 0.011  
**MRL:** 0.040



## Method Blanks & Reporting Limits

**Batch:** B173144  
**Matrix:** Water  
**Method:** SOP BAL-4100  
**Analyte:** As(III)

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.020</b>		<b>MRL: 0.020</b>

**Analyte:** As(V)

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.020</b>		<b>MRL: 0.020</b>

**Analyte:** DMAs

Sample	Result	Units	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.005</b>
<b>Limit:</b>	<b>0.021</b>		<b>MRL: 0.021</b>





## Method Blanks & Reporting Limits

**Analyte:** MMAs

<b>Sample</b>	<b>Result</b>	<b>Units</b>	
B173144-BLK1	0.00	µg/L	
B173144-BLK2	0.00	µg/L	
B173144-BLK3	0.00	µg/L	
B173144-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL:</b> 0.004
<b>Limit:</b>	<b>0.023</b>		<b>MRL:</b> 0.023



## Sample Containers

**Lab ID:** 1746016-01  
**Sample:** AP-1 B-7A  
**Report Matrix:** Groundwater  
**Sample Type:** Sample  
**Collected:** 11/14/2017  
**Received:** 11/15/2017

Des Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016

**Lab ID:** 1746016-02  
**Sample:** AP-1 B-7A  
**Report Matrix:** Groundwater  
**Sample Type:** Sample  
**Collected:** 11/14/2017  
**Received:** 11/15/2017

Des Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016
B Vacutainer	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016
C EXTRA_VOL	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016

**Lab ID:** 1746016-03  
**Sample:** AP-1 B-7B  
**Report Matrix:** Groundwater  
**Sample Type:** Sample  
**Collected:** 11/14/2017  
**Received:** 11/15/2017

Des Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016

**Lab ID:** 1746016-04  
**Sample:** AP-1 B-7B  
**Report Matrix:** Groundwater  
**Sample Type:** Sample  
**Collected:** 11/14/2017  
**Received:** 11/15/2017

Des Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016
B Vacutainer	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016
C EXTRA_VOL	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016

**Lab ID:** 1746016-05  
**Sample:** AP-1 B-3B  
**Report Matrix:** Groundwater  
**Sample Type:** Sample  
**Collected:** 11/14/2017  
**Received:** 11/15/2017

Des Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016



## Sample Containers

<b>Lab ID:</b> 1746016-06		<b>Report Matrix:</b> Groundwater				<b>Collected:</b> 11/14/2017	
<b>Sample:</b> AP-1 B-3B		<b>Sample Type:</b> Sample				<b>Received:</b> 11/15/2017	
<b>Des</b>	<b>Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>P-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A	Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016
B	Vacutainer	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016
C	EXTRA_VOL	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016

<b>Lab ID:</b> 1746016-07		<b>Report Matrix:</b> Water				<b>Collected:</b> 11/14/2017	
<b>Sample:</b> FB-1		<b>Sample Type:</b> Field Blank				<b>Received:</b> 11/15/2017	
<b>Des</b>	<b>Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>P-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A	Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016

<b>Lab ID:</b> 1746016-08		<b>Report Matrix:</b> Water				<b>Collected:</b> 11/14/2017	
<b>Sample:</b> FB-1		<b>Sample Type:</b> Field Blank				<b>Received:</b> 11/15/2017	
<b>Des</b>	<b>Container</b>	<b>Size</b>	<b>Lot</b>	<b>Preservation</b>	<b>P-Lot</b>	<b>pH</b>	<b>Ship. Cont.</b>
A	Bottle HDPE ICP-W	125 mL	17-0169	0.2% HNO3 (BAL)	1736020	<2	Cooler - 1746016
B	Vacutainer	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016
C	EXTRA_VOL	6 mL	16-0257	EDTA (PP)	n/a	n/a	Cooler - 1746016

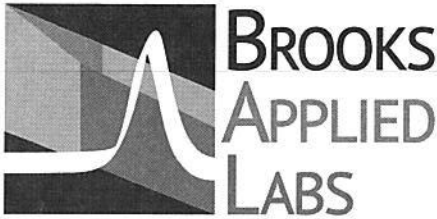
## Shipping Containers

### Cooler - 1746016

**Received:** November 15, 2017 10:00  
**Tracking No:** 788462235246 via FedEx  
**Coolant Type:** Ice  
**Temperature:** 1.5 °C

**Description:** Cooler  
**Damaged in transit?** No  
**Returned to client?** No  
**Comments:** IR#15

**Custody seals present?** Yes  
**Custody seals intact?** Yes  
**COC present?** Yes



# Chain-of-Custody Form

Ship samples to:  
18804 North Creek Parkway, Suite 100  
Bothell, WA 98011

BAL Report 1746016

For BAL use only  
 Received by: Hali Jefferson Date: 11/15/17  
 Work Order ID: \_\_\_\_\_ Time: 10:00  
 Project ID: \_\_\_\_\_

Client: Golden Associates PO Number: 1779172 Mailing Address: 3730 Chamblee Tucker Rd  
 Contact: Rachel Kirkman Phone: 336-402-5542 Atlanta, GA 30341  
 Client Project ID: \_\_\_\_\_ Email: rachel\_kirkman@golden.com Email Receipt Confirmation? (Yes/No)  
 Samples Collected By: Ben Hodges BAL PM: \_\_\_\_\_

Requested TAT (business days)		Collection		Client Sample Info				BAL Analyses Required						Comments			
		Date	Time	Matrix Type	Number of Containers	Field Filtered? (Yes/No)	Preservation Type HCl/HNO <sub>3</sub> /Other	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As Species (specify) InOrg, III, V, MMA, DMA	Se Species (specify) Se(IV), Se(VI), SeCN, Unknown	Filtration		Other (specify)	Other (specify)	
<input checked="" type="checkbox"/> 20 (standard)																	Samples for dissolved and As speciation were field filtered  Specify Here
<input type="checkbox"/> 15*																	
<input type="checkbox"/> 10*																	
<input type="checkbox"/> 5*																	
<input type="checkbox"/> Other _____																	
*Surcharges may apply to expedited TATs																	
Sample ID																	
1	AP-1 B-7A	11/14/17	1100	GW	4	Y/N				T/D	X						
2	AP-1 B-7B	11/14/17	1700	GW	4	Y/N				T/D	X						
3	AP-2 B-3B	11/14/17	1430	GW	4	Y/N				T/D	X						
4	FB-1	11/14/17	1050	W	4	Y/N				T/D	X						
5																	
6																	
7																	
8																	
9																	
10																	
Trip Blank																	
Relinquished By: <u>[Signature]</u>		Date: <u>11/14/17</u>		Time: <u>1830</u>		Relinquished By: _____				Date: _____		Time: _____					
Received By: _____		Date: _____		Time: _____		Total Number of Packages: _____											

January 07, 2021

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

RE: Project: PLANT MCDONOUGH AP-1 RADS  
Pace Project No.: 92510818

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-1 RADJ

Pace Project No.: 92510818

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### **Pace Analytical Services Pennsylvania**

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-1 RADS  
Pace Project No.: 92510818

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92510818001	B-105D	Water	12/09/20 15:30	12/10/20 09:05

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-1 RADS  
Pace Project No.: 92510818

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92510818001	B-105D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92510818

**Sample: B-105D**      **Lab ID: 92510818001**      Collected: 12/09/20 15:30      Received: 12/10/20 09:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.378 ± 0.285 (0.479)</b> <b>C:92% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.873 ± 0.488 (0.898)</b> <b>C:72% T:80%</b>	pCi/L	01/04/21 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 0.773 (1.38)</b>	pCi/L	01/05/21 10:13	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92510818

QC Batch: 428417	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92510818001

METHOD BLANK: 2070210	Matrix: Water
-----------------------	---------------

Associated Lab Samples: 92510818001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0869 ± 0.143 (0.495) C:87% T:NA	pCi/L	12/30/20 07:44	

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: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92510818

QC Batch: 428749

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92510818001

METHOD BLANK: 2071921

Matrix: Water

Associated Lab Samples: 92510818001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.161 ± 0.312 (0.758) C:74% T:81%	pCi/L	01/04/21 11:42	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92510818

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92510818

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92510818001	B-105D	EPA 9315	428417		
92510818001	B-105D	EPA 9320	428749		
92510818001	B-105D	Total Radium Calculation	429587		

### 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:  
*Georgia power - coal*

Project #: **WO#: 92510818**



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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *MT 12/10/20*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  IR Gun ID: *233* Type of Ice:  Wet  Blue  None

Biological Tissue Frozen?  
 Yes  No  N/A

Cooler Temp: *23* Correction Factor: Add/Subtract (°C) *±0.4*

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *2.7*

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		4. <i>Standard</i>
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>MT</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

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

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

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



Document Name:  
Sample Condition Upon Receipt(SCUR)

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

Document Revised: October 28, 2020  
Page 2 of 2

Issuing Authority:  
Pace Carolinas Quality Office

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

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

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

Project #

**WO# : 92510818**

PM: KLH1

Due Date: 01/04/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-S03S kit (N/A)	V/GX (3 vials per kit)-VPH/Gas kit (N/A)	SPST-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	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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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.









### Quality Control Sample Performance Assessment

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

Test: Ra-228  
Analyst: JJY  
Date: 12/29/2020  
Worklist: 58052  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2070210
MB concentration:	-0.087
M/B Counting Uncertainty:	0.142
MB MDC:	0.495
MB Numerical Performance Indicator:	-1.20
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS58052	LCSD58052
Count Date:	12/30/2020	12/30/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.041	24.041
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.504
Target Conc. (pCi/L, g, F):	4.756	4.766
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.553	4.271
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.831	0.794
Numerical Performance Indicator:	1.88	-1.22
Percent Recovery:	116.76%	89.61%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment	
Sample I.D.:	LCS58052
Duplicate Sample I.D.:	LCSD58052
Sample Result (pCi/L, g, F):	5.553
Sample Result Counting Uncertainty (pCi/L, g, F):	0.831
Sample Duplicate Result (pCi/L, g, F):	4.271
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.794
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	2.185
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	26.31%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

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

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

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision: N/A LAM 1/7/2021

Numerical Indicator less than 3 OK for water batch

LAM 1/7/2021



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: MK1  
Date: 12/28/2020  
Batch ID: 58061  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	2070551
MB concentration:	0.050
M/B Counting Uncertainty:	0.294
MB MDC:	0.601
MB Numerical Performance Indicator:	0.33
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS58061	LCSD58061
Count Date:	1/6/2021	1/6/2021
Spike I.D.:	20-032	20-032
Spike Concentration (pCi/mL):	32.180	32.180
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.665	0.658
Target Conc. (pCi/L, g, F):	4.836	4.890
Uncertainty (Calculated):	0.227	0.230
Result (pCi/L, g, F):	5.128	4.105
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.996	0.903
Numerical Performance Indicator:	0.56	-1.65
Percent Recovery:	106.06%	83.95%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	73%	73%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCS58061	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD58061	
Sample Result (pCi/L, g, F):	5.128	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.996	
Sample Duplicate Result (pCi/L, g, F):	4.105	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.903	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	23.26%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

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

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

Comments:

SLC 11/6/2021  
Page 14 of 14

January 07, 2021

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

RE: Project: PLANT MCDONOUGH AP-234 RADS  
Pace Project No.: 92510824

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

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### **Pace Analytical Services Pennsylvania**

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92510824001	B-104D	Water	12/09/20 11:45	12/10/20 09:05
92510824002	B-107D	Water	12/09/20 11:35	12/10/20 09:05
92510824003	B-108D	Water	12/09/20 09:50	12/10/20 09:05
92510824004	B-111D	Water	12/09/20 14:45	12/10/20 09:05
92510824005	FD	Water	12/09/20 00:00	12/10/20 09:05
92510824006	FB	Water	12/09/20 11:18	12/10/20 09:05

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92510824001	B-104D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92510824002	B-107D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92510824003	B-108D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92510824004	B-111D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92510824005	FD	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92510824006	FB	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

**Sample: B-104D**      **Lab ID: 92510824001**      Collected: 12/09/20 11:45      Received: 12/10/20 09:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>5.14 ± 1.11 (0.547)</b> <b>C:92% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>10.1 ± 2.03 (0.796)</b> <b>C:65% T:85%</b>	pCi/L	01/04/21 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>15.2 ± 3.14 (1.34)</b>	pCi/L	01/05/21 10:13	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

**Sample: B-107D**      **Lab ID: 92510824002**      Collected: 12/09/20 11:35      Received: 12/10/20 09:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.806 ± 0.425 (0.682)</b> <b>C:94% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.683 ± 0.409 (0.752)</b> <b>C:69% T:82%</b>	pCi/L	01/04/21 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.49 ± 0.834 (1.43)</b>	pCi/L	01/05/21 10:13	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

**Sample: B-108D**      **Lab ID: 92510824003**      Collected: 12/09/20 09:50      Received: 12/10/20 09:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.615 ± 0.349 (0.530)</b> <b>C:91% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.699 ± 0.503 (0.992)</b> <b>C:68% T:81%</b>	pCi/L	01/04/21 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.31 ± 0.852 (1.52)</b>	pCi/L	01/05/21 10:13	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

**Sample: B-111D**      **Lab ID: 92510824004**      Collected: 12/09/20 14:45      Received: 12/10/20 09:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>6.52 ± 1.34 (0.715)</b> <b>C:89% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>5.80 ± 1.25 (0.747)</b> <b>C:73% T:85%</b>	pCi/L	01/04/21 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>12.3 ± 2.59 (1.46)</b>	pCi/L	01/05/21 10:13	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: FD</b> <b>Lab ID: 92510824005</b> Collected: 12/09/20 00:00      Received: 12/10/20 09:05      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.713 ± 0.364 (0.505)</b> <b>C:93% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.455 ± 0.424 (0.874)</b> <b>C:73% T:86%</b>	pCi/L	01/04/21 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.17 ± 0.788 (1.38)</b>	pCi/L	01/05/21 10:13	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: FB</b> <b>Lab ID: 92510824006</b> Collected: 12/09/20 11:18      Received: 12/10/20 09:05      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.203 ± 0.249 (0.511)</b> <b>C:83% T:NA</b>	pCi/L	12/30/20 07:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.315 ± 0.363 (0.763)</b> <b>C:70% T:84%</b>	pCi/L	01/04/21 11:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.518 ± 0.612 (1.27)</b>	pCi/L	01/05/21 10:17	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92510824

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92510824001	B-104D	EPA 9315	428417		
92510824002	B-107D	EPA 9315	428417		
92510824003	B-108D	EPA 9315	428417		
92510824004	B-111D	EPA 9315	428417		
92510824005	FD	EPA 9315	428417		
92510824006	FB	EPA 9315	428417		
92510824001	B-104D	EPA 9320	428749		
92510824002	B-107D	EPA 9320	428749		
92510824003	B-108D	EPA 9320	428749		
92510824004	B-111D	EPA 9320	428749		
92510824005	FD	EPA 9320	428749		
92510824006	FB	EPA 9320	428749		
92510824001	B-104D	Total Radium Calculation	429587		
92510824002	B-107D	Total Radium Calculation	429587		
92510824003	B-108D	Total Radium Calculation	429587		
92510824004	B-111D	Total Radium Calculation	429587		
92510824005	FD	Total Radium Calculation	429587		
92510824006	FB	Total Radium Calculation	429590		

### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

*Georgia power - local*

Project #:

**WO# : 92510824**



Courier:

Commercial  Fed Ex  Pace  UPS  USPS  Other:  Client

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *MT 12/40/20*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: 233 Type of Ice:  Wet  Blue  None

Cooler Temp:

23 Correction Factor: Add/Subtract (°C) ± 0.4

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 2.7

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	<i>Standard</i>
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: \_\_\_\_\_



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

Document Revised: October 28, 2020  
 Page 2 of 2

Issuing Authority:  
 Pace Carolina Quality Office

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

Project #

**WO# : 92510824**

PM: KLH1

Due Date: 01/04/21

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

CLIENT: GA-GA Power

\*\*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)	BPIN	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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6	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
7	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
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).







## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: MK1  
Date: 12/28/2020  
Batch ID: 58061  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	2070551
MB concentration:	0.050
M/B Counting Uncertainty:	0.294
MB MDC:	0.601
MB Numerical Performance Indicator:	0.33
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS58061	LCS58061
Count Date:	1/6/2021	1/6/2021
Spike I.D.:	20-032	20-032
Spike Concentration (pCi/mL):	32.180	32.180
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.665	0.658
Target Conc. (pCi/L, g, F):	4.836	4.890
Uncertainty (Calculated):	0.227	0.230
Result (pCi/L, g, F):	5.128	4.105
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.996	0.903
Numerical Performance Indicator:	0.56	-1.65
Percent Recovery:	106.06%	83.95%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	73%	73%

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:		

Duplicate Sample Assessment	LCSD (Y or N)?	Y
Sample I.D.:	LCS58061	Enter Duplicate
Duplicate Sample I.D.:	LCS58061	sample IDs if
Sample Result (pCi/L, g, F):	5.128	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.996	LCSD/LCSD in
Sample Duplicate Result (pCi/L, g, F):	4.105	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.903	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	23.26%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

SLC 11/6/2021  
Page 19 of 19

December 28, 2020

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

RE: Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92510827001	B-105D	Water	12/09/20 15:30	12/10/20 09:05

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92510827001	B-105D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	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

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

Sample: B-105D		Lab ID: 92510827001		Collected: 12/09/20 15:30		Received: 12/10/20 09:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/10/20 10:39		
pH	<b>6.48</b>	Std. Units			1		12/10/20 10:39		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>76.9</b>	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 22:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 19:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 19:32	7440-38-2	
Barium	<b>0.030</b>	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 19:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	12/16/20 13:14	12/18/20 19:32	7440-41-7	
Boron	<b>0.79</b>	mg/L	0.10	0.0052	1	12/16/20 13:14	12/18/20 19:32	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 19:32	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 19:32	7440-47-3	
Cobalt	<b>0.012</b>	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 19:32	7440-48-4	
Lead	<b>0.000052J</b>	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 19:32	7439-92-1	
Lithium	<b>0.014J</b>	mg/L	0.030	0.00081	1	12/16/20 13:14	12/18/20 19:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 19:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 19:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 19:32	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.000087J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 14:05	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>474</b>	mg/L	10.0	10.0	1		12/10/20 11:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>17.1</b>	mg/L	1.0	0.60	1		12/16/20 00:52	16887-00-6	
Fluoride	<b>0.075J</b>	mg/L	0.10	0.050	1		12/16/20 00:52	16984-48-8	
Sulfate	<b>220</b>	mg/L	5.0	2.5	5		12/16/20 10:31	14808-79-8	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

QC Batch: 587757	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92510827001

METHOD BLANK: 3106013 Matrix: Water

Associated Lab Samples: 92510827001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	12/17/20 22:24	

LABORATORY CONTROL SAMPLE: 3106014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3106015 3106016

Parameter	Units	3106015		3106016		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	90.5	1	1	88.9	89.0	-151	-150	75-125	0	20 M1

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

QC Batch: 587466 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92510827001

METHOD BLANK: 3104613 Matrix: Water  
Associated Lab Samples: 92510827001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	12/18/20 19:20	
Arsenic	mg/L	ND	0.0050	0.00078	12/18/20 19:20	
Barium	mg/L	ND	0.010	0.00071	12/18/20 19:20	
Beryllium	mg/L	ND	0.0030	0.000046	12/18/20 19:20	
Boron	mg/L	ND	0.10	0.0052	12/18/20 19:20	
Cadmium	mg/L	ND	0.0025	0.00012	12/18/20 19:20	
Chromium	mg/L	ND	0.010	0.00055	12/18/20 19:20	
Cobalt	mg/L	ND	0.0050	0.00038	12/18/20 19:20	
Lead	mg/L	ND	0.0050	0.000036	12/18/20 19:20	
Lithium	mg/L	ND	0.030	0.00081	12/18/20 19:20	
Molybdenum	mg/L	ND	0.010	0.00069	12/18/20 19:20	
Selenium	mg/L	ND	0.010	0.0016	12/18/20 19:20	
Thallium	mg/L	ND	0.0010	0.00014	12/18/20 19:20	

LABORATORY CONTROL SAMPLE: 3104614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.098	98	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	102	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3104615 3104616

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92510827001	Result	Conc.	Conc.								
Antimony	mg/L	ND	0.1	0.1	0.1	0.10	110	104	75-125	6	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.097	102	97	75-125	5	20		

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

Parameter	Units	3104615		3104616		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92510827001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.030	0.1	0.1	0.13	0.12	99	94	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.089	98	89	75-125	9	20		
Boron	mg/L	0.79	1	1	1.9	1.8	113	98	75-125	8	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	3	20		
Cobalt	mg/L	0.012	0.1	0.1	0.11	0.11	101	97	75-125	3	20		
Lead	mg/L	0.000052J	0.1	0.1	0.098	0.093	98	93	75-125	6	20		
Lithium	mg/L	0.014J	0.1	0.1	0.11	0.10	95	89	75-125	5	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	107	103	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.097	0.092	97	92	75-125	5	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.091	97	91	75-125	6	20		

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

QC Batch: 586401	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92510827001

METHOD BLANK: 3099362 Matrix: Water

Associated Lab Samples: 92510827001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	12/14/20 12:56	

LABORATORY CONTROL SAMPLE: 3099363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0021	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3099364 3099365

Parameter	Units	3099364		3099365		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.000079J	0.0025	0.0020	0.0024	77	92	75-125	17	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

QC Batch: 585931      Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011      Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92510827001

METHOD BLANK: 3096989      Matrix: Water  
Associated Lab Samples: 92510827001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/10/20 11:52	

LABORATORY CONTROL SAMPLE: 3096990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	417	104	84-108	

SAMPLE DUPLICATE: 3097556

Parameter	Units	92510779001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	101	4	10	

SAMPLE DUPLICATE: 3097589

Parameter	Units	92510794007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	299	287	4	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92510827

QC Batch: 586999 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: 92510827001

METHOD BLANK: 3102402 Matrix: Water  
Associated Lab Samples: 92510827001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/15/20 18:20	
Fluoride	mg/L	ND	0.10	0.050	12/15/20 18:20	
Sulfate	mg/L	ND	1.0	0.50	12/15/20 18:20	

LABORATORY CONTROL SAMPLE: 3102403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.3	99	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	50	47.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102404 3102405

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511446001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	5.9	50	50	60.1	59.7	109	108	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	105	104	90-110	1	10		
Sulfate	mg/L	2.2	50	50	54.0	53.7	104	103	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102406 3102407

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511524002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	73.9	50	50	108	109	68	69	90-110	1	10	M1	
Fluoride	mg/L	0.41	2.5	2.5	2.9	2.9	99	99	90-110	0	10		
Sulfate	mg/L	89.4	50	50	121	122	63	65	90-110	1	10	M1	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92510827

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92510827001	B-105D				
92510827001	B-105D	EPA 3010A	587757	EPA 6010D	587879
92510827001	B-105D	EPA 3005A	587466	EPA 6020B	587562
92510827001	B-105D	EPA 7470A	586401	EPA 7470A	586700
92510827001	B-105D	SM 2450C-2011	585931		
92510827001	B-105D	EPA 300.0 Rev 2.1 1993	586999		

### REPORT OF LABORATORY ANALYSIS

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

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name: Georgia power - local Project #: **WO#: 92510827**



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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 12/10/20

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: 233 Type of Ice:  Wet  Blue  None

Cooler Temp: 2.3 Correction Factor: Add/Subtract (°C) ± 0.4

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.7

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	<u>Standard</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 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#: 92510827

PM: KLH1

Due Date: 12/24/20

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-S03S 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)	BPIN	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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8	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
9	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
10	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
11	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/

**pH Adjustment Log for Preserved Samples**

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

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



December 28, 2020

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

RE: Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92510829001	B-104D	Water	12/09/20 11:45	12/10/20 09:05
92510829002	B-107D	Water	12/09/20 11:35	12/10/20 09:05
92510829003	B-108D	Water	12/09/20 09:50	12/10/20 09:05
92510829004	B-111D	Water	12/09/20 14:45	12/10/20 09:05
92510829005	FD	Water	12/09/20 00:00	12/10/20 09:05
92510829006	FB	Water	12/09/20 11:18	12/10/20 09:05

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92510829001	B-104D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92510829002	B-107D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92510829003	B-108D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92510829004	B-111D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92510829005	FD	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92510829006	FB	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	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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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

Sample: B-104D		Lab ID: 92510829001		Collected: 12/09/20 11:45		Received: 12/10/20 09:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		12/28/20 12:34		
pH	6.44	Std. Units			1		12/28/20 12:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	154	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 22:43	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00079J	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 19:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 19:54	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 19:54	7440-39-3	
Beryllium	0.0013J	mg/L	0.015	0.00023	5	12/16/20 13:14	12/22/20 13:23	7440-41-7	D3
Boron	0.26J	mg/L	0.50	0.026	5	12/16/20 13:14	12/22/20 13:23	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 19:54	7440-43-9	
Chromium	0.0011J	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 19:54	7440-47-3	
Cobalt	0.17	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 19:54	7440-48-4	
Lead	0.000051J	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 19:54	7439-92-1	
Lithium	0.039J	mg/L	0.15	0.0040	5	12/16/20 13:14	12/22/20 13:23	7439-93-2	D3
Molybdenum	0.0012J	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 19:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 19:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 19:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.000079J	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 13:44	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	862	mg/L	20.0	20.0	1		12/10/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.7	mg/L	1.0	0.60	1		12/16/20 01:05	16887-00-6	
Fluoride	0.33	mg/L	0.10	0.050	1		12/16/20 01:05	16984-48-8	
Sulfate	415	mg/L	10.0	5.0	10		12/16/20 10:45	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Sample: B-107D		Lab ID: 92510829002		Collected: 12/09/20 11:35		Received: 12/10/20 09:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/28/20 12:34		
pH	<b>5.91</b>	Std. Units			1		12/28/20 12:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>85.4</b>	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 22:49	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 20:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 20:00	7440-38-2	
Barium	<b>0.13</b>	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 20:00	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00023	5	12/16/20 13:14	12/22/20 13:28	7440-41-7	D3
Boron	<b>11.7</b>	mg/L	0.50	0.026	5	12/16/20 13:14	12/22/20 13:28	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 20:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 20:00	7440-47-3	
Cobalt	<b>0.0017J</b>	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 20:00	7440-48-4	
Lead	<b>0.000044J</b>	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 20:00	7439-92-1	
Lithium	<b>0.017J</b>	mg/L	0.15	0.0040	5	12/16/20 13:14	12/22/20 13:28	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 20:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 20:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 20:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00016J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 13:53	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>564</b>	mg/L	10.0	10.0	1		12/10/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>12.5</b>	mg/L	1.0	0.60	1		12/19/20 01:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		12/19/20 01:17	16984-48-8	
Sulfate	<b>273</b>	mg/L	6.0	3.0	6		12/19/20 12:19	14808-79-8	M6

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Sample: B-108D		Lab ID: 92510829003		Collected: 12/09/20 09:50		Received: 12/10/20 09:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/28/20 12:34		
pH	<b>5.94</b>	Std. Units			1		12/28/20 12:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>90.5</b>	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 22:55	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 20:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 20:06	7440-38-2	
Barium	<b>0.066</b>	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 20:06	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00023	5	12/16/20 13:14	12/22/20 13:34	7440-41-7	D3
Boron	<b>6.7</b>	mg/L	0.50	0.026	5	12/16/20 13:14	12/22/20 13:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 20:06	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 20:06	7440-47-3	
Cobalt	<b>0.0048J</b>	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 20:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 20:06	7439-92-1	
Lithium	<b>0.016J</b>	mg/L	0.15	0.0040	5	12/16/20 13:14	12/22/20 13:34	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 20:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 20:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 20:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00014J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 13:55	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>573</b>	mg/L	10.0	10.0	1		12/10/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>29.1</b>	mg/L	1.0	0.60	1		12/19/20 02:41	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		12/19/20 02:41	16984-48-8	
Sulfate	<b>277</b>	mg/L	6.0	3.0	6		12/19/20 13:03	14808-79-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Sample: B-111D		Lab ID: 92510829004		Collected: 12/09/20 14:45		Received: 12/10/20 09:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/28/20 12:34		
pH	<b>6.64</b>	Std. Units			1		12/28/20 12:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>105</b>	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 23:31	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 20:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 20:12	7440-38-2	
Barium	<b>0.027</b>	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 20:12	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00023	5	12/16/20 13:14	12/22/20 13:40	7440-41-7	D3
Boron	<b>0.34J</b>	mg/L	0.50	0.026	5	12/16/20 13:14	12/22/20 13:40	7440-42-8	D3
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 20:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 20:12	7440-47-3	
Cobalt	<b>0.00076J</b>	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 20:12	7440-48-4	
Lead	<b>0.000058J</b>	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 20:12	7439-92-1	
Lithium	<b>0.021J</b>	mg/L	0.15	0.0040	5	12/16/20 13:14	12/22/20 13:40	7439-93-2	D3
Molybdenum	<b>0.0055J</b>	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 20:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 20:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 20:12	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.000094J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 13:58	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>490</b>	mg/L	10.0	10.0	1		12/10/20 11:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>12.8</b>	mg/L	1.0	0.60	1		12/19/20 02:55	16887-00-6	
Fluoride	<b>0.33</b>	mg/L	0.10	0.050	1		12/19/20 02:55	16984-48-8	
Sulfate	<b>197</b>	mg/L	5.0	2.5	5		12/19/20 13:18	14808-79-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Sample: FD		Lab ID: 92510829005		Collected: 12/09/20 00:00	Received: 12/10/20 09:05	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>89.7</b>	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 23:37	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 20:34	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 20:34	7440-38-2		
Barium	<b>0.061</b>	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 20:34	7440-39-3		
Beryllium	ND	mg/L	0.015	0.00023	5	12/16/20 13:14	12/22/20 13:45	7440-41-7	D3	
Boron	<b>6.4</b>	mg/L	0.50	0.026	5	12/16/20 13:14	12/22/20 13:45	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 20:34	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 20:34	7440-47-3		
Cobalt	<b>0.0044J</b>	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 20:34	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 20:34	7439-92-1		
Lithium	<b>0.015J</b>	mg/L	0.15	0.0040	5	12/16/20 13:14	12/22/20 13:45	7439-93-2	D3	
Molybdenum	ND	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 20:34	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 20:34	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 20:34	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.000097J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 14:00	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>569</b>	mg/L	10.0	10.0	1		12/10/20 12:04			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>29.0</b>	mg/L	1.0	0.60	1		12/19/20 03:09	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		12/19/20 03:09	16984-48-8		
Sulfate	<b>276</b>	mg/L	6.0	3.0	6		12/19/20 13:33	14808-79-8		

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

Sample: <b>FB</b>		Lab ID: <b>92510829006</b>		Collected: 12/09/20 11:18	Received: 12/10/20 09:05	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	12/17/20 10:10	12/17/20 23:43	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	12/16/20 13:14	12/18/20 20:40	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	12/16/20 13:14	12/18/20 20:40	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	12/16/20 13:14	12/18/20 20:40	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	12/16/20 13:14	12/18/20 20:40	7440-41-7		
Boron	<b>0.044J</b>	mg/L	0.10	0.0052	1	12/16/20 13:14	12/18/20 20:40	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	12/16/20 13:14	12/18/20 20:40	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	12/16/20 13:14	12/18/20 20:40	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	12/16/20 13:14	12/18/20 20:40	7440-48-4		
Lead	<b>0.000048J</b>	mg/L	0.0050	0.000036	1	12/16/20 13:14	12/18/20 20:40	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	12/16/20 13:14	12/18/20 20:40	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	12/16/20 13:14	12/18/20 20:40	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	12/16/20 13:14	12/18/20 20:40	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	12/16/20 13:14	12/18/20 20:40	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.000087J</b>	mg/L	0.00050	0.000078	1	12/14/20 08:30	12/14/20 14:03	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		12/10/20 12:04			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		12/19/20 03:23	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		12/19/20 03:23	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		12/19/20 03:23	14808-79-8		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

QC Batch: 587757 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

METHOD BLANK: 3106013 Matrix: Water  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	12/17/20 22:24	

LABORATORY CONTROL SAMPLE: 3106014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3106015 3106016

Parameter	Units	3106015		3106016		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92510829003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	90.5	1	1	88.9	89.0	-151	-150	75-125	0	20 M1

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

QC Batch: 587466 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

METHOD BLANK: 3104613 Matrix: Water  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	12/18/20 19:20	
Arsenic	mg/L	ND	0.0050	0.00078	12/18/20 19:20	
Barium	mg/L	ND	0.010	0.00071	12/18/20 19:20	
Beryllium	mg/L	ND	0.0030	0.000046	12/18/20 19:20	
Boron	mg/L	ND	0.10	0.0052	12/18/20 19:20	
Cadmium	mg/L	ND	0.0025	0.00012	12/18/20 19:20	
Chromium	mg/L	ND	0.010	0.00055	12/18/20 19:20	
Cobalt	mg/L	ND	0.0050	0.00038	12/18/20 19:20	
Lead	mg/L	ND	0.0050	0.000036	12/18/20 19:20	
Lithium	mg/L	ND	0.030	0.00081	12/18/20 19:20	
Molybdenum	mg/L	ND	0.010	0.00069	12/18/20 19:20	
Selenium	mg/L	ND	0.010	0.0016	12/18/20 19:20	
Thallium	mg/L	ND	0.0010	0.00014	12/18/20 19:20	

LABORATORY CONTROL SAMPLE: 3104614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.098	98	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	102	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3104615 3104616

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92510827001 Result	Spike Conc.	Spike Conc.	Conc.								
Antimony	mg/L	ND	0.1	0.1	0.1	0.10	110	104	75-125	6	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.097	102	97	75-125	5	20		

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

Parameter	Units	3104615		3104616		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Barium	mg/L	0.030	0.1	0.1	0.13	0.12	99	94	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.098	0.089	98	89	75-125	9	20		
Boron	mg/L	0.79	1	1	1.9	1.8	113	98	75-125	8	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	3	20		
Cobalt	mg/L	0.012	0.1	0.1	0.11	0.11	101	97	75-125	3	20		
Lead	mg/L	0.000052J	0.1	0.1	0.098	0.093	98	93	75-125	6	20		
Lithium	mg/L	0.014J	0.1	0.1	0.11	0.10	95	89	75-125	5	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	107	103	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.097	0.092	97	92	75-125	5	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.091	97	91	75-125	6	20		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

QC Batch: 586401 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

METHOD BLANK: 3099362 Matrix: Water  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	12/14/20 12:56	

LABORATORY CONTROL SAMPLE: 3099363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0021	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3099364 3099365

Parameter	Units	3099364		3099365		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.000079J	0.0025	0.0020	0.0024	77	92	75-125	17	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.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

QC Batch: 585931 Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

METHOD BLANK: 3096989 Matrix: Water  
Associated Lab Samples: 92510829001, 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/10/20 11:52	

LABORATORY CONTROL SAMPLE: 3096990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	417	104	84-108	

SAMPLE DUPLICATE: 3097556

Parameter	Units	92510779001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	101	4	10	

SAMPLE DUPLICATE: 3097589

Parameter	Units	92510794007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	299	287	4	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92510829

QC Batch: 586999 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: 92510829001

METHOD BLANK: 3102402 Matrix: Water  
Associated Lab Samples: 92510829001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/15/20 18:20	
Fluoride	mg/L	ND	0.10	0.050	12/15/20 18:20	
Sulfate	mg/L	ND	1.0	0.50	12/15/20 18:20	

LABORATORY CONTROL SAMPLE: 3102403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.3	99	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	50	47.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102404 3102405

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511446001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	5.9	50	50	60.1	59.7	109	108	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	105	104	90-110	1	10		
Sulfate	mg/L	2.2	50	50	54.0	53.7	104	103	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102406 3102407

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511524002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	73.9	50	50	108	109	68	69	90-110	1	10	M1	
Fluoride	mg/L	0.41	2.5	2.5	2.9	2.9	99	99	90-110	0	10		
Sulfate	mg/L	89.4	50	50	121	122	63	65	90-110	1	10	M1	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

QC Batch: 587003 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: 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

METHOD BLANK: 3102423 Matrix: Water  
 Associated Lab Samples: 92510829002, 92510829003, 92510829004, 92510829005, 92510829006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/19/20 00:49	
Fluoride	mg/L	ND	0.10	0.050	12/19/20 00:49	
Sulfate	mg/L	ND	1.0	0.50	12/19/20 00:49	

LABORATORY CONTROL SAMPLE: 3102424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.5	101	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	48.5	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102425 3102426

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92510829002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	12.5	50	50	50	65.8	66.0	107	107	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	2.7	106	108	90-110	2	10	
Sulfate	mg/L	273	50	50	50	312	313	77	80	90-110	0	10 M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3102427 3102428

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511102002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	29.7	50	50	50	82.6	83.7	106	108	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	2.8	106	110	90-110	3	10	
Sulfate	mg/L	42.8	50	50	50	93.8	94.6	102	104	90-110	1	10	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92510829

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92510829001	B-104D				
92510829002	B-107D				
92510829003	B-108D				
92510829004	B-111D				
92510829001	B-104D	EPA 3010A	587757	EPA 6010D	587879
92510829002	B-107D	EPA 3010A	587757	EPA 6010D	587879
92510829003	B-108D	EPA 3010A	587757	EPA 6010D	587879
92510829004	B-111D	EPA 3010A	587757	EPA 6010D	587879
92510829005	FD	EPA 3010A	587757	EPA 6010D	587879
92510829006	FB	EPA 3010A	587757	EPA 6010D	587879
92510829001	B-104D	EPA 3005A	587466	EPA 6020B	587562
92510829002	B-107D	EPA 3005A	587466	EPA 6020B	587562
92510829003	B-108D	EPA 3005A	587466	EPA 6020B	587562
92510829004	B-111D	EPA 3005A	587466	EPA 6020B	587562
92510829005	FD	EPA 3005A	587466	EPA 6020B	587562
92510829006	FB	EPA 3005A	587466	EPA 6020B	587562
92510829001	B-104D	EPA 7470A	586401	EPA 7470A	586700
92510829002	B-107D	EPA 7470A	586401	EPA 7470A	586700
92510829003	B-108D	EPA 7470A	586401	EPA 7470A	586700
92510829004	B-111D	EPA 7470A	586401	EPA 7470A	586700
92510829005	FD	EPA 7470A	586401	EPA 7470A	586700
92510829006	FB	EPA 7470A	586401	EPA 7470A	586700
92510829001	B-104D	SM 2450C-2011	585931		
92510829002	B-107D	SM 2450C-2011	585931		
92510829003	B-108D	SM 2450C-2011	585931		
92510829004	B-111D	SM 2450C-2011	585931		
92510829005	FD	SM 2450C-2011	585931		
92510829006	FB	SM 2450C-2011	585931		
92510829001	B-104D	EPA 300.0 Rev 2.1 1993	586999		
92510829002	B-107D	EPA 300.0 Rev 2.1 1993	587003		
92510829003	B-108D	EPA 300.0 Rev 2.1 1993	587003		
92510829004	B-111D	EPA 300.0 Rev 2.1 1993	587003		
92510829005	FD	EPA 300.0 Rev 2.1 1993	587003		
92510829006	FB	EPA 300.0 Rev 2.1 1993	587003		

### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

*Georgia power - coal*

Project #:

**WO#: 92510829**



92510829

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

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *MT 12/10/20*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: *233*    Type of Ice:  Wet  Blue  None

Cooler Temp:

*23*    Correction Factor: Add/Subtract (°C) *±0.4*

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): *2.7*

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	<i>Standard</i>
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>MT</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# : 92510829**

PM: KLH1

Due Date: 12/24/20

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

CLIENT: GA-GA Power

\*\*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)	BPIN	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	/	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
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11	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

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

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



January 11, 2021

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

RE: Project: PLANT MCDONOUGH AP-1 RADS  
Pace Project No.: 92512943

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-1 RADJ  
Pace Project No.: 92512943

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### **Pace Analytical Services Pennsylvania**

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

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

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92512943001	B-110D	Water	12/17/20 15:40	12/18/20 15:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-1 RADS  
Pace Project No.: 92512943

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92512943001	B-110D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

**Sample: B-110D**      **Lab ID: 92512943001**      Collected: 12/17/20 15:40      Received: 12/18/20 15:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.645 ± 0.382 (0.631)</b> <b>C:88% T:NA</b>	pCi/L	01/06/21 07:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.334 ± 0.541 (1.17)</b> <b>C:72% T:79%</b>	pCi/L	01/05/21 13:26	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.979 ± 0.923 (1.80)</b>	pCi/L	01/06/21 14:34	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

QC Batch: 428750

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92512943001

METHOD BLANK: 2071922

Matrix: Water

Associated Lab Samples: 92512943001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.694 ± 0.380 (0.676) C:79% T:80%	pCi/L	01/05/21 13:26	

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: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

QC Batch: 429175

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92512943001

METHOD BLANK: 2073293

Matrix: Water

Associated Lab Samples: 92512943001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.176 ± 0.138 (0.246) C:97% T:NA	pCi/L	01/05/21 17:40	

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

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: PLANT MCDONOUGH AP-1 RADS

Pace Project No.: 92512943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92512943001	B-110D	EPA 9315	429175		
92512943001	B-110D	EPA 9320	428750		
92512943001	B-110D	Total Radium Calculation	429861		

### REPORT OF LABORATORY ANALYSIS

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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# : 92512943**



92512943

Date/Initials Person Examining Contents: 12/18/20  
LOH

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer:  RF Gun ID: 233 Type of Ice:  Wet  Blue  None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 0.4

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (  N/A, water sample)

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

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

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

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

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

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

Project #

**WO# : 92512943**

PM: KLH1

Due Date: 01/12/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP5U-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-)	AG3H-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)	V69T-40 mL VOA Na2S2O3 (N/A)	V69U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GX (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																													
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.





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 1/5/2021  
Worklist: 58138  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2073293	
MB concentration:	0.176	
M/B Counting Uncertainty:	0.135	
MB MDC:	0.246	
MB Numerical Performance Indicator:	2.55	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD58138	LCSD58138
Count Date:	1/6/2021	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.041	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.515	
Target Conc. (pCi/L, g, F):	4.669	
Uncertainty (Calculated):	0.056	
Result (pCi/L, g, F):	4.726	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782	
Numerical Performance Indicator:	0.14	
Percent Recovery:	101.21%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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:		

Duplicate Sample Assessment		
Sample I.D.:	92512557001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92512557001DUP	
Sample Result (pCi/L, g, F):	0.259	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.248	
Sample Duplicate Result (pCi/L, g, F):	0.181	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.219	
Are sample and/or duplicate results below RL?	See Below##	
Duplicate Numerical Performance Indicator:	0.458	92512557001
Duplicate RPD:	35.10%	92512557001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

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

N/A  
1/6/2021

KLB  
1-6-2021

1/6/2021





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 1/5/2021  
Worklist: 58138  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2073293	
MB concentration:	0.176	
M/B Counting Uncertainty:	0.135	
MB MDC:	0.246	
MB Numerical Performance Indicator:	2.55	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD58138	LCSD58138
Count Date:	1/6/2021	1/6/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.041	24.041
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.515	0.507
Target Conc. (pCi/L, g, F):	4.669	4.743
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	4.726	4.173
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782	0.736
Numerical Performance Indicator:	0.14	-1.51
Percent Recovery:	101.21%	87.98%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

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:		

Duplicate Sample Assessment		
Sample I.D.:	LCSD58138	Enter Duplicate sample IDs if other than LCSD/LCSD in the space below.
Duplicate Sample I.D.:	LCSD58138	
Sample Result (pCi/L, g, F):	4.726	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.782	
Sample Duplicate Result (pCi/L, g, F):	4.173	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.736	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.009	92512557001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.99%	92512557001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

*KUB*  
*1-6-2021*

*LAM 1/6/21*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 12/31/2020  
Worklist: 58095  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2071922	
MB concentration:	0.694	
M/B 2 Sigma CSU:	0.380	
MB MDC:	0.676	
MB Numerical Performance Indicator:	3.58	
MB Status vs Numerical Indicator:	Fail*	
MB Status vs. MDC:	See Comment*	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD58095	LCSD58095
Count Date:	1/5/2021	1/5/2021
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	37.002	37.002
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.803	0.801
Target Conc. (pCi/L, g, F):	4.610	4.617
Uncertainty (Calculated):	0.226	0.226
Result (pCi/L, g, F):	5.581	5.412
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.255	1.220
Numerical Performance Indicator:	1.49	1.25
Percent Recovery:	121.08%	117.21%
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:		
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		
Sample I.D.:	LCSD58095	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD58095	
Sample Result (pCi/L, g, F):	5.581	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.255	
Sample Duplicate Result (pCi/L, g, F):	5.412	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.220	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.190	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.25%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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:
(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:**

\*The method blank result is below the reporting limit for this analysis and is acceptable.

12/31/2021

January 11, 2021

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

RE: Project: PLANT MCDONOUGH AP-234 RADS  
Pace Project No.: 92512944

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-234 RADS  
Pace Project No.: 92512944

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### **Pace Analytical Services Pennsylvania**

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

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

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92512944001	B-102D	Water	12/17/20 10:15	12/18/20 15:30
92512944002	B-106D	Water	12/17/20 13:05	12/18/20 15:30
92512944003	EB	Water	12/17/20 09:50	12/18/20 15:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92512944001	B-102D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92512944002	B-106D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92512944003	EB	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

**Sample: B-102D**      **Lab ID: 92512944001**      Collected: 12/17/20 10:15      Received: 12/18/20 15:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.162 ± 0.271 (0.610)</b> <b>C:89% T:NA</b>	pCi/L	01/06/21 07:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.06 ± 0.644 (1.24)</b> <b>C:70% T:73%</b>	pCi/L	01/05/21 13:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.22 ± 0.915 (1.85)</b>	pCi/L	01/06/21 14:34	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

**Sample: B-106D**      **Lab ID: 92512944002**      Collected: 12/17/20 13:05      Received: 12/18/20 15:30      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.195 ± 0.379 (0.872)</b> <b>C:68% T:NA</b>	pCi/L	01/06/21 07:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.757 ± 0.568 (1.13)</b> <b>C:69% T:75%</b>	pCi/L	01/05/21 13:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.952 ± 0.947 (2.00)</b>	pCi/L	01/06/21 14:34	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

QC Batch: 428750

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92512944001, 92512944002, 92512944003

METHOD BLANK: 2071922

Matrix: Water

Associated Lab Samples: 92512944001, 92512944002, 92512944003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.694 ± 0.380 (0.676) C:79% T:80%	pCi/L	01/05/21 13:26	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

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QC Batch:	429175	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92512944001, 92512944002, 92512944003

---

METHOD BLANK: 2073293 Matrix: Water

Associated Lab Samples: 92512944001, 92512944002, 92512944003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.176 ± 0.138 (0.246) C:97% T:NA	pCi/L	01/05/21 17:40	

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-234 RADS  
Pace Project No.: 92512944

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: PLANT MCDONOUGH AP-234 RADS

Pace Project No.: 92512944

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92512944001	B-102D	EPA 9315	429175		
92512944002	B-106D	EPA 9315	429175		
92512944003	EB	EPA 9315	429175		
92512944001	B-102D	EPA 9320	428750		
92512944002	B-106D	EPA 9320	428750		
92512944003	EB	EPA 9320	428750		
92512944001	B-102D	Total Radium Calculation	429861		
92512944002	B-106D	Total Radium Calculation	429861		
92512944003	EB	Total Radium Calculation	429861		

### 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: G. Alower Project #: \_\_\_\_\_  
 Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

**WO#: 92512944**  
  
 92512944

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 12/18/20  
LOH

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  Wet  Blue  None  
 HR Gun ID: 233 Type of Ice: \_\_\_\_\_

Biological Tissue Frozen?  
 Yes  No  N/A

Cooler Temp: 3.7 Correction Factor: 0.4  
 Add/Subtract (°C) 4.1

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.1  
 USDA Regulated Soil (  N/A, water sample)  
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  
 Yes  No

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

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
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 -Includes Date/Time/ID/Analysis Matrix: <u>W</u>	9.
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# : 92512944**

PM: KLH1

Due Date: 01/12/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 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)	SPST-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1		1	1																									
2		1	1																									
3		1	1																									
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).





January 05, 2021

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

RE: Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92512947001	B-110D	Water	12/17/20 15:40	12/18/20 15:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92512947001	B-110D	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	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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## ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

Sample: B-110D		Lab ID: 92512947001		Collected: 12/17/20 15:40		Received: 12/18/20 15:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/18/20 16:56		
pH	<b>6.99</b>	Std. Units			1		12/18/20 16:56		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>47.8</b>	mg/L	1.0	0.070	1	12/28/20 09:00	12/28/20 21:49	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	12/30/20 09:56	12/30/20 19:52	7440-36-0	
Arsenic	<b>0.0017J</b>	mg/L	0.0050	0.00078	1	12/30/20 09:56	12/30/20 19:52	7440-38-2	
Barium	<b>0.0061J</b>	mg/L	0.010	0.00071	1	12/30/20 09:56	12/30/20 19:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	12/30/20 09:56	12/31/20 17:17	7440-41-7	
Boron	<b>0.28</b>	mg/L	0.10	0.0052	1	12/30/20 09:56	12/30/20 19:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	12/30/20 09:56	12/30/20 19:52	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/30/20 09:56	12/30/20 19:52	7440-47-3	
Cobalt	<b>0.0016J</b>	mg/L	0.0050	0.00038	1	12/30/20 09:56	12/30/20 19:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	12/30/20 09:56	12/30/20 19:52	7439-92-1	
Lithium	<b>0.011J</b>	mg/L	0.030	0.00081	1	12/30/20 09:56	12/30/20 19:52	7439-93-2	
Molybdenum	<b>0.076</b>	mg/L	0.010	0.00069	1	12/30/20 09:56	12/30/20 19:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/30/20 09:56	12/30/20 19:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/30/20 09:56	12/30/20 19:52	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	12/22/20 07:10	12/22/20 13:31	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>251</b>	mg/L	10.0	10.0	1		12/22/20 17:33		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>2.1</b>	mg/L	1.0	0.60	1		12/23/20 23:28	16887-00-6	
Fluoride	<b>0.72</b>	mg/L	0.10	0.050	1		12/23/20 23:28	16984-48-8	
Sulfate	<b>51.4</b>	mg/L	1.0	0.50	1		12/23/20 23:28	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

QC Batch: 589491	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D ATL
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512947001

METHOD BLANK: 3113717 Matrix: Water  
Associated Lab Samples: 92512947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	12/28/20 21:38	

LABORATORY CONTROL SAMPLE: 3113718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3113719 3113720

Parameter	Units	3113719		3113720		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92512951001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	71.5	1	1	75.6	73.7	406	223	75-125	2	20 M1

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

QC Batch: 589986 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512947001

METHOD BLANK: 3115564 Matrix: Water  
Associated Lab Samples: 92512947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	12/30/20 19:40	
Arsenic	mg/L	ND	0.0050	0.00078	12/30/20 19:40	
Barium	mg/L	ND	0.010	0.00071	12/30/20 19:40	
Beryllium	mg/L	ND	0.0030	0.000046	12/31/20 16:06	
Boron	mg/L	ND	0.10	0.0052	12/30/20 19:40	
Cadmium	mg/L	ND	0.0025	0.00012	12/30/20 19:40	
Chromium	mg/L	ND	0.010	0.00055	12/30/20 19:40	
Cobalt	mg/L	ND	0.0050	0.00038	12/30/20 19:40	
Lead	mg/L	ND	0.0050	0.000036	12/30/20 19:40	
Lithium	mg/L	ND	0.030	0.00081	12/30/20 19:40	
Molybdenum	mg/L	ND	0.010	0.00069	12/30/20 19:40	
Selenium	mg/L	ND	0.010	0.0016	12/30/20 19:40	
Thallium	mg/L	ND	0.0010	0.00014	12/30/20 19:40	

LABORATORY CONTROL SAMPLE: 3115565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.093	93	80-120	
Arsenic	mg/L	0.1	0.089	89	80-120	
Barium	mg/L	0.1	0.086	86	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.092	92	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Lead	mg/L	0.1	0.088	88	80-120	
Lithium	mg/L	0.1	0.086	86	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.088	88	80-120	
Thallium	mg/L	0.1	0.088	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3115566 3115567

Parameter	Units	92512947001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Arsenic	mg/L	0.0017J	0.1	0.1	0.095	0.094	93	92	75-125	1	20	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3115566 3115567											
Parameter	Units	92512947001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Barium	mg/L	0.0061J	0.1	0.1	0.094	0.091	87	85	75-125	2	20
Beryllium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20
Boron	mg/L	0.28	1	1	1.1	1.1	80	85	75-125	5	20
Cadmium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20
Chromium	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20
Cobalt	mg/L	0.0016J	0.1	0.1	0.091	0.091	90	89	75-125	0	20
Lead	mg/L	ND	0.1	0.1	0.089	0.086	89	86	75-125	3	20
Lithium	mg/L	0.011J	0.1	0.1	0.094	0.093	82	82	75-125	0	20
Molybdenum	mg/L	0.076	0.1	0.1	0.17	0.17	96	91	75-125	3	20
Selenium	mg/L	ND	0.1	0.1	0.091	0.089	91	89	75-125	2	20
Thallium	mg/L	ND	0.1	0.1	0.089	0.087	89	87	75-125	3	20

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

QC Batch: 588542	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512947001

METHOD BLANK: 3109729 Matrix: Water  
Associated Lab Samples: 92512947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	12/22/20 12:50	

LABORATORY CONTROL SAMPLE: 3109730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3109731 3109732

Parameter	Units	92512574004		3109731		3109732		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0023	89	90	75-125	1	20

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

QC Batch: 588927	Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512947001

METHOD BLANK: 3111378 Matrix: Water  
Associated Lab Samples: 92512947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/22/20 17:31	

LABORATORY CONTROL SAMPLE: 3111379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	386	96	84-108	

SAMPLE DUPLICATE: 3111380

Parameter	Units	92512580004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	294	295	0	10	

SAMPLE DUPLICATE: 3111381

Parameter	Units	92513185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	339	340	0	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-1  
Pace Project No.: 92512947

QC Batch: 589104 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: 92512947001

METHOD BLANK: 3112052 Matrix: Water  
Associated Lab Samples: 92512947001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/23/20 16:31	
Fluoride	mg/L	ND	0.10	0.050	12/23/20 16:31	
Sulfate	mg/L	ND	1.0	0.50	12/23/20 16:31	

LABORATORY CONTROL SAMPLE: 3112053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112054 3112055

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92513456002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	409	50	50	471	456	125	94	90-110	3	10	M6	
Fluoride	mg/L	0.14	2.5	2.5	2.1	2.1	77	79	90-110	2	10	M1	
Sulfate	mg/L	403	50	50	466	450	126	93	90-110	4	10	M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112056 3112057

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92512580004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.4	50	50	57.4	57.5	108	108	90-110	0	10		
Fluoride	mg/L	0.18	2.5	2.5	2.7	2.7	102	102	90-110	0	10		
Sulfate	mg/L	11.3	50	50	65.5	65.6	108	109	90-110	0	10		

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-1

Pace Project No.: 92512947

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92512947001	B-110D				
92512947001	B-110D	EPA 3010A	589491	EPA 6010D	589516
92512947001	B-110D	EPA 3005A	589986	EPA 6020B	590063
92512947001	B-110D	EPA 7470A	588542	EPA 7470A	588758
92512947001	B-110D	SM 2450C-2011	588927		
92512947001	B-110D	EPA 300.0 Rev 2.1 1993	589104		

### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project # **WO# : 92512947**

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



Date/Initials Person Examining Contents: 12/18/20  
LOH

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: 233 Type of Ice:  Wet  Blue  None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 0.4

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (  N/A, water sample)

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

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

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

**WO# : 92512947**

PH: KLH1 Due Date: 01/05/21  
 CLIENT: GA-GA Power

\*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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA 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																														
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).







January 05, 2021

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

RE: Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92512951

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2020. 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,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Stephen Benda  
Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

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### **Pace Analytical Services Charlotte**

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

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

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92512951

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92512951001	B-102D	Water	12/17/20 10:15	12/18/20 15:30
92512951002	B-106D	Water	12/17/20 13:05	12/18/20 15:30
92512951003	EB	Water	12/17/20 09:50	12/18/20 15:30

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### SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92512951001	B-102D	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92512951002	B-106D	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92512951003	EB	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	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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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92512951

Sample: B-102D		Lab ID: 92512951001		Collected: 12/17/20 10:15		Received: 12/18/20 15:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/18/20 17:05		
pH	<b>5.39</b>	Std. Units			1		12/18/20 17:05		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>71.5</b>	mg/L	1.0	0.070	1	12/28/20 09:00	12/28/20 21:54	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0016J</b>	mg/L	0.0030	0.00028	1	12/30/20 09:56	12/30/20 20:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/30/20 09:56	12/30/20 20:15	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.010	0.00071	1	12/30/20 09:56	12/30/20 20:15	7440-39-3	
Beryllium	<b>0.0014J</b>	mg/L	0.0030	0.000046	1	12/30/20 09:56	12/31/20 17:40	7440-41-7	
Boron	<b>2.4</b>	mg/L	0.10	0.0052	1	12/30/20 09:56	12/30/20 20:15	7440-42-8	
Cadmium	<b>0.00067J</b>	mg/L	0.0025	0.00012	1	12/30/20 09:56	12/30/20 20:15	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/30/20 09:56	12/30/20 20:15	7440-47-3	
Cobalt	<b>0.014</b>	mg/L	0.0050	0.00038	1	12/30/20 09:56	12/30/20 20:15	7440-48-4	
Lead	<b>0.000037J</b>	mg/L	0.0050	0.000036	1	12/30/20 09:56	12/30/20 20:15	7439-92-1	
Lithium	<b>0.012J</b>	mg/L	0.030	0.00081	1	12/30/20 09:56	12/30/20 20:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	12/30/20 09:56	12/30/20 20:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/30/20 09:56	12/30/20 20:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/30/20 09:56	12/30/20 20:15	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	12/22/20 07:10	12/22/20 13:33	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>449</b>	mg/L	10.0	10.0	1		12/22/20 17:34		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>10.3</b>	mg/L	1.0	0.60	1		12/23/20 23:43	16887-00-6	
Fluoride	<b>0.079J</b>	mg/L	0.10	0.050	1		12/23/20 23:43	16984-48-8	
Sulfate	<b>249</b>	mg/L	5.0	2.5	5		12/24/20 11:51	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92512951

Sample: B-106D		Lab ID: 92512951002		Collected: 12/17/20 13:05		Received: 12/18/20 15:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		12/18/20 17:05		
pH	<b>5.82</b>	Std. Units			1		12/18/20 17:05		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>43.2</b>	mg/L	1.0	0.070	1	12/28/20 09:00	12/28/20 22:25	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00048J</b>	mg/L	0.0030	0.00028	1	12/30/20 09:56	12/30/20 20:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	12/30/20 09:56	12/30/20 20:20	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.010	0.00071	1	12/30/20 09:56	12/30/20 20:20	7440-39-3	
Beryllium	<b>0.00012J</b>	mg/L	0.0030	0.000046	1	12/30/20 09:56	12/31/20 17:45	7440-41-7	
Boron	<b>1.4</b>	mg/L	0.10	0.0052	1	12/30/20 09:56	12/30/20 20:20	7440-42-8	
Cadmium	<b>0.00020J</b>	mg/L	0.0025	0.00012	1	12/30/20 09:56	12/30/20 20:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	12/30/20 09:56	12/30/20 20:20	7440-47-3	
Cobalt	<b>0.00087J</b>	mg/L	0.0050	0.00038	1	12/30/20 09:56	12/30/20 20:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	12/30/20 09:56	12/30/20 20:20	7439-92-1	
Lithium	<b>0.0048J</b>	mg/L	0.030	0.00081	1	12/30/20 09:56	12/30/20 20:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	12/30/20 09:56	12/30/20 20:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	12/30/20 09:56	12/30/20 20:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	12/30/20 09:56	12/30/20 20:20	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	12/22/20 07:10	12/22/20 13:35	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>340</b>	mg/L	10.0	10.0	1		12/22/20 17:34		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8.0</b>	mg/L	1.0	0.60	1		12/24/20 01:42	16887-00-6	
Fluoride	<b>0.052J</b>	mg/L	0.10	0.050	1		12/24/20 01:42	16984-48-8	
Sulfate	<b>179</b>	mg/L	4.0	2.0	4		12/24/20 12:50	14808-79-8	

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### ANALYTICAL RESULTS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

Sample: <b>EB</b>		Lab ID: <b>92512951003</b>		Collected: 12/17/20 09:50	Received: 12/18/20 15:30	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	12/28/20 09:00	12/28/20 22:30	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	12/30/20 09:56	12/30/20 20:26	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	12/30/20 09:56	12/30/20 20:26	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	12/30/20 09:56	12/30/20 20:26	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	12/30/20 09:56	12/31/20 17:51	7440-41-7		
Boron	<b>0.010J</b>	mg/L	0.10	0.0052	1	12/30/20 09:56	12/30/20 20:26	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	12/30/20 09:56	12/30/20 20:26	7440-43-9		
Chromium	<b>0.00058J</b>	mg/L	0.010	0.00055	1	12/30/20 09:56	12/30/20 20:26	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	12/30/20 09:56	12/30/20 20:26	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	12/30/20 09:56	12/30/20 20:26	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	12/30/20 09:56	12/30/20 20:26	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	12/30/20 09:56	12/30/20 20:26	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	12/30/20 09:56	12/30/20 20:26	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	12/30/20 09:56	12/30/20 20:26	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	12/22/20 07:10	12/22/20 13:38	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		12/22/20 17:34			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		12/24/20 01:57	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		12/24/20 01:57	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		12/24/20 01:57	14808-79-8		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234  
Pace Project No.: 92512951

QC Batch: 589491 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92512951001, 92512951002, 92512951003

METHOD BLANK: 3113717 Matrix: Water  
Associated Lab Samples: 92512951001, 92512951002, 92512951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	12/28/20 21:38	

LABORATORY CONTROL SAMPLE: 3113718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3113719 3113720

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92512951001	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	71.5	1	1	75.6	73.7	406	223	75-125	2	20	M1	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

QC Batch: 589986

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory:

Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512951001, 92512951002, 92512951003

METHOD BLANK: 3115564

Matrix: Water

Associated Lab Samples: 92512951001, 92512951002, 92512951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	12/30/20 19:40	
Arsenic	mg/L	ND	0.0050	0.00078	12/30/20 19:40	
Barium	mg/L	ND	0.010	0.00071	12/30/20 19:40	
Beryllium	mg/L	ND	0.0030	0.000046	12/31/20 16:06	
Boron	mg/L	ND	0.10	0.0052	12/30/20 19:40	
Cadmium	mg/L	ND	0.0025	0.00012	12/30/20 19:40	
Chromium	mg/L	ND	0.010	0.00055	12/30/20 19:40	
Cobalt	mg/L	ND	0.0050	0.00038	12/30/20 19:40	
Lead	mg/L	ND	0.0050	0.000036	12/30/20 19:40	
Lithium	mg/L	ND	0.030	0.00081	12/30/20 19:40	
Molybdenum	mg/L	ND	0.010	0.00069	12/30/20 19:40	
Selenium	mg/L	ND	0.010	0.0016	12/30/20 19:40	
Thallium	mg/L	ND	0.0010	0.00014	12/30/20 19:40	

LABORATORY CONTROL SAMPLE: 3115565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.093	93	80-120	
Arsenic	mg/L	0.1	0.089	89	80-120	
Barium	mg/L	0.1	0.086	86	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.092	92	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Lead	mg/L	0.1	0.088	88	80-120	
Lithium	mg/L	0.1	0.086	86	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.088	88	80-120	
Thallium	mg/L	0.1	0.088	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3115566

3115567

Parameter	Units	92512947001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Arsenic	mg/L	0.0017J	0.1	0.1	0.095	0.094	93	92	75-125	1	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3115566 3115567											
Parameter	Units	92512947001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Barium	mg/L	0.0061J	0.1	0.1	0.094	0.091	87	85	75-125	2	20
Beryllium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20
Boron	mg/L	0.28	1	1	1.1	1.1	80	85	75-125	5	20
Cadmium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20
Chromium	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20
Cobalt	mg/L	0.0016J	0.1	0.1	0.091	0.091	90	89	75-125	0	20
Lead	mg/L	ND	0.1	0.1	0.089	0.086	89	86	75-125	3	20
Lithium	mg/L	0.011J	0.1	0.1	0.094	0.093	82	82	75-125	0	20
Molybdenum	mg/L	0.076	0.1	0.1	0.17	0.17	96	91	75-125	3	20
Selenium	mg/L	ND	0.1	0.1	0.091	0.089	91	89	75-125	2	20
Thallium	mg/L	ND	0.1	0.1	0.089	0.087	89	87	75-125	3	20

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

QC Batch:	588542	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512951001, 92512951002, 92512951003

METHOD BLANK: 3109729 Matrix: Water

Associated Lab Samples: 92512951001, 92512951002, 92512951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	12/22/20 12:50	

LABORATORY CONTROL SAMPLE: 3109730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3109731 3109732

Parameter	Units	92512574004		3109732		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0022	0.0023	89	90	75-125	1	20	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

QC Batch: 588927

Analysis Method: SM 2450C-2011

QC Batch Method: SM 2450C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory:

Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92512951001, 92512951002, 92512951003

METHOD BLANK: 3111378

Matrix: Water

Associated Lab Samples: 92512951001, 92512951002, 92512951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	12/22/20 17:31	

LABORATORY CONTROL SAMPLE: 3111379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	386	96	84-108	

SAMPLE DUPLICATE: 3111380

Parameter	Units	92512580004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	294	295	0	10	

SAMPLE DUPLICATE: 3111381

Parameter	Units	92513185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	339	340	0	10	

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

QC Batch: 589104	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: 92512951001

METHOD BLANK: 3112052 Matrix: Water

Associated Lab Samples: 92512951001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/23/20 16:31	
Fluoride	mg/L	ND	0.10	0.050	12/23/20 16:31	
Sulfate	mg/L	ND	1.0	0.50	12/23/20 16:31	

LABORATORY CONTROL SAMPLE: 3112053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112054 3112055

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92513456002 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	409	50	50	471	456	125	94	90-110	3	10	M6	
Fluoride	mg/L	0.14	2.5	2.5	2.1	2.1	77	79	90-110	2	10	M1	
Sulfate	mg/L	403	50	50	466	450	126	93	90-110	4	10	M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112056 3112057

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92512580004 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	3.4	50	50	57.4	57.5	108	108	90-110	0	10		
Fluoride	mg/L	0.18	2.5	2.5	2.7	2.7	102	102	90-110	0	10		
Sulfate	mg/L	11.3	50	50	65.5	65.6	108	109	90-110	0	10		

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### QUALITY CONTROL DATA

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

QC Batch: 589110	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: 92512951002, 92512951003

METHOD BLANK: 3112064 Matrix: Water

Associated Lab Samples: 92512951002, 92512951003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	12/23/20 23:58	
Fluoride	mg/L	ND	0.10	0.050	12/23/20 23:58	
Sulfate	mg/L	ND	1.0	0.50	12/23/20 23:58	

LABORATORY CONTROL SAMPLE: 3112065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.4	105	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	52.8	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112066 3112067

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92513456001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	449	50	50	492	491	86	84	90-110	0	10	M6	
Fluoride	mg/L	0.17	2.5	2.5	2.0	1.9	74	71	90-110	4	10	M1	
Sulfate	mg/L	125	50	50	173	173	95	95	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3112068 3112069

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92511640003 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	5.0	50	50	59.6	59.5	109	109	90-110	0	10		
Fluoride	mg/L	0.19	2.5	2.5	2.9	2.9	108	107	90-110	1	10		
Sulfate	mg/L	106	50	50	158	159	104	106	90-110	1	10		

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

---

### 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.

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH AP-234

Pace Project No.: 92512951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92512951001	B-102D				
92512951002	B-106D				
92512951001	B-102D	EPA 3010A	589491	EPA 6010D	589516
92512951002	B-106D	EPA 3010A	589491	EPA 6010D	589516
92512951003	EB	EPA 3010A	589491	EPA 6010D	589516
92512951001	B-102D	EPA 3005A	589986	EPA 6020B	590063
92512951002	B-106D	EPA 3005A	589986	EPA 6020B	590063
92512951003	EB	EPA 3005A	589986	EPA 6020B	590063
92512951001	B-102D	EPA 7470A	588542	EPA 7470A	588758
92512951002	B-106D	EPA 7470A	588542	EPA 7470A	588758
92512951003	EB	EPA 7470A	588542	EPA 7470A	588758
92512951001	B-102D	SM 2450C-2011	588927		
92512951002	B-106D	SM 2450C-2011	588927		
92512951003	EB	SM 2450C-2011	588927		
92512951001	B-102D	EPA 300.0 Rev 2.1 1993	589104		
92512951002	B-106D	EPA 300.0 Rev 2.1 1993	589110		
92512951003	EB	EPA 300.0 Rev 2.1 1993	589110		

### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Knoxville

Sample Condition Upon Receipt

Client Name:

*G. A. Power*

Project #:

**WO#: 92512951**



Courier:

Commercial

Fed Ex

Pace

UPS

USPS

Other: \_\_\_\_\_

Client

Custody Seal Present?

Yes

No

Seals Intact?

Yes

No

Date/Initials Person Examining Contents: *12/18/20 Lof*

Packing Material:

Bubble Wrap

Bubble Bags

None

Other

Thermometer:

HK Gun ID: *233*

Type of Ice:

Wet

Blue

None

Biological Tissue Frozen?

Yes  No  N/A

Cooler Temp: *3.7*

Correction Factor:  
Add/Subtract (°C) *0.4*

Type of Ice:

*4.1*

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): *4.1*

USDA Regulated Soil ( N/A, water sample)

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

Yes  No

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

Comments/Discrepancy:

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

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# : 92512951**

PH: KLH1

Due Date: 01/05/21

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 [pH < 2] (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		1	1		1																								
2		1	1		1																								
3		1	1		1																								
4					1																								
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.





**PACE ANALYTICAL SERVICES, LLC.**

Environmental Monitoring & Laboratory Analysis  
110 Technology Parkway, Peachtree Corners, GA 30092  
(770) 734-4200 FAX (770) 734-4201

**Laboratory Report**

**Prepared For:**

**Georgia Power  
2480 Maner Road  
Atlanta, GA 30339**

**Attention: Mr. Joju Abraham**

**Report Number: AAG0117**

**July 17, 2017**

**Project: Plant McDonough**

**Project #:1779172**

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDonough". The signature is written over a horizontal line.

Project Manager

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Georgia Power  
2480 Maner Road  
Atlanta GA, 30339  
Attention: Mr. Joju Abraham

July 17, 2017

**ANALYTICAL REPORT FOR SAMPLES**

<b>Sample ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
B-68	AAG0117-01	Ground Water	07/06/17 13:35	07/07/17 09:35
B-69	AAG0117-02	Ground Water	07/06/17 15:15	07/07/17 09:35
B-70A	AAG0117-03	Ground Water	07/06/17 09:55	07/07/17 09:35



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Georgia Power  
 2480 Maner Road  
 Atlanta GA, 30339  
 Attention: Mr. Joju Abraham

July 17, 2017

Report No.: AAG0117

Project: Plant McDonough

Client ID: B-68

Lab Number ID: AAG0117-01

Date/Time Sampled: 7/6/2017 1:35:00PM

Date/Time Received: 7/7/2017 9:35:00AM

Matrix: Ground Water

Analyte	Result	RL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
<b>General Chemistry</b>										
Biochemical Oxygen Demand	ND	2.0	mg/L	SM 5210 B		1	7/07/17 13:45	7/12/17 9:00	7070128	RNB
Chemical Oxygen Demand	147	10	mg/L	EPA 410.4		1	7/10/17 11:00	7/10/17 15:00	7070194	ALS
Dissolved Organic Carbon	ND	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/11/17 8:03	7070192	djs
Ferrous Iron	ND	0.20	mg/L	SM 3500-Fe B	H-01	1	7/11/17 11:20	7/11/17 11:20	7070215	DJS
Total Sulfide	ND	0.2	mg/L	SM 4500-S D		1	7/11/17 14:00	7/11/17 14:00	7070216	DJS
Total Organic Carbon	2.1	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/10/17 21:36	7070189	djs
<b>Inorganic Anions</b>										
Sulfate	37	5.0	mg/L	EPA 9056A		1	7/07/17 10:15	7/07/17 15:24	7070130	SLH
<b>Metals, Total</b>										
Iron	4.87	0.0400	mg/L	EPA 6010D		1	7/11/17 14:15	7/12/17 12:04	7070219	FBS
<b>Metals</b>										
Ferric Iron	4.87	0.200	mg/L	Calc.		1	7/11/17 14:15	7/12/17 12:04	[CALC]	FBS



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 Atlanta GA, 30339  
 Attention: Mr. Joju Abraham

July 17, 2017

Report No.: AAG0117

Project: Plant McDonough

Client ID: B-69

Lab Number ID: AAG0117-02

Date/Time Sampled: 7/6/2017 3:15:00PM

Date/Time Received: 7/7/2017 9:35:00AM

Matrix: Ground Water

Analyte	Result	RL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
<b>General Chemistry</b>										
Biochemical Oxygen Demand	ND	2.0	mg/L	SM 5210 B		1	7/07/17 13:45	7/12/17 9:00	7070128	RNB
Chemical Oxygen Demand	103	10	mg/L	EPA 410.4		1	7/10/17 11:00	7/10/17 15:00	7070194	ALS
Dissolved Organic Carbon	ND	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/11/17 8:37	7070192	djs
Ferrous Iron	ND	0.20	mg/L	SM 3500-Fe B	H-01	1	7/11/17 11:20	7/11/17 11:20	7070215	DJS
Total Sulfide	ND	0.2	mg/L	SM 4500-S D		1	7/11/17 14:00	7/11/17 14:00	7070216	DJS
Total Organic Carbon	ND	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/10/17 21:53	7070189	djs
<b>Inorganic Anions</b>										
Sulfate	17	5.0	mg/L	EPA 9056A		1	7/07/17 10:15	7/07/17 17:08	7070130	SLH
<b>Metals, Total</b>										
Iron	0.630	0.0400	mg/L	EPA 6010D		1	7/11/17 14:15	7/12/17 12:11	7070219	FBS
<b>Metals</b>										
Ferric Iron	0.630	0.200	mg/L	Calc.		1	7/11/17 14:15	7/12/17 12:11	[CALC]	FBS



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Georgia Power  
 2480 Maner Road  
 Atlanta GA, 30339  
 Attention: Mr. Joju Abraham

July 17, 2017

Report No.: AAG0117

Project: Plant McDonough

Client ID: B-70A

Lab Number ID: AAG0117-03

Date/Time Sampled: 7/6/2017 9:55:00AM

Date/Time Received: 7/7/2017 9:35:00AM

Matrix: Ground Water

Analyte	Result	RL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
<b>General Chemistry</b>										
Biochemical Oxygen Demand	ND	2.0	mg/L	SM 5210 B		1	7/07/17 13:45	7/12/17 9:00	7070128	RNB
Chemical Oxygen Demand	66	10	mg/L	EPA 410.4		1	7/10/17 11:00	7/10/17 15:00	7070194	ALS
Dissolved Organic Carbon	1.5	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/11/17 9:11	7070192	djs
Ferrous Iron	ND	0.20	mg/L	SM 3500-Fe B	H-01	1	7/11/17 11:20	7/11/17 11:20	7070215	DJS
Total Sulfide	ND	0.2	mg/L	SM 4500-S D		1	7/11/17 14:00	7/11/17 14:00	7070216	DJS
Total Organic Carbon	3.6	1.0	mg/L	EPA 9060A		1	7/10/17 15:15	7/10/17 22:09	7070189	djs
<b>Inorganic Anions</b>										
Sulfate	ND	5.0	mg/L	EPA 9056A	J	1	7/07/17 10:15	7/07/17 17:28	7070130	SLH
<b>Metals, Total</b>										
Iron	0.141	0.0400	mg/L	EPA 6010D		1	7/11/17 14:15	7/12/17 12:15	7070219	FBS
<b>Metals</b>										
Ferric Iron	ND	0.200	mg/L	Calc.		1	7/11/17 14:15	7/12/17 12:15	[CALC]	FBS





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 Attention: Mr. Joju Abraham

July 17, 2017

**Report No.: AAG0117**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070128 - SM 5210 B</b>										
<b>Blank (7070128-BLK1)</b> Prepared: 07/07/17 Analyzed: 07/12/17										
Biochemical Oxygen Demand	ND	2.0	mg/L							
<b>LCS (7070128-BS1)</b> Prepared: 07/07/17 Analyzed: 07/12/17										
Biochemical Oxygen Demand	216	2.0	mg/L	198.00		109	85-115			
<b>Duplicate (7070128-DUP1)</b> Source: AAG0109-01 Prepared: 07/07/17 Analyzed: 07/12/17										
Biochemical Oxygen Demand	97.0	9.0	mg/L		95.0			2	20	
<b>Batch 7070189 - EPA 9060A</b>										
<b>Blank (7070189-BLK1)</b> Prepared & Analyzed: 07/10/17										
Total Organic Carbon	ND	1.0	mg/L							
<b>LCS (7070189-BS1)</b> Prepared & Analyzed: 07/10/17										
Total Organic Carbon	20.1	1.0	mg/L	20.000		100	88-112			
<b>Matrix Spike (7070189-MS1)</b> Source: AAF1111-12 Prepared & Analyzed: 07/10/17										
Total Organic Carbon	25.8	1.0	mg/L	20.000	5.6	101	67-141			
<b>Matrix Spike Dup (7070189-MSD1)</b> Source: AAF1111-12 Prepared & Analyzed: 07/10/17										
Total Organic Carbon	25.7	1.0	mg/L	20.000	5.6	101	67-141	0.04	16	
<b>Batch 7070192 - EPA 9060A</b>										
<b>Blank (7070192-BLK1)</b> Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	ND	1.0	mg/L							



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July 17, 2017

**Report No.: AAG0117**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070192 - EPA 9060A</b>										
<b>LCS (7070192-BS1)</b> Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	19.4	1.0	mg/L	20.000		97	88-112			
<b>Duplicate (7070192-DUP1)</b> Source: AAG0031-02 Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	1.8	1.0	mg/L		1.8			2	14	
<b>Duplicate (7070192-DUP2)</b> Source: AAG0032-01 Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	1.7	1.0	mg/L		1.6			10	14	
<b>Duplicate (7070192-DUP3)</b> Source: AAG0117-01 Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	ND	1.0	mg/L		ND				14	
<b>Duplicate (7070192-DUP4)</b> Source: AAG0117-02 Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	ND	1.0	mg/L		ND				14	
<b>Duplicate (7070192-DUP5)</b> Source: AAG0117-03 Prepared: 07/10/17 Analyzed: 07/11/17										
Dissolved Organic Carbon	1.2	1.0	mg/L		1.5			17	14	QR-03
<b>Batch 7070194 - EPA 410.4</b>										
<b>Blank (7070194-BLK1)</b> Prepared & Analyzed: 07/10/17										
Chemical Oxygen Demand	ND	10	mg/L							
<b>LCS (7070194-BS1)</b> Prepared & Analyzed: 07/10/17										
Chemical Oxygen Demand	216	10	mg/L	200.00		108	90-110			
<b>Duplicate (7070194-DUP1)</b> Source: AAF0580-01RE1 Prepared & Analyzed: 07/10/17										
Chemical Oxygen Demand	67	10	mg/L		74			11	10	QR-03



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 2480 Maner Road  
 Atlanta GA, 30339  
 Attention: Mr. Joju Abraham

July 17, 2017

**Report No.: AAG0117**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070194 - EPA 410.4</b>										
<b>Matrix Spike (7070194-MS1)</b>		<b>Source: AAG0094-01</b>			<b>Prepared &amp; Analyzed: 07/10/17</b>					
Chemical Oxygen Demand	266	10	mg/L	200.00	193	36	90-110			QM-05
<b>Matrix Spike (7070194-MS2)</b>		<b>Source: AAG0117-01</b>			<b>Prepared &amp; Analyzed: 07/10/17</b>					
Chemical Oxygen Demand	358	10	mg/L	200.00	147	105	90-110			
<b>Matrix Spike Dup (7070194-MSD1)</b>		<b>Source: AAG0094-01</b>			<b>Prepared &amp; Analyzed: 07/10/17</b>					
Chemical Oxygen Demand	254	10	mg/L	200.00	193	30	90-110	5	10	QM-05
<b>Batch 7070215 - SM 3500-Fe B</b>										
<b>Blank (7070215-BLK1)</b>					<b>Prepared &amp; Analyzed: 07/11/17</b>					
Ferrous Iron	ND	0.20	mg/L							
<b>LCS (7070215-BS1)</b>					<b>Prepared &amp; Analyzed: 07/11/17</b>					
Ferrous Iron	0.42	0.20	mg/L	0.40000		106	80-120			
<b>Matrix Spike (7070215-MS1)</b>		<b>Source: AAG0117-01</b>			<b>Prepared &amp; Analyzed: 07/11/17</b>					
Ferrous Iron	0.52	0.20	mg/L	0.40000	ND	130	80-120			QM-05
<b>Matrix Spike Dup (7070215-MSD1)</b>		<b>Source: AAG0117-01</b>			<b>Prepared &amp; Analyzed: 07/11/17</b>					
Ferrous Iron	0.50	0.20	mg/L	0.40000	ND	126	80-120	4	10	QM-05
<b>Batch 7070216 - SM 4500-S D</b>										
<b>Blank (7070216-BLK1)</b>					<b>Prepared &amp; Analyzed: 07/11/17</b>					
Total Sulfide	ND	0.2	mg/L							



**PACE ANALYTICAL SERVICES, LLC.**

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 110 Technology Parkway, Peachtree Corners, GA 30092  
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Georgia Power  
 2480 Maner Road  
 Atlanta GA, 30339  
 Attention: Mr. Joju Abraham

July 17, 2017

**Report No.: AAG0117**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070216 - SM 4500-S D</b>										
<b>LCS (7070216-BS1)</b>										
Total Sulfide	0.519	0.2	mg/L	0.50100		104	80-120			
						Prepared & Analyzed: 07/11/17				
<b>Matrix Spike (7070216-MS1)</b>										
						Source: AAG0112-01				
						Prepared & Analyzed: 07/11/17				
Total Sulfide	0.665	0.2	mg/L	0.50100	ND	133	30-129			QM-05
<b>Matrix Spike Dup (7070216-MSD1)</b>										
						Source: AAG0112-01				
						Prepared & Analyzed: 07/11/17				
Total Sulfide	0.688	0.2	mg/L	0.50100	ND	137	30-129	3.40	10	QM-05



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July 17, 2017

**Report No.: AAG0117**

**Inorganic Anions - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070130 - EPA 300.0</b>										
<b>Blank (7070130-BLK1)</b> Prepared & Analyzed: 07/07/17										
Sulfate	ND	5.0	mg/L							
<b>LCS (7070130-BS1)</b> Prepared & Analyzed: 07/07/17										
Sulfate	10.1	5.0	mg/L	10.050		100	90-110			
<b>Matrix Spike (7070130-MS1)</b> Source: AAG0109-03 Prepared & Analyzed: 07/07/17										
Sulfate	38.1	5.0	mg/L	10.050	31.0	71	90-110			QM-05
<b>Matrix Spike (7070130-MS2)</b> Source: AAG0117-03 Prepared & Analyzed: 07/07/17										
Sulfate	12.5	5.0	mg/L	10.050	2.35	101	90-110			
<b>Matrix Spike Dup (7070130-MSD1)</b> Source: AAG0109-03 Prepared & Analyzed: 07/07/17										
Sulfate	38.2	5.0	mg/L	10.050	31.0	71	90-110	0.2	15	QM-05



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July 17, 2017

**Report No.: AAG0117**

**Metals, Total - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7070219 - EPA 3010A</b>										
<b>Blank (7070219-BLK1)</b>										
Iron	ND	0.0400	mg/L							Prepared: 07/11/17 Analyzed: 07/12/17
<b>LCS (7070219-BS1)</b>										
Iron	1.02	0.0400	mg/L	1.0000		102	80-120			Prepared: 07/11/17 Analyzed: 07/12/17
<b>Matrix Spike (7070219-MS1)</b>										
<b>Source: AAG0117-01</b>										
Iron	6.09	0.0400	mg/L	1.0000	4.87	122	75-125			Prepared: 07/11/17 Analyzed: 07/12/17
<b>Matrix Spike Dup (7070219-MSD1)</b>										
<b>Source: AAG0117-01</b>										
Iron	5.84	0.0400	mg/L	1.0000	4.87	97	75-125	4	20	Prepared: 07/11/17 Analyzed: 07/12/17
<b>Post Spike (7070219-PS1)</b>										
<b>Source: AAG0117-01</b>										
Iron	6.04		mg/L	1.0000	4.87	117	80-120			Prepared: 07/11/17 Analyzed: 07/12/17



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July 17, 2017

**Laboratory Certifications**

Code	Description	Number	Expires
GADW	Georgia DW Inorganics Eff: 07/01/2016	812	08/30/2017
GADWM	Georgia DW Microbiology Eff: 07/01/2015	812	12/09/2019
NC	North Carolina	381	12/31/2017
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2016	E87315	06/30/2018
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2016	E87315	06/30/2018
SC	South Carolina	98011001	08/30/2017
TX	Texas	T104704397-08-TX	03/31/2018
VA	Virginia	460204	12/14/2017



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July 17, 2017

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## Legend

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### Definition of Laboratory Terms

- ND** - None Detected at the Reporting Limit
- TIC** - Tentatively Identified Compound
- CFU** - Colony Forming Units
- SOP** - Method run per Pace Standard Operating Procedure
- RL** - Reporting Limit
- DF** - Dilution Factor
- \* - Analyte not included in the NELAC list of certified analytes.

### Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for diphenylamine.  
Phthalic acid and phthalic anhydride are reported as dimethyl phthalate  
Maleic acid and maleic anhydride are reported as dimethyl malate  
1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene  
Drinking Water Records will be available for at least 5 years and are subject to disposal after the 5 years have elapsed.

### Definition of Qualifiers

- QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- H-01** Sample was received outside of the EPA recommended holding time or was received with insufficient time to run sample within the EPA recommended holding time.

**Note: Unless otherwise noted, all results are reported on an as received basis.**





**PACE ANALYTICAL SERVICES, LLC.**

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July 17, 2017

## Report Notes

The Ferrous Irons were received out of hold. MMR

CHAIN OF CUSTODY RECORD



Pace Analytical Services, LLC - Atlanta GA  
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092  
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PAGE: 1 OF 1

CLIENT NAME: <u>Georgia Power Company</u>		ANALYSIS REQUESTED										L A B I D N U M B E R ↓	CONTAINER TYPE	PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: <u>241 Ralph McGill Blvd Atlanta, GA 30308</u>		CONTAINER TYPE: P 2 P 5 V 7 V 2 P 7 P 3											P - PLASTIC	1 - HCl, ≤6°C	
REPORT TO: <u>Josh Abraham</u>	CC: <u>rkirkman@golden.com</u>	# of											A - AMBER GLASS	2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C	
REQUESTED COMPLETION DATE: <u>Standard</u>	PO #: <u>1779172</u>	C											G - CLEAR GLASS	3 - HNO <sub>3</sub>	
PROJECT NAME/STATE: <u>Plant McDonough Investigation</u>		O											V - VOA VIAL	4 - NaOH, ≤6°C	
PROJECT #: <u>1779172</u>		M											S - STERILE	5 - NaOH/ZnAc, ≤6°C	
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	↓							O - OTHER	6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C	
														7 - ≤6°C not frozen	
<u>7/6/17</u>	<u>1335</u>	<u>GW</u>		<u>X</u>	<u>B-68</u>	<u>9</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>		<u>1</u>	<u>1</u>	
<u>7/6/17</u>	<u>1515</u>	<u>GW</u>		<u>X</u>	<u>B-69</u>	<u>9</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>		<u>1</u>	<u>1</u>	
<u>7/6/17</u>	<u>0955</u>	<u>GW</u>		<u>X</u>	<u>B-70A</u>	<u>9</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>		
SAMPLED BY AND TITLE: <u>[Signature]</u>		DATE/TIME: <u>7/6/17 1600</u>	RELINQUISHED BY: <u>[Signature]</u>				DATE/TIME: <u>7/17/17 0935</u>	FOR LAB USE ONLY				LAB #: <u>AAG0117</u>			
RECEIVED BY: <u>[Signature]</u>		DATE/TIME:	RECEIVED BY:				DATE/TIME:	Entered into LIMS: <u>[Signature]</u>				Tracking #:			
RECEIVED BY LAB: <u>[Signature]</u>		DATE/TIME: <u>7/17/17 0935</u>	SAMPLE SHIPPED VIA: <u>CLIENT</u>				DATE/TIME:	COURIER							
Checked: <u>[Signature]</u>		Temperature: <u>30.6</u> Min: <u>3.6</u> Max:	Custody Seal: <u>Intact</u>				DATE/TIME:	# of Coolers: <u>0</u>				Cooler ID:			
Yes No NA		Ice: <u>3</u> Yes No NA	Intact Broken Not Present: <u>N/A</u>												

REMARKS/ADDITIONAL INFORMATION  
 1 All results are subject  
 2 to Attorney Client  
 3 privilege



**PACE ANALYTICAL SERVICES, LLC.**

Environmental Monitoring & Laboratory Analysis  
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**LOG-IN CHECKLIST**

**Printed: 7/7/2017 2:54:53PM**

**Attn:** Mr. Joju Abraham

**Client:** Georgia Power

**Project:** Plant McDonough

**Date Received:** 07/07/17 09:35

**Work Order:** AAG0117

**Logged In By:** Mohammad M. Rahman

**OBSERVATIONS**

**#Samples:** 3

**#Containers:** 27

**Minimum Temp(C):** 3.6

**Maximum Temp(C):** 3.6

**Custody Seal(s) Used:** N/A

**CHECKLIST ITEMS**

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	N/A
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	NO
Samples Received on Ice	YES
Preservation Confirmed	YES

**Comments:**

The Ferrous Irons were received out of hold. MMR



**PACE ANALYTICAL SERVICES, LLC.**

Environmental Monitoring & Laboratory Analysis  
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**Laboratory Report**

**Prepared For:**

**Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta, GA 30341**

**Attention: Mr. Tim Richards**

**Report Number: AAK0414**

**November 21, 2017**

**Project: Plant McDonough**

**Project #:1777449**

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDonough" written over a horizontal line.

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC. Pace Analytical Services, LLC. certifies that the following analytical results meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC). All test results relate only to the samples analyzed.



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Golder Associates - Atlanta  
3730 Chamblee Tucker Road  
Atlanta GA, 30341  
Attention: Mr. Tim Richards

November 21, 2017

**ANALYTICAL REPORT FOR SAMPLES**

<b>Sample ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
AP-1_Composite Profile	AAK0414-01	Soil	11/13/17 10:55	11/13/17 14:05



**PACE ANALYTICAL SERVICES, LLC.**

---

Environmental Monitoring & Laboratory Analysis  
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November 21, 2017

**Case Narrative**

The Total Organic Carbon analysis by method EPA 9060 was performed by Pace-Green Bay, 1241 Bellevue Street, Suite 9, Green Bay WI 54302. The Pace-Green Bay lab contact is Cindy Varga at 715-223-5638. Please see the attached subcontractor report.



**PACE ANALYTICAL SERVICES, LLC.**

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November 21, 2017

**Report No.:** AAK0414

**Project:** Plant McDonough

**Client ID:** AP-1\_Composite Profile

**Lab Number ID:** AAK0414-01

**Date/Time Sampled:** 11/13/2017 10:55:00AM

**Date/Time Received:** 11/13/2017 2:05:00PM

**Matrix:** Soil

Analyte	Result	RL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
<b>General Chemistry</b>										
pH	6.69		pH Units	EPA 9045D		1	11/13/17 16:15	11/13/17 16:15	7110346	JAD
% Solids	71.7	0.04	% by Weight	SOP		1	11/16/17 10:40	11/16/17 10:40	7110462	JPT
Sulfide	ND	3.5	mg/kg dry	Moisture EPA 9030B/9034		1	11/14/17 13:00	11/14/17 17:15	7110374	DJS
<b>Inorganic Anions</b>										
Sulfate, Extractable	ND	68	mg/kg dry	EPA 9056A		1	11/15/17 10:27	11/15/17 15:15	7110409	RLC
<b>Metals, Total</b>										
Calcium	1920	34.3	mg/kg dry	EPA 6010D		1	11/15/17 16:10	11/16/17 12:51	7110395	FBS



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November 21, 2017

**Report No.: AAK0414**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7110346 - EPA 9045D</b>										
<b>Duplicate (7110346-DUP1)</b>		<b>Source: AAK0414-01</b>			<b>Prepared &amp; Analyzed: 11/13/17</b>					
pH	6.70		pH Units		6.69			0.1	5	
<b>Batch 7110374 - EPA 9030</b>										
<b>Blank (7110374-BLK1)</b>					<b>Prepared &amp; Analyzed: 11/14/17</b>					
Sulfide	ND	2.5	mg/kg wet							
<b>LCS (7110374-BS1)</b>					<b>Prepared &amp; Analyzed: 11/14/17</b>					
Sulfide	98.8	2.5	mg/kg wet	103.60		95	40-104			
<b>Matrix Spike (7110374-MS1)</b>		<b>Source: AAK0309-01</b>			<b>Prepared &amp; Analyzed: 11/14/17</b>					
Sulfide	57.1	2.7	mg/kg dry	112.39	ND	51	10-143			
<b>Batch 7110462 - % Solids</b>										
<b>Duplicate (7110462-DUP1)</b>		<b>Source: AAK0414-01</b>			<b>Prepared &amp; Analyzed: 11/16/17</b>					
% Solids	71.5	0.04	% by Weight		71.7			0.3	10	
<b>Duplicate (7110462-DUP2)</b>		<b>Source: AAK0513-01</b>			<b>Prepared &amp; Analyzed: 11/16/17</b>					
% Solids	82.7	0.04	% by Weight		79.1			4	10	





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November 21, 2017

**Report No.: AAK0414**

**Inorganic Anions - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7110409 - EPA 9056A</b>										
<b>Blank (7110409-BLK1)</b>										
Prepared & Analyzed: 11/15/17										
Sulfate, Extractable	ND	50	mg/kg wet							
<b>LCS (7110409-BS1)</b>										
Prepared & Analyzed: 11/15/17										
Sulfate, Extractable	102	49	mg/kg wet	97.351		105	90-110			
<b>Matrix Spike (7110409-MS1)</b>										
<b>Source: AAK0219-05</b>										
Prepared & Analyzed: 11/15/17										
Sulfate, Extractable	8600	350	mg/kg dry	700.29	7810	112	90-110			QM-05
<b>Matrix Spike Dup (7110409-MSD1)</b>										
<b>Source: AAK0219-05</b>										
Prepared & Analyzed: 11/15/17										
Sulfate, Extractable	8170	350	mg/kg dry	699.98	7810	51	90-110	5	15	QM-05



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November 21, 2017

**Report No.: AAK0414**

**Metals, Total - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
<b>Batch 7110395 - EPA 3050B</b>										
<b>Blank (7110395-BLK1)</b>					Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	ND	25.0	mg/kg wet							
<b>LCS (7110395-BS1)</b>					Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	26.6	25.0	mg/kg wet	25.000		107	80-120			
<b>Duplicate (7110395-DUP1)</b>					Source: AAK0486-02 Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	5090	28.0	mg/kg dry		644			155	20	QR-03
<b>Matrix Spike (7110395-MS1)</b>					Source: AAK0345-07 Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	310	28.2	mg/kg dry	28.165	361	0	75-125			QR-01
<b>Matrix Spike Dup (7110395-MSD1)</b>					Source: AAK0345-07 Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	337	27.8	mg/kg dry	27.751	361	0	75-125	8	20	QR-01
<b>Post Spike (7110395-PS1)</b>					Source: AAK0345-07 Prepared: 11/15/17 Analyzed: 11/16/17					
Calcium	13.1		mg/L	1.0000	12.9	26	80-120			QR-01



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November 21, 2017

**Laboratory Certifications**

Code	Description	Number	Expires
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GADWM	Georgia DW Microbiology Eff: 07/01/2015	812	12/09/2019
NC	North Carolina	381	12/31/2017
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2016	E87315	06/30/2018
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2016	E87315	06/30/2018
SC	South Carolina	98011001	11/30/2017
TX	Texas	T104704397-08-TX	03/31/2018
VA	Virginia	460204	12/14/2017



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November 21, 2017

## Legend

### Definition of Laboratory Terms

**ND** - None Detected at the Reporting Limit

**TIC** - Tentatively Identified Compound

**CFU** - Colony Forming Units

**SOP** - Method run per Pace Standard Operating Procedure

**RL** - Reporting Limit

**DF** - Dilution Factor

\* - Analyte not included in the NELAC list of certified analytes.

### Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for diphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Drinking Water Records will be available for at least 5 years and are subject to disposal after the 5 years have elapsed.

### Definition of Qualifiers

**QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

**QR-01** RPD was outside acceptance limits due to sample concentrations near or below the reporting limit.

**QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

**Note: Unless otherwise noted, all results are reported on an as received basis.**

CHAIN OF CUSTODY RECORD



Pace Analytical Services, LLC - Atlanta GA  
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092  
 (770) 734-4200 : FAX (770) 734-4201

PAGE: 1 OF 1

CLIENT NAME:					ANALYSIS REQUESTED										L A B  I D  N U M B E R  ↓	CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:					CONTAINER TYPE:											P - PLASTIC	1 - HCl, ≤6°C		
REPORT TO:					PRESERVATION:												A - AMBER GLASS	2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C	
REQUESTED COMPLETION DATE:					# of											G - CLEAR GLASS		3 - HNO <sub>3</sub>	
Golden Associates															V - VOA VIAL		4 - NaOH, ≤6°C		
3730 Chamblee-Tucker Rd Atlanta GA 30341																S - STERILE	5 - NaOH/ZnAc, ≤6°C		
Plant McDough GA															O - OTHER		6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C		
Project # 1777449																*MATRIX CODES:			
AP-1 - Composite Profile															DW - DRINKING WATER	S - SOIL			
															WW - WASTEWATER	SL - SLUDGE			
															GW - GROUNDWATER	SD - SOLID			
															SW - SURFACE WATER	A - AIR			
															ST - STORM WATER	L - LIQUID			
															W - WATER	P - PRODUCT			
REMARKS/ADDITIONAL INFORMATION													3 Jars of 1 blended Sample						

SAMPLED BY AND TITLE: Chris Gargan		DATE/TIME: 11/13/17 WSS		RELINQUISHED BY: <i>[Signature]</i>			DATE/TIME: 1405 11/13/17		FOR LAB USE ONLY	
RECEIVED BY:		DATE/TIME:		RELINQUISHED BY:			DATE/TIME:		LAB #: AAK 0414 CMA	
RECEIVED BY LAB: <i>[Signature]</i>		DATE/TIME: 11/13/17 1405		SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS			DATE/TIME:		Entered into LIMS:	
Packaged: No NA Yes No NA		Temperature: Min: 5.0°C Max:		Custody Seal: Intact Broken Not Present N/A			# of Coolers		Cooler ID:	

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**Sample Condition Upon Receipt**



Client Name: Golder Assoc.

Project # AAK 0419

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

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used THR082    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 5.0°C    Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 11/3/17 C24

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>PH</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>SD</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed    Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required?    Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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 22, 2017

Betsy McDaniel  
Pace Analytical Atlanta  
110 Technology Parkway  
Peachtree Corners, GA 30092

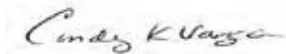
RE: Project: AAK0414 PLANT MCDONOUGH  
Pace Project No.: 40160761

Dear Betsy McDaniel:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Cindy Varga  
cindy.varga@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40160761001	AP-1 COMPOSITE PROFILE	Solid	11/13/17 10:55	11/14/17 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40160761001	AP-1 COMPOSITE PROFILE	ASTM D2974-87	KTS	1
		EPA 9060	TJJ	6

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

---

**Sample: AP-1 COMPOSITE**      **Lab ID: 40160761001**    Collected: 11/13/17 10:55    Received: 11/14/17 09:45    Matrix: Solid  
**PROFILE**

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>28.9</b>	%	0.10	1		11/21/17 10:38		
<b>Total Organic Carbon Quad</b>		Analytical Method: EPA 9060						
Total Organic Carbon	<b>41100</b>	mg/kg	15000	1		11/16/17 16:19	7440-44-0	
Total Organic Carbon	<b>45600</b>	mg/kg	14500	1		11/16/17 16:37	7440-44-0	
Total Organic Carbon	<b>48700</b>	mg/kg	14000	1		11/16/17 16:43	7440-44-0	
Total Organic Carbon	<b>49100</b>	mg/kg	14100	1		11/16/17 16:56	7440-44-0	
Mean Total Organic Carbon	<b>46100</b>	mg/kg	14400	1		11/16/17 16:19	7440-44-0	
<b>Surrogates</b>								
RSD%	<b>8.0</b>	%		1		11/16/17 16:19		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

QC Batch: 274974

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 40160761001

SAMPLE DUPLICATE: 1617682

Parameter	Units	40161094010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.8	14.9	1	10	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

QC Batch: 274252

Analysis Method: EPA 9060

QC Batch Method: EPA 9060

Analysis Description: 9060 TOC Average

Associated Lab Samples: 40160761001

METHOD BLANK: 1613744

Matrix: Solid

Associated Lab Samples: 40160761001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/kg	<194	647	11/16/17 11:45	

LABORATORY CONTROL SAMPLE: 1613745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/kg	120000	119000	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1613746 1613747

Parameter	Units	1613746		1613747		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		35345339001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mean Total Organic Carbon	mg/kg	7190	27000	27100	30200	32300	85	93	50-150	7	30

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: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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: AAK0414 PLANT MCDONOUGH

Pace Project No.: 40160761

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40160761001	AP-1 COMPOSITE PROFILE	ASTM D2974-87	274974		
40160761001	AP-1 COMPOSITE PROFILE	EPA 9060	274252		
40160761001	AP-1 COMPOSITE PROFILE	EPA 9060	274253		

## REPORT OF LABORATORY ANALYSIS

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## Regulated Domestic and Foreign Soils Checklist

Project #: 40160761 Time: 0945  
 Initials: SKW Date: 11-14-17

Origin (Circle One):      Domestic      Foreign

If "Domestic", State of Origin (Circle One): AL AR AZ CA FL GA ID LA MS NC NM NY OK OR SC TN TX

If "Foreign", Country of Origin: \_\_\_\_\_

Note: Soils from Hawaii and Puerto Rico are of Foreign Origin

**Sample analysis will take place at (Circle all that apply):**

Green Bay      Subcontract Laboratory

Name of Subcontract Laboratory: \_\_\_\_\_

	Action	Completed
1) Did "Regulated" sticker get placed on Samples?	Regulated sticker must be placed onto each sample container.	<u>Yes</u> / No
2) If samples were sent to a subcontract laboratory, do they hold a valid Soil Permit and Compliance Agreement from the USDA? <small>If not being subcontracted please circle NA.</small>	Subcontract Laboratories are required to hold a valid Soil Permit and Compliance Agreement before we can send soil samples to them. Verify validity by contacting USDA/APHIS.	Yes / No / <u>NA</u>
3) Were Samples placed in designate container in Walk-In Cooler?	Regulated samples retained in the Green Bay Laboratory must be stored in designated containers in the Walk-In Cooler.	<u>Yes</u> / No
4) Were there signs of breakage or leakage? <small>If no please complete 5, circle NA for 6 and move to 7. If yes please circle NA for 5, and move to 6.</small>	Check for broken glass or loose soil in the cooler.	Yes / <u>No</u>
5) Were ice and melt water separated from cooler and disposed of properly? (No signs of breakage or leakage)	Foreign and Domestic Sources: Ice and melt water can be disposed of by dumping down the sink.	<u>Yes</u> / No / NA
6) Were ice and melt water separated from cooler and disposed of properly? (Signs of breakage or leakage)	Foreign and Domestic Sources: Ice and melt water must be baked at 140°C then cooled and dumped down the sink. Soils must be disposed of by baking and then placing in appropriate waste barrel.	Yes / No / <u>NA</u>
7) Was the cooler decontaminated?	Soak cooler for 30 minutes with 1:10 bleach solution, drain in sink, let cooler air dry.	<u>Yes</u> / No

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Condition Upon Receipt**

40160761

Face Analytical

Client Name: Golder Assoc.

Project # AAK 0419

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

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no      Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used THR082      Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 5.0°C      Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 11/3/17 C 24

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>PH</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>SD</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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)



Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: Pace, GA

Project #: WO#: 40160761
Barcode: 40160761

Courier: [X] Fed Ex [ ] UPS - Client [ ] Pace Other:
Tracking #: 741360598265

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Custody Seal on Samples Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Packing Material: [ ] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other

Thermometer Used: SR68 Type of Ice: [X] Wet [ ] Blue Dry [ ] None [X] Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 3 ICorr: 3 Biological Tissue is Frozen: [ ] yes [ ] no

Temp Blank Present: [X] yes [ ] no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 11-14-17
Initials: [Signature]

Comments:

Table with 15 rows of inspection items and checkboxes. Items include Chain of Custody Present, Short Hold Time Analysis, Rush Turn Around Time Requested, etc.

Client Notification/ Resolution: If checked, see attached form for additional comments [ ]

Person Contacted: Comments/ Resolution: Plastic around cap of sample. 11-14-17 [Signature]

Project Manager Review: [Signature] Date: 11/14/17

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-137545-1

Client Project/Site: CCR Plant McDonough

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/17/2017 6:14:54 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

## Client Sample ID: B-68A

Lab Sample ID: 400-137545-1

No Detections.

## Client Sample ID: B-73

Lab Sample ID: 400-137545-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0063		0.0013	0.00046	mg/L	5		6020	Total Recoverable

## Client Sample ID: B-74

Lab Sample ID: 400-137545-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0033		0.0013	0.00046	mg/L	5		6020	Total Recoverable

## Client Sample ID: B-72

Lab Sample ID: 400-137545-4

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

---

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN

---

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001





# Sample Summary

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137545-1	B-68A	Water	05/01/17 14:23	05/05/17 08:23
400-137545-2	B-73	Water	05/02/17 14:09	05/05/17 08:23
400-137545-3	B-74	Water	05/03/17 10:16	05/05/17 08:23
400-137545-4	B-72	Water	05/04/17 09:36	05/05/17 08:23

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

**Client Sample ID: B-68A**  
**Date Collected: 05/01/17 14:23**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-1**  
**Matrix: Water**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 16:40	05/16/17 15:57	5

**Client Sample ID: B-73**  
**Date Collected: 05/02/17 14:09**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-2**  
**Matrix: Water**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0063		0.0013	0.00046	mg/L		05/15/17 16:40	05/16/17 16:02	5

**Client Sample ID: B-74**  
**Date Collected: 05/03/17 10:16**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-3**  
**Matrix: Water**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033		0.0013	0.00046	mg/L		05/15/17 16:40	05/16/17 16:06	5

**Client Sample ID: B-72**  
**Date Collected: 05/04/17 09:36**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-4**  
**Matrix: Water**

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 16:40	05/16/17 16:11	5

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

**Client Sample ID: B-68A**

**Date Collected: 05/01/17 14:23**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			353567	05/15/17 16:40	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	353834	05/16/17 15:57	DRE	TAL PEN

**Client Sample ID: B-73**

**Date Collected: 05/02/17 14:09**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			353567	05/15/17 16:40	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	353834	05/16/17 16:02	DRE	TAL PEN

**Client Sample ID: B-74**

**Date Collected: 05/03/17 10:16**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			353567	05/15/17 16:40	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	353834	05/16/17 16:06	DRE	TAL PEN

**Client Sample ID: B-72**

**Date Collected: 05/04/17 09:36**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137545-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			353567	05/15/17 16:40	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	353834	05/16/17 16:11	DRE	TAL PEN

## Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

## Metals

### Prep Batch: 353567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137545-1	B-68A	Total Recoverable	Water	3005A	
400-137545-2	B-73	Total Recoverable	Water	3005A	
400-137545-3	B-74	Total Recoverable	Water	3005A	
400-137545-4	B-72	Total Recoverable	Water	3005A	
MB 400-353567/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-353567/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-137660-D-7-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-137660-D-7-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 353646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-353646/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-353646/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
600-147744-F-1-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
600-147744-F-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 353834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137545-1	B-68A	Total Recoverable	Water	6020	353567
400-137545-2	B-73	Total Recoverable	Water	6020	353567
400-137545-3	B-74	Total Recoverable	Water	6020	353567
400-137545-4	B-72	Total Recoverable	Water	6020	353567
MB 400-353567/1-A ^5	Method Blank	Total Recoverable	Water	6020	353567
MB 400-353646/1-A ^5	Method Blank	Total Recoverable	Water	6020	353646
LCS 400-353567/2-A	Lab Control Sample	Total Recoverable	Water	6020	353567
LCS 400-353646/2-A	Lab Control Sample	Total Recoverable	Water	6020	353646
400-137660-D-7-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	353567
400-137660-D-7-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	353567
600-147744-F-1-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	353646
600-147744-F-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	353646

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-353567/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353567**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 14:44	05/16/17 14:41	5

**Lab Sample ID: LCS 400-353567/2-A**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353567**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0530		mg/L		106	80 - 120

**Lab Sample ID: 400-137660-D-7-E MS ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353567**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0540		mg/L		108	75 - 125

**Lab Sample ID: 400-137660-D-7-F MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353567**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	<0.00046		0.0500	0.0525		mg/L		105	75 - 125	3	20

**Lab Sample ID: MB 400-353646/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353646**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/16/17 10:27	05/16/17 17:51	5

**Lab Sample ID: LCS 400-353646/2-A**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353646**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0530		mg/L		106	80 - 120

**Lab Sample ID: 600-147744-F-1-E MS ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353646**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0020		0.0500	0.0559		mg/L		108	75 - 125

**Lab Sample ID: 600-147744-F-1-F MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353646**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.0020		0.0500	0.0565		mg/L		109	75 - 125	1	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

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## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-137545-1

SDG Number:

**Login Number: 137545**

**List Number: 1**

**Creator: Franklin, Justin H**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: CCR Plant McDonough

TestAmerica Job ID: 400-137545-1

## Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.





## Quantitative X-Ray Diffraction by Rietveld Refinement

**Report Prepared for:** Golder Associates  
**Project Number/ LIMS No.** 17836-01/MI4519-JAN20  
**Sample Receipt:** January 21, 2020  
**Sample Analysis:** January 22, 2020  
**Reporting Date:** January 23, 2020

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**Instrument:** BRUKER AXS D8 Advance Diffractometer  
**Test Conditions:** Co radiation, 35 kV, 40 mA  
Regular Scanning: Step: 0.02°, Step time: 1s, 2θ range: 3-80°  
**Interpretations:** PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.  
**Detection Limit:** 0.5-2%. Strongly dependent on crystallinity.

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**Contents:**  
1) Method Summary  
2) Quantitative XRD Results  
3) XRD Pattern(s)

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Kim Gibbs, H.B.Sc., P.Geo.  
Senior Mineralogist

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Lain Glossop, H.B.Sc.  
Senior Mineralogist

**ACCREDITATION:** SGS Minerals Services Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada - Minerals Services - Lakefield: <http://palcan.scc.ca/SpecsSearch/GLSearchForm.do>.



## Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Minerals Services is accredited to the requirements of ISO/IEC 17025.

### ***Mineral Identification and Interpretation:***

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

### ***Quantitative Rietveld Analysis:***

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

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### Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	B-76 (28-38')	B-77 (32-40')	B-78 (25-30')	B-79 (30-35')	B-81 (45.4-47.5')	B-82 (35.5-37.5')	B-84 (43.5-45')	B-85 (23.5-25')	B-87 (33.5-35')	B-92 (6-8')	B-93 (6-8')
	JAN4519-01 (wt %)	JAN4519-02 (wt %)	JAN4519-03 (wt %)	JAN4519-04 (wt %)	JAN4519-05 (wt %)	JAN4519-06 (wt %)	JAN4519-07 (wt %)	JAN4519-08 (wt %)	JAN4519-09 (wt %)	JAN4519-10 (wt %)	JAN4519-11 (wt %)
Quartz	49.3	46.2	32.5	21.5	39.7	31.3	34.3	33.5	28.7	45.0	38.5
Albite	10.9	4.6	38.5	39.2	19.7	3.2	3.5	25.7	26.4	5.1	15.8
Microcline	6.5	5.9	12.5	10.7	23.3	4.8	-	16.3	12.9	5.4	16.8
Chlorite	4.6	7.2	-	-	-	5.4	7.0	-	-	-	-
Kaolinite	10.6	13.7	-	6.2	6.1	11.8	13.3	6.1	7.0	18.9	18.1
Muscovite	12.5	11.1	7.7	10.2	9.1	22.9	16.2	4.4	7.0	19.3	10.0
Biotite	4.0	3.9	3.8	5.4	-	7.2	4.9	4.0	6.2	2.5	-
Pyrite	0.6	-	-	-	-	0.5	-	-	-	-	-
Magnetite	0.8	-	-	0.6	-	2.8	-	-	-	1.1	0.3
Gibbsite	-	1.9	-	-	-	-	-	-	-	-	-
Sillimanite	-	2.3	-	-	-	-	-	-	-	1.2	-
Montmorillonite	-	3.2	-	-	-	2.3	-	4.0	4.8	-	-
Anhydrite	-	-	0.4	0.6	-	-	1.2	0.8	0.8	1.5	-
Anorthite	-	-	3.8	3.9	2.2	-	-	3.8	4.5	-	-
Dolomite	-	-	0.2	-	-	-	-	-	-	-	-
Ankerite	-	-	0.7	0.4	-	-	-	0.6	0.9	-	0.5
Diopside	-	-	-	1.2	-	-	-	0.8	0.7	-	-
Hematite	-	-	-	-	-	2.0	-	-	-	-	-
Talc	-	-	-	-	-	4.1	-	-	-	-	-
Magnesite	-	-	-	-	-	1.7	-	-	-	-	-
Orthoclase	-	-	-	-	-	-	19.7	-	-	-	-
TOTAL	100	100	100	100	100	100	100	100	100	100	100

Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

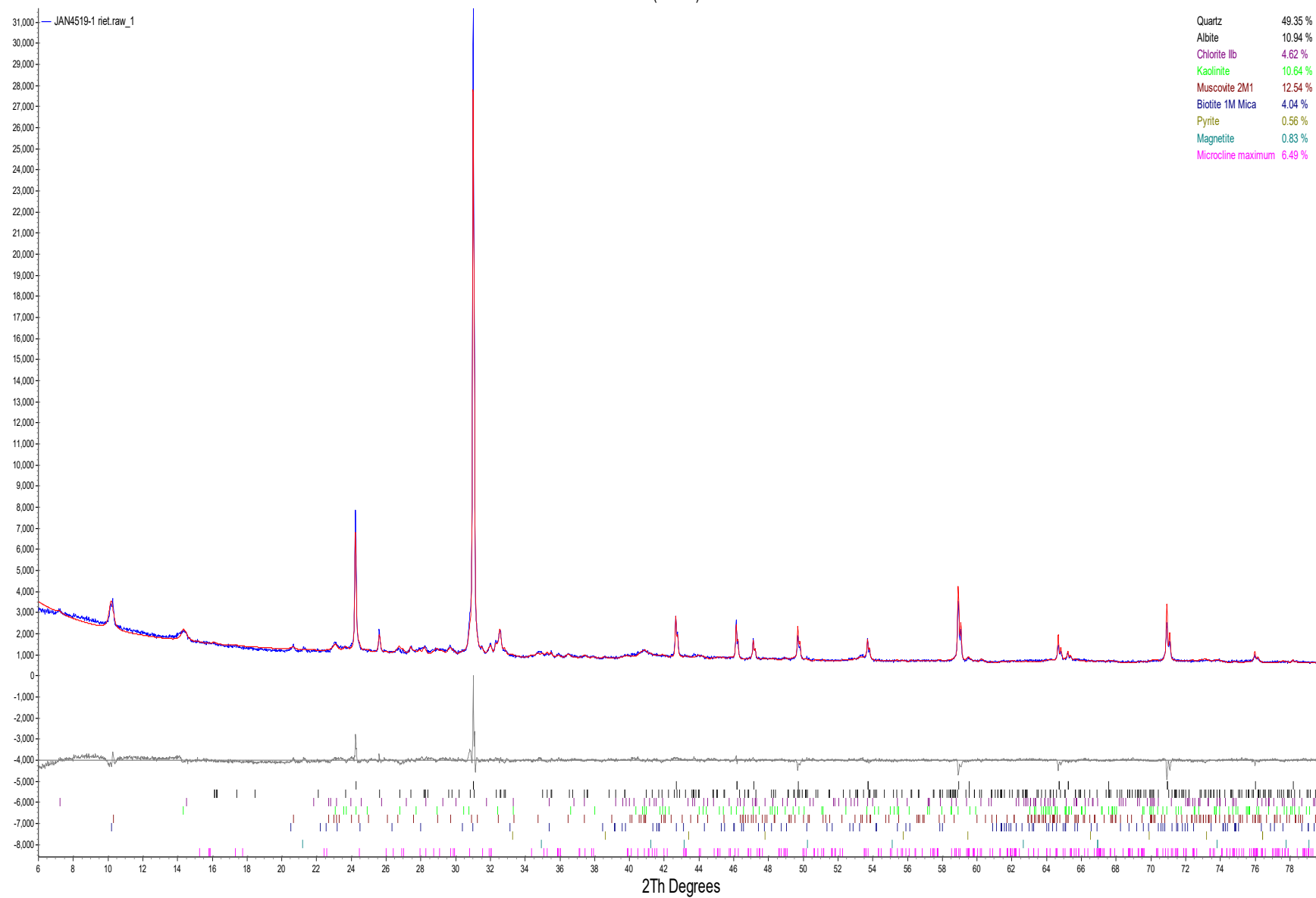
Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

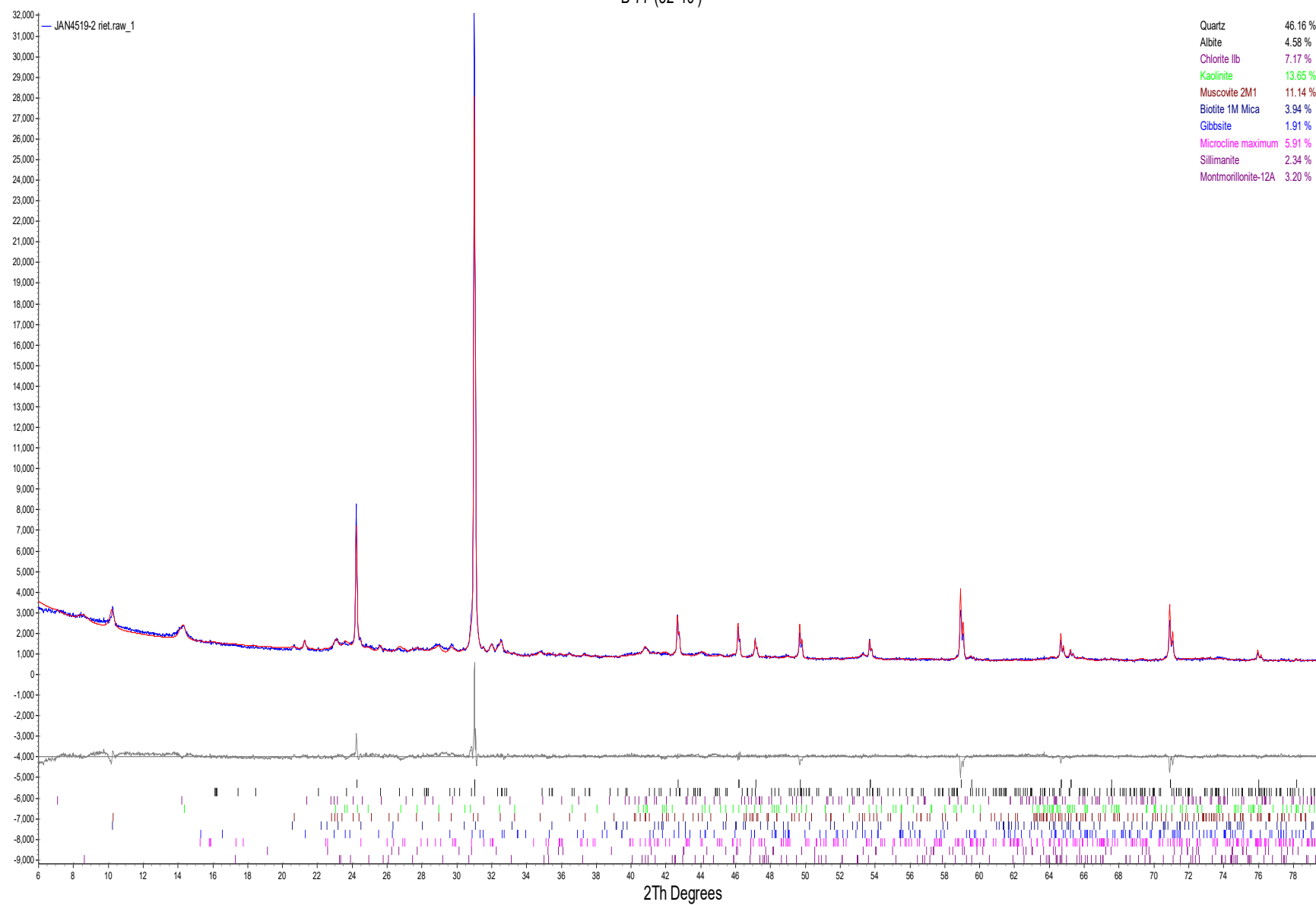
### Mineral List

Mineral/Compound	Formula
Quartz	SiO <sub>2</sub>
Albite	NaAlSi <sub>3</sub> O <sub>8</sub>
Microcline	KAlSi <sub>3</sub> O <sub>8</sub>
Chlorite	(Fe, <sub>1</sub> (Mg,Mn) <sub>5</sub> ,Al)(Si <sub>3</sub> Al)O <sub>10</sub> (OH) <sub>8</sub>
Kaolinite	Al <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> (OH) <sub>4</sub>
Muscovite	KAl <sub>2</sub> (AlSi <sub>3</sub> O <sub>10</sub> )(OH) <sub>2</sub>
Biotite	K(Mg,Fe) <sub>3</sub> (AlSi <sub>3</sub> O <sub>10</sub> )(OH) <sub>2</sub>
Pyrite	FeS <sub>2</sub>
Magnetite	Fe <sub>3</sub> O <sub>4</sub>
Gibbsite	Al(OH) <sub>3</sub>
Sillimanite	Al <sub>2</sub> SiO <sub>5</sub>
Montmorillonite	(Na,Ca) <sub>0.3</sub> (Al,Mg) <sub>2</sub> Si <sub>2</sub> O <sub>10</sub> (OH) <sub>2</sub> ·10H <sub>2</sub> O
Anhydrite	CaSO <sub>4</sub>
Anorthite	CaAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub>
Dolomite	CaMg(CO <sub>3</sub> ) <sub>2</sub>
Ankerite	CaFe(CO <sub>3</sub> ) <sub>2</sub>
Diopside	CaMgSi <sub>2</sub> O <sub>6</sub>
Hematite	Fe <sub>2</sub> O <sub>3</sub>
Talc	Mg <sub>3</sub> Si <sub>4</sub> O <sub>10</sub> (OH) <sub>2</sub>
Magnesite	MgCO <sub>3</sub>
Orthoclase	KAlSi <sub>3</sub> O <sub>8</sub>

B-76 (28-38')

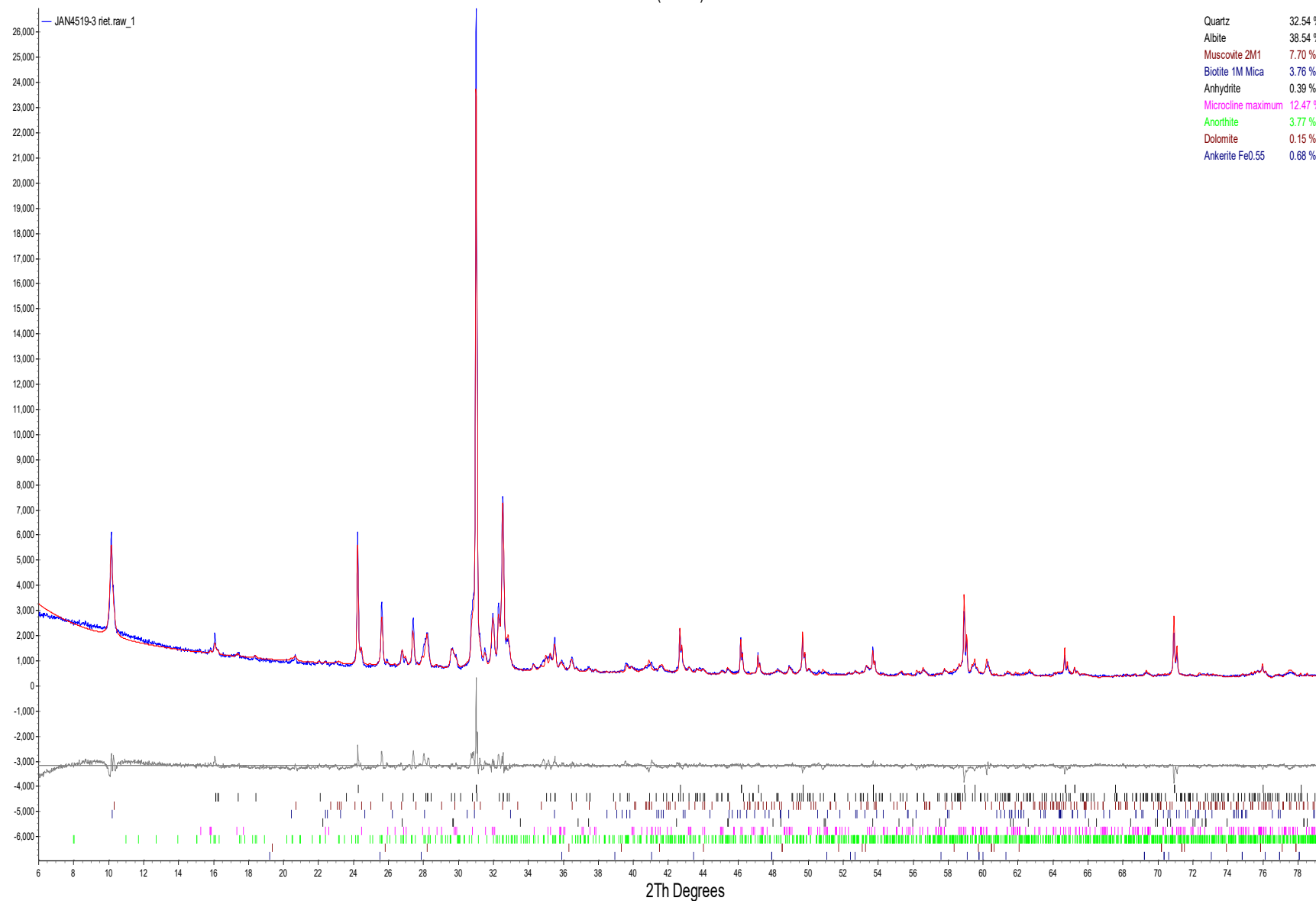


B-77 (32-40')

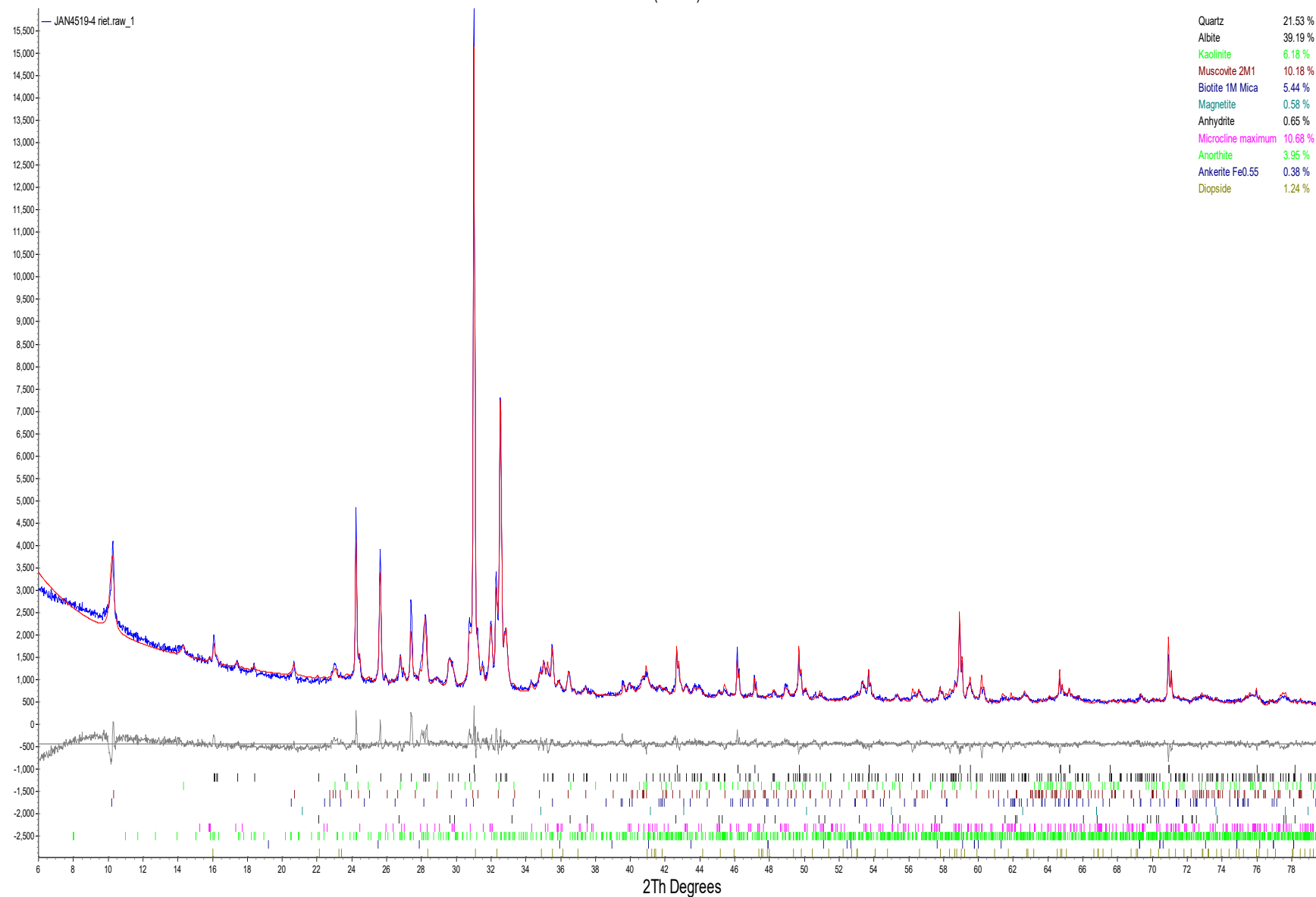




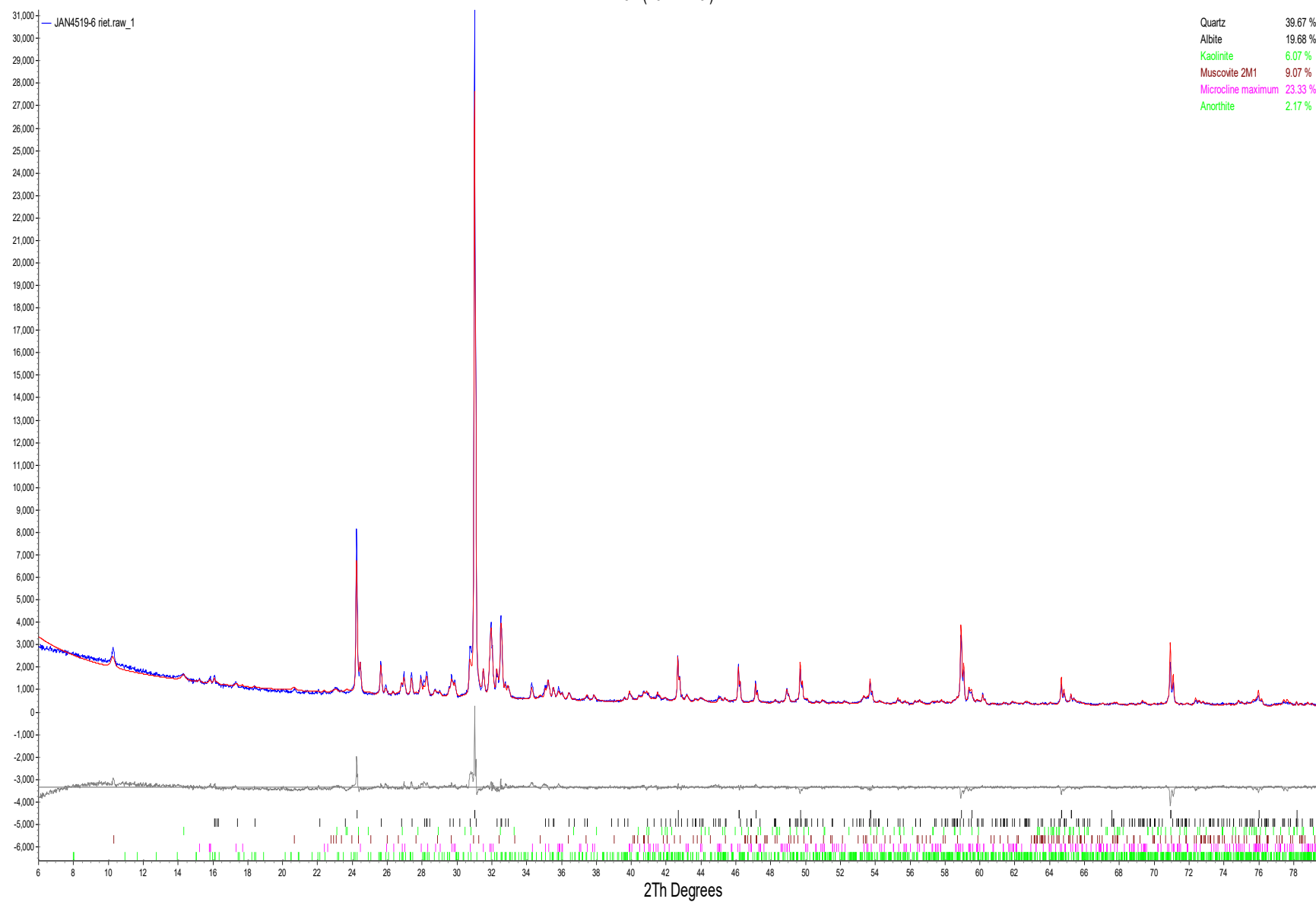
B-78 (25-30')



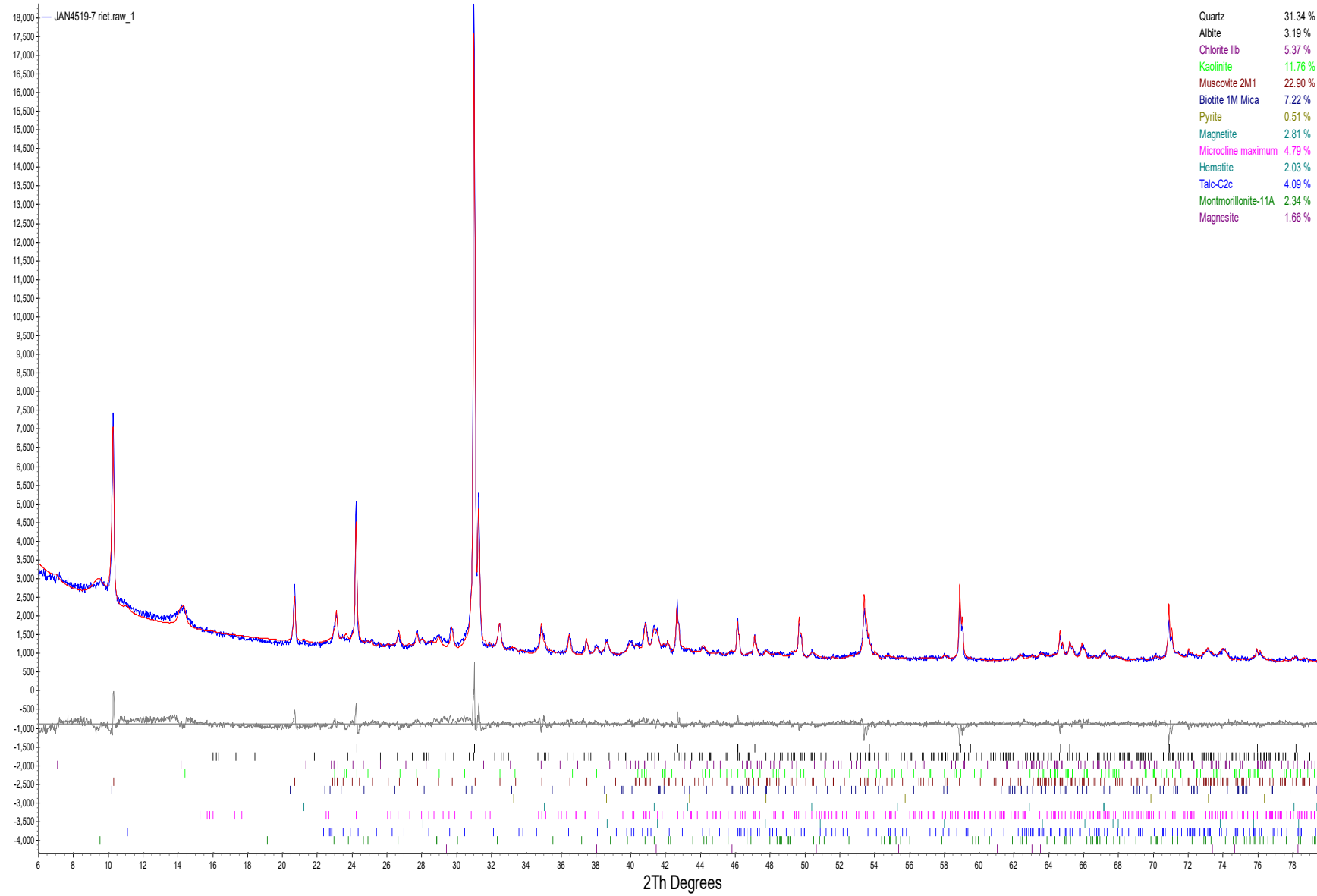
B-79 (30-35')



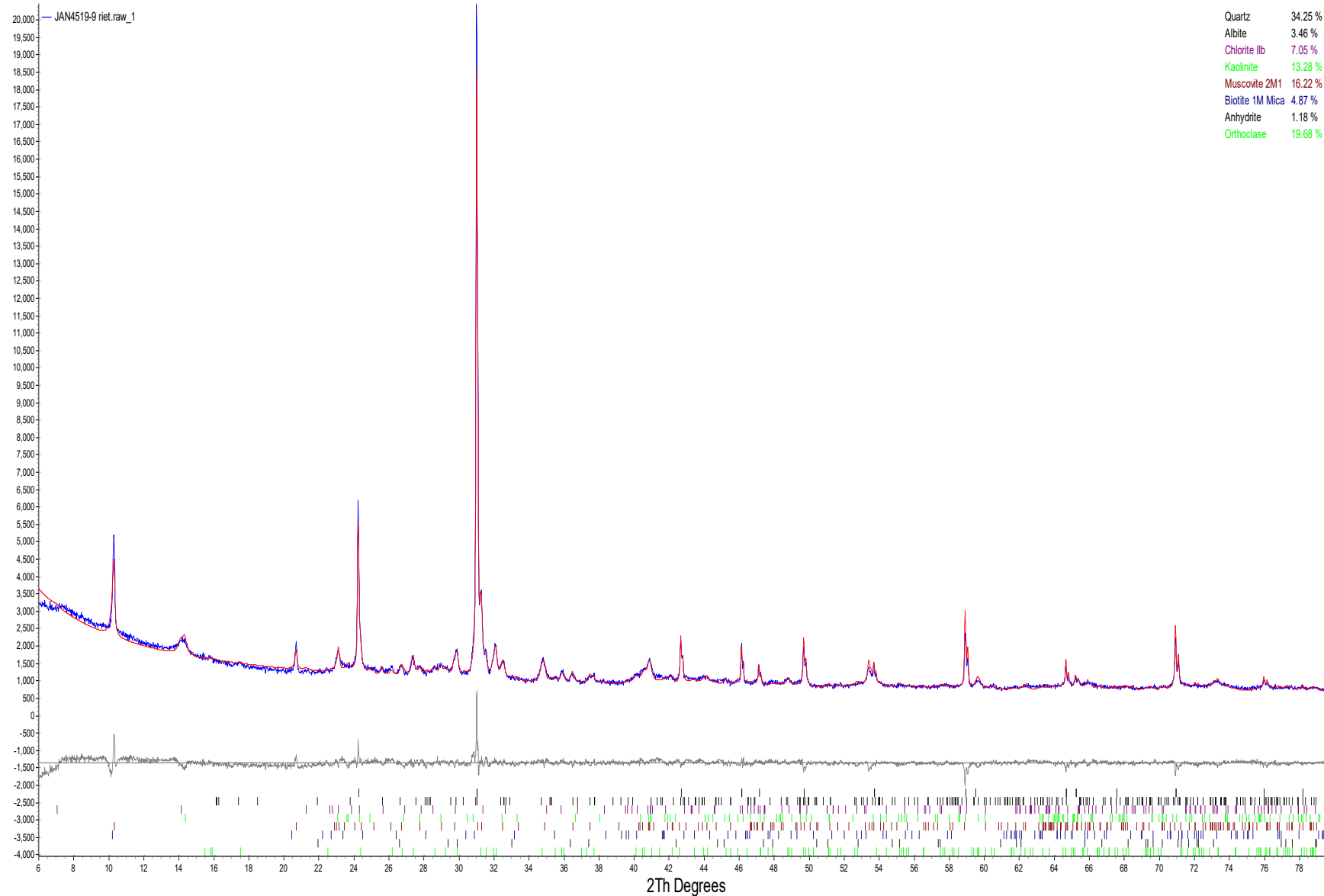
B-81 (45.4-47.5')



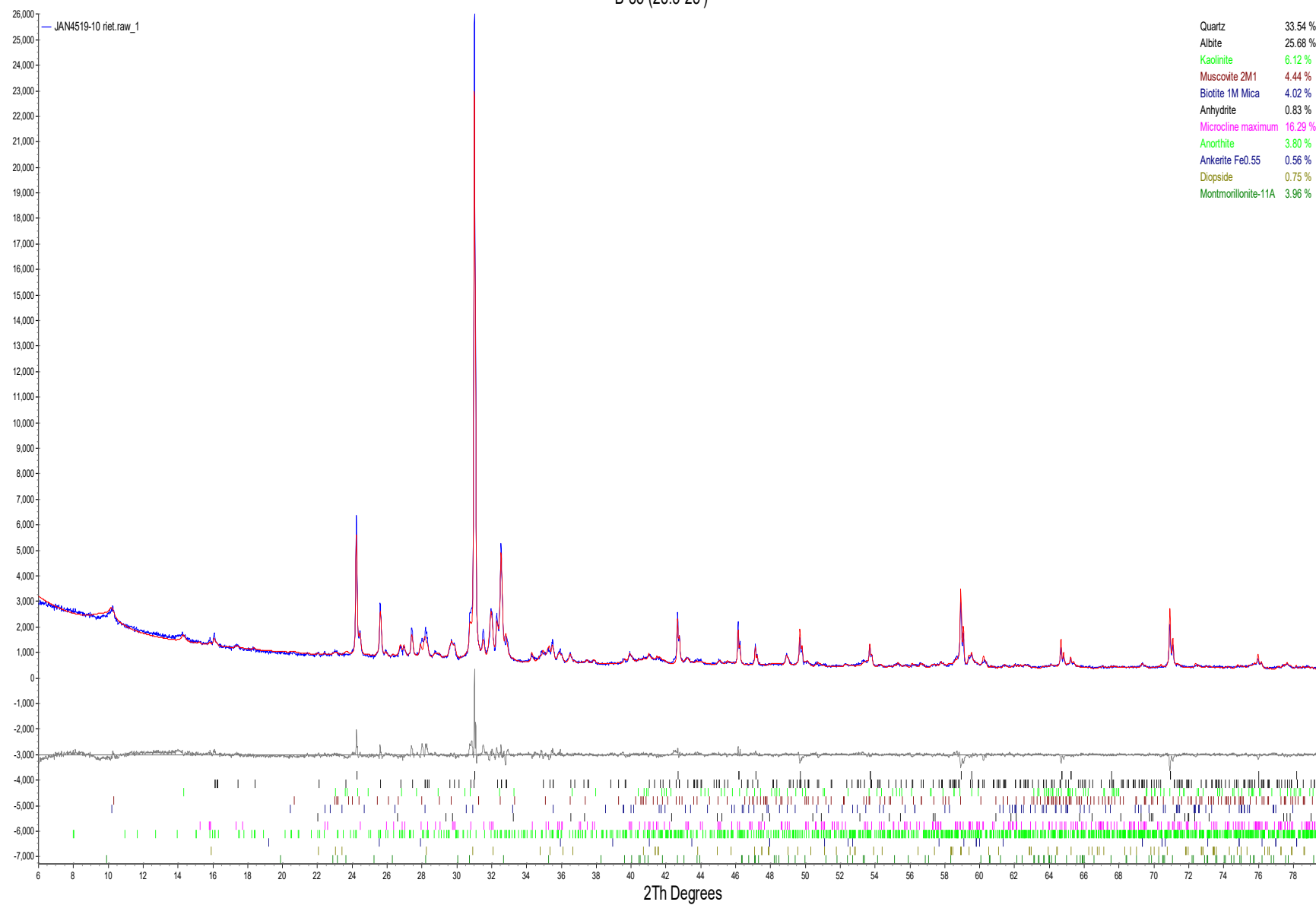
B-82 (35.5-37.5')



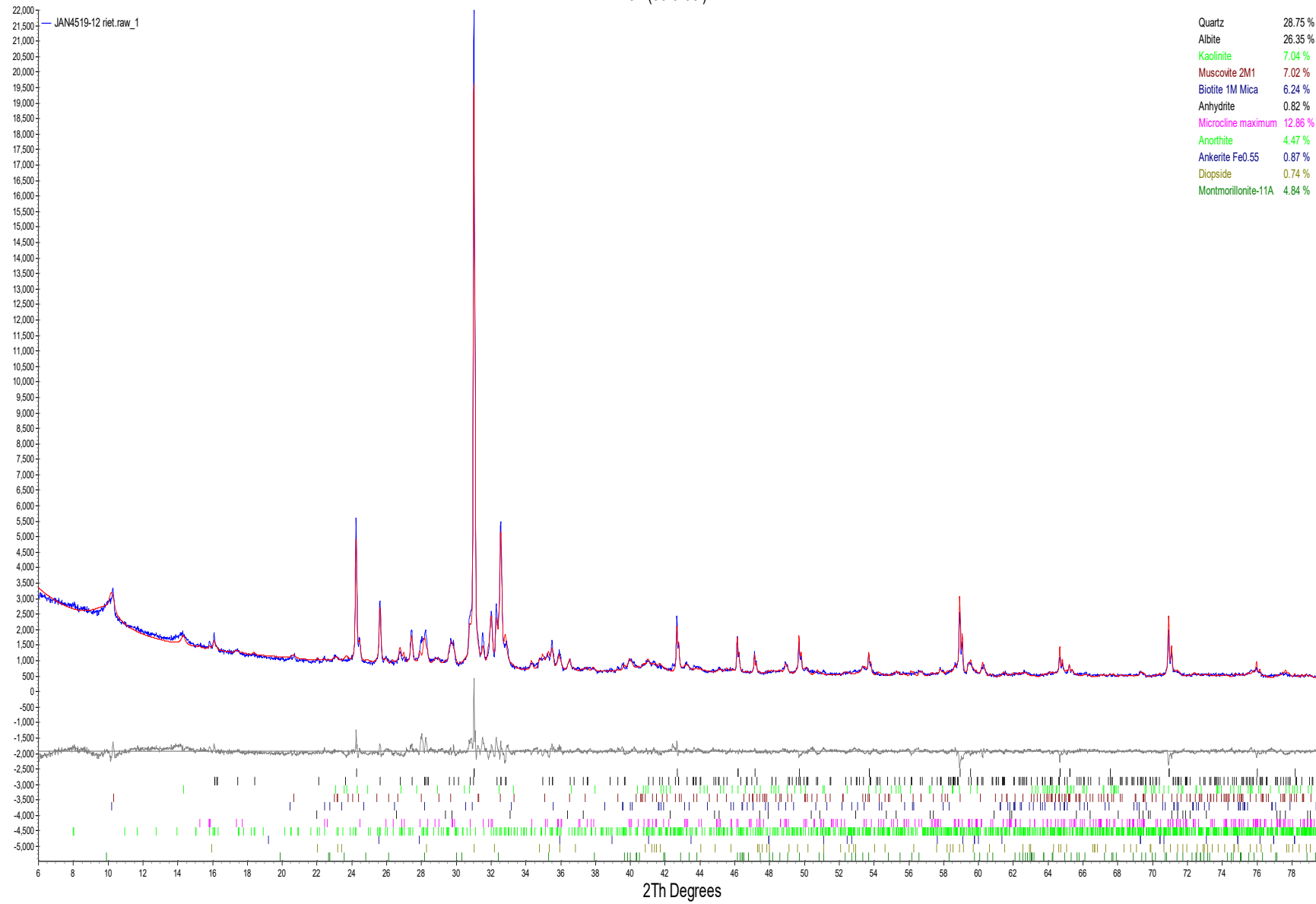
B-84 (43.5-45')



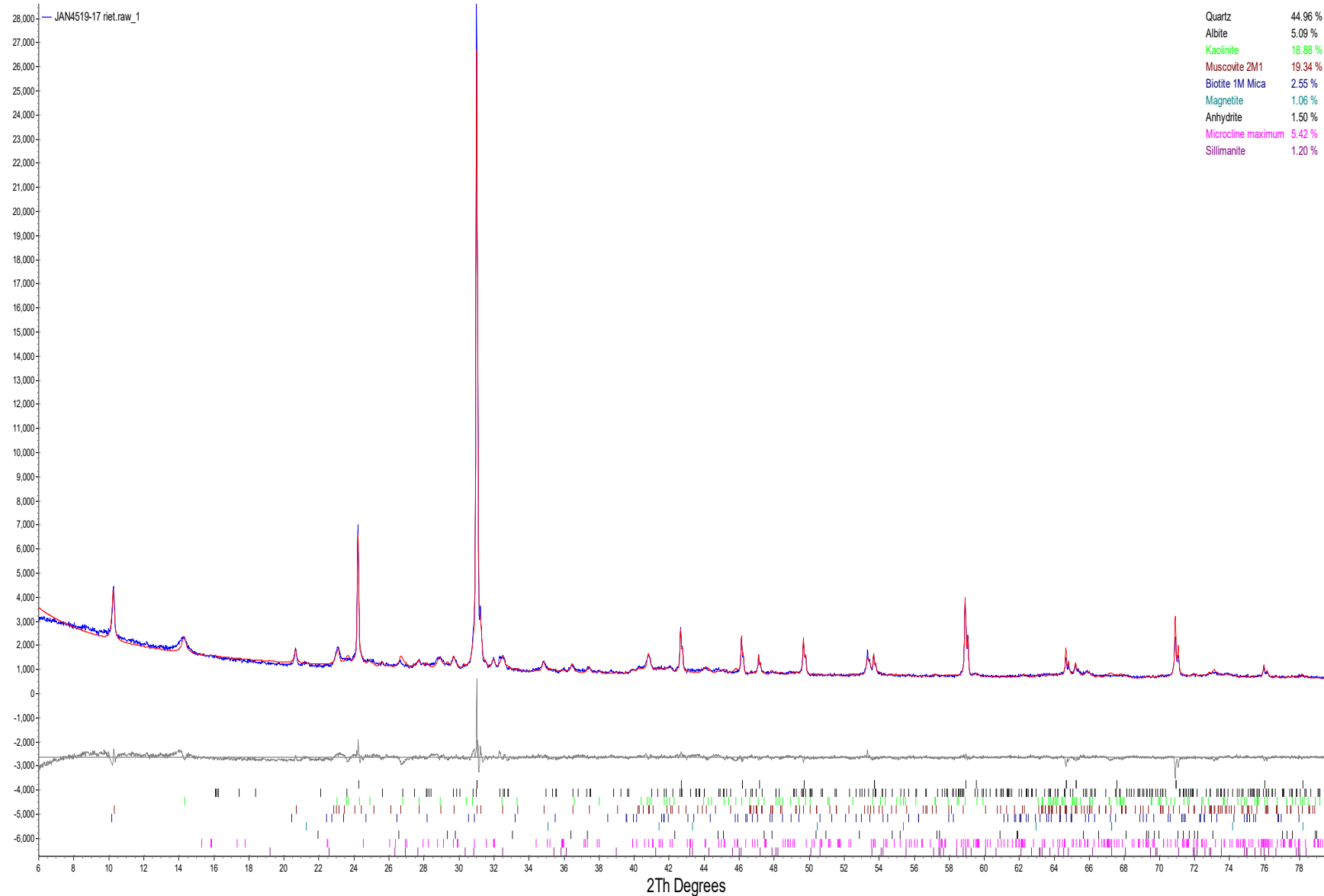
B-85 (23.5-25')



B-87 (33.5-35')

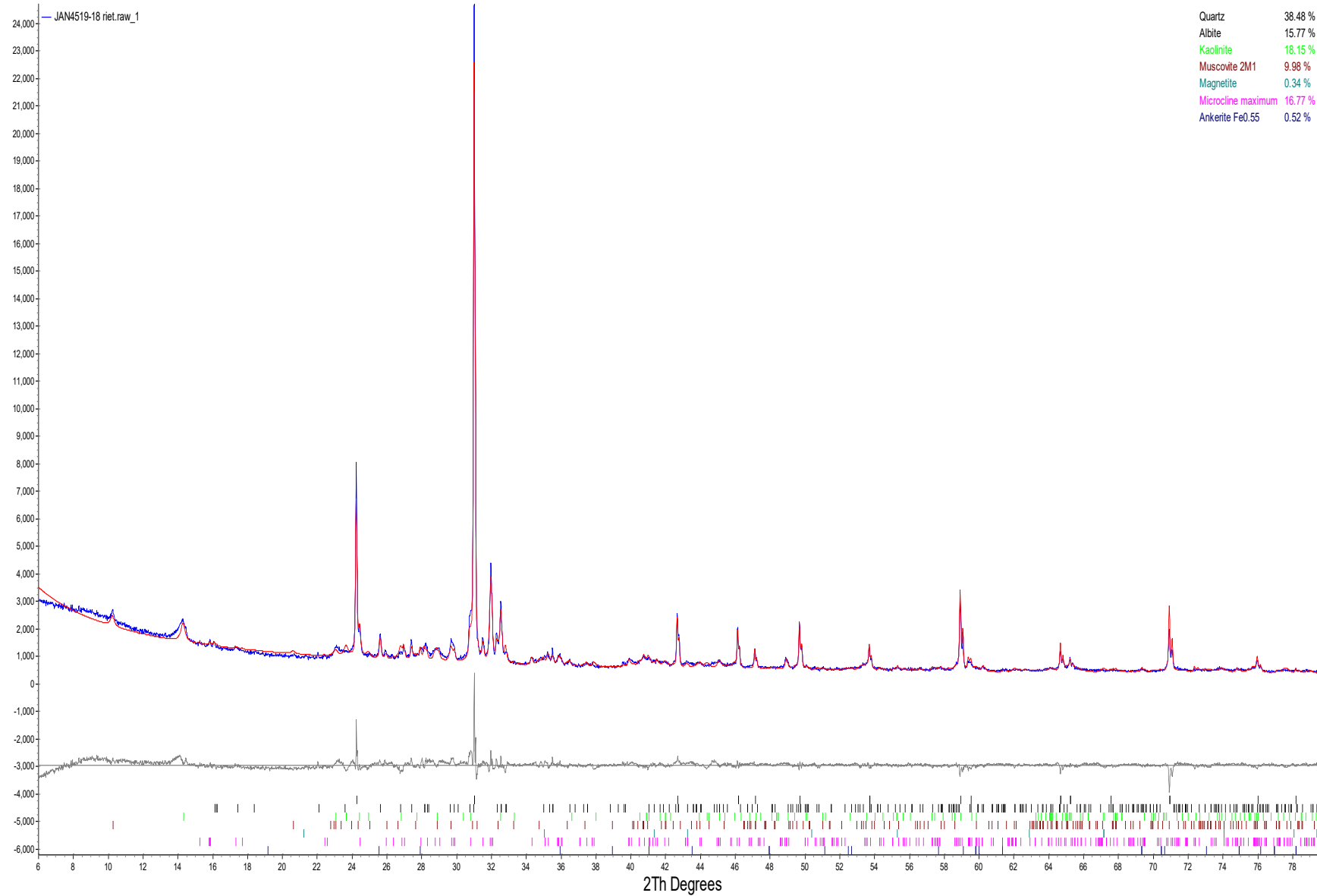


B-92 (6-8')





B-93 (6-8')



November 13, 2020

Joju Abraham  
Georgia Power - Coal Combustion Residuals  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: Plant McDonough  
Pace Project No.: 2623042

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2019. 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 - Atlanta, GA

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

Sincerely,



Kevin Herring for  
Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Lauren Petty, Southern Company Services, Inc.  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Rebecca Thornton, Pace Analytical Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough

Pace Project No.: 2623042

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### **Pace Analytical Services Atlanta**

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough

Pace Project No.: 2623042

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<b>Lab ID</b>	<b>Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
2623042001	Downstream	Water	09/12/19 10:46	09/12/19 12:30
2623042002	Upstream	Water	09/12/19 11:06	09/12/19 12:30

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough

Pace Project No.: 2623042

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623042001	Downstream	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2623042002	Upstream	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Atlanta, GA

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough  
Pace Project No.: 2623042

Sample: Downstream		Lab ID: 2623042001		Collected: 09/12/19 10:46		Received: 09/12/19 12:30		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0050	0.00027	1	09/12/19 19:35	09/13/19 10:01	7440-36-0		
Arsenic	<b>0.00040J</b>	mg/L	0.0050	0.00035	1	09/12/19 19:35	09/13/19 10:01	7440-38-2		
Barium	<b>0.018</b>	mg/L	0.0050	0.00049	1	09/12/19 19:35	09/13/19 10:01	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000074	1	09/12/19 19:35	09/13/19 10:01	7440-41-7		
Boron	<b>0.022J</b>	mg/L	0.040	0.0049	1	09/12/19 19:35	09/13/19 10:01	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/12/19 19:35	09/13/19 10:01	7440-43-9		
Chromium	<b>0.00045J</b>	mg/L	0.0050	0.00039	1	09/12/19 19:35	09/13/19 10:01	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	09/12/19 19:35	09/13/19 10:01	7440-48-4		
Lead	<b>0.00030J</b>	mg/L	0.0010	0.000046	1	09/12/19 19:35	09/13/19 10:01	7439-92-1		
Lithium	ND	mg/L	0.050	0.00078	1	09/12/19 19:35	09/13/19 10:01	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	09/12/19 19:35	09/13/19 10:01	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0013	1	09/12/19 19:35	09/13/19 10:01	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	09/12/19 19:35	09/13/19 10:01	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	mg/L	0.00050	0.00014	1	09/13/19 09:25	09/13/19 12:52	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		09/14/19 13:27	16984-48-8		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough

Pace Project No.: 2623042

Sample: Upstream		Lab ID: 2623042002		Collected: 09/12/19 11:06		Received: 09/12/19 12:30		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0050	0.00027	1	09/12/19 19:35	09/13/19 10:06	7440-36-0	
Arsenic	<b>0.00055J</b>	mg/L	0.0050	0.00035	1	09/12/19 19:35	09/13/19 10:06	7440-38-2	
Barium	<b>0.018</b>	mg/L	0.0050	0.00049	1	09/12/19 19:35	09/13/19 10:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000074	1	09/12/19 19:35	09/13/19 10:06	7440-41-7	
Boron	<b>0.022J</b>	mg/L	0.040	0.0049	1	09/12/19 19:35	09/13/19 10:06	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/12/19 19:35	09/13/19 10:06	7440-43-9	
Chromium	<b>0.00046J</b>	mg/L	0.0050	0.00039	1	09/12/19 19:35	09/13/19 10:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/12/19 19:35	09/13/19 10:06	7440-48-4	
Lead	<b>0.00028J</b>	mg/L	0.0010	0.000046	1	09/12/19 19:35	09/13/19 10:06	7439-92-1	
Lithium	ND	mg/L	0.050	0.00078	1	09/12/19 19:35	09/13/19 10:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/12/19 19:35	09/13/19 10:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0013	1	09/12/19 19:35	09/13/19 10:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/12/19 19:35	09/13/19 10:06	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA							
Mercury	ND	mg/L	0.00050	0.00014	1	09/13/19 09:25	09/13/19 12:55	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		09/14/19 13:42	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough

Pace Project No.: 2623042

QC Batch: 35222

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2623042001, 2623042002

METHOD BLANK: 158506

Matrix: Water

Associated Lab Samples: 2623042001, 2623042002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	09/13/19 11:55	

LABORATORY CONTROL SAMPLE: 158507

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158508 158509

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result	% Rec	% Rec				
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0024	98	96	75-125	1	20

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

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### QUALITY CONTROL DATA

Project: Plant McDonough  
Pace Project No.: 2623042

QC Batch: 35173      Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A      Analysis Description: 6020B MET  
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2623042001, 2623042002

METHOD BLANK: 158306      Matrix: Water  
Associated Lab Samples: 2623042001, 2623042002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0050	0.00027	09/12/19 20:16	
Arsenic	mg/L	ND	0.0050	0.00035	09/12/19 20:16	
Barium	mg/L	ND	0.0050	0.00049	09/12/19 20:16	
Beryllium	mg/L	ND	0.00050	0.000074	09/12/19 20:16	
Boron	mg/L	ND	0.040	0.0049	09/12/19 20:16	
Cadmium	mg/L	ND	0.00050	0.00011	09/12/19 20:16	
Chromium	mg/L	ND	0.0050	0.00039	09/12/19 20:16	
Cobalt	mg/L	ND	0.0050	0.00030	09/12/19 20:16	
Lead	mg/L	ND	0.0010	0.000046	09/12/19 20:16	
Lithium	mg/L	ND	0.050	0.00078	09/12/19 20:16	
Molybdenum	mg/L	ND	0.010	0.00095	09/12/19 20:16	
Selenium	mg/L	ND	0.0050	0.0013	09/12/19 20:16	
Thallium	mg/L	ND	0.0010	0.000052	09/12/19 20:16	

LABORATORY CONTROL SAMPLE: 158307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.098	98	80-120	
Arsenic	mg/L	0.1	0.092	92	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	0.93	93	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.095	95	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.094	94	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158308      158309

Parameter	Units	2623006001 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	0.099	0.10	99	100	75-125	1	20	
Arsenic	mg/L	0.0016J	0.1	0.1	0.097	0.098	95	96	75-125	1	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough

Pace Project No.: 2623042

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158308		158309		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2623006001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.011	0.1	0.1	0.11	0.11	99	99	75-125	0	20		
Beryllium	mg/L	0.0057	0.1	0.1	0.086	0.088	80	83	75-125	2	20		
Boron	mg/L	0.31	1	1	1.1	1.1	79	79	75-125	0	20		
Cadmium	mg/L	0.0010J	0.1	0.1	0.099	0.097	98	96	75-125	2	20		
Chromium	mg/L	ND	0.1	0.1	0.093	0.095	93	94	75-125	1	20		
Cobalt	mg/L	0.31	0.1	0.1	0.40	0.40	91	93	75-125	1	20		
Lead	mg/L	0.00080J	0.1	0.1	0.089	0.089	88	88	75-125	1	20		
Lithium	mg/L	0.030J	0.1	0.1	0.11	0.11	80	83	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	2	20		
Selenium	mg/L	0.0074J	0.1	0.1	0.10	0.10	96	96	75-125	0	20		
Thallium	mg/L	0.00039J	0.1	0.1	0.090	0.089	89	89	75-125	1	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough

Pace Project No.: 2623042

QC Batch: 497758

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: 2623042001, 2623042002

METHOD BLANK: 2680201

Matrix: Water

Associated Lab Samples: 2623042001, 2623042002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/14/19 11:57	

LABORATORY CONTROL SAMPLE: 2680202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.3	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2680203 2680204

Parameter	Units	2622846001		2680203		2680204		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	ND	ND	2.5	2.5	3.3	3.3	129	130	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2680205 2680206

Parameter	Units	92444906011		2680205		2680206		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Fluoride	mg/L	0.055J	0.055J	2.5	2.5	2.7	2.6	105	101	90-110	4	10	

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Plant McDonough

Pace Project No.: 2623042

---

### 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.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough

Pace Project No.: 2623042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623042001	Downstream	EPA 3005A	35173	EPA 6020B	35213
2623042002	Upstream	EPA 3005A	35173	EPA 6020B	35213
2623042001	Downstream	EPA 7470A	35222	EPA 7470A	35260
2623042002	Upstream	EPA 7470A	35222	EPA 7470A	35260
2623042001	Downstream	EPA 300.0 Rev 2.1 1993	497758		
2623042002	Upstream	EPA 300.0 Rev 2.1 1993	497758		

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: ARCADIS - Atlanta		Report To: Kelley Sharpe		Attention: JEAL BROWN	
Address: 2839 Paces Ferry Rd		Copy To:		Company Name: GEORGIA POWER	
Atlanta, GA 30339		Purchase Order #:		Address:	
Email: kelley.sharpe@arcadis.com		Project Name: McDonough		Pace Quote:	
Phone: (770)384-6584 Fax:		Project #:		Pace Project Manager: betsy.mcdaniel@paceabs.com	
Requested Due Date:		Project #:		Pace Profile #: 2565	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -, ) Sample IDs must be unique	MATRIX Drinking Water Wacer Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Requested Analytes Filled (Y/N)	Residual Chlorine (Y/N)			
						START		END				Unpreserved	H2SO4	HNO3	HCl	NHOH	Na2S2O3	Methanol	Other					
						DATE	TIME	DATE	TIME															
1	DOWNSTREAM	WT	G	9/12	1046					4	1	3											24 HR TAT	
2	UPSTREAM	WT	G	9/12	1106					4	1	3											24 HR TAT	
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

WO#: 2623042

2623042

ADDITIONAL COMMENTS	RECEIVED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
24 HR TAT	<i>[Signature]</i>	9/12/19	1230	<i>[Signature]</i>	9/12/19	1230	

SAMPLER NAME AND SIGNATURE		TEMP IN C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				



Sample Condition Upon Receipt

Client Name: Arcadis

Project # \_\_\_\_\_

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

WO#: **2623042**

PM: **BM** Due Date: **09/13/19**  
CLIENT: **ARCADISATL**

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 83 Type of Ice:  Wet  Blue  None  
Cooler Temperature 6.0 Biological Tissue is Frozen: Yes  No

Samples on ice, cooling process has begun  
Date and Initials of person examining contents: 9/12/19 MR

Temp should be above freezing to 6°C Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	<u>24hr TAT.</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-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	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? **Y / N**  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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 16, 2020

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

RE: Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Dear Kelley Sharpe:

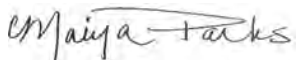
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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,



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

Enclosures

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



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92505233001	CR+0.4	Water	11/10/20 11:40	11/10/20 17:57
92505233002	CR+0.2	Water	11/10/20 11:50	11/10/20 17:57
92505233003	Dewatering Upstream	Water	11/10/20 11:55	11/10/20 17:57
92505233004	Dewatering Downstream	Water	11/10/20 12:25	11/10/20 17:57
92505233005	CR-0.2	Water	11/10/20 12:47	11/10/20 17:57
92505233006	CR-0.5	Water	11/10/20 12:55	11/10/20 17:57
92505233007	CR-0.8	Water	11/10/20 13:15	11/10/20 17:57

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92505233001	CR+0.4	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233002	CR+0.2	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233003	Dewatering Upstream	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233004	Dewatering Downstream	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233005	CR-0.2	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233006	CR-0.5	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92505233007	CR-0.8	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2450C-2011	ALW	1	PASI-GA
		SM 2320B-2011	KDF1	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
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PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR+0.4		Lab ID: 92505233001		Collected: 11/10/20 11:40	Received: 11/10/20 17:57	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 11:40		
pH	<b>7.35</b>	Std. Units		1		11/10/20 11:40		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.4</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:48	7440-09-7	
Sodium	<b>5.4</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 19:42	7440-23-5	M1
Calcium	<b>4.2</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 19:42	7440-70-2	M1
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 19:42	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:04	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:04	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>43.0</b>	mg/L	10.0	1		11/11/20 15:48		D6
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.3</b>	mg/L	5.0	1		11/12/20 17:22		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.3</b>	mg/L	5.0	1		11/12/20 17:22		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 18:09	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 18:09	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 18:09	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR+0.2	Lab ID: 92505233002	Collected: 11/10/20 11:50	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 11:50		
pH	<b>7.42</b>	Std. Units		1		11/10/20 11:50		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.5</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:03	7440-23-5	
Calcium	<b>4.1</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:03	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:03	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:53	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:10	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:10	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>45.0</b>	mg/L	10.0	1		11/11/20 15:48		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.2</b>	mg/L	5.0	1		11/12/20 17:43		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.2</b>	mg/L	5.0	1		11/12/20 17:43		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 18:52	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 18:52	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 18:52	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: Dewatering Upstream		Lab ID: 92505233003	Collected: 11/10/20 11:55	Received: 11/10/20 17:57	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>		Analytical Method: Pace Analytical Services - Charlotte						
Performed by	<b>Client</b>			1		11/10/20 11:55		
pH	<b>6.90</b>	Std. Units		1		11/10/20 11:55		
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Sodium	<b>5.5</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:08	7440-23-5	
Calcium	<b>4.2</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:08	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:08	7439-95-4	
Potassium	<b>2.6</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 15:58	7440-09-7	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:44	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:44	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>43.0</b>	mg/L	10.0	1		11/11/20 15:48		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.3</b>	mg/L	5.0	1		11/12/20 17:49		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.3</b>	mg/L	5.0	1		11/12/20 17:49		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>4.9</b>	mg/L	1.0	1		11/12/20 19:06	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:06	16984-48-8	
Sulfate	<b>3.1</b>	mg/L	1.0	1		11/12/20 19:06	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: Dewatering Downstream	Lab ID: 92505233004	Collected: 11/10/20 12:25	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:25		
pH	<b>7.03</b>	Std. Units		1		11/10/20 12:25		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.6</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:14	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:14	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:14	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:03	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/12/20 09:41	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:50	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>38.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.7</b>	mg/L	5.0	1		11/12/20 17:54		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.7</b>	mg/L	5.0	1		11/12/20 17:54		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.8</b>	mg/L	1.0	1		11/12/20 19:21	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:21	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 19:21	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.2	Lab ID: 92505233005	Collected: 11/10/20 12:47	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:47		
pH	<b>7.82</b>	Std. Units		1		11/10/20 12:47		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.9</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:19	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:19	7440-70-2	
Magnesium	<b>2.1</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:19	7439-95-4	
Potassium	<b>2.6</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:09	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 16:55	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 16:55	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>48.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.7</b>	mg/L	5.0	1		11/12/20 18:00		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.7</b>	mg/L	5.0	1		11/12/20 18:00		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>11.2</b>	mg/L	1.0	1		11/12/20 19:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:35	16984-48-8	
Sulfate	<b>3.2</b>	mg/L	1.0	1		11/12/20 19:35	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.5	Lab ID: 92505233006	Collected: 11/10/20 12:55	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 12:55		
pH	<b>7.40</b>	Std. Units		1		11/10/20 12:55		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.7</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:24	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:24	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:24	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:14	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 17:29	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 17:29	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>47.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.2</b>	mg/L	5.0	1		11/12/20 18:06		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.2</b>	mg/L	5.0	1		11/12/20 18:06		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>4.9</b>	mg/L	1.0	1		11/12/20 19:50	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 19:50	16984-48-8	
Sulfate	<b>3.0</b>	mg/L	1.0	1		11/12/20 19:50	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

Sample: CR-0.8	Lab ID: 92505233007	Collected: 11/10/20 13:15	Received: 11/10/20 17:57	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>								
Analytical Method: Pace Analytical Services - Charlotte								
Performed by	<b>Client</b>			1		11/10/20 13:15		
pH	<b>7.62</b>	Std. Units		1		11/10/20 13:15		
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Sodium	<b>5.6</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:40	7440-23-5	
Calcium	<b>4.4</b>	mg/L	1.0	1	11/11/20 12:44	11/11/20 20:40	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	11/11/20 12:44	11/11/20 20:40	7439-95-4	
Potassium	<b>2.5</b>	mg/L	0.20	1	11/11/20 12:44	11/15/20 16:19	7440-09-7	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	ND	mg/L	0.00050	1	11/11/20 12:31	11/11/20 17:35	7440-41-7	
Cobalt	ND	mg/L	0.0050	1	11/11/20 12:31	11/11/20 17:35	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>50.0</b>	mg/L	10.0	1		11/11/20 15:49		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>20.0</b>	mg/L	5.0	1		11/12/20 18:22		
Alkalinity, Total as CaCO <sub>3</sub>	<b>20.0</b>	mg/L	5.0	1		11/12/20 18:22		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>5.1</b>	mg/L	1.0	1		11/12/20 20:33	16887-00-6	
Fluoride	ND	mg/L	0.10	1		11/12/20 20:33	16984-48-8	
Sulfate	<b>3.2</b>	mg/L	1.0	1		11/12/20 20:33	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 579547 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3065899 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	11/11/20 19:22	
Magnesium	mg/L	ND	0.050	11/11/20 19:22	
Potassium	mg/L	ND	0.20	11/11/20 19:22	
Sodium	mg/L	ND	1.0	11/11/20 19:22	

LABORATORY CONTROL SAMPLE: 3065900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	105	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	1.2	119	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3065901 3065902

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505233001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	4.2	1	1	5.4	5.5	120	129	75-125	2	20 M1
Magnesium	mg/L	2.0	1	1	3.1	3.1	111	110	75-125	0	20
Potassium	mg/L	2.4	1	1	3.9	3.7	143	125	75-125	5	20
Sodium	mg/L	5.4	1	1	6.6	6.8	120	133	75-125	2	20 M1

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 579551 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3065931 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Beryllium	mg/L	ND	0.00050	11/11/20 15:52	
Cobalt	mg/L	ND	0.0050	11/11/20 15:52	

LABORATORY CONTROL SAMPLE: 3065932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3065933 3065934

Parameter	Units	92505233002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.10	0.095	100	94	75-125	5	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.098	98	97	75-125	1	20	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

QC Batch: 579634

Analysis Method: SM 2450C-2011

QC Batch Method: SM 2450C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3066400

Matrix: Water

Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	11/11/20 15:42	

LABORATORY CONTROL SAMPLE: 3066401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	397	99	84-108	

SAMPLE DUPLICATE: 3066402

Parameter	Units	92505233001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	43.0	49.0	13	10	D6

SAMPLE DUPLICATE: 3066403

Parameter	Units	92505230001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	684	670	2	10	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 580018 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3068228 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	5.0	11/12/20 16:26	
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	5.0	11/12/20 16:26	

LABORATORY CONTROL SAMPLE: 3068229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	53.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068230 3068231

Parameter	Units	92505233001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	17.3	50	50	70.0	70.7	105	107	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068232 3068233

Parameter	Units	92504167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	452	50	50	482	482	61	60	80-120	0	25 M1	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92505233

QC Batch: 579993 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: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

METHOD BLANK: 3068011 Matrix: Water  
Associated Lab Samples: 92505233001, 92505233002, 92505233003, 92505233004, 92505233005, 92505233006, 92505233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	11/12/20 17:40	
Fluoride	mg/L	ND	0.10	11/12/20 17:40	
Sulfate	mg/L	ND	1.0	11/12/20 17:40	

LABORATORY CONTROL SAMPLE: 3068012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.5	95	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	47.9	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068013 3068014

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505233001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	4.8	50	50	56.6	55.1	103	100	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	103	99	90-110	3	10		
Sulfate	mg/L	3.0	50	50	55.0	52.8	104	100	90-110	4	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3068378 3068379

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92505059003 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	18.2	50	50	68.7	68.7	101	101	90-110	0	10		
Fluoride	mg/L	0.23	2.5	2.5	3.0	2.9	111	107	90-110	3	10 M1		
Sulfate	mg/L	426	50	50	497	511	142	170	90-110	3	10 M6		

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## QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92505233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92505233001	CR+0.4				
92505233002	CR+0.2				
92505233003	Dewatering Upstream				
92505233004	Dewatering Downstream				
92505233005	CR-0.2				
92505233006	CR-0.5				
92505233007	CR-0.8				
92505233001	CR+0.4	EPA 3010A	579547	EPA 6010D	579657
92505233002	CR+0.2	EPA 3010A	579547	EPA 6010D	579657
92505233003	Dewatering Upstream	EPA 3010A	579547	EPA 6010D	579657
92505233004	Dewatering Downstream	EPA 3010A	579547	EPA 6010D	579657
92505233005	CR-0.2	EPA 3010A	579547	EPA 6010D	579657
92505233006	CR-0.5	EPA 3010A	579547	EPA 6010D	579657
92505233007	CR-0.8	EPA 3010A	579547	EPA 6010D	579657
92505233001	CR+0.4	EPA 3005A	579551	EPA 6020B	579656
92505233002	CR+0.2	EPA 3005A	579551	EPA 6020B	579656
92505233003	Dewatering Upstream	EPA 3005A	579551	EPA 6020B	579656
92505233004	Dewatering Downstream	EPA 3005A	579551	EPA 6020B	579656
92505233005	CR-0.2	EPA 3005A	579551	EPA 6020B	579656
92505233006	CR-0.5	EPA 3005A	579551	EPA 6020B	579656
92505233007	CR-0.8	EPA 3005A	579551	EPA 6020B	579656
92505233001	CR+0.4	SM 2450C-2011	579634		
92505233002	CR+0.2	SM 2450C-2011	579634		
92505233003	Dewatering Upstream	SM 2450C-2011	579634		
92505233004	Dewatering Downstream	SM 2450C-2011	579634		
92505233005	CR-0.2	SM 2450C-2011	579634		
92505233006	CR-0.5	SM 2450C-2011	579634		
92505233007	CR-0.8	SM 2450C-2011	579634		
92505233001	CR+0.4	SM 2320B-2011	580018		
92505233002	CR+0.2	SM 2320B-2011	580018		
92505233003	Dewatering Upstream	SM 2320B-2011	580018		
92505233004	Dewatering Downstream	SM 2320B-2011	580018		
92505233005	CR-0.2	SM 2320B-2011	580018		
92505233006	CR-0.5	SM 2320B-2011	580018		
92505233007	CR-0.8	SM 2320B-2011	580018		
92505233001	CR+0.4	EPA 300.0 Rev 2.1 1993	579993		
92505233002	CR+0.2	EPA 300.0 Rev 2.1 1993	579993		
92505233003	Dewatering Upstream	EPA 300.0 Rev 2.1 1993	579993		
92505233004	Dewatering Downstream	EPA 300.0 Rev 2.1 1993	579993		
92505233005	CR-0.2	EPA 300.0 Rev 2.1 1993	579993		
92505233006	CR-0.5	EPA 300.0 Rev 2.1 1993	579993		
92505233007	CR-0.8	EPA 300.0 Rev 2.1 1993	579993		

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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:  
*Arcadis Atlanta*

Project #: **WO# : 92505233**

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

PM: MP Due Date: 11/13/20  
CLIENT: GA-ArcadAtI

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *11/11/20 [Signature]*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  
 Yes  No  N/A

Thermometer:  IR Gun ID: *2114* Type of Ice:  Wet  Blue  None

Cooler Temp: *2.1°C* 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): *2.1°C*

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 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: \_\_\_\_\_

February 10, 2021

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

RE: Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Dear Kelley Sharpe:

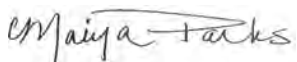
Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

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



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92519942001	CR+0.4	Water	02/02/21 13:44	02/03/21 08:50
92519942002	CR+0.2	Water	02/02/21 13:51	02/03/21 08:50
92519942003	DW_US	Water	02/02/21 14:12	02/03/21 08:50
92519942004	DW_DS	Water	02/02/21 14:08	02/03/21 08:50
92519942005	CR-0.2	Water	02/02/21 14:21	02/03/21 08:50
92519942006	CR-0.5	Water	02/02/21 14:26	02/03/21 08:50
92519942007	CR-0.8	Water	02/02/21 14:30	02/03/21 08:50
92519942008	CR-0.1	Water	02/02/21 14:00	02/03/21 08:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92519942001	CR+0.4	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942002	CR+0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942003	DW_US	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942004	DW_DS	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942005	CR-0.2	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942006	CR-0.5	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942007	CR-0.8	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519942008	CR-0.1	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	5	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

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

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: CR+0.4	Lab ID: 92519942001	Collected: 02/02/21 13:44	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:15	7440-09-7	
Sodium	7.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:15	7440-23-5	
Calcium	5.3	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:15	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:15	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:40	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 16:40	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 16:40	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:40	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 16:40	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	27.0	mg/L	10.0	1		02/04/21 12:06		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.5	mg/L	5.0	1		02/05/21 22:32		
Alkalinity, Total as CaCO <sub>3</sub>	20.5	mg/L	5.0	1		02/05/21 22:32		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.3	mg/L	1.0	1		02/05/21 08:34	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 08:34	16984-48-8	
Sulfate	4.5	mg/L	1.0	1		02/05/21 08:34	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR+0.2	Lab ID: 92519942002	Collected: 02/02/21 13:51	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:34	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:34	7440-23-5	
Calcium	5.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:34	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:34	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:57	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 16:57	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 16:57	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 16:57	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 16:57	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	41.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.4	mg/L	5.0	1		02/05/21 22:39		
Alkalinity, Total as CaCO <sub>3</sub>	20.4	mg/L	5.0	1		02/05/21 22:39		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	1		02/05/21 09:40	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 09:40	16984-48-8	
Sulfate	4.4	mg/L	1.0	1		02/05/21 09:40	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: DW_US	Lab ID: 92519942003	Collected: 02/02/21 14:12	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:39	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:39	7440-23-5	
Calcium	4.9	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:39	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:39	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:03	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:03	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:03	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:03	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:03	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	29.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.1	mg/L	5.0	1		02/05/21 22:47		
Alkalinity, Total as CaCO <sub>3</sub>	20.1	mg/L	5.0	1		02/05/21 22:47		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.1	mg/L	1.0	1		02/05/21 09:54	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 09:54	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 09:54	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: DW_DS		Lab ID: 92519942004		Collected: 02/02/21 14:08	Received: 02/03/21 08:50	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	2.7	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:44	7440-09-7	
Sodium	6.9	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:44	7440-23-5	
Calcium	5.1	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:44	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:44	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:09	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:09	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:09	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:09	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:09	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	30.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	16.7	mg/L	5.0	1		02/05/21 23:01		
Alkalinity, Total as CaCO <sub>3</sub>	16.7	mg/L	5.0	1		02/05/21 23:01		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	6.1	mg/L	1.0	1		02/05/21 10:38	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 10:38	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 10:38	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR-0.2	Lab ID: 92519942005	Collected: 02/02/21 14:21	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 18:58	7440-09-7	
Sodium	6.8	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:58	7440-23-5	
Calcium	5.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 18:58	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 18:58	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:15	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:15	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:15	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:15	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:15	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	38.0	mg/L	10.0	1		02/04/21 12:07		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	17.2	mg/L	5.0	1		02/05/21 23:10		
Alkalinity, Total as CaCO <sub>3</sub>	17.2	mg/L	5.0	1		02/05/21 23:10		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.2	mg/L	1.0	1		02/05/21 10:52	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 10:52	16984-48-8	
Sulfate	4.3	mg/L	1.0	1		02/05/21 10:52	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: CR-0.5</b>								
<b>Lab ID: 92519942006</b>								
Collected: 02/02/21 14:26 Received: 02/03/21 08:50 Matrix: Water								
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.8</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:03	7440-09-7	
Sodium	<b>7.0</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:03	7440-23-5	
Calcium	<b>5.2</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:03	7440-70-2	
Magnesium	<b>2.1</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:03	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:20	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:20	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:20	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:20	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:20	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>31.0</b>	mg/L	10.0	1		02/04/21 12:08		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.0</b>	mg/L	5.0	1		02/05/21 23:19		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.0</b>	mg/L	5.0	1		02/05/21 23:19		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	<b>6.2</b>	mg/L	1.0	1		02/05/21 11:06	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:06	16984-48-8	
Sulfate	<b>4.3</b>	mg/L	1.0	1		02/05/21 11:06	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

Sample: CR-0.8	Lab ID: 92519942007	Collected: 02/02/21 14:30	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:08	7440-09-7	
Sodium	7.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:08	7440-23-5	
Calcium	4.9	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:08	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:08	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:26	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:26	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:26	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:26	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:26	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	30.0	mg/L	10.0	1		02/04/21 12:08		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	17.0	mg/L	5.0	1		02/05/21 23:27		
Alkalinity, Total as CaCO <sub>3</sub>	17.0	mg/L	5.0	1		02/05/21 23:27		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.4	mg/L	1.0	1		02/05/21 11:21	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:21	16984-48-8	
Sulfate	4.5	mg/L	1.0	1		02/05/21 11:21	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Sample: CR-0.1	Lab ID: 92519942008	Collected: 02/02/21 14:00	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:13	7440-09-7	
Sodium	7.0	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:13	7440-23-5	
Calcium	5.2	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:13	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:13	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:32	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	02/04/21 10:04	02/07/21 17:32	7440-41-7	
Boron	ND	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:32	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:32	7440-48-4	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:32	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	25.0	mg/L	10.0	1		02/04/21 12:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.7	mg/L	5.0	1		02/05/21 23:34		
Alkalinity, Total as CaCO <sub>3</sub>	20.7	mg/L	5.0	1		02/05/21 23:34		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	6.6	mg/L	1.0	1		02/05/21 11:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/05/21 11:35	16984-48-8	
Sulfate	4.8	mg/L	1.0	1		02/05/21 11:35	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

QC Batch: 597431 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150491 Matrix: Water  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	02/05/21 18:05	
Magnesium	mg/L	ND	0.050	02/05/21 18:05	
Potassium	mg/L	ND	0.20	02/05/21 18:05	
Sodium	mg/L	ND	1.0	02/05/21 18:05	

LABORATORY CONTROL SAMPLE: 3150492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	115	80-120	
Sodium	mg/L	1	1.1	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150493 3150494

Parameter	Units	3150493		3150494		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Calcium	mg/L	5.3	1	1	6.2	6.3	92	103	75-125	2	20		
Magnesium	mg/L	2.1	1	1	3.0	3.1	95	97	75-125	1	20		
Potassium	mg/L	2.8	1	1	3.9	3.9	107	109	75-125	0	20		
Sodium	mg/L	7.0	1	1	8.0	8.1	99	112	75-125	2	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

QC Batch: 597433 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150562 Matrix: Water  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	02/07/21 14:46	
Beryllium	mg/L	ND	0.00050	02/07/21 14:46	
Boron	mg/L	ND	0.040	02/07/21 14:46	
Cobalt	mg/L	ND	0.0050	02/07/21 14:46	
Molybdenum	mg/L	ND	0.010	02/07/21 14:46	

LABORATORY CONTROL SAMPLE: 3150563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150564 3150565

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519266022 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/L	1.4J ug/L	0.1	0.1	0.10	0.10	101	100	75-125	1	20
Beryllium	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20
Boron	mg/L	587 ug/L	1	1	1.6	1.5	97	96	75-125	1	20
Cobalt	mg/L	1.4J ug/L	0.1	0.1	0.10	0.096	99	95	75-125	5	20
Molybdenum	mg/L	14.0 ug/L	0.1	0.1	0.12	0.12	103	101	75-125	2	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

QC Batch: 597549 Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3150931 Matrix: Water  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/04/21 12:04	

LABORATORY CONTROL SAMPLE: 3150932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3150933

Parameter	Units	92519931002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	45.0	43.0	5	10	

SAMPLE DUPLICATE: 3150934

Parameter	Units	92519942006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	31.0	33.0	6	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

QC Batch: 598016 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3153367 Matrix: Water  
Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	02/05/21 20:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	02/05/21 20:00	

LABORATORY CONTROL SAMPLE: 3153368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153369 3153370

Parameter	Units	92518671027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	160	50	50	207	213	95	107	80-120	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153371 3153372

Parameter	Units	92519484005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	21.3	50	50	73.0	73.4	103	104	80-120	0	25	

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**QUALITY CONTROL DATA**

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

QC Batch:	597589	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: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

METHOD BLANK: 3151020 Matrix: Water

Associated Lab Samples: 92519942001, 92519942002, 92519942003, 92519942004, 92519942005, 92519942006, 92519942007, 92519942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	02/05/21 08:05	
Fluoride	mg/L	ND	0.10	02/05/21 08:05	
Sulfate	mg/L	ND	1.0	02/05/21 08:05	

LABORATORY CONTROL SAMPLE: 3151021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.2	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	47.6	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151022 3151023

Parameter	Units	92519942001		3151023		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	6.3	50	50	52.7	53.2	93	94	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	93	95	90-110	2	10
Sulfate	mg/L	4.5	50	50	51.7	51.9	94	95	90-110	0	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151024 3151025

Parameter	Units	92519959003		3151025		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	9.9	50	50	57.4	57.2	95	95	90-110	0	10
Fluoride	mg/L	0.17	2.5	2.5	2.5	2.5	94	94	90-110	0	10
Sulfate	mg/L	16.5	50	50	64.4	64.3	96	96	90-110	0	10

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519942

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519942

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92519942001	CR+0.4	EPA 3010A	597431	EPA 6010D	597695
92519942002	CR+0.2	EPA 3010A	597431	EPA 6010D	597695
92519942003	DW_US	EPA 3010A	597431	EPA 6010D	597695
92519942004	DW_DS	EPA 3010A	597431	EPA 6010D	597695
92519942005	CR-0.2	EPA 3010A	597431	EPA 6010D	597695
92519942006	CR-0.5	EPA 3010A	597431	EPA 6010D	597695
92519942007	CR-0.8	EPA 3010A	597431	EPA 6010D	597695
92519942008	CR-0.1	EPA 3010A	597431	EPA 6010D	597695
92519942001	CR+0.4	EPA 3005A	597433	EPA 6020B	597742
92519942002	CR+0.2	EPA 3005A	597433	EPA 6020B	597742
92519942003	DW_US	EPA 3005A	597433	EPA 6020B	597742
92519942004	DW_DS	EPA 3005A	597433	EPA 6020B	597742
92519942005	CR-0.2	EPA 3005A	597433	EPA 6020B	597742
92519942006	CR-0.5	EPA 3005A	597433	EPA 6020B	597742
92519942007	CR-0.8	EPA 3005A	597433	EPA 6020B	597742
92519942008	CR-0.1	EPA 3005A	597433	EPA 6020B	597742
92519942001	CR+0.4	SM 2450C-2011	597549		
92519942002	CR+0.2	SM 2450C-2011	597549		
92519942003	DW_US	SM 2450C-2011	597549		
92519942004	DW_DS	SM 2450C-2011	597549		
92519942005	CR-0.2	SM 2450C-2011	597549		
92519942006	CR-0.5	SM 2450C-2011	597549		
92519942007	CR-0.8	SM 2450C-2011	597549		
92519942008	CR-0.1	SM 2450C-2011	597549		
92519942001	CR+0.4	SM 2320B-2011	598016		
92519942002	CR+0.2	SM 2320B-2011	598016		
92519942003	DW_US	SM 2320B-2011	598016		
92519942004	DW_DS	SM 2320B-2011	598016		
92519942005	CR-0.2	SM 2320B-2011	598016		
92519942006	CR-0.5	SM 2320B-2011	598016		
92519942007	CR-0.8	SM 2320B-2011	598016		
92519942008	CR-0.1	SM 2320B-2011	598016		
92519942001	CR+0.4	EPA 300.0 Rev 2.1 1993	597589		
92519942002	CR+0.2	EPA 300.0 Rev 2.1 1993	597589		
92519942003	DW_US	EPA 300.0 Rev 2.1 1993	597589		
92519942004	DW_DS	EPA 300.0 Rev 2.1 1993	597589		
92519942005	CR-0.2	EPA 300.0 Rev 2.1 1993	597589		
92519942006	CR-0.5	EPA 300.0 Rev 2.1 1993	597589		
92519942007	CR-0.8	EPA 300.0 Rev 2.1 1993	597589		
92519942008	CR-0.1	EPA 300.0 Rev 2.1 1993	597589		

### 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:

Arcadis - Atlanta

Project #

**WO#: 92519942**

PM: MP

Due Date: 02/08/21

CLIENT: GA-ArcadAtl1

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 2/3/21 KRW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: THR230

Type of Ice:

Wet  Blue  None

Cooler Temp: 1.6 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): 1.6

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 type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>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: \_\_\_\_\_

February 10, 2021

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

RE: Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

Dear Kelley Sharpe:

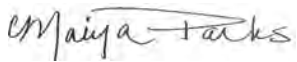
Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



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

Enclosures

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



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92519959001	UT01_US	Water	02/02/21 15:00	02/03/21 08:50
92519959002	UT02	Water	02/02/21 14:40	02/03/21 08:50
92519959003	UT01_DS	Water	02/02/21 14:45	02/03/21 08:50
92519959004	UT03	Water	02/02/21 14:30	02/03/21 08:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92519959001	UT01_US	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519959002	UT02	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519959003	UT01_DS	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92519959004	UT03	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2450C-2011	AW1	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

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

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

Sample: <b>UT01_US</b>	Lab ID: <b>92519959001</b>	Collected: 02/02/21 15:00	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	<b>2.9</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:18	7440-09-7	
Sodium	<b>12.7</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:18	7440-23-5	
Calcium	<b>17.2</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:18	7440-70-2	
Magnesium	<b>3.3</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:18	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:38	7440-38-2	
Boron	<b>0.046</b>	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:38	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:38	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>97.0</b>	mg/L	10.0	1		02/04/21 12:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>53.5</b>	mg/L	5.0	1		02/05/21 23:42		
Alkalinity, Total as CaCO <sub>3</sub>	<b>53.5</b>	mg/L	5.0	1		02/05/21 23:42		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	<b>10.7</b>	mg/L	1.0	1		02/05/21 11:50	16887-00-6	
Fluoride	<b>0.22</b>	mg/L	0.10	1		02/05/21 11:50	16984-48-8	
Sulfate	<b>14.5</b>	mg/L	1.0	1		02/05/21 11:50	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

<b>Sample: UT02</b>		<b>Lab ID: 92519959002</b>		Collected: 02/02/21 14:40	Received: 02/03/21 08:50	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	<b>3.0</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:22	7440-09-7	
Sodium	<b>12.7</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:22	7440-23-5	
Calcium	<b>17.4</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:22	7440-70-2	
Magnesium	<b>3.3</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:22	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:43	7440-38-2	
Boron	<b>0.063</b>	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:43	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:43	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>99.0</b>	mg/L	10.0	1		02/04/21 12:09		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>54.7</b>	mg/L	5.0	1		02/09/21 13:52		
Alkalinity, Total as CaCO <sub>3</sub>	<b>54.7</b>	mg/L	5.0	1		02/09/21 13:52		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>10.4</b>	mg/L	1.0	1		02/05/21 12:04	16887-00-6	
Fluoride	<b>0.17</b>	mg/L	0.10	1		02/05/21 12:04	16984-48-8	
Sulfate	<b>15.5</b>	mg/L	1.0	1		02/05/21 12:04	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

Sample: UT01_DS	Lab ID: 92519959003	Collected: 02/02/21 14:45	Received: 02/03/21 08:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.9	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:27	7440-09-7	
Sodium	12.2	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:27	7440-23-5	
Calcium	17.4	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:27	7440-70-2	
Magnesium	3.6	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:27	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 17:49	7440-38-2	
Boron	0.11	mg/L	0.040	1	02/04/21 10:04	02/07/21 17:49	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 17:49	7439-98-7	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2450C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	100	mg/L	10.0	1		02/04/21 12:10		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	55.1	mg/L	5.0	1		02/09/21 14:00		
Alkalinity, Total as CaCO <sub>3</sub>	55.1	mg/L	5.0	1		02/09/21 14:00		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	9.9	mg/L	1.0	1		02/05/21 12:19	16887-00-6	
Fluoride	0.17	mg/L	0.10	1		02/05/21 12:19	16984-48-8	
Sulfate	16.5	mg/L	1.0	1		02/05/21 12:19	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

<b>Sample: UT03</b>		<b>Lab ID: 92519959004</b>		Collected: 02/02/21 14:30	Received: 02/03/21 08:50	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	<b>2.9</b>	mg/L	0.20	1	02/04/21 09:45	02/05/21 19:32	7440-09-7	
Sodium	<b>12.6</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:32	7440-23-5	
Calcium	<b>17.3</b>	mg/L	1.0	1	02/04/21 09:45	02/05/21 19:32	7440-70-2	
Magnesium	<b>3.4</b>	mg/L	0.050	1	02/04/21 09:45	02/05/21 19:32	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Arsenic	ND	mg/L	0.0050	1	02/04/21 10:04	02/07/21 18:06	7440-38-2	
Boron	<b>0.069</b>	mg/L	0.040	1	02/04/21 10:04	02/07/21 18:06	7440-42-8	
Molybdenum	ND	mg/L	0.010	1	02/04/21 10:04	02/07/21 18:06	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>98.0</b>	mg/L	10.0	1		02/04/21 12:10		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>54.3</b>	mg/L	5.0	1		02/09/21 14:08		
Alkalinity, Total as CaCO <sub>3</sub>	<b>54.3</b>	mg/L	5.0	1		02/09/21 14:08		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>10.2</b>	mg/L	1.0	1		02/05/21 13:31	16887-00-6	
Fluoride	<b>0.17</b>	mg/L	0.10	1		02/05/21 13:31	16984-48-8	
Sulfate	<b>15.4</b>	mg/L	1.0	1		02/05/21 13:31	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 597431 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

METHOD BLANK: 3150491 Matrix: Water  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	02/05/21 18:05	
Magnesium	mg/L	ND	0.050	02/05/21 18:05	
Potassium	mg/L	ND	0.20	02/05/21 18:05	
Sodium	mg/L	ND	1.0	02/05/21 18:05	

LABORATORY CONTROL SAMPLE: 3150492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	115	80-120	
Sodium	mg/L	1	1.1	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150493 3150494

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519942001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	5.3	1	1	6.2	6.3	92	103	75-125	2	20
Magnesium	mg/L	2.1	1	1	3.0	3.1	95	97	75-125	1	20
Potassium	mg/L	2.8	1	1	3.9	3.9	107	109	75-125	0	20
Sodium	mg/L	7.0	1	1	8.0	8.1	99	112	75-125	2	20

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 597433 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

METHOD BLANK: 3150562 Matrix: Water  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	02/07/21 14:46	
Boron	mg/L	ND	0.040	02/07/21 14:46	
Molybdenum	mg/L	ND	0.010	02/07/21 14:46	

LABORATORY CONTROL SAMPLE: 3150563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	100	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3150564 3150565

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519266022 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	1.4J ug/L	0.1	0.1	0.10	0.10	101	100	75-125	1	20
Boron	mg/L	587 ug/L	1	1	1.6	1.5	97	96	75-125	1	20
Molybdenum	mg/L	14.0 ug/L	0.1	0.1	0.12	0.12	103	101	75-125	2	20

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

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 597549 Analysis Method: SM 2450C-2011  
QC Batch Method: SM 2450C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

METHOD BLANK: 3150931 Matrix: Water  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	02/04/21 12:04	

LABORATORY CONTROL SAMPLE: 3150932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3150933

Parameter	Units	92519931002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	45.0	43.0	5	10	

SAMPLE DUPLICATE: 3150934

Parameter	Units	92519942006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	31.0	33.0	6	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 598016      Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011      Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92519959001

METHOD BLANK: 3153367      Matrix: Water  
Associated Lab Samples: 92519959001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	5.0	02/05/21 20:00	
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	5.0	02/05/21 20:00	

LABORATORY CONTROL SAMPLE: 3153368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	52.4	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153369      3153370

Parameter	Units	92518671027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	160	50	50	207	213	95	107	80-120	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3153371      3153372

Parameter	Units	92519484005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	21.3	50	50	73.0	73.4	103	104	80-120	0	25	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 598355 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92519959002, 92519959003, 92519959004

METHOD BLANK: 3154778 Matrix: Water  
Associated Lab Samples: 92519959002, 92519959003, 92519959004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	5.0	02/09/21 13:16	
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	5.0	02/09/21 13:16	

LABORATORY CONTROL SAMPLE: 3154779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	50	52.7	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3154780 3154781

Parameter	Units	92518942011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	23.9	50	50	70.3	70.8	93	94	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3154782 3154783

Parameter	Units	92518942012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	35.3	50	50	85.2	85.5	100	100	80-120	0	25	

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### QUALITY CONTROL DATA

Project: Plant McDonough CCR-Ash Pond  
Pace Project No.: 92519959

QC Batch: 597589 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: 92519959001, 92519959002, 92519959003, 92519959004

METHOD BLANK: 3151020 Matrix: Water  
Associated Lab Samples: 92519959001, 92519959002, 92519959003, 92519959004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	02/05/21 08:05	
Fluoride	mg/L	ND	0.10	02/05/21 08:05	
Sulfate	mg/L	ND	1.0	02/05/21 08:05	

LABORATORY CONTROL SAMPLE: 3151021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.2	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	47.6	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151022 3151023

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519942001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	6.3	50	50	52.7	53.2	93	94	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	93	95	90-110	2	10		
Sulfate	mg/L	4.5	50	50	51.7	51.9	94	95	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3151024 3151025

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92519959003 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	9.9	50	50	57.4	57.2	95	95	90-110	0	10		
Fluoride	mg/L	0.17	2.5	2.5	2.5	2.5	94	94	90-110	0	10		
Sulfate	mg/L	16.5	50	50	64.4	64.3	96	96	90-110	0	10		

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## QUALIFIERS

Project: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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: Plant McDonough CCR-Ash Pond

Pace Project No.: 92519959

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92519959001	UT01_US	EPA 3010A	597431	EPA 6010D	597695
92519959002	UT02	EPA 3010A	597431	EPA 6010D	597695
92519959003	UT01_DS	EPA 3010A	597431	EPA 6010D	597695
92519959004	UT03	EPA 3010A	597431	EPA 6010D	597695
92519959001	UT01_US	EPA 3005A	597433	EPA 6020B	597742
92519959002	UT02	EPA 3005A	597433	EPA 6020B	597742
92519959003	UT01_DS	EPA 3005A	597433	EPA 6020B	597742
92519959004	UT03	EPA 3005A	597433	EPA 6020B	597742
92519959001	UT01_US	SM 2450C-2011	597549		
92519959002	UT02	SM 2450C-2011	597549		
92519959003	UT01_DS	SM 2450C-2011	597549		
92519959004	UT03	SM 2450C-2011	597549		
92519959001	UT01_US	SM 2320B-2011	598016		
92519959002	UT02	SM 2320B-2011	598355		
92519959003	UT01_DS	SM 2320B-2011	598355		
92519959004	UT03	SM 2320B-2011	598355		
92519959001	UT01_US	EPA 300.0 Rev 2.1 1993	597589		
92519959002	UT02	EPA 300.0 Rev 2.1 1993	597589		
92519959003	UT01_DS	EPA 300.0 Rev 2.1 1993	597589		
92519959004	UT03	EPA 300.0 Rev 2.1 1993	597589		

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page :   Of  

<b>Section A</b>	<b>Section B</b>	<b>Section C</b>
<b>Required Client Information:</b>	<b>Required Project Information:</b>	<b>Invoice Information:</b>
Company: ARCADIS - Atlanta	Report To: Warren Johnson	Attention:
Address: 2839 Paces Ferry Rd Atlanta, GA 30339	Copy To: Joju Abraham and Ben Hodges	Company Name: GPC
Email: warren.johnson@arcadis.com	Purchase Order #: SCS10382775	Address:
Phone: (770)384-6584 Fax:	Project Name: Plant McDonough/CCR Ash-Pond Closure	Pace Quote:
Requested Due Date: 7-Day TAT	Project #:	Pace Project Manager: maiya.parks@pacelabs.com
		Pace Profile #: 12896

Regulatory Agency
State / Location
GA

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX CODE <small>(see valid codes to left)</small>	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)				
				START		END				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2SO3	Methanol	Other		Alkalinity (Total/BCarb), Cl	TDS	App III Constituents	App IV (See Comments)					
				DATE	TIME	DATE	TIME																				
1	UT01_US	WT		2.2.21	15:00													X	X	X							
2	UT02	WT		2.2.21	14:40													X	X	X							
3	UT01_DS	WT		2.2.21	14:45													X	X	X							
4	UT03	WT		2.2.21	14:30													X	X	X							
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Requested Analysis - Major Cations, Arsenic & Mo Only	<i>[Signature]</i>	2.2.2021	0850	<i>[Signature]</i> K. Wells / Pace	2/3/21	0850	1.9 Y N Y

WO# : 92519959

92519959

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Arcadis - Atlanta

Project

**WO#: 92519959**

PM: MP

Due Date: 02/08/21

CLIENT: GA-ArcadAtl

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 2/3/21 KRW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: THR230

Type of Ice:

Wet  Blue  None

Cooler Temp:

1.9

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):

1.9

USDA Regulated Soil  N/A, water sample)

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

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

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 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>7 Day JAT</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 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: \_\_\_\_\_

## PLANT MCDONOUGH SURFACE WATER SAMPLES 02/02/2021

Sample ID	Time	Temp(F)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
UT01_US	1500	46.7	7.07	144.3	11.82	4.05	0.187	33.825727, -84.482406
UT02	1440	46.6	7.05	147.3	11.90	4.19	0.190	33.825039, -84.482618
UT03	1430	45.4	7.01	143.9	11.17	4.60	0.189	33.824350, -84.482458
UT01_DS	1415	47.4	7.19	110.4	10.60	5.96	0.252	33.822484, -84.482007

## PLANT MCDONOUGH (RIVER) SURFACE WATER SAMPLES 00/00/202

Sample ID	Time	Temp(F)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
CR+0.4	1344	46.16	7.65	-4.8	13.02	14.2	0.080	33.818131, -84.479768
CR+0.2	1351	46.24	7.57	-3.4	13.08	13.7	0.080	33.819924, -84.478340
CR-0.1	1400	46.43	7.78	-8.1	12.92	16.0	0.083	33.824437, -84.473293
DW_DS	1408	46.41	7.7	-11.0	14.72	11.8	0.079	33.821684, -84.476360
DW_US	1412	46.52	7.51	-9.8	12.87	12.3	0.079	33.823208, -84.474698
CR-0.2	1421	46.60	7.48	-19.3	13.00	14.0	0.079	33.824437, -84.473293
CR-0.5	14.26	46.75	7.46	-20.8	13.05	14.4	0.078	33.827315, -84.469092
CR-0.8	1430	46.98	7.15	-21.3	13.97	14.0	0.080	33.827193, -84.463413



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