



GOLDER

REPORT

2020 Annual Groundwater Monitoring & Corrective Action Report

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

Submitted to:



Georgia Power

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

+1 770 496-1893

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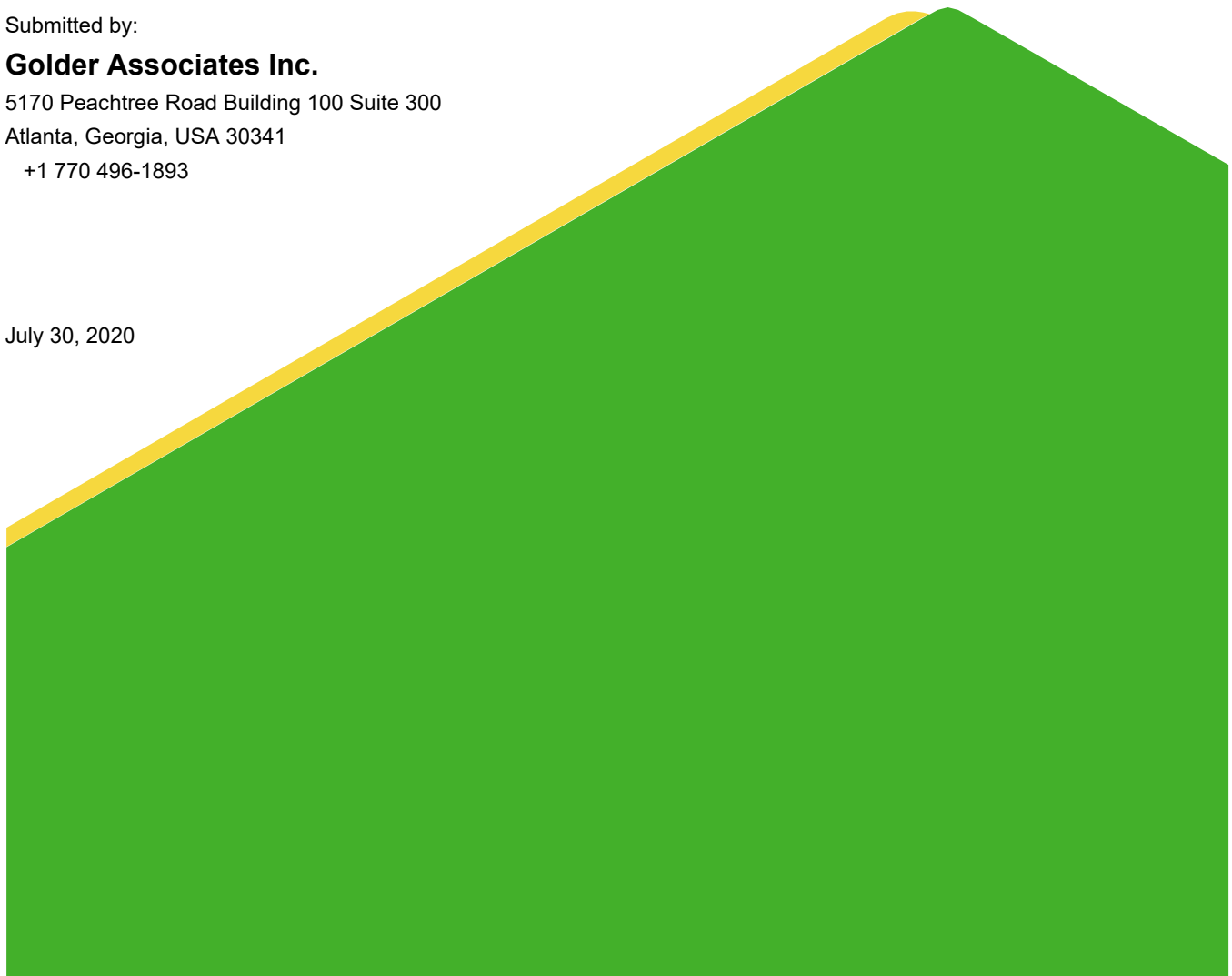


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This 2020 Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant McDonough-Atkinson – Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4) has been prepared in compliance with the Georgia Environmental Protection 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.



Timothy I. Richards, PG
Georgia Licensed Professional Geologist No. 2240.



Greg Hebel, PE
Georgia Licensed Professional Engineer No. 034749

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 Annual Groundwater Monitoring and Corrective Action Report* was prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant McDonough Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4) (aka AP-2 & AP-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 annual report documents the activities completed from July 2019 through July 2020. Three monitoring events were conducted during this period: an initial assessment monitoring event was conducted in August 2019 as a result of statistical exceedances during the first detection monitoring event, and two subsequent assessment events conducted in October 2019 and March 2020, which served as semi-annual compliance monitoring events.

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-3/4. 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 GPC's website. A permit application package for AP-2 and AP-3/4 was submitted to Georgia EPD in November 2018 and is currently pending revisions to address EPD comments.

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) and being done so 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.

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 or partially weathered rock (PWR). 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. 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 (Figure 2). 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.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes monitoring-related activities for sampling performed during August 2019, October 2019 and March 2020. Groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring network. The location of each of these monitoring wells is shown on Figure 2. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-2 and AP-3/4 and the status of the monitoring network.

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 log is included in Appendix A.

Installation of additional site piezometers as part of ongoing site investigations has also been completed. Additional piezometers installed at Plant McDonough will be documented in a report, *Well Design, Installation, Development and Decommissioning Report-Georgia Power Company-Plant McDonough Atkinson-Ash Pond 1, Ash Pond 2, Ash Pond 3, and Ash Pond 4*. Due to the ongoing survey at Plant McDonough, this report will be submitted following completion of the site survey.

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 First Annual Groundwater Monitoring and Corrective Action Report*, (Golder, 2019). A notice of assessment monitoring was placed in the operating record on November 13, 2019.

Groundwater sampling events were conducted for AP-2 and AP-3/4 in August 2019, October 2019 and March 2020. During the initial assessment monitoring event in August 2019, groundwater samples were collected and analyzed for the full suite of Appendix IV constituents to meet the requirement §257.95(b). During subsequent semi-annual sampling events in October 2019 and March 2020, groundwater samples were collected for the Appendix III parameters and those Appendix IV constituents detected in the August 2019 event. Results of sampling activities conducted are presented in Appendix A, Analytical Results, Field Data Forms, Data Validation Summaries, and Well Inspection Forms.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed during this reporting period for AP-2 and AP-3/4 include the initial assessment monitoring event and two subsequent semi-annual assessment monitoring events. 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 sampling event, groundwater elevations were recorded at each monitoring well and piezometer. Groundwater elevation data are summarized in Table 3. Calculated water level data were used to develop Figure 3A, Site Potentiometric Map – October 2019 and Figure 3B, Site Potentiometric Map – January 2020. Review of Figures 3A and 3B shows 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. 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 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- 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 uppermost aquifer is 5.0×10^{-4} centimeters per second (cm/s), 8.4×10^{-4} cm/s in the overburden and 1.6×10^{-4} cm/s in the upper bedrock, respectively. An effective porosity of 0.20 (20%) for overburden was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996). Assumed effective porosity of 0.09 (9%) was used for bedrock (Daniel and Dahlen, 2002; Dowd and Marshall, 1995). The hydraulic gradient calculated between well pairs is shown on Table 4A, Horizontal Groundwater Flow Velocity Calculations – October 2019 and Table 4B, Horizontal Groundwater Velocity Calculations – January 2020.

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

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

Where:

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

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 October 2019 and January 2020 groundwater elevation data. Table 4A and 4B presents the velocities calculated using groundwater elevation data from these sampling events.

Calculated (horizontal) flow velocities range from approximately 123 feet per year (ft/yr) to 157 ft/yr during the October 2019 event and from approximately 116 ft/yr to 155 ft/yr in the overburden during the January 2020 event. 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

Any deviation from stabilization criteria, if applicable, is identified on field sampling forms. Where sample turbidity was greater than 5 NTU and all other stabilization criteria were met, samplers continued purging for up to 3 additional hours in order to reduce the turbidity to 5 NTU or less. If turbidity remained above 5 NTU, but was less than 10 NTU, and all other parameters were stabilized, the well was sampled. Where turbidity remained above 10 NTU, an unfiltered sample was collected followed by a filtered sample that passed through an in-line 0.45-micron filtered attached to the discharge (sample collection) tube. The unfiltered sample data are used for compliance monitoring and in the statistical analysis database. Filtered sample data are used to assess the impacts of turbidity on groundwater quality. Additional details regarding filtered samples are recorded on the field information form and filtered samples are clearly identified as “filtered” on the laboratory reports.

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.

3.4 Laboratory Analysis

Groundwater samples were collected during three groundwater monitoring (August 2019, October 2019, March 2020). Since 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, 5B and 5C, Analytical Data Summary, presents a tabulated summary of the August 2019, October 2019 and March 2020 sample results, respectively. Analytical methods used for groundwater 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. Groundwater data, chain-of-custody records, and NELAP certifications for the monitoring events are presented in Appendix A.

3.5 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 10 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 was independently validated in accordance with US EPA Region IV Data Validation Standard Operating Procedures USEPA guidance (USEPA, 2011), National Functional Guidelines for

Inorganic Superfund Methods Data Review (January 2017) the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags were applied to the data per USEPA procedures (USEPA, 2017). Flagged data are identified in the statistical analysis reports in Appendix B and described in the following section.

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 August 2019, October 2019, and March 2020 monitoring.

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"> ▪ Initial statistical exceedance warrants independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If resample exceeds, well/parameter has a confirmed SSI. ▪ If no resample is collected, the original result is deemed verified.

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

In assessment monitoring, statistical analyses of groundwater monitoring data is statistically evaluated through the use of confidence intervals compared to the groundwater protection standard (GWPS). For the Assessment Monitoring Program (Appendix IV constituents), parametric tolerance limits were used to calculate site specific background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the GWPS under 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 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)	Site Specific Background March 2020 ^[1]	GWPS ^[2]
Antimony	mg/L	0.006	0.003	0.006
Arsenic	mg/L	0.01	0.005	0.01
Barium	mg/L	2	0.19	2
Beryllium	mg/L	0.004	0.003	0.004
Cadmium	mg/L	0.005	0.0025	0.005
Chromium	mg/L	0.1	0.01	0.1
Cobalt	mg/L	NA	0.0322	0.0322
Fluoride	mg/L	4	1.2	4
Lead	mg/L	NA	0.005	0.005
Lithium	mg/L	NA	0.030	0.030 ^[3]
Mercury	mg/L	0.002	0.0005	0.002
Molybdenum	mg/L	NA	0.0409	0.0409
Radium (226 + 228)	pCi/L	5	6.04	6.04

TABLE 4.1.2 Summary of Background Levels and GWPSs

Analyte	Units	Maximum Contaminant Level (MCL)	Site Specific Background March 2020 ^[1]	GWPS ^[2]
Selenium	mg/L	0.05	0.01	0.05
Thallium	mg/L	0.002	0.001	0.002

Notes:

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

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

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

[3] The background tolerance limit (TL) used to evaluate GWPS for this analyte equals the laboratory specified reporting limit (RL). Per the SAP, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. 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 B, Statistical Analyses. The background period for statistical analyses included data through March 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 October 2019 and March 2020 at AP-2 and AP-3/4 have been statistically analyzed in accordance with the site’s Statistical Analysis Plan. Verification resampling to confirm initial SSIs was not performed; therefore, initial SSIs are considered verified. The statistical results of the October 2019 and March 2020 assessment monitoring event are included in Appendix B.

4.2.1 October 2019 Appendix III Statistical Results

Based on the statistical results presented in Appendix B, SSIs of boron, calcium, chloride, fluoride, pH, sulfate and total dissolved solids at various wells were identified following the October 2019 assessment monitoring event. A detailed list of the noted exceedances is provided in Appendix B.

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

4.2.2 October 2019 Appendix IV Statistical Results

Analytical data from the October 2019 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 and AP-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-2, DGWC-47, DGWC-48

4.2.3 March 2020 Appendix III Statistical Results

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

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

4.2.4 March 2020 Appendix IV Statistical Results

Analytical data from the March 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-2, DGWC-47, DGWC-48

4.3 Alternate Source Demonstration

Pursuant to the options of 40 CFR § 257.95 as adopted by 391-3-4-.10, Plant McDonough is evaluating alternate sources for the identified SSLs, namely, arsenic, beryllium, cobalt, and lithium.

4.4 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.

5.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-2 and AP-3/4 confirms SSIs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring

parameter above the established GWPS. Based on the results of the October 2019 and March 2020 sampling events, AP-2 and AP-3/4 will remain in assessment monitoring and an assessment of corrective measures has been initiated following the provisions of 40 CFR § 257.96.

6.0 CONCLUSIONS AND FUTURE ACTIONS

This 2020 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 October 2019 and January 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. Plant McDonough is currently evaluating an Alternate Source Demonstration (ASD) for each of the identified SSLs following the rule and timelines specified in 40 CFR § 257.95. In accordance with 40 CFR § 257.96, GPC 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 third quarter 2020.

7.0 REFERENCES

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Tables & Figures

TABLE 1A
MONITORING WELL NETWORK SUMMARY
Georgia Power Company - Plant McDonough
Atlanta, GA

Well-ID	Boring ID	Hydraulic Location	Geologic Unit Screened	Northing	Easting	Top of Casing Elevation (feet)	Ground Surface Elevation (feet)	Total Depth (feet bgs)	Top of Screen Elevation (feet)	Bottom of Screen Elevation (feet)	Date of Installation
ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) MONITORING WELL NETWORK											
DGWA-53	B-53	Upgradient	Upper Bedrock	1393475.82	2201668.95	850.74	847.24	28.9	830	820	9/24/2016
DGWA-70A	B-70A	Upgradient	Overburden	1390481.13	2200590.67	808.60	805.45	58.9	757	747	5/10/2017
DGWA-71	B-71	Upgradient	Overburden	1393965.35	2201713.63	863.95	861.05	43.4	828	818	2/28/2017
DGWC-2	B-2	Downgradient	Overburden/Upper Bedrock	1393956.84	2202118.69	850.93	847.6	49.0	809	799	10/2/2012
DGWC-4	B-4	Downgradient	Overburden	1394170.48	2202662.20	814.87	811.4	45.0	777	767	10/3/2012
DGWC-5	B-5	Downgradient	Overburden/Upper Bedrock	1394309.25	2202962.79	791.84	788.0	30.0	768	758	10/4/2012
DGWC-8	B-8	Downgradient	Overburden	1394325.09	2203881.82	826.50	823.5	49.1	785	775	10/10/2012
DGWC-9	B-9	Downgradient	Overburden	1394056.26	2204166.95	824.39	821.3	30.0	802	792	10/10/2012
DGWC-10	B-10	Downgradient	Overburden	1393818.47	2204197.80	823.60	820.3	45.4	785	775	10/11/2012
DGWC-11	B-11	Downgradient	Overburden	1393547.50	2204167.65	800.64	797.5	49.1	759	749	10/15/2012
DGWC-12	B-12	Downgradient	Overburden	1393151.16	2204125.01	773.90	770.5	25.1	756	746	10/15/2012
DGWC-13	B-13	Downgradient	Overburden	1392881.61	2204084.66	793.90	791.2	43.8	758	748	11/29/2012
DGWC-14	B-14	Downgradient	Overburden/Upper Bedrock	1392575.34	2204013.21	792.36	789.6	34.3	766	756	12/18/2012
DGWC-15	B-15	Downgradient	Overburden	1392544.70	2203675.77	824.53	820.8	67.1	764	754	11/29/2012
DGWC-17	B-17	Downgradient	Overburden	1392645.88	2203049.04	837.10	834.1	44.5	800	790	1/9/2013
DGWC-19	B-19	Downgradient	Overburden	1392342.80	2202600.41	825.53	823.0	39.8	794	784	3/12/2013
DGWC-20	B-20	Downgradient	Overburden	1392164.35	2202315.15	822.16	819.8	39.7	791	781	3/5/2013
DGWC-21	B-21	Downgradient	Overburden/Upper Bedrock	1392068.12	2202062.54	816.33	813.5	69.0	755	745	10/31/2012
DGWC-22	B-22	Downgradient	Upper Bedrock	1392124.82	2201790.51	816.64	813.1	60.0	763	753	10/25/2012
DGWC-23	B-23	Downgradient	Upper Bedrock	1392242.10	2201582.86	818.59	815.2	60.1	765	755	10/25/2012
DGWC-42	B-42	Downgradient	Overburden	1391328.16	2201866.97	804.73	801.4	50.4	761	751	11/12/2012
DGWC-47	B-47	Downgradient	Overburden/Upper Bedrock	1391553.90	2202610.11	797.50	794.10	28.8	776	766	6/23/2016
DGWC-48	B-48	Downgradient	Overburden/Upper Bedrock	1391315.02	2202287.97	788.34	784.97	30.0	765	755	6/22/2016

Notes:

1. bgs = below ground surface; msl = mean sea level
2. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)

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

Well-ID	Former Well-ID	Boring ID	Geologic Unit Screened	Northing	Easting	Top of Casing Elevation (feet)	Ground Surface Elevation (feet)	Total Depth (feet bgs)	Top of Screen Elevation (feet)	Bottom of Screen Elevation (feet)	Date of Installation
PIEZOMETER NETWORK											
B-3	B-3	B-3	Overburden/Upper Bedrock	1394043.54	2202411.14	837.82	834.5	37.0	808	798	10/3/2012
B-6	B-6	B-6	Overburden	1394422.57	2203265.55	789.49	785.9	35.4	761	751	10/9/2012
B-7	B-7	B-7	Overburden	1394373.41	2203595.17	809.24	805.4	25.2	791	781	10/9/2012
B-16	B-16	B-16	Overburden	1392596.21	2203313.21	826.50	823.6	43.7	790	780	12/19/2012
B-18	B-18	B-18	Overburden	1392521.15	2202874.99	826.54	823.9	32.6	801	791	1/10/2013
B-24	B-24	B-24	Upper Bedrock	1392480.23	2201451.51	822.27	818.7	79.1	750	740	10/24/2012
B-25	B-25	B-25	Upper Bedrock	1392813.23	2201504.19	836.62	833.1	54.8	789	779	10/24/2012
B-26	DGWA-26	B-26	Upper Bedrock	1393106.18	2201551.86	853.67	850.2	49.3	811	801	10/23/2012
B-28	B-28	B-28	Overburden/Upper Bedrock	1391970.42	2201677.59	816.10	812.8	69.4	754	744	10/31/2012
B-29	B-29	B-29	Overburden	1391891.93	2201420.25	816.45	813.5	54.4	769	759	1/11/2013
B-31	B-31	B-31	Upper Bedrock	1392035.97	2200926.82	797.42	794.8	45.1	760	750	1/22/2013
B-41	B-41	B-41	Overburden	1390922.38	2201749.84	795.22	792.4	60.0	743	733	11/14/2012
B-50	B-50	B-50	Overburden	1391656.94	2201839.72	809.78	806.28	35.2	781	771	6/24/2016
B-51	B-51	B-51	Overburden	1390501.61	2200904.19	765.93	763.00	66.0	708	698	6/27/2016
B-52	B-52	B-52	Overburden	1392309.40	2201314.05	823.22	820.07	50.0	781	771	9/28/2016
B-54	B-54	B-54	Overburden/Upper Bedrock	1394424.75	2203140.27	785.59	782.09	34.2	758	748	9/26/2016
B-55	B-55	B-55	Overburden	1394143.23	2204146.61	825.11	821.96	52.0	781	771	9/22/2016
B-56	B-56	B-56	Overburden	1393958.64	2204186.27	823.70	820.55	45.0	786	776	10/3/2016
B-57	B-57	B-57	Upper Bedrock	1391397.46	2202735.64	789.22	785.76	50.5	746	736	9/24/2016
B-58	B-58	B-58	Overburden	1391126.84	2202425.23	788.20	784.90	45.0	750	740	9/23/2016
B-59	B-59	B-59	Overburden/Upper Bedrock	1394349.80	2203000.17	788.16	785.30	30.2	765	755	9/23/2016
B-60	B-60	B-60	Overburden	1391101.88	2202880.57	782.12	778.87	49.8	740	730	9/29/2016
B-61	B-61	B-61	Overburden	1390958.73	2202504.81	782.03	778.58	52.4	737	727	9/29/2016
B-62	B-62	B-62	Upper Bedrock	1389828.91	2201810.02	763.34	759.94	39.9	730	720	10/4/2016
B-63	B-63	B-63	Overburden	1390999.47	2202976.11	777.15	777.45	46.0	742	732	10/6/2016
B-64	B-64	B-64	Overburden	1394383.12	2203029.71	786.02	785.85	30.4	766	756	11/2/2016
B-65	B-65	B-65	Overburden/Upper Bedrock	1394382.64	2204049.66	822.02	822.27	45.4	788	778	11/15/2016
B-66	B-66	B-66	Overburden	1393860.16	2204276.73	815.96	813.06	55.3	768	758	11/16/2016
B-68	DGWC-68	B-68	Overburden	1391299.56	2200714.04	758.73	758.56	18.0	751	741	3/16/2017
B-77	B-77	B-77	Overburden	1390949.76	2202941.41	776.75	777.06	42.5	744.56	734.56	9/17/2019
B-78	B-78	B-78	Overburden/Upper Bedrock	1394327.62	2202958.92	790.65	787.31	30	767.31	757.31	9/22/2019
B-79	B-79	B-79	Overburden	1394458.16	2203223.8	788.55	785.5	35	760.5	750.5	9/21/2019
B-80	B-80	B-80	Overburden	1394373.86	2203534.26	804.45	801.52	30	781.52	771.52	9/20/2019
B-81	B-81	B-81	Overburden	1394366.17	2203741.53	820.51	816.75	50	776.75	766.75	9/22/2019
B-82	B-82	B-82	Overburden	1393750.42	2204256.96	809.98	807.15	45	772.15	762.15	9/21/2019
B-83	B-83	B-83	Overburden	1390736.31	2202695.17	776.89	777.05	50	737.05	727.05	9/30/2019
B-84	B-84	B-84	Overburden	1390411.65	2202242.51	776.24	776.27	50	736.27	726.27	10/1/2019
B-85	B-85	B-85	Overburden	1394433.14	2203135.02	782.67	782.8	34.5	758.3	748.3	11/18/2019
B-86	B-86	B-86	Overburden	1394479.84	2203207.19	784.4	784.5	34.1	760.4	750.4	11/18/2020
B-87	B-87	B-87	Overburden	1394401.16	2203531.64	803.54	800.4	42	768.4	758.4	11/17/2019
B-88	B-88	B-88	Overburden	1394400.23	2203738.46	820.11	816.6	72	754.6	744.6	11/15/2019
B-89	B-89	B-89	Overburden	1394399.07	2204048.84	822.5	822.5	32.2	800.3	790.3	11/19/2019
B-90	B-90	B-90	Overburden	1394500.73	2203212.95	784.18	784.2	33.4	760.8	750.8	12/10/2019
B-91	B-91	B-91	Overburden	1394447.87	2203124.3	783.07	783.1	35	758.1	748.1	12/11/2019
B-92	B-92	B-92	Overburden	1394393.54	2203026.6	785.22	785.3	25	770.3	760.3	12/11/2019
B-93	B-93	B-93	Overburden	1394348.37	2202947.29	789.14	789.2	29.2	770	760	12/12/2019
B-94	B-94	B-94	Overburden	1394401.28	2203514.11	801.9	798.42	45.24	763.18	753.18	1/23/2020
B-95	B-95	B-95	Overburden	1394519.76	2203167.40	784.16	784.18	33.3	760.88	750.88	2/11/2020
B-96	B-96	B-96	Overburden	1394479.77	2203099.02	785.06	784.96	33.1	761.86	751.86	2/10/2020
B-97	B-97	B-97	Upper Bedrock	1394430.96	2203008.14	786.46	785.06	31.7	763.36	753.36	2/11/2020
B-98	B-98	B-98	Overburden	1394393.03	2202934.89	789.58	789.68	19.4	780.28	770.28	2/10/2020

Notes:

1. bgs = below ground surface; msl = mean sea level
2. B-26 and B-68 are not used as monitoring wells due to well replacement, proximity to closure activities, or modifications to the proposed well network.
3. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet). 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				SSL Exceedance	Status of Monitoring Well
		Annual Appendix IV August 2019 Scan	October 2019 Detection/ Assessment	March 2020 Detection/ Assessment			
Purpose of Sampling Event		Annual Appendix IV Scan	October 2019 Detection/ Assessment	March 2020 Detection/ Assessment	SSL Exceedance		
ASH POND 2 and ASH PONDS 3/4 (AP-2 & 3/4) MONITORING WELL NETWORK							
DGWA-53	Upgradient	A01	A02	A03	No	Assessment	
DGWA-70A	Upgradient	A01	A02	A03	No	Assessment	
DGWA-71	Upgradient	A01	A02	A03	No	Assessment	
DGWC-2	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-4	Downgradient	A01	A02	A03	No	Assessment	
DGWC-5	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-8	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-9	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-10	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-11	Downgradient	A01	A02	A03	No	Assessment	
DGWC-12	Downgradient	A01	A02	A03	No	Assessment	
DGWC-13	Downgradient	A01	A02	A03	No	Assessment	
DGWC-14	Downgradient	A01	A02	A03	No	Assessment	
DGWC-15	Downgradient	A01	A02	A03	No	Assessment	
DGWC-17	Downgradient	A01	A02	A03	No	Assessment	
DGWC-19	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-20	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-21	Downgradient	A01	A02	A03	No	Assessment	
DGWC-22	Downgradient	A01	A02	A03	No	Assessment	
DGWC-23	Downgradient	A01	A02	A03	No	Assessment	
DGWC-42	Downgradient	A01	A02	A03	No	Assessment	
DGWC-47	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	
DGWC-48	Downgradient	A01	A02	A03	Yes ^[1]	Assessment	

Notes:

1. A## = Assessment Monitoring Event Number

^[1] Pursuant to options of 40 CFR 257.95, as adopted by 391-3-4-.10, an Alternate Source Demonstration is being evaluated to address this SSL.

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

Well ID	Top of Casing Elevation (feet)	GROUNDWATER ELEVATIONS (feet)		
		8/26/2019	10/14/2019	1/14/2020
ASH POND 1 (AP-1) MONITORING WELLS				
DGWA-53	850.74	834.88	835.51	837.22
DGWA-70A	808.60	768.16	765.92	767.49
DGWA-71	863.95	835.40	834.53	835.60
DGWC-37	766.19	752.34	752.20	753.49
DGWC-38	757.44	750.73	750.53	751.58
DGWC-39	759.67	750.54	749.90	753.02
DGWC-40	779.07	759.01	757.60	761.45
DGWC-67	766.76	756.64	756.54	757.84
DGWC-68A	765.61	755.35	755.32	757.10
DGWC-69	763.82	757.77	757.63	758.95
ASH POND 2 and ASH PONDS 3/4 (AP-2, 3/4) MONITORING WELLS				
DGWA-53	850.74	834.88	835.51	837.22
DGWA-70A	808.60	768.16	765.92	767.49
DGWA-71	863.95	835.40	834.53	835.60
DGWC-2	850.93	820.06	819.89	819.89
DGWC-4	814.87	791.98	791.36	793.00
DGWC-5	791.84	782.57	782.13	784.04
DGWC-8	826.50	794.48	793.75	794.84
DGWC-9	824.39	799.25	797.57	802.36
DGWC-10	823.60	792.55	793.59	800.27
DGWC-11	800.64	786.81	787.22	792.99
DGWC-12	773.90	764.43	764.79	767.09
DGWC-13	793.90	760.69	759.94	760.86
DGWC-14	792.36	771.29	770.91	772.11
DGWC-15	824.53	784.94	784.52	784.77
DGWC-17	837.10	806.61	806.17	806.45
DGWC-19	825.53	803.21	802.51	802.68
DGWC-20	822.16	798.98	798.56	799.97
DGWC-21	816.33	798.22	796.96	797.56
DGWC-22	816.64	797.05	796.36	798.14
DGWC-23	818.59	798.64	797.77	802.51
DGWC-42	804.73	772.36	771.96	773.63
DGWC-47	797.50	774.51	773.79	780.89
DGWC-48	788.34	769.69	768.34	774.13
PIEZOMETERS				
B-3	837.82	803.77	803.22	803.53
B-6	789.49	784.15	783.89	784.89
B-7	809.24	788.36	787.60	788.39
B-16	826.50	796.05	795.20	797.10
B-18	826.54	807.50	806.93	807.43
B-24	822.27	803.09	801.61	804.72
B-25	836.62	819.20	817.71	824.32
B-26	853.67	826.25	824.82	827.34
B-28	816.10	786.52	785.52	789.01
B-29	816.45	787.99	786.97	790.48
B-31	797.42	763.61	763.07	764.68

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

Well ID	Top of Casing Elevation (feet)	GROUNDWATER ELEVATIONS (feet)		
		8/26/2019	10/14/2019	1/14/2020
B-41	795.22	768.70	767.98	770.52
B-50	809.78	780.34	780.17	782.86
B-51	765.93	753.00	752.80	756.25
B-52	823.22	796.58	794.51	796.11
B-54	785.59	779.46	779.47	780.46
B-55	825.11	802.68	803.89	806.36
B-56	823.70	794.91	794.27	798.04
B-57	789.22	767.91	766.19	768.32
B-58	788.20	765.57	763.75	766.05
B-59	788.16	780.40	780.31	781.59
B-60	782.12	749.91	748.89	750.32
B-61	782.03	759.78	758.06	760.52
B-62	763.34	746.21	745.32	751.17
B-63	777.15	746.85	746.64	748.60
B-64	786.02	779.69	779.66	781.08
B-65	822.02	803.79	803.22	804.70
B-66	815.96	794.79	796.11	801.45
B-68	758.73	754.84	754.81	756.25
B-76	760.31	--	743.2	746.4
B-77	776.75	--	745.23	748.25
B-78	790.65	--	779.94	781.6
B-79	788.55	--	781.71	782.63
B-80	804.45	--	786.97	787.97
B-81	820.51	--	788.8	789.12
B-82	809.98	--	797.42	801.08
B-83	776.89	--	744.01	746.14
B-84	776.24	--	740.54	746.12
B-85	782.67	--	--	780.4
B-86	784.40	--	--	783.49
B-87	803.54	--	--	787.98
B-88	820.11	--	--	788.64
B-89	822.50	--	--	800.72
B-90	784.18	--	--	783.3
B-91	783.07	--	--	780.17
B-92	785.22	--	--	781.34
B-93	789.14	--	--	784.28
B-94	801.90	--	--	--
B-95	784.16	--	--	--
B-96	785.06	--	--	--
B-97	786.46	--	--	--
B-98	789.58	--	--	--

Notes:

1. msl = mean sea level
2. "--" = Not Measured. Well not installed at the time of sampling.

TABLE 4A
HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS - OCTOBER 2019

Georgia Power Company - Plant McDonough
Atlanta, GA

Flow Paths	Groundwater Elevation (feet msl)	Δh (feet) ¹	Δl (feet) ²	Hydraulic Gradient ($\Delta h/\Delta l$) ³	Average Hydraulic Conductivity, K (centimeter per second) ⁵	Assumed Effective Porosity (n_e) ⁶	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
ASH POND 2 AND ASH PONDS 3/4 (AP-2, 3/4)								
DGWA-53/ DGWC-13	835.51	75.57	2550	0.030	0.00084	0.2	0.35	129
	759.94							
DGWA-71/ DGWC-5	834.53	52.4	1450	0.036	0.00084	0.2	0.430	157
	782.13							
B-26/ DGWC-48	824.82	56.48	2000	0.028	0.00084	0.2	0.34	123
	768.34							

Notes:

1. Δh = Change in groundwater elevation
2. Δl = Distance along flow path
3. $I = \Delta h / \Delta l$
4. Velocity = $(I * K)/n_e$
5. Hydraulic conductivity 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).

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

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

Flow Paths	Groundwater Elevation	Δh (feet) ¹	Δl (feet) ²	Hydraulic Gradient ($\Delta h/\Delta l$) ³	Average Hydraulic Conductivity, K (centimeter per second) ⁵	Assumed Effective Porosity (n_e) ⁶	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
ASH POND 2 AND ASH PONDS 3/4 (AP-2, 3/4)								
DGWA-53/ DGWC-13	837.22	76.36	2550	0.030	0.00084	0.2	0.36	130
	760.86							
DGWA-71/ DGWC-5	835.60	51.56	1450	0.036	0.00084	0.2	0.42	155
	784.04							
B-26/ DGWC-48	827.34	53.21	2000	0.027	0.00084	0.2	0.32	116
	774.13							

Notes:

1. Δh = Change in groundwater elevation
2. Δl =Distance along flow path
3. $I = \Delta h / \Delta l$
4. Velocity = $(I * K)/n_e$
5. Hydraulic conductivity 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 - Initial Assessment Monitoring Event-August 2019
Georgia Power Company - Plant McDonough
Atlanta, GA

Analyte	MCL/ (SMCL)	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
			8/28/2019	8/27/2019	8/27/2019	8/27/2019	8/27/2019	8/27/2019	8/28/2019	8/27/2019	8/27/2019	8/27/2019	8/27/2019	8/27/2019	8/28/2019	8/27/2019	8/28/2019	8/27/2019
Appendix III																		
BORON, TOTAL	N/R	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	Not Sampled	Not Sampled
CALCIUM, TOTAL	N/R	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	Not Sampled	Not Sampled
CHLORIDE, TOTAL	(250)	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	Not Sampled	Not Sampled
FLUORIDE, TOTAL	4	mg/L	0.42	< 0.029	< 0.029	< 0.029	< 0.029	0.32	0.098 J	0.68	1.4	< 0.029	< 0.029	0.091 J	< 0.029	< 0.05	0.24 J	0.2
pH	N/R	S.U.	6.04	5.53	5.87	5.94	5.84	4.83	5.11	4.02	5.14	5.55	5.55	5.71	5.58	5.88	4.96	4.85
SULFATE, TOTAL	(250)	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	Not Sampled	Not Sampled
TOTAL DISSOLVED SOLIDS	(500)	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	Not Sampled	Not Sampled
Appendix IV																		
ANTIMONY, TOTAL	0.006	mg/L	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	0.00033 J	< 0.00027	< 0.00027
ARSENIC, TOTAL	0.01	mg/L	< 0.00035	< 0.00035	< 0.00035	0.00099 J	< 0.00035	< 0.00035	< 0.00035	0.021	0.0024 J	< 0.00035	< 0.00035	< 0.00035	< 0.00035	< 0.00035	< 0.00035	0.00049 J
BARIUM, TOTAL	2	mg/L	0.087	0.037	0.027	0.023	0.036	0.017	0.025	0.016	0.021	0.071	0.024	0.033	0.059	0.047	0.05	0.026
BERYLLIUM, TOTAL	0.004	mg/L	< 0.000074	0.000079 J	< 0.000074	< 0.000074	0.00024 J	0.01	0.0021 J	0.007	0.0092	0.00014 J	0.00028 J	< 0.000074	< 0.000074	< 0.000074	0.00066 J	0.0018 J
CADMIUM, TOTAL	0.005	mg/L	< 0.00011	< 0.00011	< 0.00011	0.00012 J	0.00072 J	0.00082 J	0.0022 J	0.00071 J	0.00077 J	0.00012 J	0.00037 J	< 0.00011	< 0.00011	< 0.00011	0.00033 J	0.00033 J
CHROMIUM, TOTAL	0.1	mg/L	< 0.00039	0.00071 J	0.0018 J	0.0004 J	< 0.00039	< 0.00039	< 0.00039	0.00048 J	0.00083 J	0.0006 J	< 0.00039	< 0.00039	< 0.00039	< 0.00039	0.0031 J	0.0028 J
COBALT, TOTAL	N/R	mg/L	0.013	< 0.0003	< 0.0003	0.0088	0.0018 J	0.02	0.051	0.24	0.13	0.00076 J	0.0021 J	< 0.0003	< 0.0003	0.0015 J	0.031	0.048
FLUORIDE, TOTAL	4	mg/L	0.42	< 0.029	< 0.029	< 0.029	< 0.029	0.32	0.098 J	0.68	1.4	< 0.029	< 0.029	0.091 J	< 0.029	< 0.05	0.24 J	0.2
LEAD, TOTAL	0.015	mg/L	< 0.000046	0.000078 J	< 0.000046	0.00006 J	0.000049 J	0.000051 J	0.000082 J	< 0.00023	0.00024 J	0.00012 J	0.0001 J	< 0.000046	< 0.000046	0.000059 J	0.00009 J	0.00026 J
LITHIUM, TOTAL	N/R	mg/L	0.0092 J	< 0.00078	0.0014 J	0.032	0.0033 J	0.008 J	0.0048 J	0.031	0.0053 J	0.0023 J	0.0011 J	0.0033 J	0.0038 J	0.0063 J	0.00089 J	0.0032 J
MERCURY, TOTAL	0.002	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00016 J	< 0.00014	0.00021 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00016 J	< 0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	0.031	< 0.00095	< 0.00095	0.002 J	0.0065 J	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	0.015	< 0.00095	< 0.00095	< 0.00095	< 0.00095
RADIUM (226 + 228)	5	pCi/L	2.68	1.97	1.3 U	1.6	1.79	1.81	0.815 U	1.55	1.58	2.13	0.434 U	1.43	1.17 U	1.01 U	1.12	0.661 U
SELENIUM, TOTAL	0.05	mg/L	< 0.0013	< 0.0013	< 0.0013	0.0069 J	< 0.0013	0.0031 J	< 0.0013	0.067	0.015	< 0.0013	< 0.0013	0.0039 J	< 0.0013	< 0.0013	0.0073 J	0.004 J
THALLIUM, TOTAL	0.002	mg/L	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	0.00022 J	0.00053 J	0.00036 J	< 0.000052	0.000089 J	< 0.000052	< 0.000052	< 0.000052	0.00018 J	0.00053 J

- Notes:
1. mg/L - Milligrams per Liter
 2. pCi/L - picocuries per Liter
 3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
 4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
 5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
 6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
 7. Not Sampled - Sample not collected. During the August sampling event, only Appendix IV constituents were analyzed.



TABLE 5A
ANALYTICAL DATA SUMMARY
Ash Pond 2 and Ash Ponds 3/4 - Initial Assessment Monitoring Event-August 2019
Georgia Power Company - Plant McDonough
Atlanta, GA

Analyte	MCL/ (SMCL)	UNITS	Well ID						
			DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-42	DGWC-47	DGWC-48
			8/29/2019	8/29/2019	8/29/2019	8/29/2019	8/28/2019	8/29/2019	8/29/2019
Appendix III									
BORON, TOTAL	N/R	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CALCIUM, TOTAL	N/R	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
CHLORIDE, TOTAL	(250)	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
FLUORIDE, TOTAL	4	mg/L	0.78	0.079 J	0.054 J	0.095 J	< 0.05	0.52	0.78
pH	N/R	S.U.	4.64	5.61	5.66	5.96	5.3	4.35	4.28
SULFATE, TOTAL	(250)	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
TOTAL DISSOLVED SOLIDS	(500)	mg/L	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Appendix IV									
ANTIMONY, TOTAL	0.006	mg/L	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027
ARSENIC, TOTAL	0.01	mg/L	0.0064	< 0.00035	< 0.00035	< 0.00035	< 0.00035	0.00089 J	< 0.00035
BARIUM, TOTAL	2	mg/L	0.018	0.027	0.031	0.025	0.018	0.018	0.014
BERYLLIUM, TOTAL	0.004	mg/L	0.005	0.00018 J	0.00015 J	0.00041 J	0.0023 J	0.011	0.0081
CADMIUM, TOTAL	0.005	mg/L	0.002 J	0.00087 J	0.00053 J	0.00022 J	0.0015 J	0.0021 J	0.003
CHROMIUM, TOTAL	0.1	mg/L	0.0017 J	0.00041 J	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039
COBALT, TOTAL	N/R	mg/L	0.66	0.01	0.0094	0.00036 J	0.029	0.28	0.42
FLUORIDE, TOTAL	4	mg/L	0.78	0.079 J	0.054 J	0.095 J	< 0.05	0.52	0.78
LEAD, TOTAL	0.015	mg/L	0.00015 J	0.00023 J	< 0.000046	0.000066 J	0.00036 J	0.0006 J	0.001 J
LITHIUM, TOTAL	N/R	mg/L	0.0093 J	0.0061 J	0.0035 J	0.0017 J	0.01 J	0.056	0.11
MERCURY, TOTAL	0.002	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	< 0.00095	< 0.00095	< 0.00095	0.014	< 0.00095	< 0.00095	< 0.00095
RADIUM (226 + 228)	5	pCi/L	0.996 U	0.582 U	1.87	2.21	0.883 U	3.05	2.37
SELENIUM, TOTAL	0.05	mg/L	0.029	< 0.0013	< 0.0013	< 0.0013	< 0.0013	0.004 J	0.0023 J
THALLIUM, TOTAL	0.002	mg/L	0.00084 J	< 0.000052	0.000064 J	< 0.000052	0.000069 J	0.00025 J	0.000078 J

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Not Sampled - Sample not collected. During the August sampling event, only Appendix IV constituents were analyzed.

TABLE 5B
ANALYTICAL DATA SUMMARY
Ash Pond 2 and Ash Ponds 3/4 - Compliance Monitoring Event-October 2019
Georgia Power Company - Plant McDonough
Atlanta, GA

Analyte	MCL/ (SMCL)	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
			10/16/2019	10/15/2019	10/15/2019	10/17/2019	10/15/2019	10/16/2019	10/16/2019	10/17/2019	10/15/2019	10/15/2019	10/15/2019	10/16/2019	10/16/2019	10/17/2019	10/18/2019
Appendix III																	
BORON, TOTAL	N/R	mg/L	0.059	< 0.0049	0.0054 J	0.73	5	4.3	1.2	1.2	1.6	1.2	5.9	0.65	0.052	1.5	0.82
CALCIUM, TOTAL	N/R	mg/L	17.7	5.1	5.1	47.2	276	109	47.3	75.6	79.1	61.2	61.4	43.8	9.4	37	12.9
CHLORIDE, TOTAL	(250)	mg/L	2	2.2	3.3	2.8	20.9	11.6	10.4	10	9.4	15.6	11.6	17.4	3.5	22	22
FLUORIDE, TOTAL	4	mg/L	0.11 J	< 0.029	< 0.029	0.042 J	< 0.029	0.32	0.14 J	1.2	1.4	< 0.029	< 0.029	0.14 J	0.052 J	0.079 J	0.086 J
pH	(250)	S.U.	6.69	5.61	5.88	6.16	5.98	4.78	5.33	4.02	4.96	5.6	5.89	5.69	5.66	5.76	5.08
SULFATE, TOTAL	N/R	mg/L	15.1	0.16 J	7.4	134	888	493	235	331	263	273	270	167	42.1	146	222
TOTAL DISSOLVED SOLIDS	(500)	mg/L	126	70	89	302	1520	702	374	550	447	461	472	296	104	319	403
Appendix IV																	
ANTIMONY, TOTAL	0.006	mg/L	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027
ARSENIC, TOTAL	0.01	mg/L	0.0018 J	0.00052 J	0.00071 J	< 0.00035	< 0.00035	0.0036 J	< 0.00035	0.033	0.0078	< 0.00035	0.00063 J	< 0.00035	0.00039 J	0.00064 J	0.0012 J
BARIUM, TOTAL	2	mg/L	0.077	0.034	0.024	0.022	0.033	0.02	0.027	0.015	0.024	0.064	0.02	0.034	0.059	0.046	0.045
BERYLLIUM, TOTAL	0.004	mg/L	< 0.000074	< 0.000074	0.000088 J	< 0.000074	0.00022 J	0.0072	0.0019 J	0.0063	0.01	0.00012 J	0.00016 J	< 0.000074	< 0.000074	< 0.000074	0.00071 J
CADMIUM, TOTAL	0.005	mg/L	< 0.00011	< 0.00011	< 0.00011	0.00013 J	0.00077 J	0.00069 J	0.0022 J	0.00064 J	0.00095 J	< 0.00011	0.00025 J	< 0.00011	< 0.00011	< 0.00011	0.00029 J
CHROMIUM, TOTAL	0.1	mg/L	< 0.00039	0.034	0.0025 J	0.00046 J	< 0.00039	< 0.00039	0.0013 J	0.00051 J	0.00078 J	< 0.00039	< 0.00039	< 0.00039	< 0.00039	0.00058 J	0.0027 J
COBALT, TOTAL	N/R	mg/L	0.009	0.00064 J	< 0.0003	0.0084	0.0018 J	0.022	0.054	0.21	0.17	0.0006 J	0.0058	< 0.0003	< 0.0003	0.0018 J	0.023
FLUORIDE, TOTAL	4	mg/L	0.11 J	< 0.029	< 0.029	0.042 J	< 0.029	0.32	0.14 J	1.2	1.4	< 0.029	< 0.029	0.14 J	0.052 J	0.079 J	0.086 J
LEAD, TOTAL	0.015	mg/L	< 0.000046	< 0.000046	< 0.000046	0.000086 J	0.0001 J	0.000085 J	0.00029 J	< 0.00023	0.00014 J	0.000076 J	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.000074 J
LITHIUM, TOTAL	N/R	mg/L	0.0094 J	< 0.00078	0.0012 J	0.029 J	0.0029 J	0.006 J	0.0045 J	0.029 J	0.0051 J	0.0019 J	0.00091 J	0.0029 J	0.0032 J	0.0064 J	0.00096 J
MERCURY, TOTAL	0.002	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00042 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	0.037	< 0.00095	< 0.00095	0.0018 J	0.0061 J	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	0.014	< 0.00095	< 0.00095	< 0.00095
RADIUM (226 + 228)	5	pCi/L	1.89	0.319 U	1.21 U	1.74	2.11 U	1.63	0.999 U	0.702 U	0.831 U	0.622 U	0.359 U	1.73	1.04 U	1.03 U	0.89 U
SELENIUM, TOTAL	0.05	mg/L	< 0.0013	< 0.0013	< 0.0013	0.0051 J	0.0014 J	0.015	0.0016 J	0.19	0.071	< 0.0013	0.0019 J	0.0031 J	0.0017 J	< 0.0013	0.0093 J
THALLIUM, TOTAL	0.002	mg/L	< 0.000052	< 0.000052	< 0.000052	< 0.000052	0.000073 J	0.000078 J	0.00025 J	0.00076 J	0.00039 J	< 0.000052	0.000091 J	< 0.000052	< 0.000052	< 0.000052	0.00014 J

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Not Sampled - Sample not collected. During the August sampling event, only Appendix IV constituents were analyzed.

TABLE 5B
ANALYTICAL DATA SUMMARY
Ash Pond 2 and Ash Ponds 3/4 - Compliance Monitoring Event-October 2019
Georgia Power Company - Plant McDonough
Atlanta, GA

Analyte	MCL/ (SMCL)	UNITS	Well ID							
			DGWC-19	DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-42	DGWC-47	DGWC-48
			10/16/2019	10/17/2019	10/17/2019	10/18/2019	10/18/2019	10/17/2019	10/17/2019	10/18/2019
Appendix III										
BORON, TOTAL	N/R	mg/L	2.2	5	7	4.2	4.5	0.94	0.25	0.74
CALCIUM, TOTAL	N/R	mg/L	85.7	86.9	79.8	61.7	67.7	44.1	36.2	72.7
CHLORIDE, TOTAL	(250)	mg/L	33.2	24.9	20.1	23.4	14.4	25.8	7	9.6
FLUORIDE, TOTAL	4	mg/L	0.23 J	0.26 J	< 0.029	< 0.029	0.079 J	< 0.029	0.46	0.46
pH	(250)	S.U.	4.87	426	255	254	203	321	179	336
SULFATE, TOTAL	N/R	mg/L	323	4.64	5.57	5.61	5.99	5.2	4.6	4.22
TOTAL DISSOLVED SOLIDS	(500)	mg/L	500	751	498	480	448	612	327	593
Appendix IV										
ANTIMONY, TOTAL	0.006	mg/L	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027	< 0.00027
ARSENIC, TOTAL	0.01	mg/L	0.00046 J	0.0094	< 0.00035	< 0.00035	< 0.00035	< 0.00035	0.0013 J	0.00079 J
BARIUM, TOTAL	2	mg/L	0.024	0.015	0.027	0.032	0.019	0.018	0.019	0.014
BERYLLIUM, TOTAL	0.004	mg/L	0.0017 J	0.0041	0.00015 J	0.00014 J	0.00038 J	0.0027 J	0.0093	0.0099
CADMIUM, TOTAL	0.005	mg/L	0.00034 J	0.0017 J	0.0006 J	0.00056 J	0.00022 J	0.00058 J	0.0033	0.0028
CHROMIUM, TOTAL	0.1	mg/L	0.0024 J	0.0015 J	< 0.00039	< 0.00039	0.00041 J	0.00041 J	< 0.00039	< 0.00039
COBALT, TOTAL	N/R	mg/L	0.046	0.57	0.01	0.0084	< 0.0003	0.03	0.26	0.41
FLUORIDE, TOTAL	4	mg/L	0.23 J	0.26 J	< 0.029	< 0.029	0.079 J	< 0.029	0.46	0.46
LEAD, TOTAL	0.015	mg/L	< 0.000046	0.000097 J	0.000046 J	< 0.000046	< 0.000046	0.00026 J	0.0011 J	0.00095 J
LITHIUM, TOTAL	N/R	mg/L	0.0026 J	0.0075 J	0.0063 J	0.0041 J	0.0039 J	0.011 J	0.066	0.11
MERCURY, TOTAL	0.002	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	< 0.00095	< 0.00095	< 0.00095	< 0.00095	0.0091 J	< 0.00095	< 0.00095	< 0.00095
RADIUM (226 + 228)	5	pCi/L	1.79	2	0.427 U	1.1 U	1.32	1.38	2.58	1.42
SELENIUM, TOTAL	0.05	mg/L	0.006 J	0.071	< 0.0013	< 0.0013	< 0.0013	< 0.0013	0.0062 J	0.005 J
THALLIUM, TOTAL	0.002	mg/L	0.00053 J	0.00062 J	< 0.000052	< 0.000052	< 0.000052	< 0.000052	0.00025 J	< 0.000052

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Not Sampled - Sample not collected. During the August sampling event, only Appendix IV constituents were analyzed.

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

Analyte	MCL/ (SMCL)	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
			3/9/2020	3/2/2020	3/2/2020	3/3/2020	3/2/2020	3/2/2020	3/3/2020	3/3/2020	3/3/2020	3/2/2020	3/2/2020	3/3/2020	3/3/2020	3/3/2020	3/3/2020	3/4/2020
Appendix III																		
BORON, TOTAL	N/R	mg/L	0.080 J	0.0055 J	0.010 J	0.68	5.9	5.5	1.5	1.1	1.5	1.6	3.3	0.61	0.15	1.7	0.85	3.1
CALCIUM, TOTAL	N/R	mg/L	23.7	5.3	5.8	48.4	320	116	46.0	59.5	63.6	65.8	46.5	49.3	14.0	37.8	15.8	86.8
CHLORIDE, TOTAL	(250)	mg/L	1.8	1.9	3.0	2.3	18.7	10.5	9.6	6.6	8.4	15.0	8.9	9.4	4.1	22.7	19.6	30.9
FLUORIDE, TOTAL	4	mg/L	0.10 J	<0.050	<0.050	<0.050	<0.050	0.33	<0.050	1.4	1.5	0.064 J	0.071 J	0.078 J	<0.050	<0.050	<0.050	0.056 J
pH	(250)	S.U.	6.41	5.54	5.77	5.94	5.88	4.80	5.12	4.07	4.77	5.62	6.13	5.71	5.73	5.79	5.07	4.89
SULFATE, TOTAL	N/R	mg/L	9.5	<0.50	8.5	118	840	455	195	247	213	264	181	157	45.5	148	222	292
TOTAL DISSOLVED SOLIDS	(500)	mg/L	171	52.0	67.0	277	1540	759	369	444	382	458	338	263	123	323	414	526
Appendix IV																		
ANTIMONY, TOTAL	0.006	mg/L	<0.00027	<0.00027	0.0018 J	<0.00027	0.00058 J	0.00032 J	<0.00027	<0.00027	<0.00027	<0.00027	0.00030 J	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027
ARSENIC, TOTAL	0.01	mg/L	0.00068 J	<0.00035	<0.00035	0.0025 J	<0.00035	0.0052	0.00096 J	0.015	0.0025 J	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	0.0014 J	<0.00035
BARIIUM, TOTAL	2	mg/L	0.099	0.035	0.026	0.022	0.036	0.018	0.026	0.016	0.024	0.071	0.040	0.035	0.064	0.050	0.044	0.028
BERYLLIUM, TOTAL	0.004	mg/L	<0.000074	0.000096 J	0.00010 J	<0.000074	0.00025 J	0.0098	0.0018 J	0.0048	0.0085	0.00016 J	0.000074 J	<0.000074	<0.000074	<0.000074	0.00062 J	0.0021 J
CADMIUM, TOTAL	0.005	mg/L	<0.00011	0.00041 J	<0.00011	0.00014 J	0.00088 J	0.00089 J	0.0020 J	0.00059 J	0.00095 J	<0.00011	<0.00011	<0.00011	<0.00011	0.00012 J	0.00028 J	0.00037 J
CHROMIUM, TOTAL	0.1	mg/L	<0.00039	0.0013 J	0.00045 J	<0.00039	<0.00039	0.00045 J	0.00061 J	0.0057 J	0.00092 J	0.00060 J	<0.00039	0.00066 J	<0.00039	0.00046 J	0.0035 J	0.0028 J
COBALT, TOTAL	N/R	mg/L	0.016	0.00037 J	<0.00030	0.0073	0.0021 J	0.028	0.044	0.2	0.18	0.00078 J	0.029	<0.00030	<0.00030	0.0018 J	0.023	0.054
FLUORIDE, TOTAL	4	mg/L	0.10 J	<0.050	<0.050	<0.050	<0.050	0.33	<0.050	1.4	1.5	0.064 J	0.071 J	0.078 J	<0.050	<0.050	<0.050	0.056 J
LEAD, TOTAL	0.015	mg/L	<0.000046	0.000074 J	<0.000046	<0.000046	<0.000046	0.000051 J	0.00023 J	0.00017 J	0.00011 J	0.00015 J	<0.000046	<0.000046	<0.000046	<0.000046	0.00013 J	0.000070 J
LITHIUM, TOTAL	N/R	mg/L	0.0077 J	<0.00078	0.0011 J	0.026 J	0.0035 J	0.0079 J	0.0052 J	0.028 J	0.0049 J	0.0023 J	<0.00078	0.0035 J	0.008 J	0.0059 J	0.0011 J	0.0034 J
MERCURY, TOTAL	0.002	mg/L	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014	<0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	0.026	<0.00095	<0.00095	0.0022 J	0.0059 J	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	0.018	<0.00095	<0.00095	<0.00095	<0.00095
RADIUM (226 + 228)	5	pCi/L	3.51	0.419 U	1.30	1.23	1.99	2.28	0.481 U	1.37	1.69	1.30	1.20 U	1.03	1.44	0.293 U	0.493 U	0.383 U
SELENIUM, TOTAL	0.05	mg/L	<0.0013	<0.0013	<0.0013	0.0047 J	<0.0013	0.032	0.0018 J	0.046	0.021	<0.0013	<0.0013	0.0062 J	0.0014 J	<0.0013	0.0074 J	0.0066 J
THALLIUM, TOTAL	0.002	mg/L	<0.000052	0.000078 J	<0.000052	<0.000052	<0.000052	0.000062 J	0.00023 J	0.00044 J	0.00042 J	<0.000052	0.00013 J	<0.000052	<0.000052	<0.000052	0.00019 J	0.00060 J

Notes:

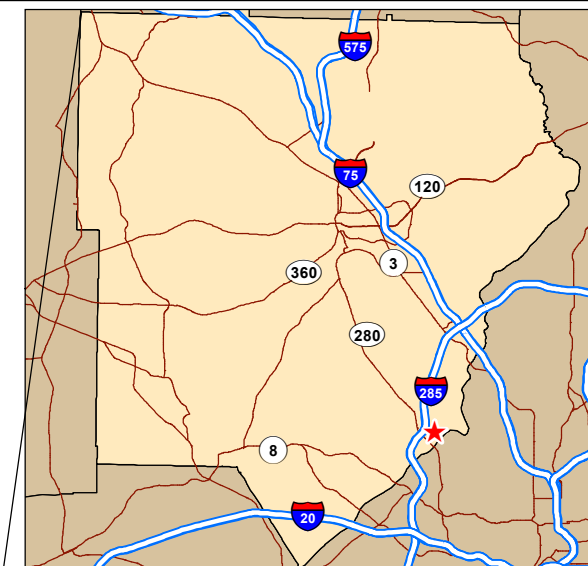
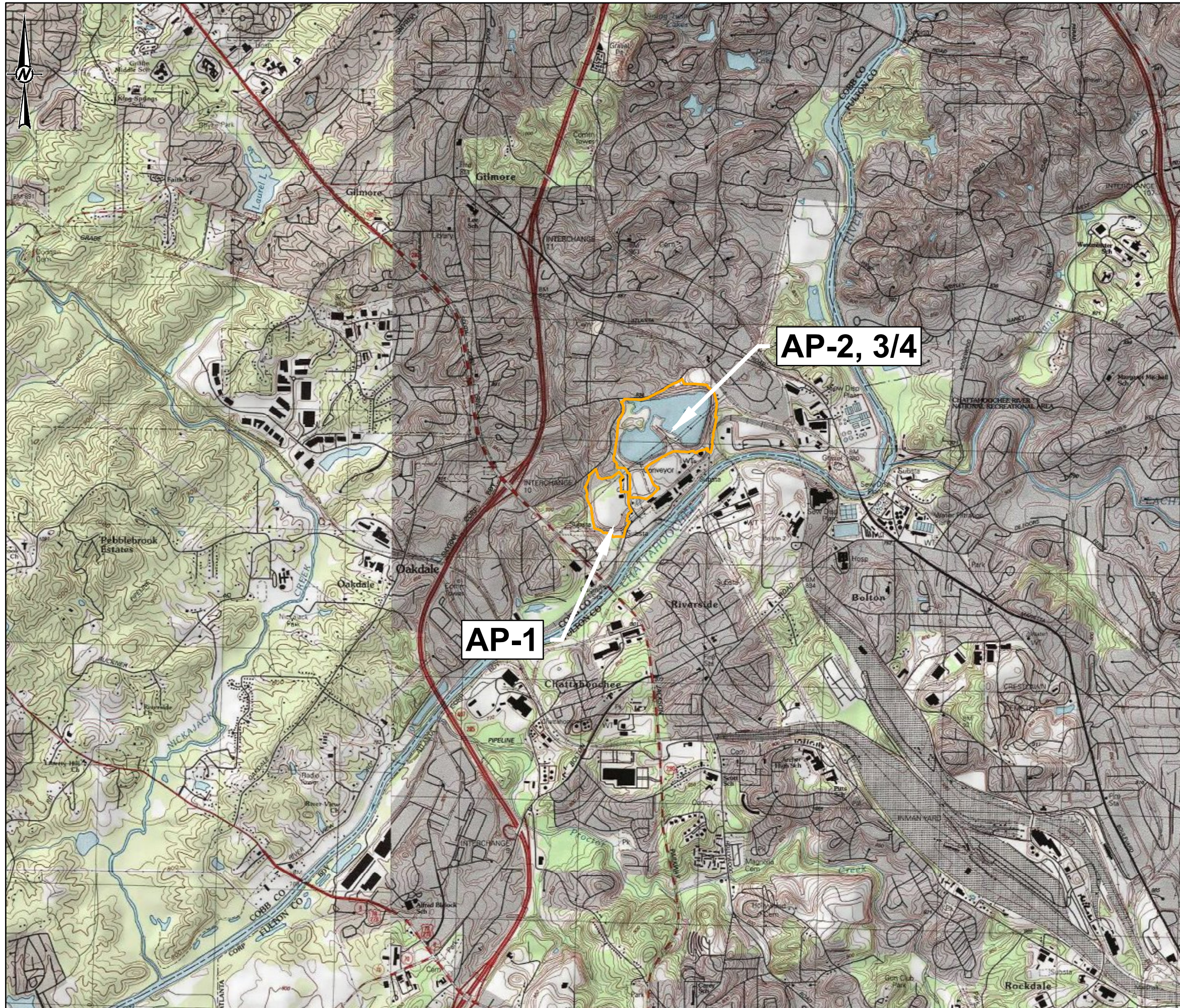
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Not Sampled - Sample not analyzed for this constituent. Constituent not detected during the August annual Appendix IV sampling event therefore not required.

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

Analyte	MCL/ (SMCL)	UNITS	Well ID						
			DGWC-20	DGWC-21	DGWC-22	DGWC-23	DGWC-42	DGWC-47	DGWC-48
			3/4/2020	3/3/2020	3/3/2020	3/4/2020	3/4/2020	3/4/2020	3/4/2020
Appendix III									
BORON, TOTAL	N/R	mg/L	3.6	6.8	4.6	4.8	1.0	0.24	0.77
CALCIUM, TOTAL	N/R	mg/L	103	87.4	68.7	69.8	48.8	36.0	79.7
CHLORIDE, TOTAL	(250)	mg/L	27.8	19.7	21.8	13.9	23.6	4.4	9.1
FLUORIDE, TOTAL	4	mg/L	1.5	<0.050	<0.050	0.075 J	<0.050	0.74	0.70
pH	(250)	S.U.	4.22	5.65	5.74	5.68	5.18	3.86	4.27
SULFATE, TOTAL	N/R	mg/L	434	269	242	204	329	176	368
TOTAL DISSOLVED SOLIDS	(500)	mg/L	761	490	452	408	721	334	630
Appendix IV									
ANTIMONY, TOTAL	0.006	mg/L	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027
ARSENIC, TOTAL	0.01	mg/L	0.029	<0.00035	<0.00035	<0.00035	<0.00035	0.0012 J	0.00060 J
BARIUM, TOTAL	2	mg/L	0.017	0.027	0.035	0.032	0.015	0.017	0.014
BERYLLIUM, TOTAL	0.004	mg/L	0.0089	0.00019 J	0.00017 J	0.00077 J	0.0029 J	0.010	0.0080
CADMIUM, TOTAL	0.005	mg/L	0.0026	0.00063 J	0.00061 J	0.00024 J	0.00037 J	0.0017 J	0.0036
CHROMIUM, TOTAL	0.1	mg/L	0.0032 J	0.00048 J	<0.00039	0.00081 J	0.00042 J	<0.00039	0.00040 J
COBALT, TOTAL	N/R	mg/L	0.84	0.010	0.0098	0.00043 J	0.014	0.28	0.42
FLUORIDE, TOTAL	4	mg/L	1.5	<0.050	<0.050	0.075 J	<0.050	0.74	0.70
LEAD, TOTAL	0.015	mg/L	0.00068 J	0.00015 J	<0.000046	<0.000046	0.00010 J	0.00088 J	0.0012 J
LITHIUM, TOTAL	N/R	mg/L	0.019 J	0.0065 J	0.0046 J	0.0040 J	0.0091 J	0.063	0.12
MERCURY, TOTAL	0.002	mg/L	<0.00014	<0.00014	<0.00014	0.00026	<0.00014	<0.00014	<0.00014
MOLYBDENUM, TOTAL	N/R	mg/L	<0.00095	<0.00095	<0.00095	0.0047 J	<0.00095	<0.00095	<0.00095
RADIUM (226 + 228)	5	pCi/L	1.67	0.567 U	0.517 U	1.39	0.722 U	1.68	1.31
SELENIUM, TOTAL	0.05	mg/L	0.071	<0.0013	<0.0013	<0.0013	<0.0013	0.0065 J	0.0061 J
THALLIUM, TOTAL	0.002	mg/L	0.0023 J	<0.000052	0.000070 J	<0.000052	<0.000052	0.00021 J	0.000068 J

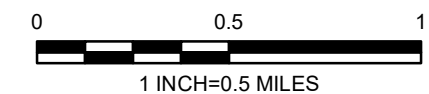
Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>. N/R indicates constituent does not have an established Maximum Contaminant Limit.
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5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. Not Sampled - Sample not analyzed for this constituent. Constituent not detected during the August annual Appendix IV sampling event therefore not required.



REFERENCE

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CLIENT
 GEORGIA POWER COMPANY
 PLANT MCDONOUGH
 PROJECT
 ANNUAL GROUNDWATER MONITORING REPORT
 PLANT MCDONOUGH

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

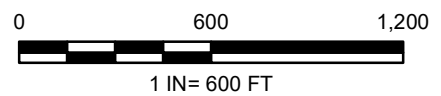
- ◆ UPGRADIENT WELL
- ◆ AP-2, 3/4 MONITORING WELL
- AP-2, 3/4 PERMIT BOUNDARY
- - - PROPERTY BOUNDARY

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 LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.
4. APPROXIMATE PROPERTY BOUNDARY PROVIDED BY SOUTHERN COMPANY (2018). DATE OF PHOTOGRAPHY 09-7-2018.



CLIENT		
GEORGIA POWER COMPANY		
PLANT MCDONOUGH		
PROJECT		
ANNUAL GROUNDWATER MONITORING REPORT		
PLANT MCDONOUGH		
TITLE		
ASH POND 2 (AP-2) & ASH PONDS 3/4 (AP-3/4) SITE PLAN & MONITORING WELL LOCATION MAP		
CONSULTANT	YYYY-MM-DD	2019-1-31
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	KNJ
	APPROVED	TIR

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

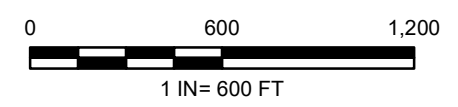


LEGEND

- PIEZOMETER
- AP-1 MONITORING WELL
- AP-2, 3/4 MONITORING WELL
- UPGRADIENT WELL
- ABANDONED PIEZOMETER OR MONITORING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- GROUNDWATER SURFACE CONTOUR (FAMSL)

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED OCTOBER 14, 2019 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FAMSL).
 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-76 TO B-84 WERE NOT INCLUDED DUE TO LACK OF SURVEY.

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, 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 PROVIDED BY SOUTHERN COMPANY SERVICES.
 4. APPROXIMATE PROPERTY BOUNDARY PROVIDED BY SOUTHERN COMPANY (2018). DATE OF PHOTOGRAPHY 09-7-2018.



CLIENT
SOUTHERN COMPANY SERVICES, INC.
 PLANT MCDONOUGH

PROJECT
ESTIMATED POTENTIOMETRIC SURFACE



TITLE
SITE POTENTIOMETRIC MAP
OCTOBER 14, 2019

CONSULTANT	YYYY-MM-DD	2019-10-15
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	JRJ
	APPROVED	TIR

PROJECT No.
 166849618

Rev.
 0

FIGURE
3A

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

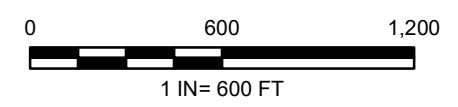


LEGEND

- PIEZOMETER
- AP-1 MONITORING WELL
- AP-2, 3/4 MONITORING WELL
- UPGRADIENT WELL
- ABANDONED PIEZOMETER OR MONITORING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- GROUNDWATER SURFACE CONTOUR (FAMSL)

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED JANUARY 14, 2020 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FAMSL).
 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.

- 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 PROVIDED BY SOUTHERN COMPANY SERVICES.



CLIENT
SOUTHERN COMPANY SERVICES, INC.
 PLANT MCDONOUGH

PROJECT
ESTIMATED POTENTIOMETRIC SURFACE



TITLE
SITE POTENTIOMETRIC MAP
JANUARY 14, 2020

CONSULTANT	YYYY-MM-DD	2020-02-04
	PREPARED	SEB
	DESIGN	SEB
	REVIEW	JRJ
	APPROVED	TIR

PROJECT No.
 166849618

Rev.
 0

FIGURE
3B

Path: Q:\GIS\Southern Company\1668496-SCS-Plant McDonough\figures\SitePotential.mxd, SEB.mxd

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

APPENDIX A

**Analytical Results, Field
Data Forms, Data Validation Summaries, and Well
Inspection Forms**

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2019. 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,



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.
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 Ash Ponds

Pace Project No.: 2622479

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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SAMPLE SUMMARY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622479

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622479001	DGWC-2	Water	08/27/19 17:10	08/28/19 10:01
2622479002	DGWC-4	Water	08/27/19 09:50	08/28/19 10:01
2622479003	DGWC-5	Water	08/27/19 11:45	08/28/19 10:01
2622479004	DGWC-9	Water	08/27/19 15:20	08/28/19 10:01
2622479005	DGWC-10	Water	08/27/19 16:30	08/28/19 10:01
2622479006	DGWC-11	Water	08/27/19 11:00	08/28/19 10:01
2622479007	DGWC-12	Water	08/27/19 13:30	08/28/19 10:01
2622479008	DGWC-14	Water	08/27/19 14:50	08/28/19 10:01
2622479009	DGWC-17	Water	08/27/19 16:15	08/28/19 10:01
2622479010	FD-1	Water	08/27/19 00:00	08/28/19 10:01
2622479011	EB-1	Water	08/27/19 17:50	08/28/19 10:01

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622479001	DGWC-2	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479002	DGWC-4	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479003	DGWC-5	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479004	DGWC-9	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479005	DGWC-10	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479006	DGWC-11	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479007	DGWC-12	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479008	DGWC-14	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479009	DGWC-17	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479010	FD-1	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622479011	EB-1	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-2		Lab ID: 2622479001		Collected: 08/27/19 17:10		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 18:51	7440-36-0	
Arsenic	0.00099J	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 18:51	7440-38-2	
Barium	0.023	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 18:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 18:51	7440-41-7	
Cadmium	0.00012J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 18:51	7440-43-9	
Chromium	0.00040J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 18:51	7440-47-3	
Cobalt	0.0088	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 18:51	7440-48-4	
Lead	0.000060J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 18:51	7439-92-1	B
Lithium	0.032	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 18:51	7439-93-2	
Molybdenum	0.0020J	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 18:51	7439-98-7	
Selenium	0.0069J	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 18:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 18:51	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 11:43	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		08/31/19 22:21	16984-48-8	1A

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-4		Lab ID: 2622479002		Collected: 08/27/19 09:50		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 18:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 18:56	7440-38-2	
Barium	0.036	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 18:56	7440-39-3	
Beryllium	0.00024J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 18:56	7440-41-7	
Cadmium	0.00072J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 18:56	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 18:56	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 18:56	7440-48-4	
Lead	0.000049J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 18:56	7439-92-1	B
Lithium	0.0033J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 18:56	7439-93-2	
Molybdenum	0.0065J	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 18:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 18:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 18:56	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 11:53	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		08/31/19 22:43	16984-48-8	1A

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-5		Lab ID: 2622479003		Collected: 08/27/19 11:45		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:19	7440-38-2	
Barium	0.017	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:19	7440-39-3	
Beryllium	0.010	mg/L	0.0030	0.000074	1	08/29/19 18:05	09/04/19 10:03	7440-41-7	
Cadmium	0.00082J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:19	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:19	7440-47-3	
Cobalt	0.020	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:19	7440-48-4	
Lead	0.000051J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 19:19	7439-92-1	B
Lithium	0.0080J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 19:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:19	7439-98-7	
Selenium	0.0031J	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 19:19	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.00016J	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 11:55	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.32	mg/L	0.30	0.029	1		08/31/19 23:06	16984-48-8	1A

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-9		Lab ID: 2622479004		Collected: 08/27/19 15:20		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:25	7440-36-0	
Arsenic	0.021	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:25	7440-38-2	
Barium	0.016	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:25	7440-39-3	
Beryllium	0.0070	mg/L	0.0030	0.000074	1	08/29/19 18:05	09/04/19 10:08	7440-41-7	
Cadmium	0.00071J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:25	7440-43-9	
Chromium	0.00048J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:25	7440-47-3	
Cobalt	0.24	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:25	7440-48-4	
Lead	ND	mg/L	0.025	0.00023	5	08/29/19 18:05	09/04/19 10:14	7439-92-1	D3
Lithium	0.031	mg/L	0.030	0.00078	1	08/29/19 18:05	09/04/19 10:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:25	7439-98-7	
Selenium	0.067	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:25	7782-49-2	
Thallium	0.00053J	mg/L	0.0050	0.00026	5	08/29/19 18:05	09/04/19 10:14	7440-28-0	D3
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.00021J	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 11:57	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.68	mg/L	0.30	0.029	1		08/31/19 23:28	16984-48-8	1A

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-10		Lab ID: 2622479005		Collected: 08/27/19 16:30		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:31	7440-36-0		
Arsenic	0.0024J	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:31	7440-38-2		
Barium	0.021	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:31	7440-39-3		
Beryllium	0.0092	mg/L	0.0030	0.000074	1	08/29/19 18:05	09/04/19 10:20	7440-41-7		
Cadmium	0.00077J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:31	7440-43-9		
Chromium	0.00083J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:31	7440-47-3		
Cobalt	0.13	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:31	7440-48-4		
Lead	0.00024J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 19:31	7439-92-1	B	
Lithium	0.0053J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 19:31	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:31	7439-98-7		
Selenium	0.015	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:31	7782-49-2		
Thallium	0.00036J	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 19:31	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:05	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	1.4	mg/L	0.30	0.029	1		08/31/19 23:51	16984-48-8	1A	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-11		Lab ID: 2622479006		Collected: 08/27/19 11:00		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:37	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:37	7440-38-2		
Barium	0.071	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:37	7440-39-3		
Beryllium	0.00014J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 19:37	7440-41-7		
Cadmium	0.00012J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:37	7440-43-9		
Chromium	0.00060J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:37	7440-47-3		
Cobalt	0.00076J	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:37	7440-48-4		
Lead	0.00012J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 19:37	7439-92-1	B	
Lithium	0.0023J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 19:37	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:37	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:37	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 19:37	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:07	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 00:14	16984-48-8	1A	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-12		Lab ID: 2622479007		Collected: 08/27/19 13:30		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:42	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:42	7440-38-2		
Barium	0.024	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:42	7440-39-3		
Beryllium	0.00028J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 19:42	7440-41-7		
Cadmium	0.00037J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:42	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:42	7440-47-3		
Cobalt	0.0021J	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:42	7440-48-4		
Lead	0.00010J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 19:42	7439-92-1	B	
Lithium	0.0011J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 19:42	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:42	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:42	7782-49-2		
Thallium	0.00089J	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 19:42	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:09	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 01:22	16984-48-8	1A	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-14		Lab ID: 2622479008		Collected: 08/27/19 14:50		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 19:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 19:59	7440-38-2	
Barium	0.059	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 19:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 19:59	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 19:59	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 19:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 19:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 19:59	7439-92-1	
Lithium	0.0038J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 19:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 19:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 19:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 19:59	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:12	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 01:44	16984-48-8	1A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: DGWC-17		Lab ID: 2622479009		Collected: 08/27/19 16:15		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 20:05	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 20:05	7440-38-2		
Barium	0.050	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 20:05	7440-39-3		
Beryllium	0.00066J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 20:05	7440-41-7		
Cadmium	0.00033J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 20:05	7440-43-9		
Chromium	0.0031J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 20:05	7440-47-3		
Cobalt	0.031	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 20:05	7440-48-4		
Lead	0.000090J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 20:05	7439-92-1	B	
Lithium	0.00089J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 20:05	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 20:05	7439-98-7		
Selenium	0.0073J	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 20:05	7782-49-2		
Thallium	0.00018J	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 20:05	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.00016J	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:14	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.24J	mg/L	0.30	0.029	1		09/01/19 02:30	16984-48-8	1A	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: FD-1		Lab ID: 2622479010		Collected: 08/27/19 00:00		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 20:11	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 20:11	7440-38-2		
Barium	0.037	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 20:11	7440-39-3		
Beryllium	0.00022J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 20:11	7440-41-7		
Cadmium	0.00074J	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 20:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 20:11	7440-47-3		
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 20:11	7440-48-4		
Lead	0.00067J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 20:11	7439-92-1	B	
Lithium	0.0032J	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 20:11	7439-93-2		
Molybdenum	0.0068J	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 20:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 20:11	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 20:11	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:17	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 02:52	16984-48-8	1A	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Sample: EB-1		Lab ID: 2622479011		Collected: 08/27/19 17:50		Received: 08/28/19 10:01		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 20:17	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 20:17	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 20:17	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 20:17	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 20:17	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 20:17	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 20:17	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 20:17	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 20:17	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 20:17	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 20:17	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 20:17	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:19	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 03:15	16984-48-8	1A	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

QC Batch: 34496 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622479001, 2622479002, 2622479003, 2622479004, 2622479005, 2622479006, 2622479007, 2622479008, 2622479009, 2622479010, 2622479011

METHOD BLANK: 155177 Matrix: Water
Associated Lab Samples: 2622479001, 2622479002, 2622479003, 2622479004, 2622479005, 2622479006, 2622479007, 2622479008, 2622479009, 2622479010, 2622479011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	08/30/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	08/30/19 17:42	
Barium	mg/L	ND	0.010	0.00049	08/30/19 17:42	
Beryllium	mg/L	ND	0.0030	0.000074	08/30/19 17:42	
Cadmium	mg/L	ND	0.0025	0.00011	08/30/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	08/30/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	08/30/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	08/30/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	08/30/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	08/30/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	08/30/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	08/30/19 17:42	

LABORATORY CONTROL SAMPLE: 155178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Cadmium	mg/L	0.1	0.10	103	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	101	80-120	
Lithium	mg/L	0.1	0.11	105	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155179 155180

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622479002 Result	Spike Conc.	Spike Conc.	MS Result								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	106	107	75-125	1	20		
Barium	mg/L	0.036	0.1	0.1	0.14	0.13	103	97	75-125	4	20		
Beryllium	mg/L	0.00024J	0.1	0.1	0.098	0.095	97	95	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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622479

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155179		155180		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2622479002 Result	MS Spike Conc.	MSD Spike Conc.									
Cadmium	mg/L	0.00072J	0.1	0.1	0.10	0.099	100	98	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Cobalt	mg/L	0.0018J	0.1	0.1	0.098	0.098	97	96	75-125	1	20		
Lead	mg/L	0.000049J	0.1	0.1	0.094	0.093	94	93	75-125	1	20		
Lithium	mg/L	0.0033J	0.1	0.1	0.10	0.10	100	97	75-125	2	20		
Molybdenum	mg/L	0.0065J	0.1	0.1	0.11	0.11	106	105	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	106	109	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

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.

BATCH QUALIFIERS

Batch: 34615

[1] Batch accepted based on laboratory control sample (LCS) recovery.

ANALYTE QUALIFIERS

1A Batch accepted based on laboratory control sample (LCS) recovery.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622479

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622479001	DGWC-2	EPA 3005A	34496	EPA 6020B	34557
2622479002	DGWC-4	EPA 3005A	34496	EPA 6020B	34557
2622479003	DGWC-5	EPA 3005A	34496	EPA 6020B	34557
2622479004	DGWC-9	EPA 3005A	34496	EPA 6020B	34557
2622479005	DGWC-10	EPA 3005A	34496	EPA 6020B	34557
2622479006	DGWC-11	EPA 3005A	34496	EPA 6020B	34557
2622479007	DGWC-12	EPA 3005A	34496	EPA 6020B	34557
2622479008	DGWC-14	EPA 3005A	34496	EPA 6020B	34557
2622479009	DGWC-17	EPA 3005A	34496	EPA 6020B	34557
2622479010	FD-1	EPA 3005A	34496	EPA 6020B	34557
2622479011	EB-1	EPA 3005A	34496	EPA 6020B	34557
2622479001	DGWC-2	EPA 7470A	34472	EPA 7470A	34485
2622479002	DGWC-4	EPA 7470A	34472	EPA 7470A	34485
2622479003	DGWC-5	EPA 7470A	34472	EPA 7470A	34485
2622479004	DGWC-9	EPA 7470A	34472	EPA 7470A	34485
2622479005	DGWC-10	EPA 7470A	34472	EPA 7470A	34485
2622479006	DGWC-11	EPA 7470A	34472	EPA 7470A	34485
2622479007	DGWC-12	EPA 7470A	34472	EPA 7470A	34485
2622479008	DGWC-14	EPA 7470A	34472	EPA 7470A	34485
2622479009	DGWC-17	EPA 7470A	34472	EPA 7470A	34485
2622479010	FD-1	EPA 7470A	34472	EPA 7470A	34485
2622479011	EB-1	EPA 7470A	34472	EPA 7470A	34485
2622479001	DGWC-2	EPA 300.0	34615		
2622479002	DGWC-4	EPA 300.0	34615		
2622479003	DGWC-5	EPA 300.0	34615		
2622479004	DGWC-9	EPA 300.0	34615		
2622479005	DGWC-10	EPA 300.0	34615		
2622479006	DGWC-11	EPA 300.0	34615		
2622479007	DGWC-12	EPA 300.0	34615		
2622479008	DGWC-14	EPA 300.0	34615		
2622479009	DGWC-17	EPA 300.0	34615		
2622479010	FD-1	EPA 300.0	34615		
2622479011	EB-1	EPA 300.0	34615		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Required Client Information:

Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Maner Road
 Atlanta, GA 30339
 Email: jabraham@southemco.com
 Phone: (404)506-7239 Fax:
 Requested Due Date: Standard TAT

Section B

Required Project Information:

Report To: Joju Abraham
 Copy To: Golder
 Purchase Order #: SCS10382775
 Project Name: Plant McDonough AP-2, 3/4
 Project #: 166849618

Section C

Invoice Information:

Attention: scsinvoices@southemco.com
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: betsy.mcdaniel@pacelabs.com,
 Pace Profile #: 332.7.2

Regulatory/Agency: _____
 State/Location: GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analyzes Test	Requested Analytes Filtered (Y/N)			Residual Chlorine (Y/N)
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Nb2S2O3	Methanol	Other		Metals App IV	Fluoride by 300.0	Radium 226/228	
1	DGWC-2	WT	G	8/27/2019	1710		4	X	X								X	X	X	
2	DGWC-4	WT	G	8/27/2019	950		4	X	X								X	X	X	
3	DGWC-5	WT	G	8/27/2019	1145		4	X	X								X	X	X	
4	DGWC-9	WT	G	8/27/2019	1520		4	X	X								X	X	X	
5	DGWC-10	WT	G	8/27/2019	1630		4	X	X								X	X	X	
6	DGWC-11	WT	G	8/27/2019	1100		4	X	X								X	X	X	
7	DGWC-12	WT	G	8/27/2019	1330		6	X	X								X	X	X	Extra Radium
8	DGWC-14	WT	G	8/27/2019	1450		4	X	X								X	X	X	
9	DGWC-17	WT	G	8/27/2019	1615		4	X	X								X	X	X	
10	FD-1	WT	G	8/27/2019	-		4	X	X								X	X	X	
11	EB-1	WT	G	8/27/2019	1750		4	X	X								X	X	X	
12																				

WO# : 2622479



ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
*Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, U, Mo, Se, Tl	Kam [Signature]	8/28/19	908	[Signature] / Pace	8.28.19	0908			
	Golder								
	[Signature] / Pace	8.28.19	1001	M Dalman	8/28/19	1001			

TEMP in C: _____
 Received on Ice (Y/N): _____
 Custody Sealed (Y/N): _____
 Cooled (Y/N): _____
 Samples Intact (Y/N): _____
 DATE Signed: _____



Sample Condition Upon Receipt

Client Name: GCA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

WO#: **2622479**

Tracking #: _____

PM: BM Due Date: 09/05/19

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

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 23 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.8 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 8/28/19 MR

Temp should be above freezing to 6°C

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 checked="" 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)

September 26, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

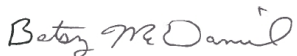
RE: Project: Plant McDonough Ash Ponds
Pace Project No.: 2622480

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2019. 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: Ms. Jean Brown, Georgia Power_Southern Company
Ben Hodges, Georgia Power
Kristen Jurinko, Golder Associates Inc.
Julie Lehrman, Golder Associates Inc.
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Rebecca Thornton, Pace Analytical Atlanta
Dominic Weatherhill, Georgia Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622480001	DGWC-2	Water	08/27/19 17:10	08/28/19 10:01
2622480002	DGWC-4	Water	08/27/19 09:50	08/28/19 10:01
2622480003	DGWC-5	Water	08/27/19 11:45	08/28/19 10:01
2622480004	DGWC-9	Water	08/27/19 15:20	08/28/19 10:01
2622480005	DGWC-10	Water	08/27/19 16:30	08/28/19 10:01
2622480006	DGWC-11	Water	08/27/19 11:00	08/28/19 10:01
2622480007	DGWC-12	Water	08/27/19 13:30	08/28/19 10:01
2622480008	DGWC-14	Water	08/27/19 14:50	08/28/19 10:01
2622480009	DGWC-17	Water	08/27/19 16:15	08/28/19 10:01
2622480010	FD-1	Water	08/27/19 00:00	08/28/19 10:01
2622480011	EB-1	Water	08/27/19 17:50	08/28/19 10:01

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622480001	DGWC-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480002	DGWC-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480003	DGWC-5	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480004	DGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480005	DGWC-10	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480006	DGWC-11	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480007	DGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480008	DGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480009	DGWC-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480010	FD-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622480011	EB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-2 **Lab ID: 2622480001** Collected: 08/27/19 17:10 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.982 ± 0.388 (0.330) C:86% T:NA	pCi/L	09/20/19 07:18	13982-63-3	
Radium-228	EPA 9320	0.621 ± 0.437 (0.858) C:81% T:84%	pCi/L	09/23/19 14:06	15262-20-1	
Total Radium	Total Radium Calculation	1.60 ± 0.825 (1.19)	pCi/L	09/24/19 10:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-4 **Lab ID: 2622480002** Collected: 08/27/19 09:50 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.752 ± 0.382 (0.563) C:98% T:NA	pCi/L	09/18/19 08:55	13982-63-3	
Radium-228	EPA 9320	1.04 ± 0.433 (0.674) C:73% T:83%	pCi/L	09/20/19 11:54	15262-20-1	
Total Radium	Total Radium Calculation	1.79 ± 0.815 (1.24)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-5 **Lab ID: 2622480003** Collected: 08/27/19 11:45 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.679 ± 0.340 (0.460) C:96% T:NA	pCi/L	09/18/19 10:03	13982-63-3	
Radium-228	EPA 9320	1.13 ± 0.420 (0.608) C:73% T:92%	pCi/L	09/20/19 11:54	15262-20-1	
Total Radium	Total Radium Calculation	1.81 ± 0.760 (1.07)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-9 **Lab ID: 2622480004** Collected: 08/27/19 15:20 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.834 ± 0.358 (0.350) C:91% T:NA	pCi/L	09/18/19 10:26	13982-63-3	
Radium-228	EPA 9320	0.720 ± 0.384 (0.675) C:71% T:84%	pCi/L	09/20/19 11:55	15262-20-1	
Total Radium	Total Radium Calculation	1.55 ± 0.742 (1.03)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-10 **Lab ID: 2622480005** Collected: 08/27/19 16:30 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.504 ± 0.279 (0.316) C:89% T:NA	pCi/L	09/18/19 10:27	13982-63-3	
Radium-228	EPA 9320	1.08 ± 0.497 (0.842) C:75% T:82%	pCi/L	09/23/19 14:06	15262-20-1	
Total Radium	Total Radium Calculation	1.58 ± 0.776 (1.16)	pCi/L	09/24/19 10:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.07 ± 0.414 (0.315) C:94% T:NA	pCi/L	09/18/19 08:55	13982-63-3	
Radium-228	EPA 9320	1.06 ± 0.473 (0.784) C:73% T:80%	pCi/L	09/20/19 11:54	15262-20-1	
Total Radium	Total Radium Calculation	2.13 ± 0.887 (1.10)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-12 **Lab ID: 2622480007** Collected: 08/27/19 13:30 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.434 ± 0.319 (0.567) C:90% T:NA	pCi/L	09/18/19 10:03	13982-63-3	
Radium-228	EPA 9320	-0.115 ± 0.318 (0.773) C:69% T:81%	pCi/L	09/20/19 11:55	15262-20-1	
Total Radium	Total Radium Calculation	0.434 ± 0.637 (1.34)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-14 **Lab ID: 2622480008** Collected: 08/27/19 14:50 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.550 ± 0.317 (0.469) C:92% T:NA	pCi/L	09/18/19 10:29	13982-63-3	
Radium-228	EPA 9320	0.620 ± 0.428 (0.818) C:68% T:78%	pCi/L	09/20/19 11:55	15262-20-1	
Total Radium	Total Radium Calculation	1.17 ± 0.745 (1.29)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Sample: DGWC-17 **Lab ID: 2622480009** Collected: 08/27/19 16:15 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.442 ± 0.283 (0.422) C:88% T:NA	pCi/L	09/18/19 10:26	13982-63-3	
Radium-228	EPA 9320	0.675 ± 0.331 (0.542) C:78% T:82%	pCi/L	09/20/19 11:55	15262-20-1	
Total Radium	Total Radium Calculation	1.12 ± 0.614 (0.964)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.722 ± 0.339 (0.401) C:96% T:NA	pCi/L	09/18/19 08:55	13982-63-3	
Radium-228	EPA 9320	0.398 ± 0.360 (0.728) C:74% T:82%	pCi/L	09/20/19 11:54	15262-20-1	
Total Radium	Total Radium Calculation	1.12 ± 0.699 (1.13)	pCi/L	09/23/19 12:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.243 ± 0.222 (0.388) C:80% T:NA	pCi/L	09/20/19 07:18	13982-63-3	
Radium-228	EPA 9320	0.433 ± 0.408 (0.836) C:82% T:74%	pCi/L	09/23/19 14:07	15262-20-1	
Total Radium	Total Radium Calculation	0.676 ± 0.630 (1.22)	pCi/L	09/24/19 10:31	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

QC Batch: 359967

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2622480001, 2622480011

METHOD BLANK: 1747391

Matrix: Water

Associated Lab Samples: 2622480001, 2622480011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.763 ± 0.364 (0.510) C:93% T:NA	pCi/L	09/20/19 07:14	

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 Ash Ponds

Pace Project No.: 2622480

QC Batch: 359964

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2622480002, 2622480003, 2622480004, 2622480005, 2622480006, 2622480007, 2622480008, 2622480009, 2622480010

METHOD BLANK: 1747386

Matrix: Water

Associated Lab Samples: 2622480002, 2622480003, 2622480004, 2622480005, 2622480006, 2622480007, 2622480008, 2622480009, 2622480010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.204 ± 0.233 (0.472) C:94% T:NA	pCi/L	09/18/19 08:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

QC Batch: 359966

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622480002, 2622480003, 2622480004, 2622480006, 2622480007, 2622480008, 2622480009, 2622480010

METHOD BLANK: 1747390

Matrix: Water

Associated Lab Samples: 2622480002, 2622480003, 2622480004, 2622480006, 2622480007, 2622480008, 2622480009, 2622480010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.232 ± 0.311 (0.664) C:77% T:89%	pCi/L	09/20/19 11:52	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622480

QC Batch: 359968

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622480001, 2622480005, 2622480011

METHOD BLANK: 1747392

Matrix: Water

Associated Lab Samples: 2622480001, 2622480005, 2622480011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.921 ± 0.439 (0.755) C:82% T:78%	pCi/L	09/23/19 10:55	

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 Ash Ponds

Pace Project No.: 2622480

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622480001	DGWC-2	EPA 9315	359967		
2622480002	DGWC-4	EPA 9315	359964		
2622480003	DGWC-5	EPA 9315	359964		
2622480004	DGWC-9	EPA 9315	359964		
2622480005	DGWC-10	EPA 9315	359964		
2622480006	DGWC-11	EPA 9315	359964		
2622480007	DGWC-12	EPA 9315	359964		
2622480008	DGWC-14	EPA 9315	359964		
2622480009	DGWC-17	EPA 9315	359964		
2622480010	FD-1	EPA 9315	359964		
2622480011	EB-1	EPA 9315	359967		
2622480001	DGWC-2	EPA 9320	359968		
2622480002	DGWC-4	EPA 9320	359966		
2622480003	DGWC-5	EPA 9320	359966		
2622480004	DGWC-9	EPA 9320	359966		
2622480005	DGWC-10	EPA 9320	359968		
2622480006	DGWC-11	EPA 9320	359966		
2622480007	DGWC-12	EPA 9320	359966		
2622480008	DGWC-14	EPA 9320	359966		
2622480009	DGWC-17	EPA 9320	359966		
2622480010	FD-1	EPA 9320	359966		
2622480011	EB-1	EPA 9320	359968		
2622480001	DGWC-2	Total Radium Calculation	362817		
2622480002	DGWC-4	Total Radium Calculation	362637		
2622480003	DGWC-5	Total Radium Calculation	362637		
2622480004	DGWC-9	Total Radium Calculation	362637		
2622480005	DGWC-10	Total Radium Calculation	362817		
2622480006	DGWC-11	Total Radium Calculation	362637		
2622480007	DGWC-12	Total Radium Calculation	362637		
2622480008	DGWC-14	Total Radium Calculation	362637		
2622480009	DGWC-17	Total Radium Calculation	362637		
2622480010	FD-1	Total Radium Calculation	362637		
2622480011	EB-1	Total Radium Calculation	362817		

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Sample Condition Upon Receipt



Client Name: GA Power

Project # _____

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

WO# : 2622480

PM: BM Due Date: 09/26/19
CLIENT: GAPower-CCR

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 Samples on ice, cooling process has begun

Cooler Temperature 0.8
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No
Comments: _____

Date and initials of person examining contents: 8/28/19 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 type="checkbox"/> Yes <input checked="" 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)

January 03, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Background
Pace Project No.: 2622481

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2019. 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,



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.
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 Background

Pace Project No.: 2622481

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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SAMPLE SUMMARY

Project: Plant McDonough Background
Pace Project No.: 2622481

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622481001	DGWA-70A	Water	08/27/19 10:20	08/28/19 10:01
2622481002	DGWA-71	Water	08/27/19 15:10	08/28/19 10:01
2622481003	FB-1	Water	08/27/19 10:30	08/28/19 10:01

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2622481

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622481001	DGWA-70A	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622481002	DGWA-71	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622481003	FB-1	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2622481

Sample: DGWA-70A		Lab ID: 2622481001		Collected: 08/27/19 10:20		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	08/30/19 20:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	08/30/19 20:22	7440-38-2	
Barium	0.037	mg/L	0.010	0.00049	1	08/29/19 18:05	08/30/19 20:22	7440-39-3	
Beryllium	0.000079J	mg/L	0.0030	0.000074	1	08/29/19 18:05	08/30/19 20:22	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/29/19 18:05	08/30/19 20:22	7440-43-9	
Chromium	0.00071J	mg/L	0.010	0.00039	1	08/29/19 18:05	08/30/19 20:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/29/19 18:05	08/30/19 20:22	7440-48-4	
Lead	0.000078J	mg/L	0.0050	0.000046	1	08/29/19 18:05	08/30/19 20:22	7439-92-1	B
Lithium	ND	mg/L	0.030	0.00078	1	08/29/19 18:05	08/30/19 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	08/30/19 20:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	08/30/19 20:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	08/30/19 20:22	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:21	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 03:38	16984-48-8	1A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2622481

Sample: DGWA-71		Lab ID: 2622481002		Collected: 08/27/19 15:10		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/29/19 18:05	09/03/19 20:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	09/03/19 20:22	7440-38-2	
Barium	0.027	mg/L	0.010	0.00049	1	08/29/19 18:05	09/03/19 20:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/29/19 18:05	09/03/19 20:22	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/29/19 18:05	09/03/19 20:22	7440-43-9	
Chromium	0.0018J	mg/L	0.010	0.00039	1	08/29/19 18:05	09/03/19 20:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/29/19 18:05	09/03/19 20:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/29/19 18:05	09/03/19 20:22	7439-92-1	
Lithium	0.0014J	mg/L	0.030	0.00078	1	08/29/19 18:05	09/03/19 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	09/03/19 20:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	09/03/19 20:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	09/03/19 20:22	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:24	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 04:00	16984-48-8	1A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background

Pace Project No.: 2622481

Sample: FB-1		Lab ID: 2622481003		Collected: 08/27/19 10:30		Received: 08/28/19 10:01		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	0.00078J	mg/L	0.0030	0.00027	1	08/29/19 18:05	09/03/19 20:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/29/19 18:05	09/03/19 20:45	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	08/29/19 18:05	09/03/19 20:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/29/19 18:05	09/03/19 20:45	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/29/19 18:05	09/03/19 20:45	7440-43-9	
Chromium	0.0027J	mg/L	0.010	0.00039	1	08/29/19 18:05	09/03/19 20:45	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/29/19 18:05	09/03/19 20:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/29/19 18:05	09/03/19 20:45	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/29/19 18:05	09/03/19 20:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/29/19 18:05	09/03/19 20:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/29/19 18:05	09/03/19 20:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/29/19 18:05	09/03/19 20:45	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	08/29/19 09:13	08/29/19 12:26	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		09/01/19 04:23	16984-48-8	1A

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2622481

QC Batch: 34472 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622481001, 2622481002, 2622481003

METHOD BLANK: 155027 Matrix: Water

Associated Lab Samples: 2622481001, 2622481002, 2622481003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/29/19 11:39	

LABORATORY CONTROL SAMPLE: 155028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155029 155030

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622479001 Result	Spike Conc.	Spike Conc.	Conc.								
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	97	99	75-125	3	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622481

QC Batch: 34496 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622481001

METHOD BLANK: 155177 Matrix: Water
Associated Lab Samples: 2622481001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	08/30/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	08/30/19 17:42	
Barium	mg/L	ND	0.010	0.00049	08/30/19 17:42	
Beryllium	mg/L	ND	0.0030	0.000074	08/30/19 17:42	
Cadmium	mg/L	ND	0.0025	0.00011	08/30/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	08/30/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	08/30/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	08/30/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	08/30/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	08/30/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	08/30/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	08/30/19 17:42	

LABORATORY CONTROL SAMPLE: 155178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Cadmium	mg/L	0.1	0.10	103	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	101	80-120	
Lithium	mg/L	0.1	0.11	105	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155179 155180

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2622479002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	106	107	75-125	1	20	
Barium	mg/L	0.036	0.1	0.1	0.14	0.13	103	97	75-125	4	20	
Beryllium	mg/L	0.00024J	0.1	0.1	0.098	0.095	97	95	75-125	3	20	
Cadmium	mg/L	0.00072J	0.1	0.1	0.10	0.099	100	98	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2622481

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155179		155180		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2622479002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Chromium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Cobalt	mg/L	0.0018J	0.1	0.1	0.098	0.098	97	96	75-125	1	20		
Lead	mg/L	0.000049J	0.1	0.1	0.094	0.093	94	93	75-125	1	20		
Lithium	mg/L	0.0033J	0.1	0.1	0.10	0.10	100	97	75-125	2	20		
Molybdenum	mg/L	0.0065J	0.1	0.1	0.11	0.11	106	105	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	106	109	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622481

QC Batch: 34528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622481002, 2622481003

METHOD BLANK: 155360 Matrix: Water
Associated Lab Samples: 2622481002, 2622481003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/03/19 20:11	
Arsenic	mg/L	ND	0.0050	0.00035	09/03/19 20:11	
Barium	mg/L	ND	0.010	0.00049	09/03/19 20:11	
Beryllium	mg/L	ND	0.0030	0.000074	09/03/19 20:11	
Cadmium	mg/L	ND	0.0025	0.00011	09/03/19 20:11	
Chromium	mg/L	ND	0.010	0.00039	09/03/19 20:11	
Cobalt	mg/L	ND	0.0050	0.00030	09/03/19 20:11	
Lead	mg/L	ND	0.0050	0.000046	09/03/19 20:11	
Lithium	mg/L	ND	0.030	0.00078	09/03/19 20:11	
Molybdenum	mg/L	ND	0.010	0.00095	09/03/19 20:11	
Selenium	mg/L	ND	0.010	0.0013	09/03/19 20:11	
Thallium	mg/L	ND	0.0010	0.000052	09/03/19 20:11	

LABORATORY CONTROL SAMPLE: 155361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	118	80-120	
Arsenic	mg/L	0.1	0.10	105	80-120	
Barium	mg/L	0.1	0.11	105	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Cadmium	mg/L	0.1	0.11	108	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.11	106	80-120	
Lead	mg/L	0.1	0.10	105	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.11	108	80-120	
Selenium	mg/L	0.1	0.11	107	80-120	
Thallium	mg/L	0.1	0.10	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155362 155363

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622481002 Result	Spike Conc.	Spike Conc.	MS Result								
Antimony	mg/L	ND	0.1	0.1	0.11	0.12	114	117	75-125	2	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	103	75-125	3	20		
Barium	mg/L	0.027	0.1	0.1	0.13	0.13	101	107	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2622481

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155362		155363		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622481002 Result	MS Spike Conc.	MSD Spike Conc.									
Chromium	mg/L	0.0018J	0.1	0.1	0.11	0.11	104	107	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	103	107	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	101	104	75-125	3	20		
Lithium	mg/L	0.0014J	0.1	0.1	0.10	0.10	100	103	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	106	110	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622481

QC Batch: 34615 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622481001, 2622481002, 2622481003

METHOD BLANK: 155878 Matrix: Water
Associated Lab Samples: 2622481001, 2622481002, 2622481003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/31/19 20:05	1A

LABORATORY CONTROL SAMPLE: 155879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.4	94	90-110	1A

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QUALIFIERS

Project: Plant McDonough Background

Pace Project No.: 2622481

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.

BATCH QUALIFIERS

Batch: 34615

[1] Batch accepted based on laboratory control sample (LCS) recovery.

ANALYTE QUALIFIERS

1A Batch accepted based on laboratory control sample (LCS) recovery.

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Background
Pace Project No.: 2622481

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622481001	DGWA-70A	EPA 3005A	34496	EPA 6020B	34557
2622481002	DGWA-71	EPA 3005A	34528	EPA 6020B	34560
2622481003	FB-1	EPA 3005A	34528	EPA 6020B	34560
2622481001	DGWA-70A	EPA 7470A	34472	EPA 7470A	34485
2622481002	DGWA-71	EPA 7470A	34472	EPA 7470A	34485
2622481003	FB-1	EPA 7470A	34472	EPA 7470A	34485
2622481001	DGWA-70A	EPA 300.0	34615		
2622481002	DGWA-71	EPA 300.0	34615		
2622481003	FB-1	EPA 300.0	34615		

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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: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Jolu Abraham		Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339		Copy To: Gotder		Company Name:	
Email: jabraham@southernco.com		Purchase Order #: SCS10382775		Pace Quote:	
Phone: (404)506-7239 Fax:		Project Name: Plant McDonough Background		Pace Project Manager: betsy.mcdaniel@pacelabs.com.	
Requested Due Date: Standard TAT		Project #: 166849618		Pace Profile #: 332.7.2	
				Regulatory Agency:	
				State/Location:	
				GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) □ Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Y/N	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol		Other	Metals App IV*	Fluoride by 300.0	
1	DGWA-70A	WT	G	8/27/2019	1020		4	X	X							X	X	X	
2	DGWA-71	WT	G	8/27/2019	1510		4	X	X							X	X	X	
3	FB-1	WT	G	8/27/2019	1030		4	X	X							X	X	X	
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

WO#: 2622481

 2622481

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
*Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	<i>J. Gotder</i>	8/28/19	908	<i>J. Pace</i>	8.28.19	0908					
	<i>J. Pace</i>	8.28.19	1001	<i>M. Dalman</i>	8/28/19	1001					
							O.B	F	F	F	

DATE Signed:



Sample Condition Upon Receipt

Client Name: GLA Power

Project # _____

WO#: **2622481**

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

PM: BM Due Date: 09/05/19

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

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.8 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/28/19 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 type="checkbox"/> Yes <input checked="" 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)

September 26, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

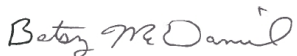
RE: Project: Plant McDonough Background
Pace Project No.: 2622482

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2019. 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: Ms. Jean Brown, Georgia Power_Southern Company
Ben Hodges, Georgia Power
Kristen Jurinko, Golder Associates Inc.
Julie Lehrman, Golder Associates Inc.
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Rebecca Thornton, Pace Analytical Atlanta
Dominic Weatherhill, Georgia Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough Background

Pace Project No.: 2622482

Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background
Pace Project No.: 2622482

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622482001	DGWA-70A	Water	08/27/19 10:20	08/28/19 10:01
2622482002	DGWA-71	Water	08/27/19 15:10	08/28/19 10:01
2622482003	FB-1	Water	08/27/19 10:30	08/28/19 10:01

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background

Pace Project No.: 2622482

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622482001	DGWA-70A	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622482002	DGWA-71	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622482003	FB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622482

Sample: DGWA-70A **Lab ID: 2622482001** Collected: 08/27/19 10:20 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.11 ± 0.420 (0.348) C:84% T:NA	pCi/L	09/20/19 07:20	13982-63-3	
Radium-228	EPA 9320	0.863 ± 0.385 (0.642) C:81% T:91%	pCi/L	09/23/19 10:55	15262-20-1	
Total Radium	Total Radium Calculation	1.97 ± 0.805 (0.990)	pCi/L	09/24/19 10:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622482

Sample: DGWA-71 **Lab ID: 2622482002** Collected: 08/27/19 15:10 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.435 ± 0.334 (0.581) C:72% T:NA	pCi/L	09/20/19 07:20	13982-63-3	
Radium-228	EPA 9320	0.867 ± 0.464 (0.843) C:81% T:78%	pCi/L	09/23/19 10:55	15262-20-1	
Total Radium	Total Radium Calculation	1.30 ± 0.798 (1.42)	pCi/L	09/24/19 10:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622482

Sample: FB-1 **Lab ID: 2622482003** Collected: 08/27/19 10:30 Received: 08/28/19 10:01 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.200 ± 0.274 (0.592) C:88% T:NA	pCi/L	09/20/19 07:20	13982-63-3	
Radium-228	EPA 9320	0.386 ± 0.361 (0.740) C:79% T:86%	pCi/L	09/23/19 10:55	15262-20-1	
Total Radium	Total Radium Calculation	0.586 ± 0.635 (1.33)	pCi/L	09/24/19 10:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622482

QC Batch:	359967	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2622482001, 2622482002, 2622482003		

METHOD BLANK:	1747391	Matrix:	Water
Associated Lab Samples:	2622482001, 2622482002, 2622482003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.763 ± 0.364 (0.510) C:93% T:NA	pCi/L	09/20/19 07:14	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622482

QC Batch: 359968

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622482001, 2622482002, 2622482003

METHOD BLANK: 1747392

Matrix: Water

Associated Lab Samples: 2622482001, 2622482002, 2622482003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.921 ± 0.439 (0.755) C:82% T:78%	pCi/L	09/23/19 10:55	

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 Background
Pace Project No.: 2622482

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Background

Pace Project No.: 2622482

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622482001	DGWA-70A	EPA 9315	359967		
2622482002	DGWA-71	EPA 9315	359967		
2622482003	FB-1	EPA 9315	359967		
2622482001	DGWA-70A	EPA 9320	359968		
2622482002	DGWA-71	EPA 9320	359968		
2622482003	FB-1	EPA 9320	359968		
2622482001	DGWA-70A	Total Radium Calculation	362817		
2622482002	DGWA-71	Total Radium Calculation	362817		
2622482003	FB-1	Total Radium Calculation	362817		

REPORT OF LABORATORY ANALYSIS

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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: 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Attention: scsinvoices@southernco.com
Address: 2880 Maner Road Atlanta, GA 30339	Copy To: Golder	Company Name:
Email: jabraham@southernco.com	Purchase Order #: SCS10382775	Address:
Phone: (404)506-7239 Fax:	Project Name: Plant McDonough Background	Pace Quote:
Requested Due Date: Standard TAT	Project #: 166849618	Pace Project Manager: betsy.mcdaniel@pacelabs.com
		Pace Profile #: 332.7.2

Regulatory Agency:
State / Location:
GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analytical Test	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other		Metals App IV*	Fluoride by 300.0	Radium 226/228	
1	DGWA 70A	WT	G	8/27/2019	1020		4	X	X								X	X	X	
2	DGWA 71	WT	G	8/27/2019	1510		4	X	X								X	X	X	
3	FB-1	WT	G	8/27/2019	1030		4	X	X								X	X	X	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

WO#: 2622482

2622482

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	<i>Wm Golder</i>	8/28/19	908	<i>J. Ponce</i>	8.28.19	0908	
	<i>J. Ponce</i>	8.28.19	1001	<i>M. Dalman</i>	8/28/19	1001	
							0.8 F F F

DATE Signed:



Sample Condition Upon Receipt

Client Name: GAPower

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

WO#: **2622482**

Tracking #: _____

PM: **BM** Due Date: **09/26/19**

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

CLIENT: **GAPower-CCR**

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.8
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/28/19 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 type="checkbox"/> Yes <input checked="" 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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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,



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.
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 Ash Ponds

Pace Project No.: 2622572

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

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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SAMPLE SUMMARY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622572001	DGWC-20	Water	08/29/19 10:05	08/29/19 16:00
2622572002	DGWC-21	Water	08/29/19 11:30	08/29/19 16:00
2622572003	DGWC-22	Water	08/29/19 12:10	08/29/19 16:00
2622572004	DGWC-23	Water	08/29/19 10:50	08/29/19 16:00
2622572005	DGWC-47	Water	08/29/19 09:15	08/29/19 16:00
2622572006	DGWC-48	Water	08/29/19 10:45	08/29/19 16:00
2622572007	FB-3	Water	08/29/19 09:50	08/29/19 16:00
2622572008	EB-3	Water	08/29/19 12:00	08/29/19 16:00
2622572009	FD-3	Water	08/29/19 00:00	08/29/19 16:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622572001	DGWC-20	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572002	DGWC-21	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572003	DGWC-22	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572004	DGWC-23	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572005	DGWC-47	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572006	DGWC-48	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572007	FB-3	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572008	EB-3	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2622572009	FD-3	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: DGWC-20		Lab ID: 2622572001		Collected: 08/29/19 10:05		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 22:34	7440-36-0		
Arsenic	0.0064	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 22:34	7440-38-2		
Barium	0.018	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 22:34	7440-39-3		
Beryllium	0.0050	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 22:34	7440-41-7		
Cadmium	0.0020J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 22:34	7440-43-9		
Chromium	0.0017J	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 22:34	7440-47-3	B	
Cobalt	0.66	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 22:34	7440-48-4		
Lead	0.00015J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 22:34	7439-92-1		
Lithium	0.0093J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 22:34	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 22:34	7439-98-7		
Selenium	0.029	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 22:34	7782-49-2		
Thallium	0.00084J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 22:34	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/03/19 11:46	09/03/19 17:43	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.78	mg/L	0.10	0.050	1		09/06/19 14:16	16984-48-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: DGWC-21		Lab ID: 2622572002		Collected: 08/29/19 11:30		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 22:40	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 22:40	7440-38-2		
Barium	0.027	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 22:40	7440-39-3		
Beryllium	0.00018J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 22:40	7440-41-7		
Cadmium	0.00087J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 22:40	7440-43-9		
Chromium	0.00041J	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 22:40	7440-47-3	B	
Cobalt	0.010	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 22:40	7440-48-4		
Lead	0.00023J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 22:40	7439-92-1		
Lithium	0.0061J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 22:40	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 22:40	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 22:40	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 22:40	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/03/19 11:46	09/03/19 17:45	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.079J	mg/L	0.10	0.050	1		09/06/19 14:58	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: DGWC-22		Lab ID: 2622572003		Collected: 08/29/19 12:10		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 22:46	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 22:46	7440-38-2		
Barium	0.031	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 22:46	7440-39-3		
Beryllium	0.00015J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 22:46	7440-41-7		
Cadmium	0.00053J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 22:46	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 22:46	7440-47-3		
Cobalt	0.0094	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 22:46	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 22:46	7439-92-1		
Lithium	0.0035J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 22:46	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 22:46	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 22:46	7782-49-2		
Thallium	0.00064J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 22:46	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/03/19 11:46	09/03/19 17:48	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.054J	mg/L	0.10	0.050	1		09/06/19 15:12	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

Sample: DGWC-23		Lab ID: 2622572004		Collected: 08/29/19 10:50		Received: 08/29/19 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 22:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 22:52	7440-38-2	
Barium	0.025	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 22:52	7440-39-3	
Beryllium	0.00041J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 22:52	7440-41-7	
Cadmium	0.00022J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 22:52	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 22:52	7440-47-3	
Cobalt	0.00036J	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 22:52	7440-48-4	
Lead	0.000066J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 22:52	7439-92-1	
Lithium	0.0017J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 22:52	7439-93-2	
Molybdenum	0.014	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 22:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 22:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 22:52	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	09/03/19 11:46	09/03/19 17:50	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	0.095J	mg/L	0.10	0.050	1		09/06/19 15:26	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

Sample: DGWC-47		Lab ID: 2622572005		Collected: 08/29/19 09:15		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 22:57	7440-36-0		
Arsenic	0.00089J	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 22:57	7440-38-2		
Barium	0.018	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 22:57	7440-39-3		
Beryllium	0.011	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 22:57	7440-41-7		
Cadmium	0.0021J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 22:57	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 22:57	7440-47-3		
Cobalt	0.28	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 22:57	7440-48-4		
Lead	0.00060J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 22:57	7439-92-1		
Lithium	0.056	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 22:57	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 22:57	7439-98-7		
Selenium	0.0040J	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 22:57	7782-49-2		
Thallium	0.00025J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 22:57	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/03/19 11:46	09/03/19 17:52	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.52	mg/L	0.10	0.050	1		09/06/19 15:54	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: DGWC-48		Lab ID: 2622572006		Collected: 08/29/19 10:45		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 23:03	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 23:03	7440-38-2		
Barium	0.014	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 23:03	7440-39-3		
Beryllium	0.0081	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 23:03	7440-41-7		
Cadmium	0.0030	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 23:03	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 23:03	7440-47-3		
Cobalt	0.42	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 23:03	7440-48-4		
Lead	0.0010J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 23:03	7439-92-1		
Lithium	0.11	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 23:03	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 23:03	7439-98-7		
Selenium	0.0023J	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 23:03	7782-49-2		
Thallium	0.000078J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 23:03	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 13:09	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.78	mg/L	0.10	0.050	1		09/06/19 16:36	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: FB-3		Lab ID: 2622572007		Collected: 08/29/19 09:50		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 23:09	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 23:09	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 23:09	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 23:09	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 23:09	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 23:09	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 23:09	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 23:09	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 23:09	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 23:09	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 23:09	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 23:09	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 13:29	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/06/19 16:50	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: EB-3		Lab ID: 2622572008		Collected: 08/29/19 12:00		Received: 08/29/19 16:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 23:14	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 23:14	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 23:14	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 23:14	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 23:14	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 23:14	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 23:14	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 23:14	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 23:14	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 23:14	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 23:14	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 23:14	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 13:32	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/06/19 17:04	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

Sample: FD-3		Lab ID: 2622572009		Collected: 08/29/19 00:00		Received: 08/29/19 16:00		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/04/19 23:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/04/19 23:20	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	08/30/19 16:08	09/04/19 23:20	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/04/19 23:20	7440-41-7	
Cadmium	0.00072J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/04/19 23:20	7440-43-9	
Chromium	0.00070J	mg/L	0.010	0.00039	1	08/30/19 16:08	09/04/19 23:20	7440-47-3	B
Cobalt	0.011	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/04/19 23:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/04/19 23:20	7439-92-1	
Lithium	0.0040J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/04/19 23:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/04/19 23:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/04/19 23:20	7782-49-2	
Thallium	0.000075J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/04/19 23:20	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 13:34	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.10	0.050	1		09/06/19 17:18	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

QC Batch: 34630

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005

METHOD BLANK: 155919

Matrix: Water

Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	09/03/19 16:46	

LABORATORY CONTROL SAMPLE: 155920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155921 155922

Parameter	Units	2622561001 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	0.0026	100	105	75-125	5	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

QC Batch: 34690 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622572006, 2622572007, 2622572008, 2622572009

METHOD BLANK: 156136 Matrix: Water
Associated Lab Samples: 2622572006, 2622572007, 2622572008, 2622572009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	09/04/19 13:04	

LABORATORY CONTROL SAMPLE: 156137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 156138 156139

Parameter	Units	156138		156139		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Mercury	mg/L	ND	0.0025	0.0024	0.0025	96	99	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

QC Batch: 34570 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005, 2622572006, 2622572007, 2622572008, 2622572009

METHOD BLANK: 155680 Matrix: Water
Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005, 2622572006, 2622572007, 2622572008, 2622572009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/04/19 21:26	
Arsenic	mg/L	ND	0.0050	0.00035	09/04/19 21:26	
Barium	mg/L	ND	0.010	0.00049	09/04/19 21:26	
Beryllium	mg/L	ND	0.0030	0.000074	09/04/19 21:26	
Cadmium	mg/L	ND	0.0025	0.00011	09/04/19 21:26	
Chromium	mg/L	0.00055J	0.010	0.00039	09/04/19 21:26	
Cobalt	mg/L	ND	0.0050	0.00030	09/04/19 21:26	
Lead	mg/L	ND	0.0050	0.000046	09/04/19 21:26	
Lithium	mg/L	ND	0.030	0.00078	09/04/19 21:26	
Molybdenum	mg/L	ND	0.010	0.00095	09/04/19 21:26	
Selenium	mg/L	ND	0.010	0.0013	09/04/19 21:26	
Thallium	mg/L	ND	0.0010	0.000052	09/04/19 21:26	

LABORATORY CONTROL SAMPLE: 155681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	113	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.11	105	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	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155682 155683

Parameter	Units	2622563003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	114	114	75-125	0	20	
Arsenic	mg/L	0.00044J	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Barium	mg/L	0.039	0.1	0.1	0.14	0.14	103	104	75-125	0	20	
Beryllium	mg/L	0.00016J	0.1	0.1	0.10	0.099	101	99	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155682		155683		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2622563003 Result	MS Spike Conc.	MSD Spike Conc.									
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20		
Chromium	mg/L	0.0071J	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.10	106	104	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20		
Lithium	mg/L	0.0021J	0.1	0.1	0.10	0.098	98	96	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	108	107	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622572

QC Batch: 496440 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
Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005, 2622572006, 2622572007, 2622572008, 2622572009

METHOD BLANK: 2673683 Matrix: Water
Associated Lab Samples: 2622572001, 2622572002, 2622572003, 2622572004, 2622572005, 2622572006, 2622572007, 2622572008, 2622572009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/06/19 13:48	

LABORATORY CONTROL SAMPLE: 2673684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2673685 2673686

Parameter	Units	2622572001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	0.78	2.5	2.5	4.9	4.8	164	160	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2673687 2673688

Parameter	Units	2622502009 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	3.1	2.7	124	106	90-110	16	10	M1,R1

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QUALIFIERS

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622572

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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

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 Ash Ponds

Pace Project No.: 2622572

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622572001	DGWC-20	EPA 3005A	34570	EPA 6020B	34601
2622572002	DGWC-21	EPA 3005A	34570	EPA 6020B	34601
2622572003	DGWC-22	EPA 3005A	34570	EPA 6020B	34601
2622572004	DGWC-23	EPA 3005A	34570	EPA 6020B	34601
2622572005	DGWC-47	EPA 3005A	34570	EPA 6020B	34601
2622572006	DGWC-48	EPA 3005A	34570	EPA 6020B	34601
2622572007	FB-3	EPA 3005A	34570	EPA 6020B	34601
2622572008	EB-3	EPA 3005A	34570	EPA 6020B	34601
2622572009	FD-3	EPA 3005A	34570	EPA 6020B	34601
2622572001	DGWC-20	EPA 7470A	34630	EPA 7470A	34665
2622572002	DGWC-21	EPA 7470A	34630	EPA 7470A	34665
2622572003	DGWC-22	EPA 7470A	34630	EPA 7470A	34665
2622572004	DGWC-23	EPA 7470A	34630	EPA 7470A	34665
2622572005	DGWC-47	EPA 7470A	34630	EPA 7470A	34665
2622572006	DGWC-48	EPA 7470A	34690	EPA 7470A	34713
2622572007	FB-3	EPA 7470A	34690	EPA 7470A	34713
2622572008	EB-3	EPA 7470A	34690	EPA 7470A	34713
2622572009	FD-3	EPA 7470A	34690	EPA 7470A	34713
2622572001	DGWC-20	EPA 300.0 Rev 2.1 1993	496440		
2622572002	DGWC-21	EPA 300.0 Rev 2.1 1993	496440		
2622572003	DGWC-22	EPA 300.0 Rev 2.1 1993	496440		
2622572004	DGWC-23	EPA 300.0 Rev 2.1 1993	496440		
2622572005	DGWC-47	EPA 300.0 Rev 2.1 1993	496440		
2622572006	DGWC-48	EPA 300.0 Rev 2.1 1993	496440		
2622572007	FB-3	EPA 300.0 Rev 2.1 1993	496440		
2622572008	EB-3	EPA 300.0 Rev 2.1 1993	496440		
2622572009	FD-3	EPA 300.0 Rev 2.1 1993	496440		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Required Client Information:
 Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Maner Road
 Atlanta, GA 30339
 Email: jabraham@southernco.com
 Phone: (404)506-7239 Fax
 Requested Due Date: Standard TAT

Section B

Required Project Information:
 Report To: Joju Abraham
 Copy To: Golder
 Purchase Order #: SCS10382775
 Project Name: Plant McDonough AP-2, 3/4
 Project #: 166849618

Section C

Invoice Information:
 Attention: scsinvoices@southernco.com
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: betsy.mcdaniel@pacelabs.com,
 Pace Profile #: 332.7.2

Requested Analysis Filtered (Y/N):
 Regulatory Agency:
 State / Location:
 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 Product: PC Soil/Solid: SL Oil: OL Wipe: WP Air: AR Other: OT Tissue: TS	CODE DW WT WW PC SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analytes Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)		
										Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Metals App IV*	Fluoride by 300.0				Radium 226/228	
1	DGWC-20	WT	G	8/29/2019	1005		4	X	X									X	X	X				
2	DGWC-21	WT	G	8/29/2019	1130		4	X	X									X	X	X				
3	DGWC-22	WT	G	8/29/2019	1210		4	X	X									X	X	X				
4	DGWC-23	WT	G	8/29/2019	1050		4	X	X									X	X	X				
5	DGWC-47	WT	G	8/29/2019	915		4	X	X									X	X	X				
6	DGWC-48	WT	G	8/29/2019	1045		6	X	X									X	X	X				Extra Radium
7	FB-3	WT	G	8/29/2019	950		4	X	X									X	X	X				
8	EB-3	WT	G	8/29/2019	1200		4	X	X									X	X	X				
9	FD-3	WT	G	8/29/2019	-		4	X	X									X	X	X				
10																								
11																								
12																								

WO# : 2622572



ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	<i>Joju Abraham</i> Golder	8-27-19	1600	<i>M. Dalman</i>	8/29/19	1600	
							0.7 Y Y Y

DATE Signed:

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



Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

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

WO# : 2622572

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

PM: BM Due Date: 09/06/19
CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.7 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Comments: _____
Date and Initials of person examining contents: 8/29/19

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 checked="" 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)

September 24, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

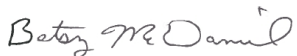
RE: Project: Plant McDonough Ash Ponds
Pace Project No.: 2622574

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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: Ben Hodges, Georgia Power
Kristen Jurinko, Golder Associates Inc.
Julie Lehrman, Golder Associates 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 Ash Ponds

Pace Project No.: 2622574

Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622574001	DGWC-20	Water	08/29/19 10:05	08/29/19 16:00
2622574002	DGWC-21	Water	08/29/19 11:30	08/29/19 16:00
2622574003	DGWC-22	Water	08/29/19 12:10	08/29/19 16:00
2622574004	DGWC-23	Water	08/29/19 10:50	08/29/19 16:00
2622574005	DGWC-47	Water	08/29/19 09:15	08/29/19 16:00
2622574006	DGWC-48	Water	08/29/19 10:45	08/29/19 16:00
2622574007	FB-3	Water	08/29/19 09:50	08/29/19 16:00
2622574008	EB-3	Water	08/29/19 12:00	08/29/19 16:00
2622574009	FD-3	Water	08/29/19 00:00	08/29/19 16:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622574

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622574001	DGWC-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574002	DGWC-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574003	DGWC-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574004	DGWC-23	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574005	DGWC-47	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574006	DGWC-48	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574007	FB-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574008	EB-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622574009	FD-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.666 ± 0.332 (0.438) C:95% T:NA	pCi/L	09/13/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.330 ± 0.458 (0.983) C:64% T:84%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	0.996 ± 0.790 (1.42)	pCi/L	09/23/19 11:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.582 ± 0.334 (0.523) C:98% T:NA	pCi/L	09/13/19 08:09	13982-63-3	
Radium-228	EPA 9320	-0.0351 ± 0.366 (0.858) C:69% T:81%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	0.582 ± 0.700 (1.38)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: DGWC-22 **Lab ID: 2622574003** Collected: 08/29/19 12:10 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.480 ± 0.285 (0.395) C:91% T:NA	pCi/L	09/13/19 08:10	13982-63-3	
Radium-228	EPA 9320	1.39 ± 0.551 (0.862) C:70% T:80%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	1.87 ± 0.836 (1.26)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: DGWC-23 **Lab ID: 2622574004** Collected: 08/29/19 10:50 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.06 ± 0.438 (0.563) C:95% T:NA	pCi/L	09/13/19 08:09	13982-63-3	
Radium-228	EPA 9320	1.15 ± 0.488 (0.792) C:70% T:84%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	2.21 ± 0.926 (1.36)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: DGWC-47 **Lab ID: 2622574005** Collected: 08/29/19 09:15 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.68 ± 0.546 (0.445) C:87% T:NA	pCi/L	09/13/19 08:06	13982-63-3	
Radium-228	EPA 9320	1.37 ± 0.508 (0.759) C:72% T:86%	pCi/L	09/19/19 15:17	15262-20-1	
Total Radium	Total Radium Calculation	3.05 ± 1.05 (1.20)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: DGWC-48 **Lab ID: 2622574006** Collected: 08/29/19 10:45 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.973 ± 0.394 (0.397) C:93% T:NA	pCi/L	09/13/19 08:07	13982-63-3	
Radium-228	EPA 9320	1.40 ± 0.600 (0.987) C:65% T:77%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	2.37 ± 0.994 (1.38)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: FB-3 **Lab ID: 2622574007** Collected: 08/29/19 09:50 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.459 ± 0.301 (0.470) C:86% T:NA	pCi/L	09/13/19 08:07	13982-63-3	
Radium-228	EPA 9320	1.12 ± 0.521 (0.892) C:66% T:84%	pCi/L	09/19/19 15:17	15262-20-1	
Total Radium	Total Radium Calculation	1.58 ± 0.822 (1.36)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: EB-3 **Lab ID: 2622574008** Collected: 08/29/19 12:00 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.388 ± 0.268 (0.422) C:87% T:NA	pCi/L	09/13/19 08:10	13982-63-3	
Radium-228	EPA 9320	0.904 ± 0.594 (1.14) C:63% T:75%	pCi/L	09/19/19 15:18	15262-20-1	
Total Radium	Total Radium Calculation	1.29 ± 0.862 (1.56)	pCi/L	09/23/19 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

Sample: FD-3 **Lab ID: 2622574009** Collected: 08/29/19 00:00 Received: 08/29/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.10 ± 0.606 (0.427) C:88% T:NA	pCi/L	09/13/19 09:00	13982-63-3	
Radium-228	EPA 9320	0.820 ± 0.478 (0.884) C:71% T:76%	pCi/L	09/19/19 15:17	15262-20-1	
Total Radium	Total Radium Calculation	2.92 ± 1.08 (1.31)	pCi/L	09/23/19 11:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

QC Batch: 359955

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2622574001, 2622574002, 2622574003, 2622574004, 2622574005, 2622574006, 2622574007, 2622574008, 2622574009

METHOD BLANK: 1747367

Matrix: Water

Associated Lab Samples: 2622574001, 2622574002, 2622574003, 2622574004, 2622574005, 2622574006, 2622574007, 2622574008, 2622574009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.428 ± 0.255 (0.325) C:92% T:NA	pCi/L	09/13/19 09:00	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Ash Ponds

Pace Project No.: 2622574

QC Batch: 359957

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622574001, 2622574002, 2622574003, 2622574004, 2622574005, 2622574006, 2622574007, 2622574008, 2622574009

METHOD BLANK: 1747374

Matrix: Water

Associated Lab Samples: 2622574001, 2622574002, 2622574003, 2622574004, 2622574005, 2622574006, 2622574007, 2622574008, 2622574009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.461 ± 0.411 (0.833) C:71% T:76%	pCi/L	09/19/19 12:11	

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 Ash Ponds
Pace Project No.: 2622574

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Ash Ponds
Pace Project No.: 2622574

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622574001	DGWC-20	EPA 9315	359955		
2622574002	DGWC-21	EPA 9315	359955		
2622574003	DGWC-22	EPA 9315	359955		
2622574004	DGWC-23	EPA 9315	359955		
2622574005	DGWC-47	EPA 9315	359955		
2622574006	DGWC-48	EPA 9315	359955		
2622574007	FB-3	EPA 9315	359955		
2622574008	EB-3	EPA 9315	359955		
2622574009	FD-3	EPA 9315	359955		
2622574001	DGWC-20	EPA 9320	359957		
2622574002	DGWC-21	EPA 9320	359957		
2622574003	DGWC-22	EPA 9320	359957		
2622574004	DGWC-23	EPA 9320	359957		
2622574005	DGWC-47	EPA 9320	359957		
2622574006	DGWC-48	EPA 9320	359957		
2622574007	FB-3	EPA 9320	359957		
2622574008	EB-3	EPA 9320	359957		
2622574009	FD-3	EPA 9320	359957		
2622574001	DGWC-20	Total Radium Calculation	362617		
2622574002	DGWC-21	Total Radium Calculation	362617		
2622574003	DGWC-22	Total Radium Calculation	362617		
2622574004	DGWC-23	Total Radium Calculation	362617		
2622574005	DGWC-47	Total Radium Calculation	362617		
2622574006	DGWC-48	Total Radium Calculation	362617		
2622574007	FB-3	Total Radium Calculation	362617		
2622574008	EB-3	Total Radium Calculation	362617		
2622574009	FD-3	Total Radium Calculation	362617		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Joju Abraham		Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339		Copy To: Golder		Company Name:	
Email: jabraham@southernco.com		Purchase Order #: SCS10382775		Address:	
Phone: (404)506-7239 Fax		Project Name: Plant McDonough AP-2, 3/4		Pace Quote:	
Requested Due Date: Standard TAT		Project #: 166849618		Pace Project Manager: betsy.modaniel@pacelabs.com	
				Pace Profile #: 332.7.2	
				Regulatory Agency:	
				State / Location:	
				GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -,) Sample IDs must be unique	MATRIX: Drinking Water: DW: Water: WT: Waste Water: WW: Product: P: Soil/Solid: SL: Oil: OL: Wipe: WP: Air: AR: Other: OT: Tissue: TS	CODE: DW: WT: WW: P: SL: OL: WP: AR: OT: TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)	
										Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2SO3	Methanol	Other	Metals App IV*	Fluoride by 300.0		Radium 226/228	Extra Radium			
1	DGWC-20	WT	G	WT	G	8/29/2019	1005		4	X	X									X	X	X			
2	DGWC-21	WT	G	WT	G	8/29/2019	1130		4	X	X									X	X	X			
3	DGWC-22	WT	G	WT	G	8/29/2019	1210		4	X	X									X	X	X			
4	DGWC-23	WT	G	WT	G	8/29/2019	1050		4	X	X									X	X	X			
5	DGWC-47	WT	G	WT	G	8/29/2019	915		4	X	X									X	X	X			
6	DGWC-48	WT	G	WT	G	8/29/2019	1045		6	X	X									X	X	X		Extra Radium	
7	FB-3	WT	G	WT	G	8/29/2019	950		4	X	X									X	X	X			
8	EB-3	WT	G	WT	G	8/29/2019	1200		4	X	X									X	X	X			
9	FD-3	WT	G	WT	G	8/29/2019	-		4	X	X									X	X	X			
10																									
11																									
12																									

WO#: 2622574

 2622574

APPROVED BY / COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>Joju Abraham</i> Golder	8-29-19	1600	<i>M. D. ...</i>	8/29/19	1600	0.7 Y Y Y Y
*Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti TEMP in C Received on Ice <input type="checkbox"/> (Y/N) Custody Sealed <input type="checkbox"/> Cooler <input type="checkbox"/> (Y/N) Samples Intact <input type="checkbox"/> (Y/N)							
DATE Signed:							



Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

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

WO#: **2622574**

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

PM: BM Due Date: 09/27/19
CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 0.7 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/29/19

Temp should be above freezing to 6°C

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 checked="" 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: _____

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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,



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.
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 AP-2, 3/4

Pace Project No.: 2622585

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

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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SAMPLE SUMMARY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622585001	DGWC-8	Water	08/28/19 10:29	08/29/19 12:50
2622585002	DGWC-13	Water	08/28/19 12:29	08/29/19 12:50
2622585003	DGWC-15	Water	08/28/19 15:05	08/29/19 12:50
2622585004	DGWC-19	Water	08/28/19 16:30	08/29/19 12:50
2622585005	DGWC-42	Water	08/28/19 16:48	08/29/19 12:50
2622585006	EB-2	Water	08/28/19 17:10	08/29/19 12:50
2622585007	FB-2	Water	08/28/19 10:15	08/29/19 12:50

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622585001	DGWC-8	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585002	DGWC-13	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585003	DGWC-15	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585004	DGWC-19	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585005	DGWC-42	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585006	EB-2	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A
2622585007	FB-2	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Sample: DGWC-8		Lab ID: 2622585001		Collected: 08/28/19 10:29		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 18:50	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 18:50	7440-38-2		
Barium	0.025	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 18:50	7440-39-3		
Beryllium	0.0021J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 18:50	7440-41-7		
Cadmium	0.0022J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 18:50	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 18:50	7440-47-3		
Cobalt	0.051	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 18:50	7440-48-4		
Lead	0.00082J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 18:50	7439-92-1		
Lithium	0.0048J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 18:50	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 18:50	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 18:50	7782-49-2		
Thallium	0.00022J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 18:50	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:03	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.098J	mg/L	0.10	0.050	1		09/07/19 19:02	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

Sample: DGWC-13		Lab ID: 2622585002		Collected: 08/28/19 12:29		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 18:56	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 18:56	7440-38-2		
Barium	0.033	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 18:56	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 18:56	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 18:56	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 18:56	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 18:56	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 18:56	7439-92-1		
Lithium	0.0033J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 18:56	7439-93-2		
Molybdenum	0.015	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 18:56	7439-98-7		
Selenium	0.0039J	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 18:56	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 18:56	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:05	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.091J	mg/L	0.10	0.050	1		09/07/19 19:18	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

Sample: DGWC-15		Lab ID: 2622585003		Collected: 08/28/19 15:05		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.00033J	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 19:13	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 19:13	7440-38-2		
Barium	0.047	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 19:13	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 19:13	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 19:13	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 19:13	7440-47-3		
Cobalt	0.0015J	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 19:13	7440-48-4		
Lead	0.000059J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 19:13	7439-92-1		
Lithium	0.0063J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 19:13	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 19:13	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 19:13	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 19:13	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:12	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/07/19 19:33	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Sample: DGWC-19		Lab ID: 2622585004		Collected: 08/28/19 16:30		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 19:19	7440-36-0		
Arsenic	0.00049J	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 19:19	7440-38-2		
Barium	0.026	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 19:19	7440-39-3		
Beryllium	0.0018J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 19:19	7440-41-7		
Cadmium	0.00033J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 19:19	7440-43-9		
Chromium	0.0028J	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 19:19	7440-47-3		
Cobalt	0.048	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 19:19	7440-48-4		
Lead	0.00026J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 19:19	7439-92-1		
Lithium	0.0032J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 19:19	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 19:19	7439-98-7		
Selenium	0.0040J	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 19:19	7782-49-2		
Thallium	0.00053J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 19:19	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:15	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.20	mg/L	0.10	0.050	1		09/07/19 19:49	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Sample: DGWC-42		Lab ID: 2622585005		Collected: 08/28/19 16:48		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 19:25	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 19:25	7440-38-2		
Barium	0.018	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 19:25	7440-39-3		
Beryllium	0.0023J	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 19:25	7440-41-7		
Cadmium	0.0015J	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 19:25	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 19:25	7440-47-3		
Cobalt	0.029	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 19:25	7440-48-4		
Lead	0.00036J	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 19:25	7439-92-1		
Lithium	0.010J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 19:25	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 19:25	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 19:25	7782-49-2		
Thallium	0.000069J	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 19:25	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:17	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/07/19 20:04	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

Sample: EB-2		Lab ID: 2622585006		Collected: 08/28/19 17:10		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 19:31	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 19:31	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 19:31	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 19:31	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 19:31	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 19:31	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 19:31	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 19:31	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 19:31	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 19:31	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 19:31	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 19:31	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:19	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/07/19 20:19	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

Sample: FB-2		Lab ID: 2622585007		Collected: 08/28/19 10:15		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 19:36	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 19:36	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 19:36	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 19:36	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 19:36	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 19:36	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 19:36	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 19:36	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 19:36	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 19:36	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 19:36	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 19:36	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/04/19 09:14	09/04/19 14:22	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.10	0.050	1		09/08/19 01:30	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

QC Batch: 34690

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006, 2622585007

METHOD BLANK: 156136

Matrix: Water

Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006, 2622585007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	09/04/19 13:04	

LABORATORY CONTROL SAMPLE: 156137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 156138 156139

Parameter	Units	2622572006 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	0.0024	0.0025	96	99	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622585

QC Batch: 34572 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006, 2622585007

METHOD BLANK: 155685 Matrix: Water
Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006, 2622585007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/05/19 17:36	
Arsenic	mg/L	ND	0.0050	0.00035	09/05/19 17:36	
Barium	mg/L	ND	0.010	0.00049	09/05/19 17:36	
Beryllium	mg/L	ND	0.0030	0.000074	09/05/19 17:36	
Cadmium	mg/L	ND	0.0025	0.00011	09/05/19 17:36	
Chromium	mg/L	ND	0.010	0.00039	09/05/19 17:36	
Cobalt	mg/L	ND	0.0050	0.00030	09/05/19 17:36	
Lead	mg/L	ND	0.0050	0.000046	09/05/19 17:36	
Lithium	mg/L	ND	0.030	0.00078	09/05/19 17:36	
Molybdenum	mg/L	ND	0.010	0.00095	09/05/19 17:36	
Selenium	mg/L	ND	0.010	0.0013	09/05/19 17:36	
Thallium	mg/L	ND	0.0010	0.000052	09/05/19 17:36	

LABORATORY CONTROL SAMPLE: 155686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155687 155688

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2622579008 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Barium	mg/L	0.17	0.1	0.1	0.25	0.27	84	96	75-125	4	20	
Beryllium	mg/L	0.00022J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155687		155688		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2622579008 Result	MS Spike Conc.	MSD Spike Conc.									
Chromium	mg/L	0.00089J	0.1	0.1	0.096	0.099	95	98	75-125	2	20		
Cobalt	mg/L	0.00099J	0.1	0.1	0.096	0.097	95	96	75-125	1	20		
Lead	mg/L	0.000061J	0.1	0.1	0.096	0.098	96	98	75-125	2	20		
Lithium	mg/L	0.0018J	0.1	0.1	0.097	0.098	95	96	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	103	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

QC Batch: 496582 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
 Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006

METHOD BLANK: 2674477 Matrix: Water
 Associated Lab Samples: 2622585001, 2622585002, 2622585003, 2622585004, 2622585005, 2622585006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/07/19 12:19	

LABORATORY CONTROL SAMPLE: 2674478

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: 2674479 2674480

Parameter	Units	2622657001 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	ND	ND	0	0	90-110		10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2674481 2674482

Parameter	Units	2622587005 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	2.8	108	108	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

QC Batch: 496583	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
Associated Lab Samples: 2622585007	

METHOD BLANK: 2674483 Matrix: Water

Associated Lab Samples: 2622585007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/07/19 20:35	

LABORATORY CONTROL SAMPLE: 2674484

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: 2674485 2674486

Parameter	Units	92443935013 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	99	102	90-110	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2674487 2674488

Parameter	Units	2622579001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Fluoride	mg/L	ND	2.5	2.4	2.5	2.4	96	96	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622585

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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

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-2, 3/4
Pace Project No.: 2622585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622585001	DGWC-8	EPA 3005A	34572	EPA 6020B	34602
2622585002	DGWC-13	EPA 3005A	34572	EPA 6020B	34602
2622585003	DGWC-15	EPA 3005A	34572	EPA 6020B	34602
2622585004	DGWC-19	EPA 3005A	34572	EPA 6020B	34602
2622585005	DGWC-42	EPA 3005A	34572	EPA 6020B	34602
2622585006	EB-2	EPA 3005A	34572	EPA 6020B	34602
2622585007	FB-2	EPA 3005A	34572	EPA 6020B	34602
2622585001	DGWC-8	EPA 7470A	34690	EPA 7470A	34713
2622585002	DGWC-13	EPA 7470A	34690	EPA 7470A	34713
2622585003	DGWC-15	EPA 7470A	34690	EPA 7470A	34713
2622585004	DGWC-19	EPA 7470A	34690	EPA 7470A	34713
2622585005	DGWC-42	EPA 7470A	34690	EPA 7470A	34713
2622585006	EB-2	EPA 7470A	34690	EPA 7470A	34713
2622585007	FB-2	EPA 7470A	34690	EPA 7470A	34713
2622585001	DGWC-8	EPA 300.0 Rev 2.1 1993	496582		
2622585002	DGWC-13	EPA 300.0 Rev 2.1 1993	496582		
2622585003	DGWC-15	EPA 300.0 Rev 2.1 1993	496582		
2622585004	DGWC-19	EPA 300.0 Rev 2.1 1993	496582		
2622585005	DGWC-42	EPA 300.0 Rev 2.1 1993	496582		
2622585006	EB-2	EPA 300.0 Rev 2.1 1993	496582		
2622585007	FB-2	EPA 300.0 Rev 2.1 1993	496583		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

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

WO#: **2622585**

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

PM: BM Due Date: 09/06/19
CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.0 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/29/19 m

		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 checked="" 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)

September 24, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622586

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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: Ben Hodges, Georgia Power
Kristen Jurinko, Golder Associates Inc.
Julie Lehrman, Golder Associates 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 AP-2, 3/4

Pace Project No.: 2622586

Pennsylvania Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622586001	DGWC-8	Water	08/28/19 10:29	08/29/19 12:50
2622586002	DGWC-13	Water	08/28/19 12:29	08/29/19 12:50
2622586003	DGWC-15	Water	08/28/19 15:05	08/29/19 12:50
2622586004	DGWC-19	Water	08/28/19 16:30	08/29/19 12:50
2622586005	DGWC-42	Water	08/28/19 16:48	08/29/19 12:50
2622586006	EB-2	Water	08/28/19 17:10	08/29/19 12:50
2622586007	FB-2	Water	08/28/19 10:15	08/29/19 12:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622586001	DGWC-8	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586002	DGWC-13	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586003	DGWC-15	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586004	DGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586005	DGWC-42	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586006	EB-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622586007	FB-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Sample: DGWC-8 **Lab ID: 2622586001** Collected: 08/28/19 10:29 Received: 08/29/19 12:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.474 ± 0.219 (0.316) C:85% T:NA	pCi/L	09/16/19 19:51	13982-63-3	
Radium-228	EPA 9320	0.341 ± 0.440 (0.936) C:70% T:80%	pCi/L	09/19/19 14:38	15262-20-1	
Total Radium	Total Radium Calculation	0.815 ± 0.659 (1.25)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.916 ± 0.282 (0.279) C:88% T:NA	pCi/L	09/16/19 19:51	13982-63-3	
Radium-228	EPA 9320	0.517 ± 0.469 (0.948) C:69% T:76%	pCi/L	09/19/19 14:38	15262-20-1	
Total Radium	Total Radium Calculation	1.43 ± 0.751 (1.23)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Sample: DGWC-15 **Lab ID: 2622586003** Collected: 08/28/19 15:05 Received: 08/29/19 12:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.544 ± 0.274 (0.445) C:81% T:NA	pCi/L	09/16/19 19:52	13982-63-3	
Radium-228	EPA 9320	0.467 ± 0.453 (0.936) C:83% T:80%	pCi/L	09/19/19 14:38	15262-20-1	
Total Radium	Total Radium Calculation	1.01 ± 0.727 (1.38)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.276 ± 0.192 (0.339) C:92% T:NA	pCi/L	09/16/19 19:52	13982-63-3	
Radium-228	EPA 9320	0.385 ± 0.422 (0.882) C:80% T:78%	pCi/L	09/19/19 14:39	15262-20-1	
Total Radium	Total Radium Calculation	0.661 ± 0.614 (1.22)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.507 ± 0.199 (0.201) C:89% T:NA	pCi/L	09/16/19 19:53	13982-63-3	
Radium-228	EPA 9320	0.376 ± 0.468 (0.996) C:77% T:88%	pCi/L	09/19/19 14:39	15262-20-1	
Total Radium	Total Radium Calculation	0.883 ± 0.667 (1.20)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Sample: EB-2 **Lab ID: 2622586006** Collected: 08/28/19 17:10 Received: 08/29/19 12:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.527 ± 0.196 (0.178) C:89% T:NA	pCi/L	09/16/19 19:53	13982-63-3	
Radium-228	EPA 9320	0.107 ± 0.446 (1.01) C:78% T:75%	pCi/L	09/19/19 14:39	15262-20-1	
Total Radium	Total Radium Calculation	0.634 ± 0.642 (1.19)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

Sample: FB-2 **Lab ID: 2622586007** Collected: 08/28/19 10:15 Received: 08/29/19 12:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.457 ± 0.225 (0.343) C:83% T:NA	pCi/L	09/16/19 17:48	13982-63-3	
Radium-228	EPA 9320	-0.132 ± 0.434 (1.04) C:71% T:80%	pCi/L	09/19/19 14:38	15262-20-1	
Total Radium	Total Radium Calculation	0.457 ± 0.659 (1.38)	pCi/L	09/24/19 12:59	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2622586

QC Batch: 359960

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2622586001, 2622586002, 2622586003, 2622586004, 2622586005, 2622586006, 2622586007

METHOD BLANK: 1747379

Matrix: Water

Associated Lab Samples: 2622586001, 2622586002, 2622586003, 2622586004, 2622586005, 2622586006, 2622586007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.192 ± 0.159 (0.292) C:91% T:NA	pCi/L	09/16/19 20:09	

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-2, 3/4

Pace Project No.: 2622586

QC Batch: 359961

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622586001, 2622586002, 2622586003, 2622586004, 2622586005, 2622586006, 2622586007

METHOD BLANK: 1747380

Matrix: Water

Associated Lab Samples: 2622586001, 2622586002, 2622586003, 2622586004, 2622586005, 2622586006, 2622586007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.232 ± 0.345 (0.742) C:77% T:84%	pCi/L	09/19/19 14:40	

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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622586

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2622586

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622586001	DGWC-8	EPA 9315	359960		
2622586002	DGWC-13	EPA 9315	359960		
2622586003	DGWC-15	EPA 9315	359960		
2622586004	DGWC-19	EPA 9315	359960		
2622586005	DGWC-42	EPA 9315	359960		
2622586006	EB-2	EPA 9315	359960		
2622586007	FB-2	EPA 9315	359960		
2622586001	DGWC-8	EPA 9320	359961		
2622586002	DGWC-13	EPA 9320	359961		
2622586003	DGWC-15	EPA 9320	359961		
2622586004	DGWC-19	EPA 9320	359961		
2622586005	DGWC-42	EPA 9320	359961		
2622586006	EB-2	EPA 9320	359961		
2622586007	FB-2	EPA 9320	359961		
2622586001	DGWC-8	Total Radium Calculation	362865		
2622586002	DGWC-13	Total Radium Calculation	362865		
2622586003	DGWC-15	Total Radium Calculation	362865		
2622586004	DGWC-19	Total Radium Calculation	362865		
2622586005	DGWC-42	Total Radium Calculation	362865		
2622586006	EB-2	Total Radium Calculation	362865		
2622586007	FB-2	Total Radium Calculation	362865		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Section B

Section C

Required Client Information:

Required Project Information:

Invoice Information:

Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Attention: scsinvoices@southernco.com
Address: 2480 Maner Road	Copy To: Golder	Company Name:
Atlanta, GA 30339		Address:
Email: jabraham@southernco.com	Purchase Order #: SCS10382775	Pace Quote:
Phone: (404) 506-7239 Fax:	Project Name: Plant McDonough AP-2, 3/4	Pace Project Manager: betsy.mcdaniel@pacelabs.com
Requested Due Date: Standard TAT	Project #: 166849618	Pace Profile #: 332.7.2

Regulatory Agency:
State / Location:
GA

ITEM #	SAMPLE ID	MATRIX	CODE	MTRX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)		
										Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Metals App IV*	Fluoride by 300.0				Radium 226/228	
1	DGWC-8	WT	G			8/28/2019	1029		4	X	X								X	X	X			
2	DGWC-13	WT	G			8/28/2019	1229		4	X	X								X	X	X			
3	DGWC-15	WT	G			8/28/2019	1505		4	X	X								X	X	X			
4	DGWC-19	WT	G			8/28/2019	1630		4	X	X								X	X	X			
5	DGWC-42	WT	G			8/28/2019	1648		4	X	X								X	X	X			
6	EB-2	WT	G			8/28/2019	1710		4	X	X								X	X	X			
7	FB-2	WT	G			8/28/2019	1015		4	X	X								X	X	X			
8																								
9																								
10																								
11																								
12																								

WO#: 2622586



2622586

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, U, Mo, Se, Tl	<i>JM</i> Golder	8/29/19		<i>M. BAH</i> Charles Paul	8/29/19	10:30	X X X

TEMP in C

Received on Ice (Y/N)

Custody Sealed (Y/N)

Cooler (Y/N)

Samples Intact (Y/N)

DATE Signed:



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

WO#: **2622586**

Tracking #: _____

PM: BM Due Date: 09/27/19

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

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 2.0 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 8/29/19 ml

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 checked="" 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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Background
Pace Project No.: 2622589

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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,



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.
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 Background

Pace Project No.: 2622589

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background

Pace Project No.: 2622589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622589001	DGWA-53	Water	08/28/19 15:55	08/29/19 12:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background

Pace Project No.: 2622589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622589001	DGWA-53	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2622589

Sample: DGWA-53		Lab ID: 2622589001		Collected: 08/28/19 15:55		Received: 08/29/19 12:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/30/19 16:08	09/05/19 20:39	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	08/30/19 16:08	09/05/19 20:39	7440-38-2		
Barium	0.087	mg/L	0.010	0.00049	1	08/30/19 16:08	09/05/19 20:39	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	08/30/19 16:08	09/05/19 20:39	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00011	1	08/30/19 16:08	09/05/19 20:39	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	08/30/19 16:08	09/05/19 20:39	7440-47-3		
Cobalt	0.013	mg/L	0.0050	0.00030	1	08/30/19 16:08	09/05/19 20:39	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	08/30/19 16:08	09/05/19 20:39	7439-92-1		
Lithium	0.0092J	mg/L	0.030	0.00078	1	08/30/19 16:08	09/05/19 20:39	7439-93-2		
Molybdenum	0.031	mg/L	0.010	0.00095	1	08/30/19 16:08	09/05/19 20:39	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	08/30/19 16:08	09/05/19 20:39	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	08/30/19 16:08	09/05/19 20:39	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/05/19 09:07	09/05/19 13:32	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.42	mg/L	0.10	0.050	1		09/07/19 13:36	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622589

QC Batch: 34720 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622589001

METHOD BLANK: 156270 Matrix: Water
Associated Lab Samples: 2622589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	09/05/19 12:57	

LABORATORY CONTROL SAMPLE: 156271

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: 156272 156273

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622587001 Result	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0023	91	92	75-125	2	20

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622589

QC Batch: 34572 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622589001

METHOD BLANK: 155685 Matrix: Water
Associated Lab Samples: 2622589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/05/19 17:36	
Arsenic	mg/L	ND	0.0050	0.00035	09/05/19 17:36	
Barium	mg/L	ND	0.010	0.00049	09/05/19 17:36	
Beryllium	mg/L	ND	0.0030	0.000074	09/05/19 17:36	
Cadmium	mg/L	ND	0.0025	0.00011	09/05/19 17:36	
Chromium	mg/L	ND	0.010	0.00039	09/05/19 17:36	
Cobalt	mg/L	ND	0.0050	0.00030	09/05/19 17:36	
Lead	mg/L	ND	0.0050	0.000046	09/05/19 17:36	
Lithium	mg/L	ND	0.030	0.00078	09/05/19 17:36	
Molybdenum	mg/L	ND	0.010	0.00095	09/05/19 17:36	
Selenium	mg/L	ND	0.010	0.0013	09/05/19 17:36	
Thallium	mg/L	ND	0.0010	0.000052	09/05/19 17:36	

LABORATORY CONTROL SAMPLE: 155686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155687 155688

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2622579008 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Barium	mg/L	0.17	0.1	0.1	0.25	0.27	84	96	75-125	4	20	
Beryllium	mg/L	0.00022J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2622589

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155687		155688		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2622579008 Result	MS Spike Conc.	MSD Spike Conc.								
Chromium	mg/L	0.00089J	0.1	0.1	0.096	0.099	95	98	75-125	2	20	
Cobalt	mg/L	0.00099J	0.1	0.1	0.096	0.097	95	96	75-125	1	20	
Lead	mg/L	0.000061J	0.1	0.1	0.096	0.098	96	98	75-125	2	20	
Lithium	mg/L	0.0018J	0.1	0.1	0.097	0.098	95	96	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	103	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2622589

QC Batch: 496582 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
Associated Lab Samples: 2622589001

METHOD BLANK: 2674477 Matrix: Water
Associated Lab Samples: 2622589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/07/19 12:19	

LABORATORY CONTROL SAMPLE: 2674478

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: 2674479 2674480

Parameter	Units	2622657001 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	ND	ND	0	0	90-110		10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2674481 2674482

Parameter	Units	2622587005 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	2.8	108	108	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough Background

Pace Project No.: 2622589

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.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

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 Background
Pace Project No.: 2622589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622589001	DGWA-53	EPA 3005A	34572	EPA 6020B	34602
2622589001	DGWA-53	EPA 7470A	34720	EPA 7470A	34792
2622589001	DGWA-53	EPA 300.0 Rev 2.1 1993	496582		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

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

WO# : 2622589

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

PM: BM Due Date: 09/06/19

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process, has begun

Cooler Temperature 2.0 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/29/19 ml

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 checked="" 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)

September 27, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

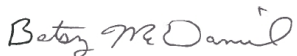
RE: Project: Plant McDonough Background
Pace Project No.: 2622590

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 29, 2019. 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: Ms. Jean Brown, Georgia Power_Southern Company
Ben Hodges, Georgia Power
Kristen Jurinko, Golder Associates Inc.
Julie Lehrman, Golder Associates Inc.
Dawn Prell, Golder Associates Inc.
Tim Richards, Golder Associates - Atlanta
Rebecca Thornton, Pace Analytical Atlanta
Dominic Weatherhill, Georgia Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant McDonough Background

Pace Project No.: 2622590

Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background

Pace Project No.: 2622590

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622590001	DGWA-53	Water	08/28/19 15:55	08/29/19 12:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2622590

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622590001	DGWA-53	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622590

Sample: DGWA-53 **Lab ID: 2622590001** Collected: 08/28/19 15:55 Received: 08/29/19 12:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.38 ± 0.451 (0.394) C:81% T:NA	pCi/L	09/12/19 08:42	13982-63-3	
Radium-228	EPA 9320	1.30 ± 0.446 (0.590) C:69% T:95%	pCi/L	09/19/19 15:19	15262-20-1	
Total Radium	Total Radium Calculation	2.68 ± 0.897 (0.984)	pCi/L	09/23/19 11:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622590

QC Batch: 359954

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2622590001

METHOD BLANK: 1747365

Matrix: Water

Associated Lab Samples: 2622590001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0188 ± 0.324 (0.758) C:68% T:80%	pCi/L	09/19/19 15:18	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2622590

QC Batch: 359953

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2622590001

METHOD BLANK: 1747363

Matrix: Water

Associated Lab Samples: 2622590001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.412 ± 0.223 (0.263) C:94% T:NA	pCi/L	09/12/19 08:42	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough Background
Pace Project No.: 2622590

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Background

Pace Project No.: 2622590

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622590001	DGWA-53	EPA 9315	359953		
2622590001	DGWA-53	EPA 9320	359954		
2622590001	DGWA-53	Total Radium Calculation	362615		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Attention: scsinvoices@southemco.com			
Address: 2480 Maner Road Atlanta, GA 30339	Copy To: Golder	Company Name:		Regulatory Agency:	
Email: jabraham@southemco.com	Purchase Order #: SCS10382775	Pace Quote:		State/Location:	
Phone: (404)506-7239 Fax:	Project Name: Plant McDonough Background	Pace Project Manager: betsy.mcdaniel@pacelabs.com		GA	
Requested Due Date: Standard TAT	Project #: 166849618	Pace Profile #: 332.7.2			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Analyses Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)				
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Metals App IV*	Fluoride by 300.0					Radium 226/228			
1	DGWA-53	WT	G	8/28/2019	1555		4	X		X										X	X	X			
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

WO# : 2622590

 2622590

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*Metals = Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	<i>Joju Abraham</i>	8-29-19		<i>M. BAH</i>	8-29-19	10:50	
	<i>Golder</i>			<i>Cheryl J. Golder</i>	8/29/19	12:50	2.0 X Y ✓

TEMP in C _____
 Received on _____
 Ice (Y/N) _____
 Custody Sealed (Y/N) _____
 Cooler (Y/N) _____
 Samples intact (Y/N) _____
 DATE Signed: _____



Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

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

WO#: **2622590**

PM: **BM** Due Date: **09/27/19**

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

CLIENT: **GAPower-CCR**

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 2.0

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/29/19 m

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 checked="" 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)

November 14, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

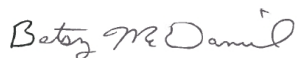
RE: Project: Plant McDonough Background
Pace Project No.: 2624495

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2019. 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: Daniela Herrera, Golder
Ben Hodges, Georgia Power
Jimmy Jones, Golder Associates Inc.
Kristen Jurinko
Julie Lehrman, Golder Associates 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 Background
Pace Project No.: 2624495

Pennsylvania Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background
Pace Project No.: 2624495

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624495001	DGWA-53	Water	10/16/19 10:00	10/17/19 12:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2624495

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2624495001	DGWA-53	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2624495

Sample: DGWA-53 **Lab ID: 2624495001** Collected: 10/16/19 10:00 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.26 ± 0.449 (0.426) C:93% T:NA	pCi/L	11/06/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.626 ± 0.409 (0.774) C:75% T:93%	pCi/L	11/06/19 17:17	15262-20-1	
Total Radium	Total Radium Calculation	1.89 ± 0.858 (1.20)	pCi/L	11/12/19 10:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2624495

QC Batch: 368259

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2624495001

METHOD BLANK: 1786863

Matrix: Water

Associated Lab Samples: 2624495001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.306 ± 0.244 (0.419) C:96% T:NA	pCi/L	11/06/19 08:02	

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 Background

Pace Project No.: 2624495

QC Batch: 368258

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2624495001

METHOD BLANK: 1786861

Matrix: Water

Associated Lab Samples: 2624495001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0170 ± 0.384 (0.894) C:77% T:79%	pCi/L	11/06/19 17:17	

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 Background
Pace Project No.: 2624495

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Background
Pace Project No.: 2624495

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624495001	DGWA-53	EPA 9315	368259		
2624495001	DGWA-53	EPA 9320	368258		
2624495001	DGWA-53	Total Radium Calculation	370509		

REPORT OF LABORATORY ANALYSIS

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WO#: 2624495
PM: BM
Due Date: 11/14/19
CLIENT: GA Power-CCR



Client Name: GA Power

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

Cooler Temperature 1.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 10/12/19 CDK

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 checked="" type="checkbox"/> Yes <input 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. <u>Field Filtered Nets + DOC</u>
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 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, <u>DOC</u> , O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input 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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Background
Pace Project No.: 2624494

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2019. 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,



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.
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 Background

Pace Project No.: 2624494

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: Plant McDonough Background
Pace Project No.: 2624494

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624494001	DGWA-53	Water	10/16/19 10:00	10/17/19 12:00

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2624494

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624494001	DGWA-53	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2624494

Sample: DGWA-53		Lab ID: 2624494001		Collected: 10/16/19 10:00		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 23:06	7440-36-0		
Arsenic	0.0018J	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 23:06	7440-38-2		
Barium	0.077	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 23:06	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 11:41	7440-41-7		
Boron	0.059	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 23:06	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 23:06	7440-43-9		
Calcium	17.7	mg/L	5.0	0.55	50	10/21/19 16:03	10/23/19 23:12	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 23:06	7440-47-3		
Cobalt	0.0090	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 23:06	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 23:06	7439-92-1		
Lithium	0.0094J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 11:41	7439-93-2		
Molybdenum	0.037	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 23:06	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 23:06	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 23:06	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:34	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	126	mg/L	10.0	10.0	1		10/23/19 15:49			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.0	mg/L	1.0	0.024	1		10/25/19 06:39	16887-00-6		
Fluoride	0.11J	mg/L	0.30	0.029	1		10/25/19 06:39	16984-48-8		
Sulfate	15.1	mg/L	1.0	0.017	1		10/25/19 06:39	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2624494

QC Batch: 37300 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2624494001

METHOD BLANK: 168761 Matrix: Water
Associated Lab Samples: 2624494001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/23/19 14:38	

LABORATORY CONTROL SAMPLE: 168762

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: 168763 168764

Parameter	Units	2624388001 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	0.0024	0.0024	97	96	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2624494

QC Batch: 37286 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624494001

METHOD BLANK: 168679 Matrix: Water
Associated Lab Samples: 2624494001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/23/19 18:31	
Arsenic	mg/L	ND	0.0050	0.00035	10/23/19 18:31	
Barium	mg/L	ND	0.010	0.00049	10/23/19 18:31	
Beryllium	mg/L	ND	0.0030	0.000074	10/23/19 18:31	
Boron	mg/L	ND	0.040	0.0049	10/23/19 18:31	
Cadmium	mg/L	ND	0.0025	0.00011	10/23/19 18:31	
Calcium	mg/L	ND	0.10	0.011	10/23/19 18:31	
Chromium	mg/L	ND	0.010	0.00039	10/23/19 18:31	
Cobalt	mg/L	ND	0.0050	0.00030	10/23/19 18:31	
Lead	mg/L	ND	0.0050	0.000046	10/23/19 18:31	
Lithium	mg/L	ND	0.030	0.00078	10/23/19 18:31	
Molybdenum	mg/L	ND	0.010	0.00095	10/23/19 18:31	
Selenium	mg/L	ND	0.010	0.0013	10/23/19 18:31	
Thallium	mg/L	ND	0.0010	0.000052	10/23/19 18:31	

LABORATORY CONTROL SAMPLE: 168680

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	0.098	98	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	1.0	101	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	101	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168681 168682

Parameter	Units	2624484003 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.							
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2624494

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168681		168682		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2624484003 Result	MS Spike Conc.	MSD Spike Conc.									
Arsenic	mg/L	0.00040J	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Barium	mg/L	0.037	0.1	0.1	0.15	0.14	109	107	75-125	1	20		
Beryllium	mg/L	0.00015J	0.1	0.1	0.095	0.094	95	94	75-125	0	20		
Boron	mg/L	2.2	1	1	3.1	3.1	90	90	75-125	0	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Calcium	mg/L	61.2	1	1	62.7	66.1	145	485	75-125	5	20	M6	
Chromium	mg/L	0.0064J	0.1	0.1	0.11	0.10	100	98	75-125	2	20		
Cobalt	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Lithium	mg/L	0.0022J	0.1	0.1	0.096	0.095	94	93	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.096	96	95	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2624494

QC Batch: 37419	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2624494001	

LABORATORY CONTROL SAMPLE: 169291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	391	98	84-108	

SAMPLE DUPLICATE: 169292

Parameter	Units	2624484007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 169293

Parameter	Units	2624491004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	501	0	10	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2624494

QC Batch: 37483 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624494001

METHOD BLANK: 169745 Matrix: Water
Associated Lab Samples: 2624494001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	10/25/19 02:57	
Fluoride	mg/L	ND	0.30	0.029	10/25/19 02:57	
Sulfate	mg/L	0.054J	1.0	0.017	10/25/19 02:57	

LABORATORY CONTROL SAMPLE: 169746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	93	90-110	
Fluoride	mg/L	5	4.8	97	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 169747 169748

Parameter	Units	2624451001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	27.7	5	5	33.9	33.8	124	123	90-110	0	15	M1
Fluoride	mg/L	0.38	5	5	11.1	11.4	214	221	90-110	3	15	M1
Sulfate	mg/L	ND	5	5	ND	ND	0	0	90-110		15	M1

MATRIX SPIKE SAMPLE: 169749

Parameter	Units	2624451002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	5	13.6	185	90-110	M1
Fluoride	mg/L	0.57	5	10.8	204	90-110	M1
Sulfate	mg/L	ND	5	ND	0	90-110	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough Background

Pace Project No.: 2624494

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.

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 Background

Pace Project No.: 2624494

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624494001	DGWA-53	EPA 3005A	37286	EPA 6020B	37308
2624494001	DGWA-53	EPA 7470A	37300	EPA 7470A	37416
2624494001	DGWA-53	SM 2540C	37419		
2624494001	DGWA-53	EPA 300.0	37483		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt



Client Name: GAPower

WO#: 2624494
 PH: **BN** Due Date: **10/24/19**
 CLIENT: **GAPower-CCR**

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

Cooler Temperature 1.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/17/19 CD

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 checked="" type="checkbox"/> Yes <input 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.	<u>Field Filtered Nets + DOC</u>
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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, <u>TOC</u> , O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input 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 14, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

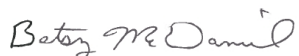
RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624398

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2019. 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: Daniela Herrera, Golder
Ben Hodges, Georgia Power
Jimmy Jones, Golder Associates Inc.
Kristen Jurinko
Julie Lehrman, Golder Associates 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 AP-2,3/4
Pace Project No.: 2624398

Pennsylvania Certification IDs

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: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624398001	DGWA-70A	Water	10/15/19 12:15	10/16/19 14:00
2624398002	DGWA-71	Water	10/15/19 15:08	10/16/19 14:00
2624398003	FB-1	Water	10/15/19 11:45	10/16/19 14:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2624398001	DGWA-70A	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624398002	DGWA-71	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624398003	FB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

Sample: DGWA-70A **Lab ID: 2624398001** Collected: 10/15/19 12:15 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.200 ± 0.209 (0.401) C:93% T:NA	pCi/L	11/07/19 08:49	13982-63-3	
Radium-228	EPA 9320	0.119 ± 0.865 (1.98) C:63% T:78%	pCi/L	11/07/19 20:14	15262-20-1	
Total Radium	Total Radium Calculation	0.319 ± 1.07 (2.38)	pCi/L	11/12/19 10:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

Sample: DGWA-71 **Lab ID: 2624398002** Collected: 10/15/19 15:08 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.628 ± 0.348 (0.528) C:87% T:NA	pCi/L	11/07/19 08:54	13982-63-3	
Radium-228	EPA 9320	0.586 ± 0.813 (1.74) C:65% T:77%	pCi/L	11/07/19 20:14	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 1.16 (2.27)	pCi/L	11/12/19 10:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

Sample: FB-1 **Lab ID: 2624398003** Collected: 10/15/19 11:45 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.288 ± 0.235 (0.405) C:92% T:NA	pCi/L	11/07/19 08:56	13982-63-3	
Radium-228	EPA 9320	0.864 ± 0.820 (1.68) C:70% T:77%	pCi/L	11/07/19 20:14	15262-20-1	
Total Radium	Total Radium Calculation	1.15 ± 1.06 (2.09)	pCi/L	11/12/19 10:42	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

QC Batch:	368367	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2624398001, 2624398002, 2624398003		

METHOD BLANK:	1787254	Matrix:	Water
Associated Lab Samples:	2624398001, 2624398002, 2624398003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.416 ± 0.262 (0.396) C:98% T:NA	pCi/L	11/07/19 07:47	

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-2,3/4

Pace Project No.: 2624398

QC Batch: 368368

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2624398001, 2624398002, 2624398003

METHOD BLANK: 1787255

Matrix: Water

Associated Lab Samples: 2624398001, 2624398002, 2624398003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.536 ± 0.405 (0.790) C:74% T:76%	pCi/L	11/07/19 14:59	

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QUALIFIERS

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624398

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.

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-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624398

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624398001	DGWA-70A	EPA 9315	368367		
2624398002	DGWA-71	EPA 9315	368367		
2624398003	FB-1	EPA 9315	368367		
2624398001	DGWA-70A	EPA 9320	368368		
2624398002	DGWA-71	EPA 9320	368368		
2624398003	FB-1	EPA 9320	368368		
2624398001	DGWA-70A	Total Radium Calculation	370512		
2624398002	DGWA-71	Total Radium Calculation	370512		
2624398003	FB-1	Total Radium Calculation	370512		

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CHAIN-OF-CUSTODY / Analytical Request Document

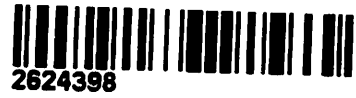
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Joju Abraham		Attention: scslnvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339		Copy To: Golder		Company Name:	
Email: jabraham@southernco.com		Purchase Order #: SCS10382775		Address:	
Phone: (404)506-7239		Project Name: Plant McDonough Background		Pace Quote:	
Fax:		Project #: 16684961		Pace Project Manager: betsy.mcdaniel@pacelabs.com.	
Requested Due Date: Standard TAT				Pace Profile #: 332.7.2	

Regulatory/Agency
State/Location
GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -)!	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Metals App III and App IV Total	TDS, Cl, F, SO4	Radium 226/228	Residual Chlorine (Y/N)						
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other					Analysis Test	Y/N	N	N	N	
1	DGWA-70A	G		10/15/2019	1215		4	X	X									X	X	X					
2	DGWA-71	G		10/15/2019	1508		4	X	X									X	X	X					
3	FB-1	G		10/15/2019	1145		4	X	X									X	X	X					
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

WO#: 2624398



ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTEDE BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	<i>[Signature]</i> Golder	10-16-19	12:15	<i>[Signature]</i> Charles Hawke	10/16/19	12:14	1.3	Y	Y	X



Client Name: GA Power

PM: BM

Due Date: 11/13/19

CLIENT: GAPower-CCR

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 514

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

Cooler Temperature 6.3°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/16/19

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 checked="" type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input 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 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 checked="" type="checkbox"/> Yes <input 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:

Person Contacted: _____ Date/Time: _____

Field Data Required? Y / N

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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2019. 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,



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.
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 AP-2,3/4

Pace Project No.: 2624397

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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SAMPLE SUMMARY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624397001	DGWA-70A	Water	10/15/19 12:15	10/16/19 14:00
2624397002	DGWA-71	Water	10/15/19 15:08	10/16/19 14:00
2624397003	FB-1	Water	10/15/19 11:45	10/16/19 14:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624397001	DGWA-70A	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624397002	DGWA-71	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624397003	FB-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

Sample: DGWA-70A Lab ID: 2624397001 Collected: 10/15/19 12:15 Received: 10/16/19 14:00 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 22:12	7440-36-0	
Arsenic	0.00052J	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 22:12	7440-38-2	B
Barium	0.034	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 22:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 22:12	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 22:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 22:12	7440-43-9	
Calcium	5.1	mg/L	0.10	0.011	1	10/20/19 16:44	10/22/19 22:12	7440-70-2	
Chromium	0.034	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 22:12	7440-47-3	
Cobalt	0.00064J	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 22:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 22:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 22:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 22:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 22:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 22:12	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:06	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	70.0	mg/L	10.0	10.0	1		10/18/19 10:46		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	2.2	mg/L	1.0	0.024	1		10/22/19 00:17	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/22/19 00:17	16984-48-8	
Sulfate	0.16J	mg/L	1.0	0.017	1		10/22/19 00:17	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

Sample: DGWA-71		Lab ID: 2624397002		Collected: 10/15/19 15:08		Received: 10/16/19 14:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 22:24	7440-36-0	
Arsenic	0.00071J	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 22:24	7440-38-2	B
Barium	0.024	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 22:24	7440-39-3	
Beryllium	0.000088J	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 22:24	7440-41-7	
Boron	0.0054J	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 22:24	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 22:24	7440-43-9	
Calcium	5.1	mg/L	0.10	0.011	1	10/20/19 16:44	10/22/19 22:24	7440-70-2	
Chromium	0.0025J	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 22:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 22:24	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 22:24	7439-92-1	
Lithium	0.0012J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 22:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 22:24	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 22:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 22:24	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:08	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	89.0	mg/L	10.0	10.0	1		10/18/19 10:46		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	3.3	mg/L	1.0	0.024	1		10/22/19 00:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/22/19 00:39	16984-48-8	
Sulfate	7.4	mg/L	1.0	0.017	1		10/22/19 00:39	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

Sample: FB-1		Lab ID: 2624397003		Collected: 10/15/19 11:45	Received: 10/16/19 14:00	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 22:47	7440-36-0		
Arsenic	0.00059J	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 22:47	7440-38-2	B	
Barium	ND	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 22:47	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 22:47	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 22:47	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 22:47	7440-43-9		
Calcium	ND	mg/L	0.10	0.011	1	10/20/19 16:44	10/22/19 22:47	7440-70-2		
Chromium	0.00088J	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 22:47	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 22:47	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 22:47	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 22:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 22:47	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 22:47	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 22:47	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:11	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	18.0	mg/L	10.0	10.0	1		10/18/19 10:47			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.078J	mg/L	1.0	0.024	1		10/22/19 01:01	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/22/19 01:01	16984-48-8		
Sulfate	0.019J	mg/L	1.0	0.017	1		10/22/19 01:01	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

QC Batch: 37300 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2624397001, 2624397002, 2624397003

METHOD BLANK: 168761 Matrix: Water

Associated Lab Samples: 2624397001, 2624397002, 2624397003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/23/19 14:38	

LABORATORY CONTROL SAMPLE: 168762

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: 168763 168764

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2624388001 Result	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0024	97	96	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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

QC Batch: 37136 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624397001, 2624397002, 2624397003

METHOD BLANK: 167849 Matrix: Water
Associated Lab Samples: 2624397001, 2624397002, 2624397003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/22/19 18:23	
Arsenic	mg/L	0.00059J	0.0050	0.00035	10/22/19 18:23	
Barium	mg/L	ND	0.010	0.00049	10/22/19 18:23	
Beryllium	mg/L	ND	0.0030	0.000074	10/22/19 18:23	
Boron	mg/L	ND	0.040	0.0049	10/22/19 18:23	
Cadmium	mg/L	ND	0.0025	0.00011	10/22/19 18:23	
Calcium	mg/L	ND	0.10	0.011	10/22/19 18:23	
Chromium	mg/L	ND	0.010	0.00039	10/22/19 18:23	
Cobalt	mg/L	ND	0.0050	0.00030	10/22/19 18:23	
Lead	mg/L	ND	0.0050	0.000046	10/22/19 18:23	
Lithium	mg/L	ND	0.030	0.00078	10/22/19 18:23	
Molybdenum	mg/L	ND	0.010	0.00095	10/22/19 18:23	
Selenium	mg/L	ND	0.010	0.0013	10/22/19 18:23	
Thallium	mg/L	ND	0.0010	0.000052	10/22/19 18:23	

LABORATORY CONTROL SAMPLE: 167850

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	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Calcium	mg/L	1	0.96	96	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	0.098	98	80-120	
Lithium	mg/L	0.1	0.095	95	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168476 168477

Parameter	Units	2624389004 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.							
Antimony	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	0	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168476		168477		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2624389004 Result	MS Spike Conc.	MSD Spike Conc.									
Arsenic	mg/L	0.00063J	0.1	0.1	0.095	0.098	95	97	75-125	3	20		
Barium	mg/L	0.0091J	0.1	0.1	0.11	0.11	100	103	75-125	3	20		
Beryllium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20		
Boron	mg/L	ND	1	1	0.89	0.94	88	93	75-125	6	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	0	20		
Calcium	mg/L	3.7	1	1	4.5	4.5	88	82	75-125	1	20		
Chromium	mg/L	0.0083J	0.1	0.1	0.11	0.11	97	100	75-125	2	20		
Cobalt	mg/L	0.00097J	0.1	0.1	0.096	0.096	95	95	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.092	0.094	91	93	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.093	0.10	93	100	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

QC Batch: 37181 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
 Associated Lab Samples: 2624397001, 2624397002, 2624397003

LABORATORY CONTROL SAMPLE: 168196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 168197

Parameter	Units	2624388001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1520	1570	3	10	

SAMPLE DUPLICATE: 168198

Parameter	Units	2624392001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	89.0	86.0	3	10	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624397

QC Batch: 37138 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624397001, 2624397002, 2624397003

METHOD BLANK: 167857 Matrix: Water
Associated Lab Samples: 2624397001, 2624397002, 2624397003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	10/21/19 16:11	
Fluoride	mg/L	ND	0.30	0.029	10/21/19 16:11	
Sulfate	mg/L	ND	1.0	0.017	10/21/19 16:11	

LABORATORY CONTROL SAMPLE: 167858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.9	99	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 167859 167860

Parameter	Units	2624388001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.9	10	10	28.1	28.1	72	72	90-110	0	15	M1
Fluoride	mg/L	ND	10	10	10.0	10.1	100	101	90-110	1	15	

MATRIX SPIKE SAMPLE: 167861

Parameter	Units	2624389005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.2	10	12.2	100	90-110	
Fluoride	mg/L	ND	10	10.3	103	90-110	
Sulfate	mg/L	5.2	10	14.8	96	90-110	

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QUALIFIERS

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624397

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

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 AP-2,3/4
Pace Project No.: 2624397

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624397001	DGWA-70A	EPA 3005A	37136	EPA 6020B	37255
2624397002	DGWA-71	EPA 3005A	37136	EPA 6020B	37255
2624397003	FB-1	EPA 3005A	37136	EPA 6020B	37255
2624397001	DGWA-70A	EPA 7470A	37300	EPA 7470A	37416
2624397002	DGWA-71	EPA 7470A	37300	EPA 7470A	37416
2624397003	FB-1	EPA 7470A	37300	EPA 7470A	37416
2624397001	DGWA-70A	SM 2540C	37181		
2624397002	DGWA-71	SM 2540C	37181		
2624397003	FB-1	SM 2540C	37181		
2624397001	DGWA-70A	EPA 300.0	37138		
2624397002	DGWA-71	EPA 300.0	37138		
2624397003	FB-1	EPA 300.0	37138		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Attention: scsinvoices@southernco.com		Address: _____	
Address: 2480 Maner Road Atlanta, GA 30339	Copy To: Golder	Company Name: _____		Address: _____	
Email: jbraham@southernco.com	Purchase Order #: SCS10382775	Pace Quote: _____		Regulatory/Agency: _____	
Phone: (404)506-7239	Fax: _____	Project Name: Plant McDonough Background	Pace Project Manager: betsy.mcdaniel@pacelabs.com,		State/Location: _____
Requested Due Date: Standard TAT	Project #: 16684961	Pace Profile #: 332.7.2		GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX: Drinking Water: DW: Water: WT: Waste Water: WW: Product: P: Sol/Solid: SL: Oil: OL: Wipe: WP: Air: AR: Other: OT: Tissue: TS	CODE: DW: WT: WW: P: SL: OL: WP: AR: OT: TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)								
										Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol			Other							
1	DGWA-70A					G	10/15/2019	1215	4	X	X								X	X	X					1
2	DGWA-71					G	10/15/2019	1508	4	X	X								X	X	X					2
3	FB-1					G	10/15/2019	1145	4	X	X								X	X	X					3
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

WO# : 2624397



ADDITIONAL COMMENTS	RELINQUISHED BY/AFFILIATION	DATE	TIME	ACCEPTED BY/AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i> Golder	10/16/19	12:15	DOY RICHARDS <i>[Signature]</i> Charles Harker	10/16/19	12:14	1.3 Y Y X



Sample Condition Upon Receipt

WO#: 2624397

Client Name: GA Power

PM: BM

Due Date: 10/23/19

CLIENT: GAPower-CCR

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

Cooler Temperature 63°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 10/16/19

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 checked="" type="checkbox"/> Yes <input 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 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 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, <u>TOC</u> , O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input 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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2019. 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,



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.
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 AP-2,3/4

Pace Project No.: 2624388

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624388001	DGWC-4	Water	10/15/19 10:54	10/16/19 14:00
2624388002	DGWC-10	Water	10/15/19 15:05	10/16/19 14:00
2624388003	DGWC-11	Water	10/15/19 11:55	10/16/19 14:00
2624388004	DGWC-12	Water	10/15/19 13:30	10/16/19 14:00
2624388005	FD-1	Water	10/15/19 00:00	10/16/19 14:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624388

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624388001	DGWC-4	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624388002	DGWC-10	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624388003	DGWC-11	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624388004	DGWC-12	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2624388005	FD-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Sample: DGWC-4		Lab ID: 2624388001		Collected: 10/15/19 10:54		Received: 10/16/19 14:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 18:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 18:35	7440-38-2	
Barium	0.033	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 18:35	7440-39-3	
Beryllium	0.00022J	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 18:35	7440-41-7	
Boron	5.0	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 18:35	7440-42-8	
Cadmium	0.00077J	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 18:35	7440-43-9	
Calcium	276	mg/L	5.0	0.55	50	10/20/19 16:44	10/22/19 18:40	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 18:35	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 18:35	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 18:35	7439-92-1	
Lithium	0.0029J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 18:35	7439-93-2	
Molybdenum	0.0061J	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 18:35	7439-98-7	
Selenium	0.0014J	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 18:35	7782-49-2	
Thallium	0.000073J	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 18:35	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 14:42	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1520	mg/L	10.0	10.0	1		10/18/19 10:45		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	20.9	mg/L	1.0	0.024	1		10/21/19 16:55	16887-00-6	M1
Fluoride	ND	mg/L	0.30	0.029	1		10/21/19 16:55	16984-48-8	
Sulfate	888	mg/L	50.0	0.85	50		10/22/19 05:04	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Sample: DGWC-10		Lab ID: 2624388002		Collected: 10/15/19 15:05		Received: 10/16/19 14:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 18:46	7440-36-0		
Arsenic	0.0078	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 18:46	7440-38-2		
Barium	0.024	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 18:46	7440-39-3		
Beryllium	0.010	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 18:46	7440-41-7		
Boron	1.6	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 18:46	7440-42-8		
Cadmium	0.00095J	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 18:46	7440-43-9		
Calcium	79.1	mg/L	5.0	0.55	50	10/20/19 16:44	10/22/19 18:52	7440-70-2		
Chromium	0.00078J	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 18:46	7440-47-3		
Cobalt	0.17	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 18:46	7440-48-4		
Lead	0.00014J	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 18:46	7439-92-1		
Lithium	0.0051J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 18:46	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 18:46	7439-98-7		
Selenium	0.071	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 18:46	7782-49-2		
Thallium	0.00039J	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 18:46	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 14:52	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	447	mg/L	10.0	10.0	1		10/18/19 10:45			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	9.4	mg/L	1.0	0.024	1		10/21/19 18:01	16887-00-6		
Fluoride	1.4	mg/L	0.30	0.029	1		10/21/19 18:01	16984-48-8		
Sulfate	263	mg/L	25.0	0.42	25		10/22/19 05:26	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Sample: DGWC-11		Lab ID: 2624388003		Collected: 10/15/19 11:55		Received: 10/16/19 14:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 18:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 18:57	7440-38-2	
Barium	0.064	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 18:57	7440-39-3	
Beryllium	0.00012J	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 18:57	7440-41-7	
Boron	1.2	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 18:57	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 18:57	7440-43-9	
Calcium	61.2	mg/L	5.0	0.55	50	10/20/19 16:44	10/22/19 19:03	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 18:57	7440-47-3	
Cobalt	0.00060J	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 18:57	7440-48-4	
Lead	0.000076J	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 18:57	7439-92-1	
Lithium	0.0019J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 18:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 18:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 18:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 18:57	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 14:54	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	461	mg/L	10.0	10.0	1		10/18/19 10:45		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	15.6	mg/L	1.0	0.024	1		10/21/19 18:23	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/21/19 18:23	16984-48-8	
Sulfate	273	mg/L	20.0	0.34	20		10/22/19 05:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Sample: DGWC-12		Lab ID: 2624388004		Collected: 10/15/19 13:30		Received: 10/16/19 14:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 19:09	7440-36-0		
Arsenic	0.00063J	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 19:09	7440-38-2	B	
Barium	0.020	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 19:09	7440-39-3		
Beryllium	0.00016J	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 19:09	7440-41-7		
Boron	5.9	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 19:09	7440-42-8		
Cadmium	0.00025J	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 19:09	7440-43-9		
Calcium	61.4	mg/L	5.0	0.55	50	10/20/19 16:44	10/22/19 19:15	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 19:09	7440-47-3		
Cobalt	0.0058	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 19:09	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 19:09	7439-92-1		
Lithium	0.00091J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 19:09	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 19:09	7439-98-7		
Selenium	0.0019J	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 19:09	7782-49-2		
Thallium	0.000091J	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 19:09	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 14:57	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	472	mg/L	10.0	10.0	1		10/18/19 10:45			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	11.6	mg/L	1.0	0.024	1		10/21/19 18:45	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/21/19 18:45	16984-48-8		
Sulfate	270	mg/L	20.0	0.34	20		10/22/19 06:10	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

Sample: FD-1		Lab ID: 2624388005		Collected: 10/15/19 00:00		Received: 10/16/19 14:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/20/19 16:44	10/22/19 19:32	7440-36-0		
Arsenic	0.00059J	mg/L	0.0050	0.00035	1	10/20/19 16:44	10/22/19 19:32	7440-38-2	B	
Barium	0.020	mg/L	0.010	0.00049	1	10/20/19 16:44	10/22/19 19:32	7440-39-3		
Beryllium	0.00017J	mg/L	0.0030	0.000074	1	10/20/19 16:44	10/22/19 19:32	7440-41-7		
Boron	6.1	mg/L	0.040	0.0049	1	10/20/19 16:44	10/22/19 19:32	7440-42-8		
Cadmium	0.00030J	mg/L	0.0025	0.00011	1	10/20/19 16:44	10/22/19 19:32	7440-43-9		
Calcium	63.0	mg/L	5.0	0.55	50	10/20/19 16:44	10/22/19 19:38	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/20/19 16:44	10/22/19 19:32	7440-47-3		
Cobalt	0.0058	mg/L	0.0050	0.00030	1	10/20/19 16:44	10/22/19 19:32	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/20/19 16:44	10/22/19 19:32	7439-92-1		
Lithium	0.00093J	mg/L	0.030	0.00078	1	10/20/19 16:44	10/22/19 19:32	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/20/19 16:44	10/22/19 19:32	7439-98-7		
Selenium	0.0021J	mg/L	0.010	0.0013	1	10/20/19 16:44	10/22/19 19:32	7782-49-2		
Thallium	0.000092J	mg/L	0.0010	0.000052	1	10/20/19 16:44	10/22/19 19:32	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 14:59	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	469	mg/L	10.0	10.0	1		10/18/19 10:45			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	11.6	mg/L	1.0	0.024	1		10/21/19 19:08	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/21/19 19:08	16984-48-8		
Sulfate	267	mg/L	25.0	0.42	25		10/22/19 06:32	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624388

QC Batch: 37300

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

METHOD BLANK: 168761

Matrix: Water

Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/23/19 14:38	

LABORATORY CONTROL SAMPLE: 168762

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: 168763 168764

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
		2624388001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec				
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0024	97	96	75-125	2	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

QC Batch: 37136 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

METHOD BLANK: 167849 Matrix: Water
Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/22/19 18:23	
Arsenic	mg/L	0.00059J	0.0050	0.00035	10/22/19 18:23	
Barium	mg/L	ND	0.010	0.00049	10/22/19 18:23	
Beryllium	mg/L	ND	0.0030	0.000074	10/22/19 18:23	
Boron	mg/L	ND	0.040	0.0049	10/22/19 18:23	
Cadmium	mg/L	ND	0.0025	0.00011	10/22/19 18:23	
Calcium	mg/L	ND	0.10	0.011	10/22/19 18:23	
Chromium	mg/L	ND	0.010	0.00039	10/22/19 18:23	
Cobalt	mg/L	ND	0.0050	0.00030	10/22/19 18:23	
Lead	mg/L	ND	0.0050	0.000046	10/22/19 18:23	
Lithium	mg/L	ND	0.030	0.00078	10/22/19 18:23	
Molybdenum	mg/L	ND	0.010	0.00095	10/22/19 18:23	
Selenium	mg/L	ND	0.010	0.0013	10/22/19 18:23	
Thallium	mg/L	ND	0.0010	0.000052	10/22/19 18:23	

LABORATORY CONTROL SAMPLE: 167850

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	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Calcium	mg/L	1	0.96	96	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	0.098	98	80-120	
Lithium	mg/L	0.1	0.095	95	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168476 168477

Parameter	Units	2624389004 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.							
Antimony	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624388

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168476		168477		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2624389004 Result	MS Spike Conc.	MSD Spike Conc.									
Arsenic	mg/L	0.00063J	0.1	0.1	0.095	0.098	95	97	75-125	3	20		
Barium	mg/L	0.0091J	0.1	0.1	0.11	0.11	100	103	75-125	3	20		
Beryllium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20		
Boron	mg/L	ND	1	1	0.89	0.94	88	93	75-125	6	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	0	20		
Calcium	mg/L	3.7	1	1	4.5	4.5	88	82	75-125	1	20		
Chromium	mg/L	0.0083J	0.1	0.1	0.11	0.11	97	100	75-125	2	20		
Cobalt	mg/L	0.00097J	0.1	0.1	0.096	0.096	95	95	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.092	0.094	91	93	75-125	3	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.093	0.10	93	100	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624388

QC Batch: 37181

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

LABORATORY CONTROL SAMPLE: 168196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 168197

Parameter	Units	2624388001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1520	1570	3	10	

SAMPLE DUPLICATE: 168198

Parameter	Units	2624392001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	89.0	86.0	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624388

QC Batch: 37138 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

METHOD BLANK: 167857 Matrix: Water
Associated Lab Samples: 2624388001, 2624388002, 2624388003, 2624388004, 2624388005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	10/21/19 16:11	
Fluoride	mg/L	ND	0.30	0.029	10/21/19 16:11	
Sulfate	mg/L	ND	1.0	0.017	10/21/19 16:11	

LABORATORY CONTROL SAMPLE: 167858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.9	99	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 167859 167860

Parameter	Units	2624388001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.9	10	10	28.1	28.1	72	72	90-110	0	15	M1
Fluoride	mg/L	ND	10	10	10.0	10.1	100	101	90-110	1	15	

MATRIX SPIKE SAMPLE: 167861

Parameter	Units	2624389005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		2.2	10	12.2	100	90-110
Fluoride	mg/L		ND	10	10.3	103	90-110
Sulfate	mg/L		5.2	10	14.8	96	90-110

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624388

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

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 AP-2,3/4
Pace Project No.: 2624388

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624388001	DGWC-4	EPA 3005A	37136	EPA 6020B	37255
2624388002	DGWC-10	EPA 3005A	37136	EPA 6020B	37255
2624388003	DGWC-11	EPA 3005A	37136	EPA 6020B	37255
2624388004	DGWC-12	EPA 3005A	37136	EPA 6020B	37255
2624388005	FD-1	EPA 3005A	37136	EPA 6020B	37255
2624388001	DGWC-4	EPA 7470A	37300	EPA 7470A	37416
2624388002	DGWC-10	EPA 7470A	37300	EPA 7470A	37416
2624388003	DGWC-11	EPA 7470A	37300	EPA 7470A	37416
2624388004	DGWC-12	EPA 7470A	37300	EPA 7470A	37416
2624388005	FD-1	EPA 7470A	37300	EPA 7470A	37416
2624388001	DGWC-4	SM 2540C	37181		
2624388002	DGWC-10	SM 2540C	37181		
2624388003	DGWC-11	SM 2540C	37181		
2624388004	DGWC-12	SM 2540C	37181		
2624388005	FD-1	SM 2540C	37181		
2624388001	DGWC-4	EPA 300.0	37138		
2624388002	DGWC-10	EPA 300.0	37138		
2624388003	DGWC-11	EPA 300.0	37138		
2624388004	DGWC-12	EPA 300.0	37138		
2624388005	FD-1	EPA 300.0	37138		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Required Client Information:
 Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Maner Road
 Atlanta, GA 30339
 Email: jabraham@southernco.com
 Phone: (404)506-7239 Fax
 Requested Due Date: Standard TAT

Section B

Required Project Information:
 Report To: Joju Abraham
 Copy To: Golder
 Purchase Order #: SCS10382775
 Project Name: Plant McDonough AP-2, 3/4
 Project #: 166849618

Section C

Invoice Information:
 Attention: scsinvoices@southernco.com
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: betsy.mcdaniel@pacelabs.com.
 Pace Profile #: 332.7.2

Regulatory Agency:
 State / Location: GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analytes Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)				
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol					Other	Metals App. III & App. IV	TDS, Cl, F, SO4
1	DGWC-4		G	10/15/2019	1054		4	X	X						X	X	X				1
2	DGWC-10		G	10/15/2019	1505		4	X	X						X	X	X				2
3	DGWC-11		G	10/15/2019	1155		4	X	X						X	X	X				3
4	DGWC-12		G	10/15/2019	1330		4	X	X						X	X	X				4
5	FD-1		G	10/15/2019	--		4	X	X						X	X	X				5
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / APPLICATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i> Golder	10/16/19	12:15	DON RICHARDS <i>[Signature]</i>	10/16/19	12:15P	
				Charles Hawk <i>[Signature]</i>	10/16/19	1400	1.3 Y X Y

Page 17 of 18
WO#: 2624388



2624388

DATE Signed:

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



Sample Condition Upon Receipt

WO#: 2624388

Client Name: GA Power

PM: BM Due Date: 10/23/19 CLIENT: GAPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [] Client [x] Commercial [] Pace Other

Tracking #: _____

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

Proj Name: _____

Packing Material: [] Bubble Wrap [x] Bubble Bags [] None [] Other

Thermometer Used 214 Type of Ice: [x] Wet [] Blue [] None [] Samples on ice, cooling process has begun

Cooler Temperature 63°C Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 10/16/19

Temp should be above freezing to 6°C Comments:

Table with 16 rows of checklist items (Chain of Custody Present, Chain of Custody Filled Out, etc.) and checkboxes for Yes, No, N/A.

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 14, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

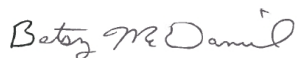
RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624390

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2019. 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: Daniela Herrera, Golder
Ben Hodges, Georgia Power
Jimmy Jones, Golder Associates Inc.
Kristen Jurinko
Julie Lehrman, Golder Associates 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 AP-2,3/4
Pace Project No.: 2624390

Pennsylvania Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624390001	DGWC-4	Water	10/15/19 10:54	10/16/19 14:00
2624390002	DGWC-10	Water	10/15/19 15:05	10/16/19 14:00
2624390003	DGWC-11	Water	10/15/19 11:55	10/16/19 14:00
2624390004	DGWC-12	Water	10/15/19 13:30	10/16/19 14:00
2624390005	FD-1	Water	10/15/19 00:00	10/16/19 14:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2624390001	DGWC-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624390002	DGWC-10	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624390003	DGWC-11	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624390004	DGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624390005	FD-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Sample: DGWC-4 **Lab ID: 2624390001** Collected: 10/15/19 10:54 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.06 ± 0.472 (0.669) C:87% T:NA	pCi/L	11/07/19 07:16	13982-63-3	
Radium-228	EPA 9320	1.05 ± 0.893 (1.79) C:63% T:80%	pCi/L	11/07/19 20:10	15262-20-1	
Total Radium	Total Radium Calculation	2.11 ± 1.37 (2.46)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Sample: DGWC-10 **Lab ID: 2624390002** Collected: 10/15/19 15:05 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.615 ± 0.332 (0.453) C:92% T:NA	pCi/L	11/07/19 07:16	13982-63-3	
Radium-228	EPA 9320	0.216 ± 0.924 (2.10) C:57% T:80%	pCi/L	11/07/19 20:10	15262-20-1	
Total Radium	Total Radium Calculation	0.831 ± 1.26 (2.55)	pCi/L	11/12/19 10:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Sample: DGWC-11 **Lab ID: 2624390003** Collected: 10/15/19 11:55 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.191 ± 0.261 (0.563) C:90% T:NA	pCi/L	11/07/19 07:16	13982-63-3	
Radium-228	EPA 9320	0.431 ± 0.729 (1.59) C:66% T:89%	pCi/L	11/07/19 20:11	15262-20-1	
Total Radium	Total Radium Calculation	0.622 ± 0.990 (2.15)	pCi/L	11/12/19 10:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Sample: DGWC-12 **Lab ID: 2624390004** Collected: 10/15/19 13:30 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.264 ± 0.277 (0.560) C:93% T:NA	pCi/L	11/07/19 07:17	13982-63-3	
Radium-228	EPA 9320	0.0947 ± 0.709 (1.63) C:65% T:86%	pCi/L	11/07/19 20:11	15262-20-1	
Total Radium	Total Radium Calculation	0.359 ± 0.986 (2.19)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

Sample: FD-1 **Lab ID: 2624390005** Collected: 10/15/19 00:00 Received: 10/16/19 14:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.581 ± 0.313 (0.418) C:91% T:NA	pCi/L	11/07/19 07:18	13982-63-3	
Radium-228	EPA 9320	0.549 ± 0.599 (1.25) C:69% T:96%	pCi/L	11/07/19 20:11	15262-20-1	
Total Radium	Total Radium Calculation	1.13 ± 0.912 (1.67)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624390

QC Batch: 368367 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 2624390001, 2624390002, 2624390003, 2624390004, 2624390005

METHOD BLANK: 1787254 Matrix: Water

Associated Lab Samples: 2624390001, 2624390002, 2624390003, 2624390004, 2624390005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.416 ± 0.262 (0.396) C:98% T:NA	pCi/L	11/07/19 07:47	

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-2,3/4

Pace Project No.: 2624390

QC Batch: 368368

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2624390001, 2624390002, 2624390003, 2624390004, 2624390005

METHOD BLANK: 1787255

Matrix: Water

Associated Lab Samples: 2624390001, 2624390002, 2624390003, 2624390004, 2624390005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.536 ± 0.405 (0.790) C:74% T:76%	pCi/L	11/07/19 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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624390

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624390

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624390001	DGWC-4	EPA 9315	368367		
2624390002	DGWC-10	EPA 9315	368367		
2624390003	DGWC-11	EPA 9315	368367		
2624390004	DGWC-12	EPA 9315	368367		
2624390005	FD-1	EPA 9315	368367		
2624390001	DGWC-4	EPA 9320	368368		
2624390002	DGWC-10	EPA 9320	368368		
2624390003	DGWC-11	EPA 9320	368368		
2624390004	DGWC-12	EPA 9320	368368		
2624390005	FD-1	EPA 9320	368368		
2624390001	DGWC-4	Total Radium Calculation	370512		
2624390002	DGWC-10	Total Radium Calculation	370512		
2624390003	DGWC-11	Total Radium Calculation	370512		
2624390004	DGWC-12	Total Radium Calculation	370512		
2624390005	FD-1	Total Radium Calculation	370512		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Joju Abraham		Attention: scsinvoices@southernco.com	
Address: 2480 Manar Road Atlanta, GA 30339		Copy To: Golder		Company Name:	
Email: jabraham@southernco.com		Purchase Order #: SCS10382775		Address:	
Phone: (404)506-7239 Fax		Project Name: Plant McDonough AP-2, 3/4		Pace Quote:	
Requested Due Date: Standard TAT		Project #: 166849618		Pace Project Manager: betsy.mcdaniel@pacelabs.com	
				Pace Profile #: 332.7.2	

Regulatory Agency:
State / Location:
GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analytes Test Y/N	Requested Analytes Filtered (Y/N)	Residual Chlorine (Y/N)		
								Unpreserved - Ice	H2SO4	HNO3	HCl	NaOH	Na2SO3	Methanol				Other	
1	DGWC-4	G		10/15/2019	1054		4	X	X							X	X	X	1
2	DGWC-10	G		10/15/2019	1505		4	X	X							X	X	X	2
3	DGWC-11	G		10/15/2019	1155		4	X	X							X	X	X	3
4	DGWC-12	G		10/15/2019	1330		4	X	X							X	X	X	4
5	FD-1	G		10/15/2019	-		4	X	X							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			
	<i>[Signature]</i> Golder	10/16/19	12:15	<i>[Signature]</i> Charles Hawk	10/16/19	12:15 P	1.3	Y	X	X

WO#: 2624390



DATE Signed:

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



Sample Condition Upon Receipt

WO#: 2624390

Client Name: G.A. Power

PM: BM Due Date: 11/13/19 CLIENT: GRPower-CCR

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

Thermometer Used 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.3°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/16/19

Temp should be above freezing to 6°C Comments:

Table with 16 rows of checklist items (Chain of Custody Present, Filled Out, Relinquished, etc.) and checkboxes for Yes, No, N/A.

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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2019. 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,



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.
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 AP-2,3/4

Pace Project No.: 2624491

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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SAMPLE SUMMARY

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624491001	DGWC-5	Water	10/16/19 13:00	10/17/19 12:00
2624491002	DGWC-8	Water	10/16/19 15:10	10/17/19 12:00
2624491003	DGWC-14	Water	10/16/19 13:29	10/17/19 12:00
2624491004	DGWC-19	Water	10/16/19 13:32	10/17/19 12:00
2624491005	DGWC-13	Water	10/16/19 15:50	10/17/19 12:00
2624491006	EB-1	Water	10/16/19 15:00	10/17/19 12:00
2624491007	FB-2	Water	10/16/19 11:30	10/17/19 12:00
2624491008	FD-2	Water	10/16/19 00:00	10/17/19 12:00

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624491001	DGWC-5	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491002	DGWC-8	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491003	DGWC-14	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491004	DGWC-19	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491005	DGWC-13	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491006	EB-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491007	FB-2	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624491008	FD-2	EPA 6020B	CSW	2
		SM 2540C	MZP	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: DGWC-5		Lab ID: 2624491001		Collected: 10/16/19 13:00		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 21:29	7440-36-0		
Arsenic	0.0036J	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 21:29	7440-38-2		
Barium	0.020	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 21:29	7440-39-3		
Beryllium	0.0072	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/23/19 21:29	7440-41-7		
Boron	4.3	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 21:29	7440-42-8		
Cadmium	0.00069J	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 21:29	7440-43-9		
Calcium	109	mg/L	5.0	0.55	50	10/21/19 16:03	10/23/19 21:35	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 21:29	7440-47-3		
Cobalt	0.022	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 21:29	7440-48-4		
Lead	0.000085J	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 21:29	7439-92-1		
Lithium	0.0060J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:13	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 21:29	7439-98-7		
Selenium	0.015	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 21:29	7782-49-2		
Thallium	0.000078J	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 21:29	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:13	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	702	mg/L	10.0	10.0	1		10/23/19 15:48			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	11.6	mg/L	1.0	0.024	1		10/24/19 23:53	16887-00-6		
Fluoride	0.32	mg/L	0.30	0.029	1		10/24/19 23:53	16984-48-8		
Sulfate	493	mg/L	20.0	0.34	20		10/25/19 08:12	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: DGWC-8		Lab ID: 2624491002		Collected: 10/16/19 15:10		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 21:57	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 21:57	7440-38-2		
Barium	0.027	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 21:57	7440-39-3		
Beryllium	0.0019J	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 10:19	7440-41-7		
Boron	1.2	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 21:57	7440-42-8		
Cadmium	0.0022J	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 21:57	7440-43-9		
Calcium	47.3	mg/L	5.0	0.55	50	10/21/19 16:03	10/23/19 22:03	7440-70-2		
Chromium	0.0013J	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 21:57	7440-47-3		
Cobalt	0.054	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 21:57	7440-48-4		
Lead	0.00029J	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 21:57	7439-92-1		
Lithium	0.0045J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:19	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 21:57	7439-98-7		
Selenium	0.0016J	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 21:57	7782-49-2		
Thallium	0.00025J	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 21:57	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:16	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	374	mg/L	10.0	10.0	1		10/23/19 15:48			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	10.4	mg/L	1.0	0.024	1		10/25/19 00:14	16887-00-6		
Fluoride	0.14J	mg/L	0.30	0.029	1		10/25/19 00:14	16984-48-8		
Sulfate	235	mg/L	20.0	0.34	20		10/25/19 08:34	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: DGWC-14		Lab ID: 2624491003		Collected: 10/16/19 13:29		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 22:09	7440-36-0		
Arsenic	0.00039J	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 22:09	7440-38-2		
Barium	0.059	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 22:09	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 10:24	7440-41-7		
Boron	0.052	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 22:09	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 22:09	7440-43-9		
Calcium	9.4	mg/L	0.10	0.011	1	10/21/19 16:03	10/25/19 10:24	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 22:09	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 22:09	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 22:09	7439-92-1		
Lithium	0.0032J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 22:09	7439-98-7		
Selenium	0.0017J	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 22:09	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 22:09	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:18	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	104	mg/L	10.0	10.0	1		10/23/19 15:48			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.5	mg/L	1.0	0.024	1		10/25/19 00:36	16887-00-6		
Fluoride	0.052J	mg/L	0.30	0.029	1		10/25/19 00:36	16984-48-8		
Sulfate	42.1	mg/L	1.0	0.017	1		10/25/19 00:36	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: DGWC-19		Lab ID: 2624491004		Collected: 10/16/19 13:32		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 22:20	7440-36-0		
Arsenic	0.00046J	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 22:20	7440-38-2		
Barium	0.024	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 22:20	7440-39-3		
Beryllium	0.0017J	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 10:30	7440-41-7		
Boron	2.2	mg/L	0.040	0.0049	1	10/21/19 16:03	10/25/19 10:30	7440-42-8		
Cadmium	0.00034J	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 22:20	7440-43-9		
Calcium	85.7	mg/L	5.0	0.55	50	10/21/19 16:03	10/23/19 22:26	7440-70-2		
Chromium	0.0024J	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 22:20	7440-47-3		
Cobalt	0.046	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 22:20	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 22:20	7439-92-1		
Lithium	0.0026J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:30	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 22:20	7439-98-7		
Selenium	0.0060J	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 22:20	7782-49-2		
Thallium	0.00053J	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 22:20	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:20	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	500	mg/L	10.0	10.0	1		10/23/19 15:48			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	33.2	mg/L	1.0	0.024	1		10/25/19 02:03	16887-00-6		
Fluoride	0.23J	mg/L	0.30	0.029	1		10/25/19 02:03	16984-48-8		
Sulfate	323	mg/L	10.0	0.17	10		10/25/19 09:18	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: DGWC-13		Lab ID: 2624491005		Collected: 10/16/19 15:50		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/25/19 10:36	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/25/19 10:36	7440-38-2		
Barium	0.034	mg/L	0.010	0.00049	1	10/21/19 16:03	10/25/19 10:36	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 10:36	7440-41-7		
Boron	0.65	mg/L	0.040	0.0049	1	10/21/19 16:03	10/25/19 10:36	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/25/19 10:36	7440-43-9		
Calcium	43.8	mg/L	5.0	0.55	50	10/21/19 16:03	10/23/19 22:37	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/25/19 10:36	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/25/19 10:36	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/25/19 10:36	7439-92-1		
Lithium	0.0029J	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:36	7439-93-2		
Molybdenum	0.014	mg/L	0.010	0.00095	1	10/21/19 16:03	10/25/19 10:36	7439-98-7		
Selenium	0.0031J	mg/L	0.010	0.0013	1	10/21/19 16:03	10/25/19 10:36	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/25/19 10:36	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:23	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	296	mg/L	10.0	10.0	1		10/23/19 15:49			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	17.4	mg/L	1.0	0.024	1		10/25/19 02:24	16887-00-6		
Fluoride	0.14J	mg/L	0.30	0.029	1		10/25/19 02:24	16984-48-8		
Sulfate	167	mg/L	20.0	0.34	20		10/25/19 10:01	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: EB-1		Lab ID: 2624491006		Collected: 10/16/19 15:00	Received: 10/17/19 12:00	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 22:43	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 22:43	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 22:43	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 10:42	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 22:43	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 22:43	7440-43-9		
Calcium	0.022J	mg/L	0.10	0.011	1	10/21/19 16:03	10/23/19 22:43	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 22:43	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 22:43	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 22:43	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 10:42	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 22:43	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 22:43	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 22:43	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:25	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/23/19 15:49			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.032J	mg/L	1.0	0.024	1		10/25/19 02:46	16887-00-6	B	
Fluoride	0.16J	mg/L	0.30	0.029	1		10/25/19 02:46	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/25/19 02:46	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624491

Sample: FB-2		Lab ID: 2624491007		Collected: 10/16/19 11:30		Received: 10/17/19 12:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/21/19 16:03	10/23/19 22:49	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/21/19 16:03	10/23/19 22:49	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/21/19 16:03	10/23/19 22:49	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/21/19 16:03	10/25/19 11:35	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/21/19 16:03	10/23/19 22:49	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/21/19 16:03	10/23/19 22:49	7440-43-9		
Calcium	0.022J	mg/L	0.10	0.011	1	10/21/19 16:03	10/23/19 22:49	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/21/19 16:03	10/23/19 22:49	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/21/19 16:03	10/23/19 22:49	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/21/19 16:03	10/23/19 22:49	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/21/19 16:03	10/25/19 11:35	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/21/19 16:03	10/23/19 22:49	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/21/19 16:03	10/23/19 22:49	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/21/19 16:03	10/23/19 22:49	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/23/19 10:07	10/23/19 15:27	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/23/19 15:49			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.035J	mg/L	1.0	0.024	1		10/25/19 03:08	16887-00-6	B	
Fluoride	0.11J	mg/L	0.30	0.029	1		10/25/19 03:08	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/25/19 03:08	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

Sample: FD-2		Lab ID: 2624491008		Collected: 10/16/19 00:00	Received: 10/17/19 12:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	0.93	mg/L	0.040	0.0049	1	11/06/19 17:00	11/07/19 16:05	7440-42-8		
Calcium	44.6	mg/L	5.0	0.55	50	11/06/19 17:00	11/07/19 16:11	7440-70-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	295	mg/L	10.0	10.0	1		11/08/19 10:21		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	17.3	mg/L	1.0	0.024	1		11/06/19 22:55	16887-00-6	M1	
Fluoride	0.13J	mg/L	0.30	0.029	1		11/06/19 22:55	16984-48-8		
Sulfate	167	mg/L	10.0	0.17	10		11/07/19 21:57	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 37300 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

METHOD BLANK: 168761 Matrix: Water
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/23/19 14:38	

LABORATORY CONTROL SAMPLE: 168762

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: 168763 168764

Parameter	Units	2624388001 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	0.0024	0.0024	97	96	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 37286 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

METHOD BLANK: 168679 Matrix: Water
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/23/19 18:31	
Arsenic	mg/L	ND	0.0050	0.00035	10/23/19 18:31	
Barium	mg/L	ND	0.010	0.00049	10/23/19 18:31	
Beryllium	mg/L	ND	0.0030	0.000074	10/23/19 18:31	
Boron	mg/L	ND	0.040	0.0049	10/23/19 18:31	
Cadmium	mg/L	ND	0.0025	0.00011	10/23/19 18:31	
Calcium	mg/L	ND	0.10	0.011	10/23/19 18:31	
Chromium	mg/L	ND	0.010	0.00039	10/23/19 18:31	
Cobalt	mg/L	ND	0.0050	0.00030	10/23/19 18:31	
Lead	mg/L	ND	0.0050	0.000046	10/23/19 18:31	
Lithium	mg/L	ND	0.030	0.00078	10/23/19 18:31	
Molybdenum	mg/L	ND	0.010	0.00095	10/23/19 18:31	
Selenium	mg/L	ND	0.010	0.0013	10/23/19 18:31	
Thallium	mg/L	ND	0.0010	0.000052	10/23/19 18:31	

LABORATORY CONTROL SAMPLE: 168680

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	0.098	98	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	1.0	101	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	101	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168681 168682

Parameter	Units	2624484003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624491

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168681		168682		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2624484003 Result	MS Spike Conc.	MSD Spike Conc.									
Arsenic	mg/L	0.00040J	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Barium	mg/L	0.037	0.1	0.1	0.15	0.14	109	107	75-125	1	20		
Beryllium	mg/L	0.00015J	0.1	0.1	0.095	0.094	95	94	75-125	0	20		
Boron	mg/L	2.2	1	1	3.1	3.1	90	90	75-125	0	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20		
Calcium	mg/L	61.2	1	1	62.7	66.1	145	485	75-125	5	20	M6	
Chromium	mg/L	0.0064J	0.1	0.1	0.11	0.10	100	98	75-125	2	20		
Cobalt	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20		
Lithium	mg/L	0.0022J	0.1	0.1	0.096	0.095	94	93	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.096	96	95	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 38336 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624491008

METHOD BLANK: 173987 Matrix: Water
Associated Lab Samples: 2624491008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0049	11/07/19 15:54	
Calcium	mg/L	ND	0.10	0.011	11/07/19 15:54	

LABORATORY CONTROL SAMPLE: 173988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	102	80-120	
Calcium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 174014 174015

Parameter	Units	2625120011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	1.3	1	1	2.2	2.4	91	105	75-125	6	20	
Calcium	mg/L	278	1	1	277	289	-63	1080	75-125	4	20	

SAMPLE DUPLICATE: 174016

Parameter	Units	2625026002 Result	Dup Result	RPD	Max RPD	Qualifiers
Boron	mg/L	ND	0.020J		20	
Calcium	mg/L	18000 ug/L	17.4	3	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 37419 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

LABORATORY CONTROL SAMPLE: 169291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	391	98	84-108	

SAMPLE DUPLICATE: 169292

Parameter	Units	2624484007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 169293

Parameter	Units	2624491004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	500	501	0	10	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624491

QC Batch: 38488

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2624491008

LABORATORY CONTROL SAMPLE: 174601

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	380	95	84-108	

SAMPLE DUPLICATE: 174602

Parameter	Units	2625206002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	96.0	85.0	12	10	D6

SAMPLE DUPLICATE: 174608

Parameter	Units	2625315002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	64.0	78.0	20	10	D6

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 37461 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

METHOD BLANK: 169631 Matrix: Water
Associated Lab Samples: 2624491001, 2624491002, 2624491003, 2624491004, 2624491005, 2624491006, 2624491007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.043J	1.0	0.024	10/24/19 16:21	
Fluoride	mg/L	ND	0.30	0.029	10/24/19 16:21	
Sulfate	mg/L	ND	1.0	0.017	10/24/19 16:21	

LABORATORY CONTROL SAMPLE: 169632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.6	106	90-110	
Fluoride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 169633 169634

Parameter	Units	2624484001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.4	10	10	15.3	15.3	99	100	90-110	0	15	
Fluoride	mg/L	0.17J	10	10	11.1	11.1	110	110	90-110	0	15	

MATRIX SPIKE SAMPLE: 169635

Parameter	Units	2624487002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.6	10	14.7	101	90-110	
Fluoride	mg/L	0.076J	10	10.6	106	90-110	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624491

QC Batch: 38464 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624491008

METHOD BLANK: 174481 Matrix: Water
Associated Lab Samples: 2624491008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.043J	1.0	0.024	11/06/19 22:13	
Fluoride	mg/L	ND	0.30	0.029	11/06/19 22:13	
Sulfate	mg/L	ND	1.0	0.017	11/06/19 22:13	

LABORATORY CONTROL SAMPLE: 174482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.5	105	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 174483 174484

Parameter	Units	2624491008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.3	10	10	25.4	24.9	81	76	90-110	2	15	M1
Fluoride	mg/L	0.13J	10	10	9.6	9.2	94	91	90-110	3	15	

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QUALIFIERS

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624491

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

B Analyte was detected in the associated method blank.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

H1 Analysis conducted outside the EPA method holding time.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624491

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624491001	DGWC-5	EPA 3005A	37286	EPA 6020B	37308
2624491002	DGWC-8	EPA 3005A	37286	EPA 6020B	37308
2624491003	DGWC-14	EPA 3005A	37286	EPA 6020B	37308
2624491004	DGWC-19	EPA 3005A	37286	EPA 6020B	37308
2624491005	DGWC-13	EPA 3005A	37286	EPA 6020B	37308
2624491006	EB-1	EPA 3005A	37286	EPA 6020B	37308
2624491007	FB-2	EPA 3005A	37286	EPA 6020B	37308
2624491008	FD-2	EPA 3005A	38336	EPA 6020B	38379
2624491001	DGWC-5	EPA 7470A	37300	EPA 7470A	37416
2624491002	DGWC-8	EPA 7470A	37300	EPA 7470A	37416
2624491003	DGWC-14	EPA 7470A	37300	EPA 7470A	37416
2624491004	DGWC-19	EPA 7470A	37300	EPA 7470A	37416
2624491005	DGWC-13	EPA 7470A	37300	EPA 7470A	37416
2624491006	EB-1	EPA 7470A	37300	EPA 7470A	37416
2624491007	FB-2	EPA 7470A	37300	EPA 7470A	37416
2624491001	DGWC-5	SM 2540C	37419		
2624491002	DGWC-8	SM 2540C	37419		
2624491003	DGWC-14	SM 2540C	37419		
2624491004	DGWC-19	SM 2540C	37419		
2624491005	DGWC-13	SM 2540C	37419		
2624491006	EB-1	SM 2540C	37419		
2624491007	FB-2	SM 2540C	37419		
2624491008	FD-2	SM 2540C	38488		
2624491001	DGWC-5	EPA 300.0	37461		
2624491002	DGWC-8	EPA 300.0	37461		
2624491003	DGWC-14	EPA 300.0	37461		
2624491004	DGWC-19	EPA 300.0	37461		
2624491005	DGWC-13	EPA 300.0	37461		
2624491006	EB-1	EPA 300.0	37461		
2624491007	FB-2	EPA 300.0	37461		
2624491008	FD-2	EPA 300.0	38464		

REPORT OF LABORATORY ANALYSIS

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WO# : 2624491
 PM: BM Due Date: 10/24/19
 CLIENT: GAPower-COR
 Proj. Name:



Client Name: GAPower

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

Cooler Temperature 1.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: CO/12/19 CDJ

		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 checked="" type="checkbox"/> Yes <input 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. <u>Field Filtered Nets + DOC</u>
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, <u>TOC</u> , O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input 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 14, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

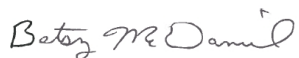
RE: Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624493

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2019. 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: Daniela Herrera, Golder
Ben Hodges, Georgia Power
Jimmy Jones, Golder Associates Inc.
Kristen Jurinko
Julie Lehrman, Golder Associates 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 AP-2,3/4
Pace Project No.: 2624493

Pennsylvania Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624493001	DGWC-5	Water	10/16/19 13:00	10/17/19 12:00
2624493002	DGWC-8	Water	10/16/19 15:10	10/17/19 12:00
2624493003	DGWC-14	Water	10/16/19 13:29	10/17/19 12:00
2624493004	DGWC-19	Water	10/16/19 15:32	10/17/19 12:00
2624493005	FD-2	Water	10/16/19 00:00	10/17/19 12:00
2624493006	EB-1	Water	10/16/19 15:00	10/17/19 12:00
2624493007	FB-2	Water	10/16/19 11:30	10/17/19 12:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2624493001	DGWC-5	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493002	DGWC-8	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493003	DGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493004	DGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493005	FD-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493006	EB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624493007	FB-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: DGWC-5 **Lab ID: 2624493001** Collected: 10/16/19 13:00 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.949 ± 0.386 (0.295) C:84% T:NA	pCi/L	11/06/19 10:19	13982-63-3	
Radium-228	EPA 9320	0.683 ± 0.466 (0.899) C:77% T:86%	pCi/L	11/06/19 17:27	15262-20-1	
Total Radium	Total Radium Calculation	1.63 ± 0.852 (1.19)	pCi/L	11/12/19 10:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: DGWC-8 **Lab ID: 2624493002** Collected: 10/16/19 15:10 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.649 ± 0.367 (0.548) C:80% T:NA	pCi/L	11/06/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.350 ± 0.487 (1.04) C:72% T:88%	pCi/L	11/06/19 17:27	15262-20-1	
Total Radium	Total Radium Calculation	0.999 ± 0.854 (1.59)	pCi/L	11/12/19 10:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.459 ± 0.306 (0.466) C:76% T:NA	pCi/L	11/06/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.578 ± 0.569 (1.18) C:76% T:77%	pCi/L	11/06/19 17:28	15262-20-1	
Total Radium	Total Radium Calculation	1.04 ± 0.875 (1.65)	pCi/L	11/12/19 10:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: DGWC-19 **Lab ID: 2624493004** Collected: 10/16/19 15:32 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.495 ± 0.297 (0.418) C:86% T:NA	pCi/L	11/06/19 08:02	13982-63-3	
Radium-228	EPA 9320	1.29 ± 0.548 (0.868) C:75% T:80%	pCi/L	11/06/19 17:28	15262-20-1	
Total Radium	Total Radium Calculation	1.79 ± 0.845 (1.29)	pCi/L	11/12/19 10:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: FD-2 **Lab ID: 2624493005** Collected: 10/16/19 00:00 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.997 ± 0.411 (0.436) C:91% T:NA	pCi/L	11/06/19 07:19	13982-63-3	
Radium-228	EPA 9320	0.732 ± 0.426 (0.778) C:77% T:90%	pCi/L	11/06/19 17:28	15262-20-1	
Total Radium	Total Radium Calculation	1.73 ± 0.837 (1.21)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: EB-1 **Lab ID: 2624493006** Collected: 10/16/19 15:00 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.295 ± 0.240 (0.398) C:91% T:NA	pCi/L	11/06/19 07:20	13982-63-3	
Radium-228	EPA 9320	0.427 ± 0.427 (0.878) C:75% T:80%	pCi/L	11/06/19 17:28	15262-20-1	
Total Radium	Total Radium Calculation	0.722 ± 0.667 (1.28)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

Sample: FB-2 **Lab ID: 2624493007** Collected: 10/16/19 11:30 Received: 10/17/19 12:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.328 ± 0.287 (0.542) C:92% T:NA	pCi/L	11/06/19 07:21	13982-63-3	
Radium-228	EPA 9320	0.614 ± 0.474 (0.935) C:74% T:83%	pCi/L	11/06/19 17:28	15262-20-1	
Total Radium	Total Radium Calculation	0.942 ± 0.761 (1.48)	pCi/L	11/12/19 10:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2,3/4

Pace Project No.: 2624493

QC Batch: 368259

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2624493001, 2624493002, 2624493003, 2624493004, 2624493005, 2624493006, 2624493007

METHOD BLANK: 1786863

Matrix: Water

Associated Lab Samples: 2624493001, 2624493002, 2624493003, 2624493004, 2624493005, 2624493006, 2624493007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.306 ± 0.244 (0.419) C:96% T:NA	pCi/L	11/06/19 08:02	

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-2,3/4

Pace Project No.: 2624493

QC Batch: 368258

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2624493001, 2624493002, 2624493003, 2624493004, 2624493005, 2624493006, 2624493007

METHOD BLANK: 1786861

Matrix: Water

Associated Lab Samples: 2624493001, 2624493002, 2624493003, 2624493004, 2624493005, 2624493006, 2624493007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0170 ± 0.384 (0.894) C:77% T:79%	pCi/L	11/06/19 17:17	

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-2,3/4

Pace Project No.: 2624493

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2,3/4
Pace Project No.: 2624493

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624493001	DGWC-5	EPA 9315	368259		
2624493002	DGWC-8	EPA 9315	368259		
2624493003	DGWC-14	EPA 9315	368259		
2624493004	DGWC-19	EPA 9315	368259		
2624493005	FD-2	EPA 9315	368259		
2624493006	EB-1	EPA 9315	368259		
2624493007	FB-2	EPA 9315	368259		
2624493001	DGWC-5	EPA 9320	368258		
2624493002	DGWC-8	EPA 9320	368258		
2624493003	DGWC-14	EPA 9320	368258		
2624493004	DGWC-19	EPA 9320	368258		
2624493005	FD-2	EPA 9320	368258		
2624493006	EB-1	EPA 9320	368258		
2624493007	FB-2	EPA 9320	368258		
2624493001	DGWC-5	Total Radium Calculation	370509		
2624493002	DGWC-8	Total Radium Calculation	370509		
2624493003	DGWC-14	Total Radium Calculation	370509		
2624493004	DGWC-19	Total Radium Calculation	370511		
2624493005	FD-2	Total Radium Calculation	370511		
2624493006	EB-1	Total Radium Calculation	370511		
2624493007	FB-2	Total Radium Calculation	370511		

REPORT OF LABORATORY ANALYSIS

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WO# : 2624493

PM: BM Due Date: 11/14/19

CLIENT: GAPower-CCR

Proj. Due Date: _____
Proj. Name: _____



Client Name: G A Power

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

Cooler Temperature 1.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/12/19 CCR

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 checked="" type="checkbox"/> Yes <input 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. <u>Field Filtered Nets + DOC</u>
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, <u>TOC</u> , O&G, WI-DRO (water) <input checked="" type="checkbox"/> Yes <input 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)

December 30, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 18, 2019. 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,



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.
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 AP-2, 3-4

Pace Project No.: 2624567

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624567001	DGWC-2	Water	10/17/19 15:15	10/18/19 15:40
2624567002	DGWC-9	Water	10/17/19 15:03	10/18/19 15:40
2624567003	DGWC-15	Water	10/17/19 10:00	10/18/19 15:40
2624567004	DGWC-20	Water	10/17/19 09:31	10/18/19 15:40
2624567005	DGWC-21	Water	10/17/19 14:30	10/18/19 15:40
2624567006	DGWC-42	Water	10/17/19 16:00	10/18/19 15:40
2624567007	DGWC-47	Water	10/17/19 13:50	10/18/19 15:40
2624567008	FB-3	Water	10/17/19 13:00	10/18/19 15:40
2624567009	DGWC-17	Water	10/18/19 13:00	10/18/19 15:40
2624567010	DGWC-22	Water	10/18/19 09:55	10/18/19 15:40
2624567011	DGWC-23	Water	10/18/19 09:55	10/18/19 15:40
2624567012	DGWC-48	Water	10/18/19 10:40	10/18/19 15:40

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624567001	DGWC-2	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567002	DGWC-9	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567003	DGWC-15	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567004	DGWC-20	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567005	DGWC-21	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567006	DGWC-42	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567007	DGWC-47	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567008	FB-3	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567009	DGWC-17	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
2624567010	DGWC-22	EPA 6020B	CSW	14

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2624567011	DGWC-23	EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3
		EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
2624567012	DGWC-48	EPA 300.0	MWB	3
		EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	MZP	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-2		Lab ID: 2624567001		Collected: 10/17/19 15:15		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 18:21	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 18:21	7440-38-2		
Barium	0.022	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 18:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 18:21	7440-41-7		
Boron	0.73	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 18:21	7440-42-8		
Cadmium	0.00013J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 18:21	7440-43-9		
Calcium	47.2	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 18:27	7440-70-2	M6	
Chromium	0.00046J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 18:21	7440-47-3		
Cobalt	0.0084	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 18:21	7440-48-4		
Lead	0.000086J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 18:21	7439-92-1		
Lithium	0.029J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 18:21	7439-93-2		
Molybdenum	0.0018J	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 18:21	7439-98-7		
Selenium	0.0051J	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 18:21	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 18:21	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:32	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	302	mg/L	10.0	10.0	1		10/25/19 14:35		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.8	mg/L	1.0	0.024	1		10/29/19 01:14	16887-00-6		
Fluoride	0.042J	mg/L	0.30	0.029	1		10/29/19 01:14	16984-48-8		
Sulfate	134	mg/L	20.0	0.34	20		10/29/19 11:55	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

Sample: DGWC-9		Lab ID: 2624567002		Collected: 10/17/19 15:03		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 19:13	7440-36-0		
Arsenic	0.033	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 19:13	7440-38-2		
Barium	0.015	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 19:13	7440-39-3		
Beryllium	0.0063	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 19:13	7440-41-7		
Boron	1.2	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 19:13	7440-42-8		
Cadmium	0.00064J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 19:13	7440-43-9		
Calcium	75.6	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 19:19	7440-70-2		
Chromium	0.00051J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 19:13	7440-47-3		
Cobalt	0.21	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 19:13	7440-48-4		
Lead	ND	mg/L	0.025	0.00023	5	10/23/19 16:22	10/25/19 11:53	7439-92-1	D3	
Lithium	0.029J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 19:13	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 19:13	7439-98-7		
Selenium	0.19	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 19:13	7782-49-2		
Thallium	0.00076J	mg/L	0.0050	0.00026	5	10/23/19 16:22	10/25/19 11:53	7440-28-0	D3	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.00042J	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:34	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	550	mg/L	10.0	10.0	1		10/25/19 14:36		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	10	mg/L	1.0	0.024	1		10/29/19 02:20	16887-00-6	M1	
Fluoride	1.2	mg/L	0.30	0.029	1		10/29/19 02:20	16984-48-8	M1	
Sulfate	331	mg/L	50.0	0.85	50		10/29/19 12:17	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-15		Lab ID: 2624567003		Collected: 10/17/19 10:00		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 19:24	7440-36-0		
Arsenic	0.00064J	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 19:24	7440-38-2	B	
Barium	0.046	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 19:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 19:24	7440-41-7		
Boron	1.5	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 19:24	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 19:24	7440-43-9		
Calcium	37.0	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 19:30	7440-70-2		
Chromium	0.00058J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 19:24	7440-47-3		
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 19:24	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 19:24	7439-92-1		
Lithium	0.0064J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 19:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 19:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 19:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 19:24	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:44	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	319	mg/L	10.0	10.0	1		10/25/19 14:36		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	22.0	mg/L	1.0	0.024	1		10/29/19 02:42	16887-00-6		
Fluoride	0.079J	mg/L	0.30	0.029	1		10/29/19 02:42	16984-48-8		
Sulfate	146	mg/L	10.0	0.17	10		10/29/19 12:39	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-20		Lab ID: 2624567004		Collected: 10/17/19 09:31		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 19:36	7440-36-0		
Arsenic	0.0094	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 19:36	7440-38-2		
Barium	0.015	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 19:36	7440-39-3		
Beryllium	0.0041	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 19:36	7440-41-7		
Boron	5.0	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 19:36	7440-42-8		
Cadmium	0.0017J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 19:36	7440-43-9		
Calcium	86.9	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 19:42	7440-70-2		
Chromium	0.0015J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 19:36	7440-47-3		
Cobalt	0.57	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 19:36	7440-48-4		
Lead	0.000097J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 19:36	7439-92-1		
Lithium	0.0075J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 19:36	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 19:36	7439-98-7		
Selenium	0.071	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 19:36	7782-49-2		
Thallium	0.00062J	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 19:36	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:46	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	751	mg/L	10.0	10.0	1		10/25/19 14:36		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	24.9	mg/L	1.0	0.024	1		10/29/19 03:04	16887-00-6		
Fluoride	0.26J	mg/L	0.30	0.029	1		10/29/19 03:04	16984-48-8		
Sulfate	426	mg/L	50.0	0.85	50		10/29/19 17:27	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-21		Lab ID: 2624567005		Collected: 10/17/19 14:30		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 19:47	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 19:47	7440-38-2		
Barium	0.027	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 19:47	7440-39-3		
Beryllium	0.00015J	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 19:47	7440-41-7		
Boron	7.0	mg/L	2.0	0.25	50	10/23/19 16:22	10/24/19 19:53	7440-42-8		
Cadmium	0.00060J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 19:47	7440-43-9		
Calcium	79.8	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 19:53	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 19:47	7440-47-3		
Cobalt	0.010	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 19:47	7440-48-4		
Lead	0.000046J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 19:47	7439-92-1		
Lithium	0.0063J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 19:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 19:47	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 19:47	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 19:47	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:48	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	498	mg/L	10.0	10.0	1		10/25/19 14:37		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	20.1	mg/L	1.0	0.024	1		10/29/19 04:32	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/29/19 04:32	16984-48-8		
Sulfate	255	mg/L	20.0	0.34	20		10/29/19 17:49	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-42		Lab ID: 2624567006		Collected: 10/17/19 16:00		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 19:59	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 19:59	7440-38-2		
Barium	0.018	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 19:59	7440-39-3		
Beryllium	0.0027J	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 19:59	7440-41-7		
Boron	0.94	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 19:59	7440-42-8		
Cadmium	0.00058J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 19:59	7440-43-9		
Calcium	44.1	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 20:04	7440-70-2		
Chromium	0.00041J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 19:59	7440-47-3		
Cobalt	0.030	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 19:59	7440-48-4		
Lead	0.00026J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 19:59	7439-92-1		
Lithium	0.011J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 19:59	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 19:59	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 19:59	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 19:59	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:55	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	612	mg/L	10.0	10.0	1		10/25/19 14:37		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	25.8	mg/L	1.0	0.024	1		10/29/19 04:55	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/29/19 04:55	16984-48-8		
Sulfate	321	mg/L	20.0	0.34	20		10/29/19 18:12	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-47		Lab ID: 2624567007		Collected: 10/17/19 13:50		Received: 10/18/19 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 20:22	7440-36-0	
Arsenic	0.0013J	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 20:22	7440-38-2	B
Barium	0.019	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 20:22	7440-39-3	
Beryllium	0.0093	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 20:22	7440-41-7	
Boron	0.25	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 20:22	7440-42-8	
Cadmium	0.0033	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 20:22	7440-43-9	
Calcium	36.2	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 20:27	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 20:22	7440-47-3	
Cobalt	0.26	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 20:22	7440-48-4	
Lead	0.0011J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 20:22	7439-92-1	
Lithium	0.066	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 20:22	7439-98-7	
Selenium	0.0062J	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 20:22	7782-49-2	
Thallium	0.00025J	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 20:22	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 16:58	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	327	mg/L	10.0	10.0	1		10/25/19 14:37		H1
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	7.0	mg/L	1.0	0.024	1		10/29/19 05:17	16887-00-6	
Fluoride	0.46	mg/L	0.30	0.029	1		10/29/19 05:17	16984-48-8	
Sulfate	179	mg/L	20.0	0.34	20		10/29/19 18:34	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: FB-3		Lab ID: 2624567008		Collected: 10/17/19 13:00		Received: 10/18/19 15:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 20:33	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 20:33	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 20:33	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 20:33	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 20:33	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 20:33	7440-43-9		
Calcium	0.011J	mg/L	0.10	0.011	1	10/23/19 16:22	10/24/19 20:33	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 20:33	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 20:33	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 20:33	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 20:33	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 20:33	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 20:33	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 20:33	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 17:00	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/25/19 14:37		H1	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.0	0.024	1		10/29/19 05:39	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/29/19 05:39	16984-48-8		
Sulfate	0.28J	mg/L	1.0	0.017	1		10/29/19 05:39	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-17		Lab ID: 2624567009		Collected: 10/18/19 13:00		Received: 10/18/19 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 20:39	7440-36-0	
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 20:39	7440-38-2	B
Barium	0.045	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 20:39	7440-39-3	
Beryllium	0.00071J	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 20:39	7440-41-7	
Boron	0.82	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 20:39	7440-42-8	
Cadmium	0.00029J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 20:39	7440-43-9	
Calcium	12.9	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 20:45	7440-70-2	
Chromium	0.0027J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 20:39	7440-47-3	
Cobalt	0.023	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 20:39	7440-48-4	
Lead	0.000074J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 20:39	7439-92-1	
Lithium	0.00096J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 20:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 20:39	7439-98-7	
Selenium	0.0093J	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 20:39	7782-49-2	
Thallium	0.00014J	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 20:39	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 17:02	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	403	mg/L	10.0	10.0	1		10/25/19 14:37		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	22.0	mg/L	1.0	0.024	1		10/29/19 06:01	16887-00-6	
Fluoride	0.086J	mg/L	0.30	0.029	1		10/29/19 06:01	16984-48-8	
Sulfate	222	mg/L	20.0	0.34	20		10/29/19 18:56	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-22		Lab ID: 2624567010		Collected: 10/18/19 09:55		Received: 10/18/19 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 20:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 20:50	7440-38-2	
Barium	0.032	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 20:50	7440-39-3	
Beryllium	0.00014J	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 20:50	7440-41-7	
Boron	4.2	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 20:50	7440-42-8	
Cadmium	0.00056J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 20:50	7440-43-9	
Calcium	61.7	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 20:56	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 20:50	7440-47-3	
Cobalt	0.0084	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 20:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 20:50	7439-92-1	
Lithium	0.0041J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 20:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 20:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 20:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 20:50	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 17:05	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	480	mg/L	10.0	10.0	1		10/25/19 14:37		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	23.4	mg/L	1.0	0.024	1		10/29/19 06:23	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/29/19 06:23	16984-48-8	
Sulfate	254	mg/L	20.0	0.34	20		10/29/19 19:18	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-23		Lab ID: 2624567011		Collected: 10/18/19 09:55		Received: 10/18/19 15:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 21:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 21:02	7440-38-2	
Barium	0.019	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 21:02	7440-39-3	
Beryllium	0.00038J	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 21:02	7440-41-7	
Boron	4.5	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 21:02	7440-42-8	
Cadmium	0.00022J	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 21:02	7440-43-9	
Calcium	67.7	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 21:07	7440-70-2	
Chromium	0.00041J	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 21:02	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 21:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 21:02	7439-92-1	
Lithium	0.0039J	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 21:02	7439-93-2	
Molybdenum	0.0091J	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 21:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 21:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 21:02	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 17:07	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	448	mg/L	10.0	10.0	1		10/25/19 14:38		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	14.4	mg/L	1.0	0.024	1		10/29/19 07:07	16887-00-6	
Fluoride	0.079J	mg/L	0.30	0.029	1		10/29/19 07:07	16984-48-8	
Sulfate	203	mg/L	20.0	0.34	20		10/29/19 19:40	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Sample: DGWC-48 Lab ID: 2624567012 Collected: 10/18/19 10:40 Received: 10/18/19 15:40 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00027	1	10/23/19 16:22	10/24/19 21:25	7440-36-0	
Arsenic	0.00079J	mg/L	0.0050	0.00035	1	10/23/19 16:22	10/24/19 21:25	7440-38-2	B
Barium	0.014	mg/L	0.010	0.00049	1	10/23/19 16:22	10/24/19 21:25	7440-39-3	
Beryllium	0.0099	mg/L	0.0030	0.000074	1	10/23/19 16:22	10/24/19 21:25	7440-41-7	
Boron	0.74	mg/L	0.040	0.0049	1	10/23/19 16:22	10/24/19 21:25	7440-42-8	
Cadmium	0.0028	mg/L	0.0025	0.00011	1	10/23/19 16:22	10/24/19 21:25	7440-43-9	
Calcium	72.7	mg/L	5.0	0.55	50	10/23/19 16:22	10/24/19 21:30	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/23/19 16:22	10/24/19 21:25	7440-47-3	
Cobalt	0.41	mg/L	0.0050	0.00030	1	10/23/19 16:22	10/24/19 21:25	7440-48-4	
Lead	0.00095J	mg/L	0.0050	0.000046	1	10/23/19 16:22	10/24/19 21:25	7439-92-1	
Lithium	0.11	mg/L	0.030	0.00078	1	10/23/19 16:22	10/24/19 21:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/23/19 16:22	10/24/19 21:25	7439-98-7	
Selenium	0.0050J	mg/L	0.010	0.0013	1	10/23/19 16:22	10/24/19 21:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/23/19 16:22	10/24/19 21:25	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/24/19 17:51	10/25/19 17:10	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	593	mg/L	10.0	10.0	1		10/25/19 14:38		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	9.6	mg/L	1.0	0.024	1		10/29/19 07:29	16887-00-6	
Fluoride	0.46	mg/L	0.30	0.029	1		10/29/19 07:29	16984-48-8	
Sulfate	336	mg/L	50.0	0.85	50		10/29/19 20:02	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

QC Batch: 37509 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008,
 2624567009, 2624567010, 2624567011, 2624567012

METHOD BLANK: 170040 Matrix: Water
 Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008,
 2624567009, 2624567010, 2624567011, 2624567012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/25/19 16:27	

LABORATORY CONTROL SAMPLE: 170041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 170042 170043

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2624567002 Result	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L	0.00042J	0.0025	0.0025	0.0030	0.0030	104	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 AP-2, 3-4
Pace Project No.: 2624567

QC Batch: 37435 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008, 2624567009, 2624567010, 2624567011, 2624567012

METHOD BLANK: 169374 Matrix: Water
Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008, 2624567009, 2624567010, 2624567011, 2624567012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/24/19 17:54	
Arsenic	mg/L	0.00059J	0.0050	0.00035	10/24/19 17:54	
Barium	mg/L	ND	0.010	0.00049	10/24/19 17:54	
Beryllium	mg/L	ND	0.0030	0.000074	10/24/19 17:54	
Boron	mg/L	ND	0.040	0.0049	10/24/19 17:54	
Cadmium	mg/L	ND	0.0025	0.00011	10/24/19 17:54	
Calcium	mg/L	ND	0.10	0.011	10/24/19 17:54	
Chromium	mg/L	ND	0.010	0.00039	10/24/19 17:54	
Cobalt	mg/L	ND	0.0050	0.00030	10/24/19 17:54	
Lead	mg/L	ND	0.0050	0.000046	10/24/19 17:54	
Lithium	mg/L	ND	0.030	0.00078	10/24/19 17:54	
Molybdenum	mg/L	ND	0.010	0.00095	10/24/19 17:54	
Selenium	mg/L	ND	0.010	0.0013	10/24/19 17:54	
Thallium	mg/L	ND	0.0010	0.000052	10/24/19 17:54	

LABORATORY CONTROL SAMPLE: 169375

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	0.093	93	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	103	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.096	96	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	0.099	99	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 169376		169377		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2624567001 Result	MS Spike Conc.	MSD Spike Conc.									
Antimony	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20		
Arsenic	mg/L	ND	0.1	0.1	0.098	0.096	98	96	75-125	2	20		
Barium	mg/L	0.022	0.1	0.1	0.12	0.12	102	101	75-125	0	20		
Beryllium	mg/L	ND	0.1	0.1	0.097	0.095	96	95	75-125	1	20		
Boron	mg/L	0.73	1	1	1.8	1.8	102	105	75-125	1	20		
Cadmium	mg/L	0.00013J	0.1	0.1	0.098	0.096	98	96	75-125	2	20		
Calcium	mg/L	47.2	1	1	48.1	46.8	90	-44	75-125	3	20	M6	
Chromium	mg/L	0.00046J	0.1	0.1	0.10	0.098	101	98	75-125	3	20		
Cobalt	mg/L	0.0084	0.1	0.1	0.11	0.11	101	99	75-125	2	20		
Lead	mg/L	0.000086J	0.1	0.1	0.094	0.092	94	91	75-125	2	20		
Lithium	mg/L	0.029J	0.1	0.1	0.13	0.12	99	96	75-125	2	20		
Molybdenum	mg/L	0.0018J	0.1	0.1	0.10	0.10	99	100	75-125	2	20		
Selenium	mg/L	0.0051J	0.1	0.1	0.10	0.10	97	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

QC Batch: 37578 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008, 2624567009, 2624567010, 2624567011, 2624567012

METHOD BLANK: 170487 Matrix: Water
Associated Lab Samples: 2624567001, 2624567002, 2624567003, 2624567004, 2624567005, 2624567006, 2624567007, 2624567008, 2624567009, 2624567010, 2624567011, 2624567012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	10/29/19 00:30	
Fluoride	mg/L	ND	0.30	0.029	10/29/19 00:30	
Sulfate	mg/L	ND	1.0	0.017	10/29/19 00:30	

LABORATORY CONTROL SAMPLE: 170488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 170489 170490

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2624567001 Result	Spike Conc.	2624567001 Result	Spike Conc.							
Chloride	mg/L	2.8	10	10	10	12.8	12.8	100	100	90-110	0	15
Fluoride	mg/L	0.042J	10	10	10	10.0	10.0	100	100	90-110	0	15

MATRIX SPIKE SAMPLE: 170491

Parameter	Units	2624567002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10	16.9	69	90-110	M1
Fluoride	mg/L	1.2	10	ND	-12	90-110	M1
Sulfate	mg/L	331	10	ND	-3310	90-110	M1

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QUALIFIERS

Project: Plant McDonough AP-2, 3-4

Pace Project No.: 2624567

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

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.

H1 Analysis conducted outside the EPA method holding time.

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-2, 3-4
Pace Project No.: 2624567

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624567001	DGWC-2	EPA 3005A	37435	EPA 6020B	37459
2624567002	DGWC-9	EPA 3005A	37435	EPA 6020B	37459
2624567003	DGWC-15	EPA 3005A	37435	EPA 6020B	37459
2624567004	DGWC-20	EPA 3005A	37435	EPA 6020B	37459
2624567005	DGWC-21	EPA 3005A	37435	EPA 6020B	37459
2624567006	DGWC-42	EPA 3005A	37435	EPA 6020B	37459
2624567007	DGWC-47	EPA 3005A	37435	EPA 6020B	37459
2624567008	FB-3	EPA 3005A	37435	EPA 6020B	37459
2624567009	DGWC-17	EPA 3005A	37435	EPA 6020B	37459
2624567010	DGWC-22	EPA 3005A	37435	EPA 6020B	37459
2624567011	DGWC-23	EPA 3005A	37435	EPA 6020B	37459
2624567012	DGWC-48	EPA 3005A	37435	EPA 6020B	37459
2624567001	DGWC-2	EPA 7470A	37509	EPA 7470A	37584
2624567002	DGWC-9	EPA 7470A	37509	EPA 7470A	37584
2624567003	DGWC-15	EPA 7470A	37509	EPA 7470A	37584
2624567004	DGWC-20	EPA 7470A	37509	EPA 7470A	37584
2624567005	DGWC-21	EPA 7470A	37509	EPA 7470A	37584
2624567006	DGWC-42	EPA 7470A	37509	EPA 7470A	37584
2624567007	DGWC-47	EPA 7470A	37509	EPA 7470A	37584
2624567008	FB-3	EPA 7470A	37509	EPA 7470A	37584
2624567009	DGWC-17	EPA 7470A	37509	EPA 7470A	37584
2624567010	DGWC-22	EPA 7470A	37509	EPA 7470A	37584
2624567011	DGWC-23	EPA 7470A	37509	EPA 7470A	37584
2624567012	DGWC-48	EPA 7470A	37509	EPA 7470A	37584
2624567001	DGWC-2	SM 2540C	37487		
2624567002	DGWC-9	SM 2540C	37487		
2624567003	DGWC-15	SM 2540C	37487		
2624567004	DGWC-20	SM 2540C	37487		
2624567005	DGWC-21	SM 2540C	37487		
2624567006	DGWC-42	SM 2540C	37487		
2624567007	DGWC-47	SM 2540C	37487		
2624567008	FB-3	SM 2540C	37487		
2624567009	DGWC-17	SM 2540C	37487		
2624567010	DGWC-22	SM 2540C	37487		
2624567011	DGWC-23	SM 2540C	37487		
2624567012	DGWC-48	SM 2540C	37487		
2624567001	DGWC-2	EPA 300.0	37578		
2624567002	DGWC-9	EPA 300.0	37578		
2624567003	DGWC-15	EPA 300.0	37578		
2624567004	DGWC-20	EPA 300.0	37578		
2624567005	DGWC-21	EPA 300.0	37578		
2624567006	DGWC-42	EPA 300.0	37578		
2624567007	DGWC-47	EPA 300.0	37578		
2624567008	FB-3	EPA 300.0	37578		
2624567009	DGWC-17	EPA 300.0	37578		
2624567010	DGWC-22	EPA 300.0	37578		
2624567011	DGWC-23	EPA 300.0	37578		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3-4
Pace Project No.: 2624567

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624567012	DGWC-48	EPA 300.0	37578		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

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

Cooler Temperature 0.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/18/19 MK

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>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: _____

November 15, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

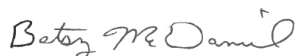
RE: Project: Plant McDonough AP-2, 3-4 Rads
Pace Project No.: 2624569

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 18, 2019. 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: Daniela Herrera, Golder
Ben Hodges, Georgia Power
Jimmy Jones, Golder Associates Inc.
Kristen Jurinko
Julie Lehrman, Golder Associates 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 AP-2, 3-4 Rads
Pace Project No.: 2624569

Pennsylvania Certification IDs

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: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2624569001	DGWC-2	Water	10/17/19 15:15	10/18/19 15:40
2624569002	DGWC-9	Water	10/17/19 15:03	10/18/19 15:40
2624569003	DGWC-15	Water	10/17/19 10:00	10/18/19 15:40
2624569004	DGWC-20	Water	10/17/19 09:31	10/18/19 15:40
2624569005	DGWC-21	Water	10/17/19 14:30	10/18/19 15:40
2624569006	DGWC-42	Water	10/17/19 16:00	10/18/19 15:40
2624569007	DGWC-47	Water	10/17/19 13:50	10/18/19 15:40
2624569008	FB-3	Water	10/17/19 13:00	10/18/19 15:40
2624569009	DGWC-17	Water	10/18/19 13:00	10/18/19 15:40
2624569010	DGWC-22	Water	10/18/19 09:55	10/18/19 15:40
2624569011	DGWC-23	Water	10/18/19 09:55	10/18/19 15:40
2624569012	DGWC-48	Water	10/18/19 10:40	10/18/19 15:40

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3-4 Rads
Pace Project No.: 2624569

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2624569001	DGWC-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569002	DGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569003	DGWC-15	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569004	DGWC-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569005	DGWC-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569006	DGWC-42	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569007	DGWC-47	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569008	FB-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569009	DGWC-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569010	DGWC-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569011	DGWC-23	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2624569012	DGWC-48	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-2 **Lab ID: 2624569001** Collected: 10/17/19 15:15 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.11 ± 0.430 (0.461) C:96% T:NA	pCi/L	11/08/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.631 ± 0.461 (0.898) C:67% T:80%	pCi/L	11/12/19 12:12	15262-20-1	
Total Radium	Total Radium Calculation	1.74 ± 0.891 (1.36)	pCi/L	11/13/19 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-9 **Lab ID: 2624569002** Collected: 10/17/19 15:03 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.702 ± 0.340 (0.420) C:98% T:NA	pCi/L	11/08/19 08:01	13982-63-3	
Radium-228	EPA 9320	-0.342 ± 0.552 (1.38) C:57% T:84%	pCi/L	11/12/19 15:25	15262-20-1	
Total Radium	Total Radium Calculation	0.702 ± 0.892 (1.80)	pCi/L	11/13/19 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-15 **Lab ID: 2624569003** Collected: 10/17/19 10:00 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.619 ± 0.354 (0.548) C:95% T:NA	pCi/L	11/08/19 08:00	13982-63-3	
Radium-228	EPA 9320	0.406 ± 0.430 (0.898) C:65% T:87%	pCi/L	11/12/19 12:08	15262-20-1	
Total Radium	Total Radium Calculation	1.03 ± 0.784 (1.45)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-20 **Lab ID: 2624569004** Collected: 10/17/19 09:31 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.395 ± 0.268 (0.399) C:94% T:NA	pCi/L	11/08/19 07:59	13982-63-3	
Radium-228	EPA 9320	1.60 ± 0.629 (0.989) C:68% T:76%	pCi/L	11/12/19 12:08	15262-20-1	
Total Radium	Total Radium Calculation	2.00 ± 0.897 (1.39)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-21 **Lab ID: 2624569005** Collected: 10/17/19 14:30 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.287 ± 0.278 (0.546) C:99% T:NA	pCi/L	11/08/19 08:01	13982-63-3	
Radium-228	EPA 9320	0.140 ± 0.503 (1.14) C:63% T:85%	pCi/L	11/12/19 15:25	15262-20-1	
Total Radium	Total Radium Calculation	0.427 ± 0.781 (1.69)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-42 **Lab ID: 2624569006** Collected: 10/17/19 16:00 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.408 ± 0.269 (0.429) C:103% T:NA	pCi/L	11/08/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.967 ± 0.492 (0.858) C:65% T:83%	pCi/L	11/12/19 12:12	15262-20-1	
Total Radium	Total Radium Calculation	1.38 ± 0.761 (1.29)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-47 **Lab ID: 2624569007** Collected: 10/17/19 13:50 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.15 ± 0.418 (0.371) C:97% T:NA	pCi/L	11/08/19 08:00	13982-63-3	
Radium-228	EPA 9320	1.43 ± 0.641 (1.02) C:68% T:81%	pCi/L	11/12/19 15:25	15262-20-1	
Total Radium	Total Radium Calculation	2.58 ± 1.06 (1.39)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: FB-3 **Lab ID: 2624569008** Collected: 10/17/19 13:00 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.289 ± 0.291 (0.581) C:95% T:NA	pCi/L	11/08/19 08:00	13982-63-3	
Radium-228	EPA 9320	0.550 ± 0.555 (1.14) C:65% T:80%	pCi/L	11/12/19 15:25	15262-20-1	
Total Radium	Total Radium Calculation	0.839 ± 0.846 (1.72)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-17 **Lab ID: 2624569009** Collected: 10/18/19 13:00 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.721 ± 0.335 (0.365) C:100% T:NA	pCi/L	11/08/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.169 ± 0.335 (0.740) C:68% T:79%	pCi/L	11/12/19 12:13	15262-20-1	
Total Radium	Total Radium Calculation	0.890 ± 0.670 (1.11)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-22 **Lab ID: 2624569010** Collected: 10/18/19 09:55 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.693 ± 0.377 (0.587) C:94% T:NA	pCi/L	11/08/19 08:02	13982-63-3	
Radium-228	EPA 9320	0.404 ± 0.412 (0.850) C:62% T:84%	pCi/L	11/12/19 12:12	15262-20-1	
Total Radium	Total Radium Calculation	1.10 ± 0.789 (1.44)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.03 ± 0.399 (0.325) C:93% T:NA	pCi/L	11/08/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.294 ± 0.358 (0.757) C:70% T:86%	pCi/L	11/12/19 12:12	15262-20-1	
Total Radium	Total Radium Calculation	1.32 ± 0.757 (1.08)	pCi/L	11/13/19 14:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

Sample: DGWC-48 **Lab ID: 2624569012** Collected: 10/18/19 10:40 Received: 10/18/19 15:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.552 ± 0.310 (0.429) C:90% T:NA	pCi/L	11/08/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.866 ± 0.455 (0.807) C:70% T:84%	pCi/L	11/12/19 12:13	15262-20-1	
Total Radium	Total Radium Calculation	1.42 ± 0.765 (1.24)	pCi/L	11/13/19 14:00	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3-4 Rads

Pace Project No.: 2624569

QC Batch:	368419	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2624569001, 2624569002, 2624569003, 2624569004, 2624569005, 2624569006, 2624569007, 2624569008, 2624569009, 2624569010, 2624569011, 2624569012		

METHOD BLANK:	1787377	Matrix:	Water
Associated Lab Samples:	2624569001, 2624569002, 2624569003, 2624569004, 2624569005, 2624569006, 2624569007, 2624569008, 2624569009, 2624569010, 2624569011, 2624569012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.618 ± 0.504 (1.02) C:68% T:78%	pCi/L	11/12/19 12:08	

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-2, 3-4 Rads

Pace Project No.: 2624569

QC Batch:	368418	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2624569001, 2624569002, 2624569003, 2624569004, 2624569005, 2624569006, 2624569007, 2624569008, 2624569009, 2624569010, 2624569011, 2624569012		

METHOD BLANK:	1787376	Matrix:	Water
Associated Lab Samples:	2624569001, 2624569002, 2624569003, 2624569004, 2624569005, 2624569006, 2624569007, 2624569008, 2624569009, 2624569010, 2624569011, 2624569012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.279 ± 0.243 (0.431) C:98% T:NA	pCi/L	11/08/19 07:55	

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-2, 3-4 Rads
Pace Project No.: 2624569

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.

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-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3-4 Rads
Pace Project No.: 2624569

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2624569001	DGWC-2	EPA 9315	368418		
2624569002	DGWC-9	EPA 9315	368418		
2624569003	DGWC-15	EPA 9315	368418		
2624569004	DGWC-20	EPA 9315	368418		
2624569005	DGWC-21	EPA 9315	368418		
2624569006	DGWC-42	EPA 9315	368418		
2624569007	DGWC-47	EPA 9315	368418		
2624569008	FB-3	EPA 9315	368418		
2624569009	DGWC-17	EPA 9315	368418		
2624569010	DGWC-22	EPA 9315	368418		
2624569011	DGWC-23	EPA 9315	368418		
2624569012	DGWC-48	EPA 9315	368418		
2624569001	DGWC-2	EPA 9320	368419		
2624569002	DGWC-9	EPA 9320	368419		
2624569003	DGWC-15	EPA 9320	368419		
2624569004	DGWC-20	EPA 9320	368419		
2624569005	DGWC-21	EPA 9320	368419		
2624569006	DGWC-42	EPA 9320	368419		
2624569007	DGWC-47	EPA 9320	368419		
2624569008	FB-3	EPA 9320	368419		
2624569009	DGWC-17	EPA 9320	368419		
2624569010	DGWC-22	EPA 9320	368419		
2624569011	DGWC-23	EPA 9320	368419		
2624569012	DGWC-48	EPA 9320	368419		
2624569001	DGWC-2	Total Radium Calculation	370742		
2624569002	DGWC-9	Total Radium Calculation	370742		
2624569003	DGWC-15	Total Radium Calculation	370741		
2624569004	DGWC-20	Total Radium Calculation	370741		
2624569005	DGWC-21	Total Radium Calculation	370742		
2624569006	DGWC-42	Total Radium Calculation	370742		
2624569007	DGWC-47	Total Radium Calculation	370742		
2624569008	FB-3	Total Radium Calculation	370742		
2624569009	DGWC-17	Total Radium Calculation	370742		
2624569010	DGWC-22	Total Radium Calculation	370742		
2624569011	DGWC-23	Total Radium Calculation	370742		
2624569012	DGWC-48	Total Radium Calculation	370742		

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Sample Condition Upon Receipt

Client Name: GIA Powere Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

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

Optional
Proj. Due Date:
Proj. Name:

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.2 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/18/19 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 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
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)

April 14, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Background
Pace Project No.: 2629679

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 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 - Atlanta, 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
(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.
Lauren Petty, Southern Company Services, Inc.
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.: 2629679

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

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 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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background

Pace Project No.: 2629679

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629679001	DGWA-70A	Water	03/02/20 14:45	03/03/20 11:11
2629679002	DGWA-71	Water	03/02/20 16:20	03/03/20 11:11

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2629679

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
2629679001	DGWA-70A	EPA 6010D	DRB	1	PASI-GA		
		EPA 6020B	CSW	13	PASI-GA		
		EPA 7470A	DRB	1	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		SM 2540C	NJ1	1	PASI-GA		
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A		
		2629679002	DGWA-71	EPA 6010D	DRB	1	PASI-GA
				EPA 6020B	CSW	13	PASI-GA
EPA 7470A	DRB			1	PASI-GA		
EPA 9315	LAL			1	PASI-PA		
EPA 9320	VAL			1	PASI-PA		
Total Radium Calculation	CMC			1	PASI-PA		
SM 2540C	NJ1			1	PASI-GA		
EPA 300.0 Rev 2.1 1993	CDC			3	PASI-A		

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629679

Sample: DGWA-70A		Lab ID: 2629679001		Collected: 03/02/20 14:45		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.54	Std. Units			1		03/03/20 14:06		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	5.3	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 17:29	7440-70-2	M1
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 17:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 17:49	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 17:49	7440-39-3	
Beryllium	0.000096J	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 17:49	7440-41-7	
Boron	0.0055J	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 17:49	7440-42-8	
Cadmium	0.00041J	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 17:49	7440-43-9	
Chromium	0.0013J	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 17:49	7440-47-3	
Cobalt	0.00037J	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 17:49	7440-48-4	
Lead	0.000074J	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 17:49	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 17:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 17:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 17:49	7782-49-2	
Thallium	0.000078J	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 17:49	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:14	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	52.0	mg/L	10.0	10.0	1		03/06/20 12:44		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		03/10/20 15:50	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 15:50	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/10/20 15:50	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629679

Sample: DGWA-71		Lab ID: 2629679002		Collected: 03/02/20 16:20		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.77	Std. Units			1		03/03/20 14:07		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	5.8	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 17:58	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.0018J	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:12	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:12	7440-38-2	
Barium	0.026	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:12	7440-39-3	
Beryllium	0.00010J	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:12	7440-41-7	
Boron	0.010J	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:12	7440-43-9	
Chromium	0.00045J	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:12	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:12	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:24	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	67.0	mg/L	10.0	10.0	1		03/06/20 12:44		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		03/10/20 16:04	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 16:04	16984-48-8	
Sulfate	8.5	mg/L	1.0	0.50	1		03/10/20 16:04	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629679

QC Batch: 44210 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629679001, 2629679002

METHOD BLANK: 202602 Matrix: Water
Associated Lab Samples: 2629679001, 2629679002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.14	03/05/20 14:53	

LABORATORY CONTROL SAMPLE: 202603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202604 202605

Parameter	Units	202604		202605		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	2.5	2.5	2.6	2.6	106	106	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629679

QC Batch: 44425 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629679001, 2629679002

METHOD BLANK: 203825 Matrix: Water
Associated Lab Samples: 2629679001, 2629679002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/11/20 17:22	

LABORATORY CONTROL SAMPLE: 203826

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: 203827 203828

Parameter	Units	203827		203828		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	5.3	1	1	6.6	6.3	129	101	75-125	4	20 M1

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629679

QC Batch: 44279 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629679001, 2629679002

METHOD BLANK: 202988 Matrix: Water
Associated Lab Samples: 2629679001, 2629679002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00029J	0.0030	0.00027	03/10/20 17:38	
Arsenic	mg/L	ND	0.0050	0.00035	03/10/20 17:38	
Barium	mg/L	ND	0.010	0.00049	03/10/20 17:38	
Beryllium	mg/L	ND	0.0030	0.000074	03/10/20 17:38	
Boron	mg/L	ND	0.10	0.0049	03/10/20 17:38	
Cadmium	mg/L	ND	0.0025	0.00011	03/10/20 17:38	
Chromium	mg/L	ND	0.010	0.00039	03/10/20 17:38	
Cobalt	mg/L	ND	0.0050	0.00030	03/10/20 17:38	
Lead	mg/L	ND	0.0050	0.000046	03/10/20 17:38	
Lithium	mg/L	ND	0.030	0.00078	03/10/20 17:38	
Molybdenum	mg/L	ND	0.010	0.00095	03/10/20 17:38	
Selenium	mg/L	ND	0.010	0.0013	03/10/20 17:38	
Thallium	mg/L	ND	0.0010	0.000052	03/10/20 17:38	

LABORATORY CONTROL SAMPLE: 202989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	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	0.11	105	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	104	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202990 202991

Parameter	Units	2629679001 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	0.11	0.11	107	111	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629679

Parameter	Units	202990		202991		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.035	0.1	0.1	0.14	0.15	109	110	75-125	1	20		
Beryllium	mg/L	0.000096J	0.1	0.1	0.10	0.11	104	105	75-125	2	20		
Boron	mg/L	0.0055J	1	1	1.1	1.1	106	107	75-125	1	20		
Cadmium	mg/L	0.00041J	0.1	0.1	0.10	0.11	102	105	75-125	2	20		
Chromium	mg/L	0.0013J	0.1	0.1	0.11	0.11	107	108	75-125	2	20		
Cobalt	mg/L	0.00037J	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Lead	mg/L	0.000074J	0.1	0.1	0.098	0.10	98	101	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	103	105	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	8	20		
Thallium	mg/L	0.000078J	0.1	0.1	0.10	0.10	100	100	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2629679

QC Batch: 44309	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629679001, 2629679002

LABORATORY CONTROL SAMPLE: 203157

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	84-108	

SAMPLE DUPLICATE: 203158

Parameter	Units	2629679001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	52.0	49.0	6	10	

SAMPLE DUPLICATE: 203159

Parameter	Units	2629766004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	63.0	67.0	6	10	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629679

QC Batch: 529175 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: 2629679001, 2629679002

METHOD BLANK: 2826400 Matrix: Water

Associated Lab Samples: 2629679001, 2629679002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/10/20 12:19	
Fluoride	mg/L	ND	0.10	0.050	03/10/20 12:19	
Sulfate	mg/L	ND	1.0	0.50	03/10/20 12:19	

LABORATORY CONTROL SAMPLE: 2826401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.3	97	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826402 2826403

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92468470002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	7.4	50	50	54.1	55.2	94	96	90-110	2	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	96	99	90-110	3	10		
Sulfate	mg/L	10.9	50	50	57.3	58.5	93	95	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826404 2826405

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629679002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.0	50	50	49.1	53.1	92	100	90-110	8	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	99	108	90-110	8	10		
Sulfate	mg/L	8.5	50	50	55.5	59.3	94	102	90-110	7	10		

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629679

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWA-70A Lab ID: 2629679001 Collected: 03/02/20 14:45 Received: 03/03/20 11:11 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.267 ± 0.293 (0.603) C:94% T:NA	pCi/L	03/12/20 08:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.152 ± 0.349 (0.774) C:77% T:89%	pCi/L	03/24/20 19:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.419 ± 0.642 (1.38)	pCi/L	03/27/20 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629679

Sample: DGWA-71 **Lab ID: 2629679002** Collected: 03/02/20 16:20 Received: 03/03/20 11:11 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.752 ± 0.337 (0.312) C:94% T:NA	pCi/L	03/12/20 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.545 ± 0.424 (0.835) C:78% T:81%	pCi/L	03/24/20 19:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.30 ± 0.761 (1.15)	pCi/L	03/27/20 14:53	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629679

QC Batch: 387205

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629679001, 2629679002

METHOD BLANK: 1875683

Matrix: Water

Associated Lab Samples: 2629679001, 2629679002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.605 ± 0.326 (0.434) C:90% T:NA	pCi/L	03/12/20 08:26	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629679

QC Batch: 387208

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629679001, 2629679002

METHOD BLANK: 1875688

Matrix: Water

Associated Lab Samples: 2629679001, 2629679002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.275 ± 0.357 (0.757) C:73% T:81%	pCi/L	03/24/20 19:45	

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QUALIFIERS

Project: Plant McDonough Background

Pace Project No.: 2629679

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.

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.: 2629679

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629679001	DGWA-70A				
2629679002	DGWA-71				
2629679001	DGWA-70A	EPA 3010A	44425	EPA 6010D	44437
2629679002	DGWA-71	EPA 3010A	44425	EPA 6010D	44437
2629679001	DGWA-70A	EPA 3005A	44279	EPA 6020B	44313
2629679002	DGWA-71	EPA 3005A	44279	EPA 6020B	44313
2629679001	DGWA-70A	EPA 7470A	44210	EPA 7470A	44266
2629679002	DGWA-71	EPA 7470A	44210	EPA 7470A	44266
2629679001	DGWA-70A	EPA 9315	387205		
2629679002	DGWA-71	EPA 9315	387205		
2629679001	DGWA-70A	EPA 9320	387208		
2629679002	DGWA-71	EPA 9320	387208		
2629679001	DGWA-70A	Total Radium Calculation	390177		
2629679002	DGWA-71	Total Radium Calculation	390177		
2629679001	DGWA-70A	SM 2540C	44309		
2629679002	DGWA-71	SM 2540C	44309		
2629679001	DGWA-70A	EPA 300.0 Rev 2.1 1993	529175		
2629679002	DGWA-71	EPA 300.0 Rev 2.1 1993	529175		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Georgia Power

WO#: 2629679
PM: KH Due Date: 03/17/20
CLIENT: 26-GA Power

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

Cooler Temperature 2.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: HW 3/3/20

Table with 16 rows of sample condition checks. Columns include description, Yes/No/N/A checkboxes, and a numbered list (1-16). Includes handwritten notes like '10 day TAT' and 'WT'.

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)

April 14, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough Background
Pace Project No.: 2629681

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 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 - Atlanta, 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
(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.
Lauren Petty, Southern Company Services, Inc.
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.: 2629681

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

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 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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough Background

Pace Project No.: 2629681

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629681001	DGWC-4	Water	03/02/20 15:06	03/03/20 11:11
2629681002	DGWC-5	Water	03/02/20 16:25	03/03/20 11:11
2629681003	DGWC-11	Water	03/02/20 14:10	03/03/20 11:11
2629681004	DGWC-12	Water	03/02/20 17:17	03/03/20 11:11
2629681005	FB-1	Water	03/02/20 16:15	03/03/20 11:11
2629681006	FD-1	Water	03/02/20 00:00	03/03/20 11:11

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background
Pace Project No.: 2629681

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629681001	DGWC-4	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2629681002	DGWC-5	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2629681003	DGWC-11	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2629681004	DGWC-12	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2629681005	FB-1	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough Background

Pace Project No.: 2629681

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629681006	FD-1	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Atlanta, GA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629681

Sample: DGWC-4		Lab ID: 2629681001		Collected: 03/02/20 15:06		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.88	Std. Units			1		03/05/20 08:08		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	320	mg/L	10.0	1.4	10	03/10/20 18:00	03/13/20 18:54	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00058J	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:18	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:18	7440-38-2	
Barium	0.036	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:18	7440-39-3	
Beryllium	0.00025J	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:18	7440-41-7	
Boron	5.9	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:18	7440-42-8	
Cadmium	0.00088J	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:18	7440-47-3	
Cobalt	0.0021J	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:18	7439-92-1	
Lithium	0.0035J	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:18	7439-93-2	
Molybdenum	0.0059J	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:26	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	1540	mg/L	10.0	10.0	1		03/06/20 12:45		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	18.7	mg/L	1.0	0.60	1		03/10/20 16:48	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 16:48	16984-48-8	
Sulfate	840	mg/L	16.0	8.0	16		03/11/20 03:26	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629681

Sample: DGWC-5		Lab ID: 2629681002		Collected: 03/02/20 16:25		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.80	Std. Units			1		03/05/20 08:08		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	116	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:06	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00032J	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:24	7440-36-0	B
Arsenic	0.0052	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:24	7440-38-2	
Barium	0.018	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:24	7440-39-3	
Beryllium	0.0098	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:24	7440-41-7	
Boron	5.5	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:24	7440-42-8	
Cadmium	0.00089J	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:24	7440-43-9	
Chromium	0.00045J	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:24	7440-47-3	
Cobalt	0.028	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:24	7440-48-4	
Lead	0.000051J	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/11/20 11:35	7439-92-1	
Lithium	0.0079J	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:24	7439-98-7	
Selenium	0.032	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:24	7782-49-2	
Thallium	0.000062J	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/11/20 11:35	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:28	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	759	mg/L	10.0	10.0	1		03/06/20 12:45		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	10.5	mg/L	1.0	0.60	1		03/10/20 17:02	16887-00-6	
Fluoride	0.33	mg/L	0.30	0.050	1		03/10/20 17:02	16984-48-8	
Sulfate	455	mg/L	9.0	4.5	9		03/11/20 03:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629681

Sample: DGWC-11		Lab ID: 2629681003		Collected: 03/02/20 14:10		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.62	Std. Units			1		03/05/20 08:08		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	65.8	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:09	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:29	7440-38-2	
Barium	0.071	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:29	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:29	7440-41-7	
Boron	1.6	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:29	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:29	7440-43-9	
Chromium	0.00060J	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:29	7440-47-3	
Cobalt	0.00078J	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:29	7440-48-4	
Lead	0.00015J	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:29	7439-92-1	
Lithium	0.0023J	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:29	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:29	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:31	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	458	mg/L	10.0	10.0	1		03/06/20 12:45		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	15.0	mg/L	1.0	0.60	1		03/10/20 17:17	16887-00-6	
Fluoride	0.064J	mg/L	0.30	0.050	1		03/10/20 17:17	16984-48-8	
Sulfate	264	mg/L	5.0	2.5	5		03/11/20 03:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: DGWC-12		Lab ID: 2629681004		Collected: 03/02/20 17:17		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.13	Std. Units			1		03/05/20 08:08		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	46.5	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:13	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	0.00030J	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:47	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:47	7440-38-2	
Barium	0.040	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:47	7440-39-3	
Beryllium	0.000074J	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:47	7440-41-7	
Boron	3.3	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:47	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:47	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:47	7440-47-3	
Cobalt	0.029	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:47	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:47	7782-49-2	
Thallium	0.00013J	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:47	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:33	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	338	mg/L	10.0	10.0	1		03/06/20 12:45		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	8.9	mg/L	1.0	0.60	1		03/10/20 18:01	16887-00-6	
Fluoride	0.071J	mg/L	0.30	0.050	1		03/10/20 18:01	16984-48-8	
Sulfate	181	mg/L	4.0	2.0	4		03/11/20 04:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629681

Sample: FB-1		Lab ID: 2629681005		Collected: 03/02/20 16:15		Received: 03/03/20 11:11		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:16	7440-70-2		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:53	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:53	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:53	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:53	7440-41-7		
Boron	0.011J	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:53	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:53	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:53	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:53	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:53	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:53	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:53	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:53	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:36	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/06/20 12:45			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		03/10/20 18:15	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 18:15	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		03/10/20 18:15	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough Background
Pace Project No.: 2629681

Sample: FD-1		Lab ID: 2629681006		Collected: 03/02/20 00:00		Received: 03/03/20 11:11		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	44.7	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:20	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 18:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 18:58	7440-38-2	
Barium	0.041	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 18:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 18:58	7440-41-7	
Boron	3.4	mg/L	0.10	0.0049	1	03/05/20 22:19	03/10/20 18:58	7440-42-8	
Cadmium	0.00013J	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 18:58	7440-43-9	
Chromium	0.00054J	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 18:58	7440-47-3	
Cobalt	0.031	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 18:58	7440-48-4	
Lead	0.000071J	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 18:58	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 18:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 18:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 18:58	7782-49-2	
Thallium	0.00014J	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 18:58	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/04/20 15:00	03/05/20 15:38	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	327	mg/L	10.0	10.0	1		03/06/20 12:45		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	8.9	mg/L	1.0	0.60	1		03/10/20 18:30	16887-00-6	
Fluoride	0.066J	mg/L	0.30	0.050	1		03/10/20 18:30	16984-48-8	
Sulfate	182	mg/L	4.0	2.0	4		03/11/20 04:26	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629681

QC Batch: 44210 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 202602 Matrix: Water
Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.14	03/05/20 14:53	

LABORATORY CONTROL SAMPLE: 202603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202604 202605

Parameter	Units	202604		202605		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629719006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	ug/L	ND	2.5	2.5	2.6	2.6	106	106	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2629681

QC Batch: 44425

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D MET

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 203825

Matrix: Water

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/11/20 17:22	

LABORATORY CONTROL SAMPLE: 203826

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: 203827 203828

Parameter	Units	203827		203828		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	5.3	1	1	6.6	6.3	129	101	75-125	4	20 M1

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629681

QC Batch: 44279 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 202988 Matrix: Water
Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00029J	0.0030	0.00027	03/10/20 17:38	
Arsenic	mg/L	ND	0.0050	0.00035	03/10/20 17:38	
Barium	mg/L	ND	0.010	0.00049	03/10/20 17:38	
Beryllium	mg/L	ND	0.0030	0.000074	03/10/20 17:38	
Boron	mg/L	ND	0.10	0.0049	03/10/20 17:38	
Cadmium	mg/L	ND	0.0025	0.00011	03/10/20 17:38	
Chromium	mg/L	ND	0.010	0.00039	03/10/20 17:38	
Cobalt	mg/L	ND	0.0050	0.00030	03/10/20 17:38	
Lead	mg/L	ND	0.0050	0.000046	03/10/20 17:38	
Lithium	mg/L	ND	0.030	0.00078	03/10/20 17:38	
Molybdenum	mg/L	ND	0.010	0.00095	03/10/20 17:38	
Selenium	mg/L	ND	0.010	0.0013	03/10/20 17:38	
Thallium	mg/L	ND	0.0010	0.000052	03/10/20 17:38	

LABORATORY CONTROL SAMPLE: 202989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	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	0.11	105	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	104	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	0.10	101	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202990 202991

Parameter	Units	2629679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	111	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant McDonough Background

Pace Project No.: 2629681

Parameter	Units	202990		202991		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.035	0.1	0.1	0.14	0.15	109	110	75-125	1	20		
Beryllium	mg/L	0.000096J	0.1	0.1	0.10	0.11	104	105	75-125	2	20		
Boron	mg/L	0.0055J	1	1	1.1	1.1	106	107	75-125	1	20		
Cadmium	mg/L	0.00041J	0.1	0.1	0.10	0.11	102	105	75-125	2	20		
Chromium	mg/L	0.0013J	0.1	0.1	0.11	0.11	107	108	75-125	2	20		
Cobalt	mg/L	0.00037J	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Lead	mg/L	0.000074J	0.1	0.1	0.098	0.10	98	101	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	103	105	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	8	20		
Thallium	mg/L	0.000078J	0.1	0.1	0.10	0.10	100	100	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant McDonough Background
Pace Project No.: 2629681

QC Batch: 529175 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: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 2826400 Matrix: Water
Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/10/20 12:19	
Fluoride	mg/L	ND	0.10	0.050	03/10/20 12:19	
Sulfate	mg/L	ND	1.0	0.50	03/10/20 12:19	

LABORATORY CONTROL SAMPLE: 2826401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.3	97	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826402 2826403

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92468470002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	7.4	50	50	54.1	55.2	94	96	90-110	2	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	96	99	90-110	3	10		
Sulfate	mg/L	10.9	50	50	57.3	58.5	93	95	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826404 2826405

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629679002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.0	50	50	49.1	53.1	92	100	90-110	8	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	99	108	90-110	8	10		
Sulfate	mg/L	8.5	50	50	55.5	59.3	94	102	90-110	7	10		

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: DGWC-4 **Lab ID: 2629681001** Collected: 03/02/20 15:06 Received: 03/03/20 11:11 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.968 ± 0.421 (0.547) C:94% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.02 ± 0.425 (0.653) C:73% T:90%	pCi/L	03/24/20 19:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.99 ± 0.846 (1.20)	pCi/L	03/27/20 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: DGWC-5 **Lab ID: 2629681002** Collected: 03/02/20 16:25 Received: 03/03/20 11:11 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	1.10 ± 0.443 (0.522) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.18 ± 0.593 (1.09) C:76% T:88%	pCi/L	03/24/20 19:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.28 ± 1.04 (1.61)	pCi/L	03/27/20 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-11 Lab ID: 2629681003 Collected: 03/02/20 14:10 Received: 03/03/20 11:11 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.833 ± 0.355 (0.364) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.466 ± 0.412 (0.842) C:77% T:91%	pCi/L	03/24/20 19:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.30 ± 0.767 (1.21)	pCi/L	03/27/20 14:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: DGWC-12 **Lab ID: 2629681004** Collected: 03/02/20 17:17 Received: 03/03/20 11:11 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.456 ± 0.288 (0.424) C:90% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.746 ± 0.517 (1.02) C:75% T:84%	pCi/L	03/24/20 19:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.20 ± 0.805 (1.44)	pCi/L	03/27/20 14:53	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: FB-1 **Lab ID: 2629681005** Collected: 03/02/20 16:15 Received: 03/03/20 11:11 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.297 ± 0.230 (0.373) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.222 ± 0.501 (1.18) C:77% T:76%	pCi/L	03/24/20 19:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.297 ± 0.731 (1.55)	pCi/L	03/27/20 14:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

Sample: FD-1 **Lab ID: 2629681006** Collected: 03/02/20 00:00 Received: 03/03/20 11:11 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.651 ± 0.346 (0.464) C:84% T:NA	pCi/L	03/12/20 08:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.513 ± 0.386 (0.759) C:81% T:83%	pCi/L	03/24/20 19:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.16 ± 0.732 (1.22)	pCi/L	03/27/20 14:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough Background

Pace Project No.: 2629681

QC Batch: 387205

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 1875683

Matrix: Water

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.605 ± 0.326 (0.434) C:90% T:NA	pCi/L	03/12/20 08:26	

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 Background

Pace Project No.: 2629681

QC Batch: 387208

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

METHOD BLANK: 1875688

Matrix: Water

Associated Lab Samples: 2629681001, 2629681002, 2629681003, 2629681004, 2629681005, 2629681006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.275 ± 0.357 (0.757) C:73% T:81%	pCi/L	03/24/20 19:45	

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 Background

Pace Project No.: 2629681

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.

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.: 2629681

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629681001	DGWC-4				
2629681002	DGWC-5				
2629681003	DGWC-11				
2629681004	DGWC-12				
2629681001	DGWC-4	EPA 3010A	44425	EPA 6010D	44437
2629681002	DGWC-5	EPA 3010A	44425	EPA 6010D	44437
2629681003	DGWC-11	EPA 3010A	44425	EPA 6010D	44437
2629681004	DGWC-12	EPA 3010A	44425	EPA 6010D	44437
2629681005	FB-1	EPA 3010A	44425	EPA 6010D	44437
2629681006	FD-1	EPA 3010A	44425	EPA 6010D	44437
2629681001	DGWC-4	EPA 3005A	44279	EPA 6020B	44313
2629681002	DGWC-5	EPA 3005A	44279	EPA 6020B	44313
2629681003	DGWC-11	EPA 3005A	44279	EPA 6020B	44313
2629681004	DGWC-12	EPA 3005A	44279	EPA 6020B	44313
2629681005	FB-1	EPA 3005A	44279	EPA 6020B	44313
2629681006	FD-1	EPA 3005A	44279	EPA 6020B	44313
2629681001	DGWC-4	EPA 7470A	44210	EPA 7470A	44266
2629681002	DGWC-5	EPA 7470A	44210	EPA 7470A	44266
2629681003	DGWC-11	EPA 7470A	44210	EPA 7470A	44266
2629681004	DGWC-12	EPA 7470A	44210	EPA 7470A	44266
2629681005	FB-1	EPA 7470A	44210	EPA 7470A	44266
2629681006	FD-1	EPA 7470A	44210	EPA 7470A	44266
2629681001	DGWC-4	EPA 9315	387205		
2629681002	DGWC-5	EPA 9315	387205		
2629681003	DGWC-11	EPA 9315	387205		
2629681004	DGWC-12	EPA 9315	387205		
2629681005	FB-1	EPA 9315	387205		
2629681006	FD-1	EPA 9315	387205		
2629681001	DGWC-4	EPA 9320	387208		
2629681002	DGWC-5	EPA 9320	387208		
2629681003	DGWC-11	EPA 9320	387208		
2629681004	DGWC-12	EPA 9320	387208		
2629681005	FB-1	EPA 9320	387208		
2629681006	FD-1	EPA 9320	387208		
2629681001	DGWC-4	Total Radium Calculation	390177		
2629681002	DGWC-5	Total Radium Calculation	390177		
2629681003	DGWC-11	Total Radium Calculation	390177		
2629681004	DGWC-12	Total Radium Calculation	390177		
2629681005	FB-1	Total Radium Calculation	390177		
2629681006	FD-1	Total Radium Calculation	390177		
2629681001	DGWC-4	SM 2540C	44309		
2629681002	DGWC-5	SM 2540C	44309		
2629681003	DGWC-11	SM 2540C	44309		
2629681004	DGWC-12	SM 2540C	44309		
2629681005	FB-1	SM 2540C	44309		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Background

Pace Project No.: 2629681

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629681006	FD-1	SM 2540C	44309		
2629681001	DGWC-4	EPA 300.0 Rev 2.1 1993	529175		
2629681002	DGWC-5	EPA 300.0 Rev 2.1 1993	529175		
2629681003	DGWC-11	EPA 300.0 Rev 2.1 1993	529175		
2629681004	DGWC-12	EPA 300.0 Rev 2.1 1993	529175		
2629681005	FB-1	EPA 300.0 Rev 2.1 1993	529175		
2629681006	FD-1	EPA 300.0 Rev 2.1 1993	529175		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon R

WO#: 2629681

Client Name: Georgia Power

PM: KH

Due Date: 03/17/20

CLIENT: 26-GA Power

Courier: Fed Ex UPS USPS Client Commercial Pace

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used THM 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: NW 3/3/20

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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. 10 day TAT
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 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>NW</u> Lot # of added preservative <u>3/3</u>
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)

April 14, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 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 - Atlanta, 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
(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.
Lauren Petty, Southern Company Services, Inc.
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.: 2629765

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

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
Guam Certification
Florida: Cert E871149 SEKS WET
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 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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629765001	DGWC-2	Water	03/03/20 14:15	03/04/20 10:55
2629765002	DGWC-8	Water	03/03/20 09:40	03/04/20 10:55
2629765003	DGWC-9	Water	03/03/20 13:05	03/04/20 10:55
2629765004	DGWC-10	Water	03/03/20 13:25	03/04/20 10:55
2629765005	DGWC-13	Water	03/03/20 11:15	03/04/20 10:55
2629765006	DGWC-14	Water	03/03/20 14:45	03/04/20 10:55
2629765007	DGWC-15	Water	03/03/20 16:25	03/04/20 10:55
2629765008	DGWC-17	Water	03/04/20 10:00	03/04/20 10:55
2629765009	DGWC-19	Water	03/03/20 16:32	03/04/20 10:55
2629765010	DGWC-21	Water	03/03/20 14:17	03/04/20 10:55
2629765011	DGWC-22	Water	03/03/20 15:35	03/04/20 10:55
2629765012	FD-2	Water	03/03/20 00:00	03/04/20 10:55
2629765013	FB-2	Water	03/03/20 15:05	03/04/20 10:55
2629765014	EB-1	Water	03/03/20 16:15	03/04/20 10:55
2629765015	EB-2	Water	03/03/20 16:30	03/04/20 10:55
2629765016	DGWC-20	Water	03/04/20 14:05	03/04/20 17:45
2629765017	DGWC-23	Water	03/04/20 15:35	03/04/20 17:45
2629765018	DGWC-42	Water	03/04/20 09:55	03/04/20 17:45
2629765019	DGWC-47	Water	03/04/20 11:25	03/04/20 17:45
2629765020	DGWC-48	Water	03/04/20 14:00	03/04/20 17:45
2629765021	FB-3	Water	03/04/20 16:10	03/04/20 17:45

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765001	DGWC-2	EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
2629765002	DGWC-8	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765003	DGWC-9	SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765004	DGWC-10	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
2629765005	DGWC-13	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
EPA 9315	LAL	1	PASI-PA		
EPA 9320	VAL	1	PASI-PA		

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765006	DGWC-14	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765007	DGWC-15	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765008	DGWC-17	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765009	DGWC-19	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765010	DGWC-21	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765011	DGWC-22	EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		2629765012	FD-2	SM 2540C	NJ1
EPA 300.0 Rev 2.1 1993	CDC			3	PASI-A
EPA 6010D	DRB			2	PASI-GA
EPA 6020B	CSW			13	PASI-GA
EPA 7470A	DRB			1	PASI-GA
EPA 9315	LAL			1	PASI-PA
EPA 9320	VAL			1	PASI-PA
Total Radium Calculation	CMC			1	PASI-PA
SM 2540C	NJ1			1	PASI-GA
EPA 300.0 Rev 2.1 1993	BRJ			3	PASI-A
EPA 6010D	DRB			2	PASI-GA
EPA 6020B	CSW			13	PASI-GA
2629765013	FB-2			EPA 7470A	DRB
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		2629765014	EB-1	SM 2540C	NJ1
EPA 300.0 Rev 2.1 1993	BRJ			3	PASI-A
EPA 6010D	DRB			2	PASI-GA
EPA 6020B	CSW			13	PASI-GA
EPA 7470A	DRB			1	PASI-GA
EPA 9315	LAL			1	PASI-PA
EPA 9320	VAL			1	PASI-PA
Total Radium Calculation	CMC			1	PASI-PA
SM 2540C	NJ1			1	PASI-GA
EPA 300.0 Rev 2.1 1993	BRJ			3	PASI-A
EPA 6010D	DRB			2	PASI-GA
EPA 6020B	CSW			13	PASI-GA
EPA 7470A	DRB			1	PASI-GA
EPA 9315	LAL	1	PASI-PA		
EPA 9320	VAL	1	PASI-PA		
Total Radium Calculation	CMC	1	PASI-PA		
SM 2540C	NJ1	1	PASI-GA		

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SAMPLE ANALYTE COUNT

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765015	EB-2	EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
2629765016	DGWC-20	EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
2629765017	DGWC-23	EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
2629765018	DGWC-42	EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
2629765019	DGWC-47	EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	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.: 2629765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765020	DGWC-48	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
		EPA 6010D	DRB	2	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
2629765021	FB-3	EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, 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.: 2629765

Sample: DGWC-2		Lab ID: 2629765001		Collected: 03/03/20 14:15		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.94	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	48.4	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 18:58	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:00	03/11/20 18:58	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 21:41	7440-36-0	
Arsenic	0.0025J	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 21:41	7440-38-2	
Barium	0.022	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 21:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 21:41	7440-41-7	
Boron	0.68	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 21:41	7440-42-8	
Cadmium	0.00014J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 21:41	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 21:41	7440-47-3	
Cobalt	0.0073	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 21:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 21:41	7439-92-1	
Lithium	0.026J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 21:41	7439-93-2	
Molybdenum	0.0022J	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 21:41	7439-98-7	
Selenium	0.0047J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 21:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 21:41	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 16:59	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	277	mg/L	10.0	10.0	1		03/06/20 12:47		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.3	mg/L	1.0	0.60	1		03/11/20 03:24	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 03:24	16984-48-8	
Sulfate	118	mg/L	2.0	1.0	2		03/11/20 08:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-8		Lab ID: 2629765002		Collected: 03/03/20 09:40		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.12	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	46.0	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 19:02	7440-70-2	
Zinc	0.030	mg/L	0.020	0.018	1	03/10/20 18:00	03/11/20 19:02	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 21:47	7440-36-0	
Arsenic	0.00096J	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 21:47	7440-38-2	
Barium	0.026	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 21:47	7440-39-3	
Beryllium	0.0018J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 21:47	7440-41-7	
Boron	1.5	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 21:47	7440-42-8	
Cadmium	0.0020J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 21:47	7440-43-9	
Chromium	0.00061J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 21:47	7440-47-3	
Cobalt	0.044	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 21:47	7440-48-4	
Lead	0.00023J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 21:47	7439-92-1	
Lithium	0.0052J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 21:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 21:47	7439-98-7	
Selenium	0.0018J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 21:47	7782-49-2	
Thallium	0.00023J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 21:47	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:09	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	369	mg/L	10.0	10.0	1		03/10/20 11:50		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.6	mg/L	1.0	0.60	1		03/11/20 04:20	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 04:20	16984-48-8	
Sulfate	195	mg/L	4.0	2.0	4		03/11/20 09:02	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-9		Lab ID: 2629765003		Collected: 03/03/20 13:05		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.07	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	59.5	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 19:12	7440-70-2	
Zinc	0.085	mg/L	0.020	0.018	1	03/10/20 18:00	03/11/20 19:12	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 21:53	7440-36-0	
Arsenic	0.015	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 21:53	7440-38-2	
Barium	0.016	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 21:53	7440-39-3	
Beryllium	0.0048	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 21:53	7440-41-7	
Boron	1.1	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 21:53	7440-42-8	
Cadmium	0.00059J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 21:53	7440-43-9	
Chromium	0.0057J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 21:53	7440-47-3	
Cobalt	0.20	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 21:53	7440-48-4	
Lead	0.00017J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/12/20 17:53	7439-92-1	
Lithium	0.028J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 21:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 21:53	7439-98-7	
Selenium	0.046	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 21:53	7782-49-2	
Thallium	0.00044J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/12/20 17:53	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:26	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	444	mg/L	10.0	10.0	1		03/10/20 11:50		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.6	mg/L	1.0	0.60	1		03/11/20 05:02	16887-00-6	
Fluoride	1.4	mg/L	0.30	0.050	1		03/11/20 05:02	16984-48-8	
Sulfate	247	mg/L	5.0	2.5	5		03/11/20 10:26	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-10		Lab ID: 2629765004		Collected: 03/03/20 13:25		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.77	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	63.6	mg/L	1.0	0.14	1	03/10/20 18:00	03/11/20 19:15	7440-70-2	
Zinc	0.14	mg/L	0.020	0.018	1	03/10/20 18:00	03/11/20 19:15	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 21:59	7440-36-0	
Arsenic	0.0025J	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 21:59	7440-38-2	
Barium	0.024	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 21:59	7440-39-3	
Beryllium	0.0085	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 21:59	7440-41-7	
Boron	1.5	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 21:59	7440-42-8	
Cadmium	0.00095J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 21:59	7440-43-9	
Chromium	0.00092J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 21:59	7440-47-3	
Cobalt	0.18	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 21:59	7440-48-4	
Lead	0.00011J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 21:59	7439-92-1	
Lithium	0.0049J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 21:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 21:59	7439-98-7	
Selenium	0.021	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 21:59	7782-49-2	
Thallium	0.00042J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 21:59	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:28	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	382	mg/L	10.0	10.0	1		03/10/20 11:50		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	8.4	mg/L	1.0	0.60	1		03/11/20 05:16	16887-00-6	
Fluoride	1.5	mg/L	0.30	0.050	1		03/11/20 05:16	16984-48-8	
Sulfate	213	mg/L	5.0	2.5	5		03/11/20 10:40	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-13		Lab ID: 2629765005		Collected: 03/03/20 11:15		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.71	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	49.3	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 19:29	7440-70-2	M1
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 19:29	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:04	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:04	7440-41-7	
Boron	0.61	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:04	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:04	7440-43-9	
Chromium	0.00066J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:04	7439-92-1	
Lithium	0.0035J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:04	7439-93-2	
Molybdenum	0.018	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:04	7439-98-7	
Selenium	0.0062J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:04	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:31	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	263	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.4	mg/L	1.0	0.60	1		03/11/20 05:30	16887-00-6	
Fluoride	0.078J	mg/L	0.30	0.050	1		03/11/20 05:30	16984-48-8	
Sulfate	157	mg/L	3.0	1.5	3		03/11/20 10:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-14		Lab ID: 2629765006		Collected: 03/03/20 14:45		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.73	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	14.0	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 19:44	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 19:44	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:10	7440-38-2	
Barium	0.064	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:10	7440-41-7	
Boron	0.15	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:10	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:10	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:10	7439-92-1	
Lithium	0.0080J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:10	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:10	7439-98-7	
Selenium	0.0014J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:10	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:33	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	123	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.1	mg/L	1.0	0.60	1		03/11/20 05:44	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 05:44	16984-48-8	
Sulfate	45.5	mg/L	1.0	0.50	1		03/11/20 05:44	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-15		Lab ID: 2629765007		Collected: 03/03/20 16:25		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.79	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	37.8	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 19:54	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 19:54	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:16	7440-38-2	
Barium	0.050	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:16	7440-41-7	
Boron	1.7	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:16	7440-42-8	
Cadmium	0.00012J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:16	7440-43-9	
Chromium	0.00046J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:16	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:16	7439-92-1	
Lithium	0.0059J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:16	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:40	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	323	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	22.7	mg/L	1.0	0.60	1		03/11/20 05:58	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 05:58	16984-48-8	
Sulfate	148	mg/L	3.0	1.5	3		03/11/20 11:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-17		Lab ID: 2629765008		Collected: 03/04/20 10:00		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.07	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	15.8	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 19:57	7440-70-2	
Zinc	0.038	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 19:57	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:33	7440-36-0	
Arsenic	0.0014J	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:33	7440-38-2	
Barium	0.044	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:33	7440-39-3	
Beryllium	0.00062J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:33	7440-41-7	
Boron	0.85	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:33	7440-42-8	
Cadmium	0.00028J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:33	7440-43-9	
Chromium	0.0035J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:33	7440-47-3	
Cobalt	0.023	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:33	7440-48-4	
Lead	0.00013J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:33	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:33	7439-98-7	
Selenium	0.0074J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:33	7782-49-2	
Thallium	0.00019J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:33	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:42	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	414	mg/L	10.0	10.0	1		03/11/20 11:13		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	19.6	mg/L	1.0	0.60	1		03/11/20 06:12	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 06:12	16984-48-8	
Sulfate	222	mg/L	5.0	2.5	5		03/11/20 11:23	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-19		Lab ID: 2629765009		Collected: 03/03/20 16:32		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.89	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	86.8	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:01	7440-70-2	
Zinc	0.042	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:01	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:39	7440-38-2	
Barium	0.028	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:39	7440-39-3	
Beryllium	0.0021J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:39	7440-41-7	
Boron	3.1	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:39	7440-42-8	
Cadmium	0.00037J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:39	7440-43-9	
Chromium	0.0028J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:39	7440-47-3	
Cobalt	0.054	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:39	7440-48-4	
Lead	0.000070J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:39	7439-92-1	
Lithium	0.0034J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:39	7439-98-7	
Selenium	0.0066J	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:39	7782-49-2	
Thallium	0.00060J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:39	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:45	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	526	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	30.9	mg/L	1.0	0.60	1		03/11/20 06:26	16887-00-6	
Fluoride	0.056J	mg/L	0.30	0.050	1		03/11/20 06:26	16984-48-8	
Sulfate	292	mg/L	6.0	3.0	6		03/11/20 11:37	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-21		Lab ID: 2629765010		Collected: 03/03/20 14:17		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.65	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	87.4	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:04	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:04	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:44	7440-38-2	
Barium	0.027	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:44	7440-39-3	
Beryllium	0.00019J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:44	7440-41-7	
Boron	6.8	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:44	7440-42-8	
Cadmium	0.00063J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:44	7440-43-9	
Chromium	0.00048J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:44	7440-47-3	
Cobalt	0.010	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:44	7440-48-4	
Lead	0.00015J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:44	7439-92-1	
Lithium	0.0065J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:44	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:47	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	490	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	19.7	mg/L	1.0	0.60	1		03/11/20 07:22	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 07:22	16984-48-8	
Sulfate	269	mg/L	5.0	2.5	5		03/11/20 11:51	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-22		Lab ID: 2629765011		Collected: 03/03/20 15:35		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.74	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	68.7	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:08	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:08	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:50	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:50	7440-39-3	
Beryllium	0.00017J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:50	7440-41-7	
Boron	4.6	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:50	7440-42-8	
Cadmium	0.00061J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:50	7440-47-3	
Cobalt	0.0098	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:50	7439-92-1	
Lithium	0.0046J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:50	7782-49-2	
Thallium	0.000070J	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:50	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:50	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	452	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	21.8	mg/L	1.0	0.60	1		03/11/20 07:36	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 07:36	16984-48-8	
Sulfate	242	mg/L	5.0	2.5	5		03/11/20 12:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: FD-2		Lab ID: 2629765012		Collected: 03/03/20 00:00	Received: 03/04/20 10:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	84.7	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:11	7440-70-2		
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:11	7440-66-6		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:25	03/10/20 22:56	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:25	03/10/20 22:56	7440-38-2		
Barium	0.026	mg/L	0.010	0.00049	1	03/05/20 22:25	03/10/20 22:56	7440-39-3		
Beryllium	0.00018J	mg/L	0.0030	0.000074	1	03/05/20 22:25	03/10/20 22:56	7440-41-7		
Boron	6.7	mg/L	0.10	0.0049	1	03/05/20 22:25	03/10/20 22:56	7440-42-8		
Cadmium	0.00062J	mg/L	0.0025	0.00011	1	03/05/20 22:25	03/10/20 22:56	7440-43-9		
Chromium	0.00058J	mg/L	0.010	0.00039	1	03/05/20 22:25	03/10/20 22:56	7440-47-3		
Cobalt	0.010	mg/L	0.0050	0.00030	1	03/05/20 22:25	03/10/20 22:56	7440-48-4		
Lead	0.00012J	mg/L	0.0050	0.000046	1	03/05/20 22:25	03/10/20 22:56	7439-92-1		
Lithium	0.0064J	mg/L	0.030	0.00078	1	03/05/20 22:25	03/10/20 22:56	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:25	03/10/20 22:56	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:25	03/10/20 22:56	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:25	03/10/20 22:56	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:52	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	505	mg/L	10.0	10.0	1		03/10/20 11:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	19.2	mg/L	1.0	0.60	1		03/11/20 21:40	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 21:40	16984-48-8		
Sulfate	271	mg/L	6.0	3.0	6		03/12/20 10:57	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: FB-2		Lab ID: 2629765013		Collected: 03/03/20 15:05		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	ND	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:15	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:15	7440-66-6	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 19:00	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 19:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 19:00	7440-41-7	
Boron	0.0079J	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 19:00	7440-42-8	B
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 19:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 19:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 19:00	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 19:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 19:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 19:00	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA							
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:54	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/10/20 11:51		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		03/11/20 21:55	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 21:55	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/11/20 21:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: EB-1		Lab ID: 2629765014		Collected: 03/03/20 16:15		Received: 03/04/20 10:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	ND	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:18	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:18	7440-66-6	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 19:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 19:05	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 19:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 19:05	7440-41-7	
Boron	0.0058J	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 19:05	7440-42-8	B
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 19:05	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 19:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 19:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 19:05	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 19:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 19:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 19:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 19:05	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA							
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:57	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/10/20 11:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		03/11/20 22:24	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 22:24	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/11/20 22:24	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: EB-2		Lab ID: 2629765015		Collected: 03/03/20 16:30	Received: 03/04/20 10:55	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 20:22	7440-70-2		
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 20:22	7440-66-6		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 19:11	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 19:11	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 19:11	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 19:11	7440-41-7		
Boron	ND	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 19:11	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 19:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 19:11	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 19:11	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 19:11	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 19:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 19:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 19:11	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 19:11	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	ug/L	0.20	0.14	1	03/05/20 10:30	03/05/20 17:59	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/10/20 11:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		03/11/20 22:09	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 22:09	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		03/11/20 22:09	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-20		Lab ID: 2629765016		Collected: 03/04/20 14:05		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.22	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	103	mg/L	10.0	1.4	10	03/10/20 18:30	03/13/20 19:04	7440-70-2	
Zinc	0.45	mg/L	0.20	0.18	10	03/10/20 18:30	03/13/20 19:04	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 20:31	7440-36-0	
Arsenic	0.029	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 20:31	7440-38-2	
Barium	0.017	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 20:31	7440-39-3	
Beryllium	0.0089	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 20:31	7440-41-7	
Boron	3.6	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 20:31	7440-42-8	
Cadmium	0.0026	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 20:31	7440-43-9	
Chromium	0.0032J	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 20:31	7440-47-3	B
Cobalt	0.84	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 20:31	7440-48-4	
Lead	0.00068J	mg/L	0.025	0.00023	5	03/10/20 20:52	03/12/20 19:05	7439-92-1	D3
Lithium	0.019J	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 20:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 20:31	7439-98-7	
Selenium	0.071	mg/L	0.050	0.0063	5	03/10/20 20:52	03/12/20 19:05	7782-49-2	
Thallium	0.0023J	mg/L	0.0050	0.00026	5	03/10/20 20:52	03/12/20 19:05	7440-28-0	D3
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 18:55	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	761	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	27.8	mg/L	1.0	0.60	1		03/11/20 22:38	16887-00-6	
Fluoride	1.5	mg/L	0.30	0.050	1		03/11/20 22:38	16984-48-8	
Sulfate	434	mg/L	9.0	4.5	9		03/12/20 11:11	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-23		Lab ID: 2629765017		Collected: 03/04/20 15:35		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.68	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	69.8	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 21:21	7440-70-2	M1
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 21:21	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 20:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 20:37	7440-38-2	
Barium	0.032	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 20:37	7440-39-3	
Beryllium	0.00077J	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 20:37	7440-41-7	
Boron	4.8	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 20:37	7440-42-8	
Cadmium	0.00024J	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 20:37	7440-43-9	
Chromium	0.00081J	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 20:37	7440-47-3	B
Cobalt	0.00043J	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 20:37	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 20:37	7439-92-1	
Lithium	0.0040J	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 20:37	7439-93-2	
Molybdenum	0.0047J	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 20:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 20:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 20:37	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	0.26	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 18:58	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	408	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	13.9	mg/L	1.0	0.60	1		03/11/20 22:53	16887-00-6	
Fluoride	0.075J	mg/L	0.30	0.050	1		03/11/20 22:53	16984-48-8	
Sulfate	204	mg/L	4.0	2.0	4		03/12/20 11:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-42		Lab ID: 2629765018		Collected: 03/04/20 09:55		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	5.18	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	48.8	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 21:35	7440-70-2	
Zinc	0.039	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 21:35	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 20:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 20:43	7440-38-2	
Barium	0.015	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 20:43	7440-39-3	
Beryllium	0.0029J	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 20:43	7440-41-7	
Boron	1.0	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 20:43	7440-42-8	
Cadmium	0.00037J	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 20:43	7440-43-9	
Chromium	0.00042J	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 20:43	7440-47-3	B
Cobalt	0.014	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 20:43	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 20:43	7439-92-1	
Lithium	0.0091J	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 20:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 20:43	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 20:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 20:43	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 19:00	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	721	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	23.6	mg/L	1.0	0.60	1		03/11/20 23:07	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 23:07	16984-48-8	
Sulfate	329	mg/L	7.0	3.5	7		03/12/20 11:41	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-47		Lab ID: 2629765019		Collected: 03/04/20 11:25		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	3.86	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	36.0	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 21:39	7440-70-2	
Zinc	0.23	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 21:39	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 20:48	7440-36-0	
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 20:48	7440-38-2	
Barium	0.017	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 20:48	7440-39-3	
Beryllium	0.010	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 20:48	7440-41-7	
Boron	0.24	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 20:48	7440-42-8	
Cadmium	0.0017J	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 20:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 20:48	7440-47-3	
Cobalt	0.28	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 20:48	7440-48-4	
Lead	0.00088J	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 20:48	7439-92-1	
Lithium	0.063	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 20:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 20:48	7439-98-7	
Selenium	0.0065J	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 20:48	7782-49-2	
Thallium	0.00021J	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 20:48	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 19:02	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	334	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.4	mg/L	1.0	0.60	1		03/11/20 23:22	16887-00-6	
Fluoride	0.74	mg/L	0.30	0.050	1		03/11/20 23:22	16984-48-8	M1
Sulfate	176	mg/L	4.0	2.0	4		03/12/20 11:56	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: DGWC-48		Lab ID: 2629765020		Collected: 03/04/20 14:00		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	4.27	Std. Units			1		03/09/20 14:39		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	79.7	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 21:42	7440-70-2	
Zinc	0.23	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 21:42	7440-66-6	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 21:06	7440-36-0	
Arsenic	0.00060J	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 21:06	7440-38-2	
Barium	0.014	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 21:06	7440-39-3	
Beryllium	0.0080	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 21:06	7440-41-7	
Boron	0.77	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 21:06	7440-42-8	
Cadmium	0.0036	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 21:06	7440-43-9	
Chromium	0.00040J	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 21:06	7440-47-3	B
Cobalt	0.42	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 21:06	7440-48-4	
Lead	0.0012J	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 21:06	7439-92-1	
Lithium	0.12	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 21:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 21:06	7439-98-7	
Selenium	0.0061J	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 21:06	7782-49-2	
Thallium	0.000068J	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 21:06	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 19:10	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	630	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.1	mg/L	1.0	0.60	1		03/12/20 00:48	16887-00-6	
Fluoride	0.70	mg/L	0.30	0.050	1		03/12/20 00:48	16984-48-8	
Sulfate	368	mg/L	7.0	3.5	7		03/12/20 13:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Sample: FB-3		Lab ID: 2629765021		Collected: 03/04/20 16:10		Received: 03/04/20 17:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	ND	mg/L	1.0	0.14	1	03/10/20 18:30	03/11/20 21:46	7440-70-2	
Zinc	ND	mg/L	0.020	0.018	1	03/10/20 18:30	03/11/20 21:46	7440-66-6	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 21:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 21:11	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 21:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 21:11	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	03/10/20 20:52	03/11/20 21:11	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 21:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 21:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 21:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 21:11	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 21:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 21:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 21:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 21:11	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA							
Mercury	ND	ug/L	0.20	0.14	1	03/10/20 08:40	03/10/20 19:12	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/11/20 11:14		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		03/12/20 17:41	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		03/12/20 17:41	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/12/20 17:41	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch:	44248	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015

METHOD BLANK: 202860 Matrix: Water
Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.14	03/05/20 16:54	

LABORATORY CONTROL SAMPLE: 202861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	3.0	119	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202862 202863

Parameter	Units	2629765001 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	2.9	2.6	115	105	75-125	9	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch: 44367 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 203479 Matrix: Water
Associated Lab Samples: 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.14	03/10/20 18:17	

LABORATORY CONTROL SAMPLE: 203480

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203481 203482

Parameter	Units	203481		203482		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	ug/L	ND	2.5	2.5	2.4	2.5	98	101	75-125	4	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 44425	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D MET
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

METHOD BLANK: 203825 Matrix: Water

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/11/20 17:22	
Zinc	mg/L	ND	0.020	0.018	03/11/20 17:22	

LABORATORY CONTROL SAMPLE: 203826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Zinc	mg/L	1	0.94	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203827 203828

Parameter	Units	2629679001		203828		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	5.3	1	1	6.6	6.3	129	101	75-125	4	20 M1
Zinc	mg/L		1	1	0.95	0.86	95	86	75-125	10	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch:	44426	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D MET
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016

METHOD BLANK: 203829 Matrix: Water
Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/11/20 19:22	
Zinc	mg/L	ND	0.020	0.018	03/11/20 19:22	

LABORATORY CONTROL SAMPLE: 203830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	
Zinc	mg/L	1	0.89	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203831 203832

Parameter	Units	203831		203832		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Calcium	mg/L	49.3	1	50.7	1	137	108	75-125	1	20	M1
Zinc	mg/L	ND	1	0.92	1	91	93	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch: 44427 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 203834 Matrix: Water
Associated Lab Samples: 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/11/20 21:07	
Zinc	mg/L	ND	0.020	0.018	03/11/20 21:07	

LABORATORY CONTROL SAMPLE: 203835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Zinc	mg/L	1	0.95	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203836 203837

Parameter	Units	203836		203837		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	69.8	1	1	70.2	71.5	34	170	75-125	2	20 M1
Zinc	mg/L	ND	1	1	0.97	0.97	96	96	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch:	44282	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012

METHOD BLANK: 202999 Matrix: Water
Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	03/10/20 20:16	
Arsenic	mg/L	ND	0.0050	0.00035	03/10/20 20:16	
Barium	mg/L	ND	0.010	0.00049	03/10/20 20:16	
Beryllium	mg/L	ND	0.0030	0.000074	03/10/20 20:16	
Boron	mg/L	ND	0.10	0.0049	03/10/20 20:16	
Cadmium	mg/L	ND	0.0025	0.00011	03/10/20 20:16	
Chromium	mg/L	ND	0.010	0.00039	03/10/20 20:16	
Cobalt	mg/L	ND	0.0050	0.00030	03/10/20 20:16	
Lead	mg/L	ND	0.0050	0.000046	03/10/20 20:16	
Lithium	mg/L	ND	0.030	0.00078	03/10/20 20:16	
Molybdenum	mg/L	ND	0.010	0.00095	03/10/20 20:16	
Selenium	mg/L	ND	0.010	0.0013	03/10/20 20:16	
Thallium	mg/L	ND	0.0010	0.000052	03/10/20 20:16	

LABORATORY CONTROL SAMPLE: 203000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203001 203002

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629733001 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	111	110	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameter	Units	203001		203002		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	0.0015J	0.1	0.1	0.11	0.11	106	105	75-125	1	20		
Barium	mg/L	0.060	0.1	0.1	0.17	0.18	115	116	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	0	20		
Boron	mg/L	0.0065J	1	1	1.0	1.0	102	103	75-125	0	20		
Cadmium	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	0	20		
Chromium	mg/L	0.0028J	0.1	0.1	0.11	0.11	112	107	75-125	4	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.11	0.10	108	105	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	108	105	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	106	104	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.11	0.10	107	105	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch:	44440	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 203914 Matrix: Water
Associated Lab Samples: 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	03/11/20 18:48	
Arsenic	mg/L	ND	0.0050	0.00035	03/11/20 18:48	
Barium	mg/L	ND	0.010	0.00049	03/11/20 18:48	
Beryllium	mg/L	ND	0.0030	0.000074	03/11/20 18:48	
Boron	mg/L	0.0084J	0.10	0.0049	03/11/20 18:48	
Cadmium	mg/L	ND	0.0025	0.00011	03/11/20 18:48	
Chromium	mg/L	0.00054J	0.010	0.00039	03/11/20 18:48	
Cobalt	mg/L	ND	0.0050	0.00030	03/11/20 18:48	
Lead	mg/L	ND	0.0050	0.000046	03/11/20 18:48	
Lithium	mg/L	ND	0.030	0.00078	03/11/20 18:48	
Molybdenum	mg/L	ND	0.010	0.00095	03/11/20 18:48	
Selenium	mg/L	ND	0.010	0.0013	03/11/20 18:48	
Thallium	mg/L	ND	0.0010	0.000052	03/11/20 18:48	

LABORATORY CONTROL SAMPLE: 203915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	112	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.11	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203916 203917

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629786001 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	107	75-125	0	20

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameter	Units	203916		203917		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	0.00073J	0.1	0.1	0.099	0.099	99	98	75-125	1	20		
Barium	mg/L	0.017	0.1	0.1	0.12	0.12	100	100	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	104	75-125	2	20		
Boron	mg/L	0.0096J	1	1	1.0	1.1	103	105	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	2	20		
Lead	mg/L	0.000051J	0.1	0.1	0.096	0.096	96	96	75-125	0	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	104	105	75-125	0	20		
Molybdenum	mg/L	0.0064J	0.1	0.1	0.10	0.10	95	96	75-125	2	20		
Selenium	mg/L	0.0053J	0.1	0.1	0.10	0.11	98	104	75-125	6	20		
Thallium	mg/L	0.00012J	0.1	0.1	0.10	0.10	103	104	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 44309	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765001

LABORATORY CONTROL SAMPLE: 203157

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	84-108	

SAMPLE DUPLICATE: 203158

Parameter	Units	2629679001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	52.0	49.0	6	10	

SAMPLE DUPLICATE: 203159

Parameter	Units	2629766004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	63.0	67.0	6	10	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch:	44404	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015

LABORATORY CONTROL SAMPLE: 203703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	399	100	84-108	

SAMPLE DUPLICATE: 203704

Parameter	Units	2629765002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	369	369	0	10	

SAMPLE DUPLICATE: 203705

Parameter	Units	2629765013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 44453	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629765008, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

LABORATORY CONTROL SAMPLE: 203948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	84-108	

SAMPLE DUPLICATE: 203949

Parameter	Units	2629751001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	337	344	2	10	

SAMPLE DUPLICATE: 203950

Parameter	Units	2629733003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	118	119	1	10	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch: 529391 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: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011

METHOD BLANK: 2827596 Matrix: Water
Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004, 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/10/20 23:40	
Fluoride	mg/L	ND	0.10	0.050	03/10/20 23:40	
Sulfate	mg/L	ND	1.0	0.50	03/10/20 23:40	

LABORATORY CONTROL SAMPLE: 2827597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.7	103	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	50.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2827598 2827599

Parameter	Units	2827598		2827599		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	2.4	50	53.6	53.8	102	103	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	100	103	90-110	2	10	
Sulfate	mg/L	1.6	50	51.6	51.8	100	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2827600 2827601

Parameter	Units	2827600		2827601		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	9.6	50	61.1	61.3	103	103	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.3	2.4	91	95	90-110	4	10	
Sulfate	mg/L	195	50	240	240	89	90	90-110	0	10 M1	

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QUALITY CONTROL DATA

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

QC Batch: 529687 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: 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 2829140 Matrix: Water
Associated Lab Samples: 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/11/20 19:30	
Fluoride	mg/L	ND	0.10	0.050	03/11/20 19:30	
Sulfate	mg/L	ND	1.0	0.50	03/11/20 19:30	

LABORATORY CONTROL SAMPLE: 2829141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	51.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2829142 2829143

Parameter	Units	2829142		2829143		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	16.4	50	66.2	50	100	101	90-110	1	10	
Fluoride	mg/L	0.42	2.5	3.0	2.5	105	106	90-110	1	10	
Sulfate	mg/L	44.7	50	94.3	50	99	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2829144 2829145

Parameter	Units	2829144		2829145		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	4.4	50	54.9	50	101	102	90-110	1	10	
Fluoride	mg/L	0.74	2.5	4.2	2.5	137	143	90-110	4	10 M1	
Sulfate	mg/L	176	50	231	50	110	133	90-110	5	10 M1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-2 **Lab ID: 2629765001** Collected: 03/03/20 14:15 Received: 03/04/20 10:55 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	0.664 ± 0.277 (0.329) C:93% T:NA	pCi/L	03/23/20 10:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.565 ± 0.329 (0.597) C:86% T:88%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.23 ± 0.606 (0.926)	pCi/L	04/03/20 15:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-8 **Lab ID: 2629765002** Collected: 03/03/20 09:40 Received: 03/04/20 10:55 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	0.294 ± 0.216 (0.390) C:93% T:NA	pCi/L	03/23/20 10:06	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.187 ± 0.272 (0.584) C:86% T:88%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.481 ± 0.488 (0.974)	pCi/L	04/03/20 15:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-9 Lab ID: 2629765003 Collected: 03/03/20 13:05 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.926 ± 0.342 (0.344) C:89% T:NA	pCi/L	03/23/20 10:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.447 ± 0.311 (0.594) C:85% T:91%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.37 ± 0.653 (0.938)	pCi/L	04/03/20 15:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-10 **Lab ID: 2629765004** Collected: 03/03/20 13:25 Received: 03/04/20 10:55 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	1.05 ± 0.334 (0.237) C:94% T:NA	pCi/L	03/23/20 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.638 ± 0.336 (0.586) C:85% T:88%	pCi/L	04/02/20 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.69 ± 0.670 (0.823)	pCi/L	04/03/20 15:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-13 Lab ID: 2629765005 Collected: 03/03/20 11:15 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.608 ± 0.256 (0.243) C:82% T:NA	pCi/L	03/23/20 10:13	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.421 ± 0.377 (0.764) C:84% T:86%	pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.03 ± 0.633 (1.01)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-14 Lab ID: 2629765006 Collected: 03/03/20 14:45 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.838 ± 0.297 (0.217) C:90% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.603 ± 0.414 (0.804) C:83% T:83%	pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.44 ± 0.711 (1.02)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-15 Lab ID: 2629765007 Collected: 03/03/20 16:25 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.293 ± 0.181 (0.223) C:88% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.119 ± 0.447 (1.04) C:86% T:79%	pCi/L	04/02/20 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.293 ± 0.628 (1.26)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-17 Lab ID: 2629765008 Collected: 03/04/20 10:00 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.324 ± 0.179 (0.203) C:93% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.169 ± 0.347 (0.766) C:84% T:87%	pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.493 ± 0.526 (0.969)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-19 Lab ID: 2629765009 Collected: 03/03/20 16:32 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.383 ± 0.193 (0.202) C:95% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.299 ± 0.337 (0.841) C:82% T:81%	pCi/L	04/02/20 11:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.383 ± 0.530 (1.04)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-21 Lab ID: 2629765010 Collected: 03/03/20 14:17 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.567 ± 0.239 (0.229) C:93% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0636 ± 0.334 (0.791) C:80% T:85%	pCi/L	04/02/20 11:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.567 ± 0.573 (1.02)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-22 Lab ID: 2629765011 Collected: 03/03/20 15:35 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.388 ± 0.197 (0.195) C:88% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.129 ± 0.307 (0.683) C:84% T:89%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.517 ± 0.504 (0.878)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FD-2 Lab ID: 2629765012 Collected: 03/03/20 00:00 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.423 ± 0.196 (0.171) C:95% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.221 ± 0.332 (0.717) C:82% T:81%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.644 ± 0.528 (0.888)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FB-2 Lab ID: 2629765013 Collected: 03/03/20 15:05 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.338 ± 0.185 (0.214) C:95% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.145 ± 0.358 (0.794) C:82% T:94%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.483 ± 0.543 (1.01)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: EB-1 **Lab ID: 2629765014** Collected: 03/03/20 16:15 Received: 03/04/20 10:55 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	0.285 ± 0.169 (0.205) C:90% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.337 ± 0.320 (0.654) C:85% T:88%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.622 ± 0.489 (0.859)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-2 Lab ID: 2629765015 Collected: 03/03/20 16:30 Received: 03/04/20 10:55 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.526 ± 0.219 (0.177) C:97% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.155 ± 0.338 (0.806) C:82% T:94%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.526 ± 0.557 (0.983)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-20 Lab ID: 2629765016 Collected: 03/04/20 14:05 Received: 03/04/20 17:45 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.763 ± 0.293 (0.326) C:95% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.908 ± 0.431 (0.743) C:84% T:85%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.67 ± 0.724 (1.07)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-23 **Lab ID: 2629765017** Collected: 03/04/20 15:35 Received: 03/04/20 17:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.791 ± 0.288 (0.235) C:90% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.601 ± 0.414 (0.810) C:83% T:89%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.39 ± 0.702 (1.05)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-42 Lab ID: 2629765018 Collected: 03/04/20 09:55 Received: 03/04/20 17:45 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.615 ± 0.254 (0.254) C:90% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.107 ± 0.392 (0.881) C:81% T:86%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.722 ± 0.646 (1.14)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWC-47 Lab ID: 2629765019 Collected: 03/04/20 11:25 Received: 03/04/20 17:45 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.930 ± 0.316 (0.244) C:91% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.751 ± 0.387 (0.675) C:82% T:83%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.68 ± 0.703 (0.919)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Sample: DGWC-48 **Lab ID: 2629765020** Collected: 03/04/20 14:00 Received: 03/04/20 17:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.598 ± 0.243 (0.201) C:91% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.707 ± 0.373 (0.656) C:81% T:89%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.31 ± 0.616 (0.857)	pCi/L	04/06/20 07:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FB-3 Lab ID: 2629765021 Collected: 03/04/20 16:10 Received: 03/04/20 17:45 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.650 ± 0.269 (0.209) C:100% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.136 ± 0.262 (0.577) C:82% T:93%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.786 ± 0.531 (0.786)	pCi/L	04/06/20 07:58	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 388318

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

METHOD BLANK: 1880999

Matrix: Water

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.364 ± 0.221 (0.350) C:92% T:NA	pCi/L	03/23/20 10:04	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 388319

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 1881002

Matrix: Water

Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.174 ± 0.140 (0.217) C:89% T:NA	pCi/L	03/23/20 10:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 388322

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

METHOD BLANK: 1881005

Matrix: Water

Associated Lab Samples: 2629765005, 2629765006, 2629765007, 2629765008, 2629765009, 2629765010, 2629765011, 2629765012, 2629765013, 2629765014, 2629765015, 2629765016, 2629765017, 2629765018, 2629765019, 2629765020, 2629765021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.510 ± 0.340 (0.651) C:86% T:94%	pCi/L	04/02/20 11:49	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

QC Batch: 388321

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

METHOD BLANK: 1881004

Matrix: Water

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.474 ± 0.338 (0.655) C:83% T:89%	pCi/L	04/02/20 11:45	

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-2, 3/4

Pace Project No.: 2629765

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.

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629765001	DGWC-2				
2629765002	DGWC-8				
2629765003	DGWC-9				
2629765004	DGWC-10				
2629765005	DGWC-13				
2629765006	DGWC-14				
2629765007	DGWC-15				
2629765008	DGWC-17				
2629765009	DGWC-19				
2629765010	DGWC-21				
2629765011	DGWC-22				
2629765016	DGWC-20				
2629765017	DGWC-23				
2629765018	DGWC-42				
2629765019	DGWC-47				
2629765020	DGWC-48				
2629765001	DGWC-2	EPA 3010A	44425	EPA 6010D	44437
2629765002	DGWC-8	EPA 3010A	44425	EPA 6010D	44437
2629765003	DGWC-9	EPA 3010A	44425	EPA 6010D	44437
2629765004	DGWC-10	EPA 3010A	44425	EPA 6010D	44437
2629765005	DGWC-13	EPA 3010A	44426	EPA 6010D	44442
2629765006	DGWC-14	EPA 3010A	44426	EPA 6010D	44442
2629765007	DGWC-15	EPA 3010A	44426	EPA 6010D	44442
2629765008	DGWC-17	EPA 3010A	44426	EPA 6010D	44442
2629765009	DGWC-19	EPA 3010A	44426	EPA 6010D	44442
2629765010	DGWC-21	EPA 3010A	44426	EPA 6010D	44442
2629765011	DGWC-22	EPA 3010A	44426	EPA 6010D	44442
2629765012	FD-2	EPA 3010A	44426	EPA 6010D	44442
2629765013	FB-2	EPA 3010A	44426	EPA 6010D	44442
2629765014	EB-1	EPA 3010A	44426	EPA 6010D	44442
2629765015	EB-2	EPA 3010A	44426	EPA 6010D	44442
2629765016	DGWC-20	EPA 3010A	44426	EPA 6010D	44442
2629765017	DGWC-23	EPA 3010A	44427	EPA 6010D	44443
2629765018	DGWC-42	EPA 3010A	44427	EPA 6010D	44443
2629765019	DGWC-47	EPA 3010A	44427	EPA 6010D	44443
2629765020	DGWC-48	EPA 3010A	44427	EPA 6010D	44443
2629765021	FB-3	EPA 3010A	44427	EPA 6010D	44443
2629765001	DGWC-2	EPA 3005A	44282	EPA 6020B	44315
2629765002	DGWC-8	EPA 3005A	44282	EPA 6020B	44315
2629765003	DGWC-9	EPA 3005A	44282	EPA 6020B	44315
2629765004	DGWC-10	EPA 3005A	44282	EPA 6020B	44315
2629765005	DGWC-13	EPA 3005A	44282	EPA 6020B	44315
2629765006	DGWC-14	EPA 3005A	44282	EPA 6020B	44315
2629765007	DGWC-15	EPA 3005A	44282	EPA 6020B	44315
2629765008	DGWC-17	EPA 3005A	44282	EPA 6020B	44315
2629765009	DGWC-19	EPA 3005A	44282	EPA 6020B	44315
2629765010	DGWC-21	EPA 3005A	44282	EPA 6020B	44315

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3/4
Pace Project No.: 2629765

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629765011	DGWC-22	EPA 3005A	44282	EPA 6020B	44315
2629765012	FD-2	EPA 3005A	44282	EPA 6020B	44315
2629765013	FB-2	EPA 3005A	44440	EPA 6020B	44463
2629765014	EB-1	EPA 3005A	44440	EPA 6020B	44463
2629765015	EB-2	EPA 3005A	44440	EPA 6020B	44463
2629765016	DGWC-20	EPA 3005A	44440	EPA 6020B	44463
2629765017	DGWC-23	EPA 3005A	44440	EPA 6020B	44463
2629765018	DGWC-42	EPA 3005A	44440	EPA 6020B	44463
2629765019	DGWC-47	EPA 3005A	44440	EPA 6020B	44463
2629765020	DGWC-48	EPA 3005A	44440	EPA 6020B	44463
2629765021	FB-3	EPA 3005A	44440	EPA 6020B	44463
2629765001	DGWC-2	EPA 7470A	44248	EPA 7470A	44281
2629765002	DGWC-8	EPA 7470A	44248	EPA 7470A	44281
2629765003	DGWC-9	EPA 7470A	44248	EPA 7470A	44281
2629765004	DGWC-10	EPA 7470A	44248	EPA 7470A	44281
2629765005	DGWC-13	EPA 7470A	44248	EPA 7470A	44281
2629765006	DGWC-14	EPA 7470A	44248	EPA 7470A	44281
2629765007	DGWC-15	EPA 7470A	44248	EPA 7470A	44281
2629765008	DGWC-17	EPA 7470A	44248	EPA 7470A	44281
2629765009	DGWC-19	EPA 7470A	44248	EPA 7470A	44281
2629765010	DGWC-21	EPA 7470A	44248	EPA 7470A	44281
2629765011	DGWC-22	EPA 7470A	44248	EPA 7470A	44281
2629765012	FD-2	EPA 7470A	44248	EPA 7470A	44281
2629765013	FB-2	EPA 7470A	44248	EPA 7470A	44281
2629765014	EB-1	EPA 7470A	44248	EPA 7470A	44281
2629765015	EB-2	EPA 7470A	44248	EPA 7470A	44281
2629765016	DGWC-20	EPA 7470A	44367	EPA 7470A	44420
2629765017	DGWC-23	EPA 7470A	44367	EPA 7470A	44420
2629765018	DGWC-42	EPA 7470A	44367	EPA 7470A	44420
2629765019	DGWC-47	EPA 7470A	44367	EPA 7470A	44420
2629765020	DGWC-48	EPA 7470A	44367	EPA 7470A	44420
2629765021	FB-3	EPA 7470A	44367	EPA 7470A	44420
2629765001	DGWC-2	EPA 9315	388318		
2629765002	DGWC-8	EPA 9315	388318		
2629765003	DGWC-9	EPA 9315	388318		
2629765004	DGWC-10	EPA 9315	388318		
2629765005	DGWC-13	EPA 9315	388319		
2629765006	DGWC-14	EPA 9315	388319		
2629765007	DGWC-15	EPA 9315	388319		
2629765008	DGWC-17	EPA 9315	388319		
2629765009	DGWC-19	EPA 9315	388319		
2629765010	DGWC-21	EPA 9315	388319		
2629765011	DGWC-22	EPA 9315	388319		
2629765012	FD-2	EPA 9315	388319		
2629765013	FB-2	EPA 9315	388319		
2629765014	EB-1	EPA 9315	388319		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629765015	EB-2	EPA 9315	388319		
2629765016	DGWC-20	EPA 9315	388319		
2629765017	DGWC-23	EPA 9315	388319		
2629765018	DGWC-42	EPA 9315	388319		
2629765019	DGWC-47	EPA 9315	388319		
2629765020	DGWC-48	EPA 9315	388319		
2629765021	FB-3	EPA 9315	388319		
2629765001	DGWC-2	EPA 9320	388321		
2629765002	DGWC-8	EPA 9320	388321		
2629765003	DGWC-9	EPA 9320	388321		
2629765004	DGWC-10	EPA 9320	388321		
2629765005	DGWC-13	EPA 9320	388322		
2629765006	DGWC-14	EPA 9320	388322		
2629765007	DGWC-15	EPA 9320	388322		
2629765008	DGWC-17	EPA 9320	388322		
2629765009	DGWC-19	EPA 9320	388322		
2629765010	DGWC-21	EPA 9320	388322		
2629765011	DGWC-22	EPA 9320	388322		
2629765012	FD-2	EPA 9320	388322		
2629765013	FB-2	EPA 9320	388322		
2629765014	EB-1	EPA 9320	388322		
2629765015	EB-2	EPA 9320	388322		
2629765016	DGWC-20	EPA 9320	388322		
2629765017	DGWC-23	EPA 9320	388322		
2629765018	DGWC-42	EPA 9320	388322		
2629765019	DGWC-47	EPA 9320	388322		
2629765020	DGWC-48	EPA 9320	388322		
2629765021	FB-3	EPA 9320	388322		
2629765001	DGWC-2	Total Radium Calculation	391075		
2629765002	DGWC-8	Total Radium Calculation	391075		
2629765003	DGWC-9	Total Radium Calculation	391075		
2629765004	DGWC-10	Total Radium Calculation	391075		
2629765005	DGWC-13	Total Radium Calculation	391158		
2629765006	DGWC-14	Total Radium Calculation	391158		
2629765007	DGWC-15	Total Radium Calculation	391158		
2629765008	DGWC-17	Total Radium Calculation	391158		
2629765009	DGWC-19	Total Radium Calculation	391158		
2629765010	DGWC-21	Total Radium Calculation	391158		
2629765011	DGWC-22	Total Radium Calculation	391158		
2629765012	FD-2	Total Radium Calculation	391158		
2629765013	FB-2	Total Radium Calculation	391158		
2629765014	EB-1	Total Radium Calculation	391158		
2629765015	EB-2	Total Radium Calculation	391158		
2629765016	DGWC-20	Total Radium Calculation	391158		
2629765017	DGWC-23	Total Radium Calculation	391158		
2629765018	DGWC-42	Total Radium Calculation	391158		
2629765019	DGWC-47	Total Radium Calculation	391158		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough AP-2, 3/4

Pace Project No.: 2629765

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629765020	DGWC-48	Total Radium Calculation	391158		
2629765021	FB-3	Total Radium Calculation	391158		
2629765001	DGWC-2	SM 2540C	44309		
2629765002	DGWC-8	SM 2540C	44404		
2629765003	DGWC-9	SM 2540C	44404		
2629765004	DGWC-10	SM 2540C	44404		
2629765005	DGWC-13	SM 2540C	44404		
2629765006	DGWC-14	SM 2540C	44404		
2629765007	DGWC-15	SM 2540C	44404		
2629765008	DGWC-17	SM 2540C	44453		
2629765009	DGWC-19	SM 2540C	44404		
2629765010	DGWC-21	SM 2540C	44404		
2629765011	DGWC-22	SM 2540C	44404		
2629765012	FD-2	SM 2540C	44404		
2629765013	FB-2	SM 2540C	44404		
2629765014	EB-1	SM 2540C	44404		
2629765015	EB-2	SM 2540C	44404		
2629765016	DGWC-20	SM 2540C	44453		
2629765017	DGWC-23	SM 2540C	44453		
2629765018	DGWC-42	SM 2540C	44453		
2629765019	DGWC-47	SM 2540C	44453		
2629765020	DGWC-48	SM 2540C	44453		
2629765021	FB-3	SM 2540C	44453		
2629765001	DGWC-2	EPA 300.0 Rev 2.1 1993	529391		
2629765002	DGWC-8	EPA 300.0 Rev 2.1 1993	529391		
2629765003	DGWC-9	EPA 300.0 Rev 2.1 1993	529391		
2629765004	DGWC-10	EPA 300.0 Rev 2.1 1993	529391		
2629765005	DGWC-13	EPA 300.0 Rev 2.1 1993	529391		
2629765006	DGWC-14	EPA 300.0 Rev 2.1 1993	529391		
2629765007	DGWC-15	EPA 300.0 Rev 2.1 1993	529391		
2629765008	DGWC-17	EPA 300.0 Rev 2.1 1993	529391		
2629765009	DGWC-19	EPA 300.0 Rev 2.1 1993	529391		
2629765010	DGWC-21	EPA 300.0 Rev 2.1 1993	529391		
2629765011	DGWC-22	EPA 300.0 Rev 2.1 1993	529391		
2629765012	FD-2	EPA 300.0 Rev 2.1 1993	529687		
2629765013	FB-2	EPA 300.0 Rev 2.1 1993	529687		
2629765014	EB-1	EPA 300.0 Rev 2.1 1993	529687		
2629765015	EB-2	EPA 300.0 Rev 2.1 1993	529687		
2629765016	DGWC-20	EPA 300.0 Rev 2.1 1993	529687		
2629765017	DGWC-23	EPA 300.0 Rev 2.1 1993	529687		
2629765018	DGWC-42	EPA 300.0 Rev 2.1 1993	529687		
2629765019	DGWC-47	EPA 300.0 Rev 2.1 1993	529687		
2629765020	DGWC-48	EPA 300.0 Rev 2.1 1993	529687		
2629765021	FB-3	EPA 300.0 Rev 2.1 1993	529687		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power

WO#: **2629765**

PM: KH

Due Date: 03/18/20

CLIENT: 26-GA Power

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

Thermometer Used 230

Type of Ice: Wet 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: 3/4/2010

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 checked="" type="checkbox"/> Yes <input 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)

April 14, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 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 - Atlanta, 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
(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.
Lauren Petty, Southern Company Services, Inc.
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.: 2629901

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

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 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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629901001	DGWA-53	Water	03/09/20 12:12	03/09/20 17:49

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629901001	DGWA-53	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	NJ1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Atlanta, GA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

Sample: DGWA-53		Lab ID: 2629901001		Collected: 03/09/20 12:12		Received: 03/09/20 17:49		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.41	Std. Units			1		03/10/20 09:17		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	23.7	mg/L	1.0	0.14	1	03/18/20 15:40	03/22/20 18:12	7440-70-2	M1
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/16/20 18:00	03/17/20 19:00	7440-36-0	
Arsenic	0.00068J	mg/L	0.0050	0.00035	1	03/16/20 18:00	03/17/20 19:00	7440-38-2	
Barium	0.099	mg/L	0.010	0.00049	1	03/16/20 18:00	03/17/20 19:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/16/20 18:00	03/17/20 19:00	7440-41-7	
Boron	0.080J	mg/L	0.10	0.0049	1	03/16/20 18:00	03/17/20 19:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/16/20 18:00	03/17/20 19:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/16/20 18:00	03/17/20 19:00	7440-47-3	
Cobalt	0.016	mg/L	0.0050	0.00030	1	03/16/20 18:00	03/17/20 19:00	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/16/20 18:00	03/17/20 19:00	7439-92-1	
Lithium	0.0077J	mg/L	0.030	0.00078	1	03/16/20 18:00	03/17/20 19:00	7439-93-2	
Molybdenum	0.026	mg/L	0.010	0.00095	1	03/16/20 18:00	03/17/20 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/16/20 18:00	03/17/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/16/20 18:00	03/17/20 19:00	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury	ND	ug/L	0.20	0.14	1	03/12/20 12:00	03/13/20 14:41	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	171	mg/L	10.0	10.0	1		03/16/20 16:09		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.8	mg/L	1.0	0.60	1		03/15/20 02:30	16887-00-6	
Fluoride	0.10J	mg/L	0.30	0.050	1		03/15/20 02:30	16984-48-8	
Sulfate	9.5	mg/L	1.0	0.50	1		03/15/20 02:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

QC Batch: 44499	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629901001

METHOD BLANK: 204281 Matrix: Water

Associated Lab Samples: 2629901001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.14	03/13/20 14:17	

LABORATORY CONTROL SAMPLE: 204282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204283 204284

Parameter	Units	204283		204284		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	ug/L	ND	2.5	2.5	2.5	1.8	101	71	75-125	36	20	M1,R1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

QC Batch: 44703 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2629901001

METHOD BLANK: 205490 Matrix: Water
Associated Lab Samples: 2629901001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/22/20 17:57	

LABORATORY CONTROL SAMPLE: 205491

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205492 205493

Parameter	Units	2629901001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	23.7	1	1	25.0	25.0	126	127	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

QC Batch: 44617 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629901001

METHOD BLANK: 205055 Matrix: Water
Associated Lab Samples: 2629901001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00031J	0.0030	0.00027	03/17/20 16:03	
Arsenic	mg/L	ND	0.0050	0.00035	03/17/20 16:03	
Barium	mg/L	ND	0.010	0.00049	03/17/20 16:03	
Beryllium	mg/L	ND	0.0030	0.000074	03/17/20 16:03	
Boron	mg/L	ND	0.10	0.0049	03/17/20 16:03	
Cadmium	mg/L	ND	0.0025	0.00011	03/17/20 16:03	
Chromium	mg/L	ND	0.010	0.00039	03/17/20 16:03	
Cobalt	mg/L	ND	0.0050	0.00030	03/17/20 16:03	
Lead	mg/L	ND	0.0050	0.000046	03/17/20 16:03	
Lithium	mg/L	ND	0.030	0.00078	03/17/20 16:03	
Molybdenum	mg/L	ND	0.010	0.00095	03/17/20 16:03	
Selenium	mg/L	ND	0.010	0.0013	03/17/20 16:03	
Thallium	mg/L	ND	0.0010	0.000052	03/17/20 16:03	

LABORATORY CONTROL SAMPLE: 205056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	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	0.10	102	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	106	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205057 205058

Parameter	Units	2629875002 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	0.11	104	105	75-125	1	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: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

Parameter	Units	205057		205058		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	0.0066J	0.1	0.1	0.11	0.11	102	104	75-125	2	20		
Beryllium	mg/L	0.00017J	0.1	0.1	0.10	0.10	101	102	75-125	0	20		
Boron	mg/L	0.0068J	1	1	1.0	1.0	101	102	75-125	1	20		
Cadmium	mg/L	0.00014J	0.1	0.1	0.10	0.10	101	103	75-125	2	20		
Chromium	mg/L	0.00045J	0.1	0.1	0.11	0.11	105	106	75-125	1	20		
Cobalt	mg/L	0.00039J	0.1	0.1	0.10	0.10	103	104	75-125	1	20		
Lead	mg/L	0.00011J	0.1	0.1	0.096	0.098	96	97	75-125	2	20		
Lithium	mg/L	0.0032J	0.1	0.1	0.10	0.11	102	103	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20		
Thallium	mg/L	0.000086J	0.1	0.1	0.097	0.098	97	98	75-125	1	20		

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

QC Batch: 44623	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629901001

LABORATORY CONTROL SAMPLE: 205066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	424	106	84-108	

SAMPLE DUPLICATE: 205067

Parameter	Units	2629890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 205068

Parameter	Units	2629906001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	100	86.0	15	10	D6

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

QC Batch: 530342 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: 2629901001

METHOD BLANK: 2832234 Matrix: Water
Associated Lab Samples: 2629901001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/15/20 00:34	
Fluoride	mg/L	ND	0.10	0.050	03/15/20 00:34	
Sulfate	mg/L	ND	1.0	0.50	03/15/20 00:34	

LABORATORY CONTROL SAMPLE: 2832235

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	2.7	110	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2832236 2832237

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92469145020	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	2.1	50	50	52.2	55.5	100	107	90-110	6	10		
Fluoride	mg/L	0.46	2.5	2.5	3.1	3.2	104	110	90-110	5	10		
Sulfate	mg/L	8.2	50	50	58.4	61.5	100	107	90-110	5	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2832238 2832239

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629779009	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	7.4	50	50	58.1	58.4	101	102	90-110	0	10		
Fluoride	mg/L	0.069J	2.5	2.5	2.7	2.8	107	108	90-110	1	10		
Sulfate	mg/L	176	50	50	222	221	92	91	90-110	0	10		

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

Sample: DGWA-53 **Lab ID: 2629901001** Collected: 03/09/20 12:12 Received: 03/09/20 17:49 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	2.32 ± 0.659 (0.411) C:89% T:NA	pCi/L	03/19/20 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.19 ± 0.469 (0.718) C:81% T:96%	pCi/L	03/29/20 17:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	3.51 ± 1.13 (1.13)	pCi/L	03/30/20 15:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

QC Batch:	388189	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2629901001

METHOD BLANK:	1880480	Matrix:	Water
---------------	---------	---------	-------

Associated Lab Samples: 2629901001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.349 ± 0.224 (0.368) C:90% T:NA	pCi/L	03/18/20 19:54	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

QC Batch: 388190

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629901001

METHOD BLANK: 1880481

Matrix: Water

Associated Lab Samples: 2629901001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0172 ± 0.277 (0.657) C:79% T:93%	pCi/L	03/29/20 17:28	

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QUALIFIERS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629901

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.

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

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.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629901

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629901001	DGWA-53				
2629901001	DGWA-53	EPA 3010A	44703	EPA 6010D	44716
2629901001	DGWA-53	EPA 3005A	44617	EPA 6020B	44630
2629901001	DGWA-53	EPA 7470A	44499	EPA 7470A	44525
2629901001	DGWA-53	EPA 9315	388189		
2629901001	DGWA-53	EPA 9320	388190		
2629901001	DGWA-53	Total Radium Calculation	390347		
2629901001	DGWA-53	SM 2540C	44623		
2629901001	DGWA-53	EPA 300.0 Rev 2.1 1993	530342		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt



Client Name: GA POWER

Project # **WO# 2629901**

PM: KH Due Date: 03/24/20
CLIENT: 26-GA Power

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 ziplock bags

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

Cooler Temperature 4.3 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW 3/10/20

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 checked="" 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. 10 DAY TAT
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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WST</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, W-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>KRW</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 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)

April 14, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629903

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 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 - Atlanta, GA

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

Sincerely,



Kevin Herring
kevin.herring@pacelabs.com
(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.
Lauren Petty, Southern Company Services, Inc.
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.: 2629903

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629903

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629903001	DGWA-53 FILTERED	Water	03/09/20 12:12	03/09/20 17:49

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629903

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2629903001	DGWA-53 FILTERED	EPA 6010D	KLH	1
		EPA 6020B	CSW	13
		EPA 7470A	DRB	1

PASI-GA = Pace Analytical Services - Atlanta, GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

Sample: DGWA-53 FILTERED		Lab ID: 2629903001		Collected: 03/09/20 12:12		Received: 03/09/20 17:49		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.41	Std. Units			1		03/10/20 09:26		
6010D MET ICP Dissolved									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium, Dissolved	23300	ug/L	1000	141	1	03/20/20 14:22	03/22/20 21:55	7440-70-2	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony, Dissolved	ND	ug/L	3.0	0.27	1	03/19/20 14:45	03/20/20 15:50	7440-36-0	
Arsenic, Dissolved	0.73J	ug/L	5.0	0.35	1	03/19/20 14:45	03/20/20 15:50	7440-38-2	
Barium, Dissolved	96.5	ug/L	10.0	0.49	1	03/19/20 14:45	03/20/20 15:50	7440-39-3	
Beryllium, Dissolved	ND	ug/L	3.0	0.074	1	03/19/20 14:45	03/20/20 15:50	7440-41-7	
Boron, Dissolved	82.4J	ug/L	100	4.9	1	03/19/20 14:45	03/20/20 15:50	7440-42-8	
Cadmium, Dissolved	ND	ug/L	2.5	0.11	1	03/19/20 14:45	03/20/20 15:50	7440-43-9	
Chromium, Dissolved	0.44J	ug/L	10.0	0.39	1	03/19/20 14:45	03/20/20 15:50	7440-47-3	
Cobalt, Dissolved	15.4	ug/L	5.0	0.30	1	03/19/20 14:45	03/20/20 15:50	7440-48-4	
Lead, Dissolved	ND	ug/L	5.0	0.046	1	03/19/20 14:45	03/20/20 15:50	7439-92-1	
Lithium, Dissolved	8.0J	ug/L	30.0	0.78	1	03/19/20 14:45	03/20/20 15:50	7439-93-2	
Molybdenum, Dissolved	27.5	ug/L	10.0	0.95	1	03/19/20 14:45	03/20/20 15:50	7439-98-7	
Selenium, Dissolved	ND	ug/L	10.0	1.3	1	03/19/20 14:45	03/20/20 15:50	7782-49-2	
Thallium, Dissolved	0.099J	ug/L	1.0	0.052	1	03/19/20 14:45	03/20/20 15:50	7440-28-0	
7470 Mercury, Dissolved									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA									
Mercury, Dissolved	ND	ug/L	0.20	0.14	1	03/20/20 08:57	03/20/20 14:31	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

QC Batch: 44780	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury Dissolved
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629903001

METHOD BLANK: 206008 Matrix: Water

Associated Lab Samples: 2629903001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	0.14	03/20/20 14:26	

LABORATORY CONTROL SAMPLE: 206009

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	2.5	2.8	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 206010 206011

Parameter	Units	206010		206011		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury, Dissolved	ug/L	ND	2.5	2.5	2.5	2.4	101	94	75-125	7	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

QC Batch: 44792	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D MET Dissolved
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629903001

METHOD BLANK: 206065 Matrix: Water

Associated Lab Samples: 2629903001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	ND	1000	141	03/22/20 21:48	

LABORATORY CONTROL SAMPLE: 206066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	1000	1020	102	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND
Pace Project No.: 2629903

QC Batch: 44746 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET Dissolved
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2629903001

METHOD BLANK: 205787 Matrix: Water
Associated Lab Samples: 2629903001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony, Dissolved	ug/L	0.37J	3.0	0.27	03/20/20 15:39	
Arsenic, Dissolved	ug/L	ND	5.0	0.35	03/20/20 15:39	
Barium, Dissolved	ug/L	ND	10.0	0.49	03/20/20 15:39	
Beryllium, Dissolved	ug/L	ND	3.0	0.074	03/20/20 15:39	
Boron, Dissolved	ug/L	5.2J	100	4.9	03/20/20 15:39	
Cadmium, Dissolved	ug/L	ND	2.5	0.11	03/20/20 15:39	
Chromium, Dissolved	ug/L	ND	10.0	0.39	03/20/20 15:39	
Cobalt, Dissolved	ug/L	ND	5.0	0.30	03/20/20 15:39	
Lead, Dissolved	ug/L	ND	5.0	0.046	03/20/20 15:39	
Lithium, Dissolved	ug/L	ND	30.0	0.78	03/20/20 15:39	
Molybdenum, Dissolved	ug/L	ND	10.0	0.95	03/20/20 15:39	
Selenium, Dissolved	ug/L	ND	10.0	1.3	03/20/20 15:39	
Thallium, Dissolved	ug/L	ND	1.0	0.052	03/20/20 15:39	

LABORATORY CONTROL SAMPLE: 205788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	ug/L	100	102	102	80-120	
Arsenic, Dissolved	ug/L	100	97.5	97	80-120	
Barium, Dissolved	ug/L	100	103	103	80-120	
Beryllium, Dissolved	ug/L	100	102	102	80-120	
Boron, Dissolved	ug/L	1000	1050	105	80-120	
Cadmium, Dissolved	ug/L	100	101	101	80-120	
Chromium, Dissolved	ug/L	100	104	104	80-120	
Cobalt, Dissolved	ug/L	100	101	101	80-120	
Lead, Dissolved	ug/L	100	99.7	100	80-120	
Lithium, Dissolved	ug/L	100	104	104	80-120	
Molybdenum, Dissolved	ug/L	100	104	104	80-120	
Selenium, Dissolved	ug/L	100	98.0	98	80-120	
Thallium, Dissolved	ug/L	100	102	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205789 205790

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2629903001 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony, Dissolved	ug/L	ND	100	100	102	99.2	102	99	75-125	3	20
Arsenic, Dissolved	ug/L	0.73J	100	100	97.6	97.2	97	96	75-125	0	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

Parameter	Units	205789		205790		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, Dissolved	ug/L	96.5	100	100	200	192	104	95	75-125	4	20		
Beryllium, Dissolved	ug/L	ND	100	100	96.9	95.5	97	95	75-125	1	20		
Boron, Dissolved	ug/L	82.4J	1000	1000	1080	1050	100	97	75-125	3	20		
Cadmium, Dissolved	ug/L	ND	100	100	99.4	98.4	99	98	75-125	1	20		
Chromium, Dissolved	ug/L	0.44J	100	100	103	103	103	103	75-125	0	20		
Cobalt, Dissolved	ug/L	15.4	100	100	118	114	102	98	75-125	3	20		
Lead, Dissolved	ug/L	ND	100	100	95.9	92.6	96	93	75-125	4	20		
Lithium, Dissolved	ug/L	8.0J	100	100	107	105	99	97	75-125	2	20		
Molybdenum, Dissolved	ug/L	27.5	100	100	132	128	104	100	75-125	3	20		
Selenium, Dissolved	ug/L	ND	100	100	93.9	93.7	94	93	75-125	0	20		
Thallium, Dissolved	ug/L	0.099J	100	100	97.5	94.3	97	94	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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCDONOUGH BACKGROUND

Pace Project No.: 2629903

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629903001	DGWA-53 FILTERED				
2629903001	DGWA-53 FILTERED	EPA 3010A	44792	EPA 6010D	44793
2629903001	DGWA-53 FILTERED	EPA 3005A	44746	EPA 6020B	44759
2629903001	DGWA-53 FILTERED	EPA 7470A	44780	EPA 7470A	44789

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 2629903

PM: KH Due Date: 03/24/20

CLIENT: 26-GA Power

Client Name: GA POWER

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Optional
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 ziplock bags

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

Cooler Temperature 1.7 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW 3/10/20

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 checked="" 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. 10 DAY TAT
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 type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	WFI	
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, VI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed KRW 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)

March 27, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2629681
Pace Project No.: 30353292

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 05, 2020. 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,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2629681
Pace Project No.: 30353292

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

Guam Certification

Florida: Cert E871149 SEKS WET

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2629681
Pace Project No.: 30353292

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629681001	DGWC-4	Water	03/02/20 15:06	03/05/20 09:15
2629681002	DGWC-5	Water	03/02/20 16:25	03/05/20 09:15
2629681003	DGWC-11	Water	03/02/20 14:10	03/05/20 09:15
2629681004	DGWC-12	Water	03/02/20 17:17	03/05/20 09:15
2629681005	FB-1	Water	03/02/20 16:15	03/05/20 09:15
2629681006	FD-1	Water	03/02/20 00:01	03/05/20 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2629681
Pace Project No.: 30353292

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629681001	DGWC-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629681002	DGWC-5	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629681003	DGWC-11	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629681004	DGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629681005	FB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629681006	FD-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629681
Pace Project No.: 30353292

Sample: DGWC-4		Lab ID: 2629681001	Collected: 03/02/20 15:06	Received: 03/05/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.968 ± 0.421 (0.547) C:94% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Radium-228	EPA 9320	1.02 ± 0.425 (0.653) C:73% T:90%	pCi/L	03/24/20 19:46	15262-20-1	
Total Radium	Total Radium Calculation	1.99 ± 0.846 (1.20)	pCi/L	03/27/20 14:53	7440-14-4	

Sample: DGWC-5		Lab ID: 2629681002	Collected: 03/02/20 16:25	Received: 03/05/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.10 ± 0.443 (0.522) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Radium-228	EPA 9320	1.18 ± 0.593 (1.09) C:76% T:88%	pCi/L	03/24/20 19:43	15262-20-1	
Total Radium	Total Radium Calculation	2.28 ± 1.04 (1.61)	pCi/L	03/27/20 14:53	7440-14-4	

Sample: DGWC-11		Lab ID: 2629681003	Collected: 03/02/20 14:10	Received: 03/05/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.833 ± 0.355 (0.364) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Radium-228	EPA 9320	0.466 ± 0.412 (0.842) C:77% T:91%	pCi/L	03/24/20 19:43	15262-20-1	
Total Radium	Total Radium Calculation	1.30 ± 0.767 (1.21)	pCi/L	03/27/20 14:53	7440-14-4	

Sample: DGWC-12		Lab ID: 2629681004	Collected: 03/02/20 17:17	Received: 03/05/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.456 ± 0.288 (0.424) C:90% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Radium-228	EPA 9320	0.746 ± 0.517 (1.02) C:75% T:84%	pCi/L	03/24/20 19:43	15262-20-1	
Total Radium	Total Radium Calculation	1.20 ± 0.805 (1.44)	pCi/L	03/27/20 14:53	7440-14-4	

Sample: FB-1		Lab ID: 2629681005	Collected: 03/02/20 16:15	Received: 03/05/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.297 ± 0.230 (0.373) C:95% T:NA	pCi/L	03/12/20 08:26	13982-63-3	
Radium-228	EPA 9320	-0.222 ± 0.501 (1.18) C:77% T:76%	pCi/L	03/24/20 19:43	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629681
Pace Project No.: 30353292

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.297 ± 0.731 (1.55)	pCi/L	03/27/20 14:53	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.651 ± 0.346 (0.464) C:84% T:NA	pCi/L	03/12/20 08:27	13982-63-3	
Radium-228	EPA 9320	0.513 ± 0.386 (0.759) C:81% T:83%	pCi/L	03/24/20 19:43	15262-20-1	
Total Radium	Total Radium Calculation	1.16 ± 0.732 (1.22)	pCi/L	03/27/20 14:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 2629681
Pace Project No.: 30353292

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 30353292

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1857 9506 7400

Label	<u>PK</u>
LIMS Login	<u>PK</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

pH paper Lot#	Date and Initials of person examining contents:
<u>1002190</u>	<u>PK 3-5-20</u>

Comments:

	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-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"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>PK</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PK</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PK</u> Date: <u>3-5-20</u>

Client Notification/ Resolution:

Person-Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)
*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/11/2020
Worklist: 52794
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875683
MB concentration:	0.605
M/B Counting Uncertainty:	0.314
MB MDC:	0.434
MB Numerical Performance Indicator:	3.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52794	LCSD52794
Count Date:	3/12/2020	3/12/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050	24.050
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.511
Target Conc. (pCi/L, g, F):	4.736	4.705
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	5.759	4.415
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.851	0.768
Numerical Performance Indicator:	2.35	-0.74
Percent Recovery:	121.60%	93.83%
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		LCSD (Y or N)?	Y
		LCSD52794	LCSD52794
Sample I.D.:	LCSD52794	Enter Duplicate	
Duplicate Sample I.D.:	LCSD52794	sample IDs if	
Sample Result (pCi/L, g, F):	5.759	other than	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.851	LCS/LCSD in	
Sample Duplicate Result (pCi/L, g, F):	4.415	the space below.	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.768		
Are sample and/or duplicate results below RL?	NO		
Duplicate Numerical Performance Indicator:	2.299	2629679001	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.78%	2629679001DUP	
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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

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

N/A OK 3/12/20

OK 3/12/2020

LAL 3/12/20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/11/2020
Worklist: 52794
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875683
MB concentration:	0.605
M/B Counting Uncertainty:	0.314
MB MDC:	0.434
MB Numerical Performance Indicator:	3.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD52794	LCSD52794
Count Date:	3/12/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.050	
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):	5.759	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.851	
Numerical Performance Indicator:	2.35	
Percent Recovery:	121.60%	
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.:	2629679001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	2629679001DUP	
Sample Result (pCi/L, g, F):	0.267	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.290	
Sample Duplicate Result (pCi/L, g, F):	0.676	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.313	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.677	2629679001
Duplicate RPD:	86.67%	2629679001DUP
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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

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

LAL
3/12/20

3/12/2020

LAM 3/12/20



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/13/2020
Worklist: 52796
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875688
MB concentration:	0.275
M/B 2 Sigma CSU:	0.357
MB MDC:	0.757
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS52796	LCS52796
Count Date:	3/24/2020	3/24/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.729	34.729
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.315	4.294
Uncertainty (Calculated):	0.311	0.309
Result (pCi/L, g, F):	2.200	3.349
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.658	0.938
Numerical Performance Indicator:	-5.69	-1.88
Percent Recovery:	50.99%	77.99%
Status vs Numerical Indicator:	Fail**	N/A
Status vs Recovery:	Fail Low**	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.	LCS52796	
Duplicate Sample I.D.	LCS52796	
Sample Result (pCi/L, g, F):	2.200	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.658	
Sample Duplicate Result (pCi/L, g, F):	3.349	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.938	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.964	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	41.86%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Fail**	
% RPD Limit:	36%	

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:		

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.

*Full on 40 & space
su 2nd basket
3/27/20*

*JJ
3-25-20*

Arblastro



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/25/2020
Worklist: 52796
Matrix:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	
MB concentration:	
MB MDC:	
MB Numerical Performance Indicator:	
MB Status vs Numerical Indicator:	
MB Status vs. MDC:	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52796	LCSD52796
Count Date:	3/27/2020	3/27/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.699	34.699
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.312	4.290
Uncertainty (Calculated):	0.310	0.309
Result (pCi/L, g, F):	3.656	3.410
	0.919	0.889
Numerical Performance Indicator:	-1.32	-1.83
Percent Recovery:	84.79%	79.49%
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 Matrix Spike Result:		
Sample Matrix Spike Duplicate Result:		
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.:	LCSD52796	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD52796	
Sample Result (pCi/L, g, F):	3.656	
	0.919	
Sample Duplicate Result (pCi/L, g, F):	3.410	
	0.889	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.378	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	6.45%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% 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:		
Sample Matrix Spike Duplicate Result:		
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:

TV
3-27-20

March 27, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2629679
Pace Project No.: 30353293

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 05, 2020. 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,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2629679

Pace Project No.: 30353293

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2629679
Pace Project No.: 30353293

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629679001	DGWA-70A	Water	03/02/20 14:45	03/05/20 09:15
2629679002	DGWA-71	Water	03/02/20 16:20	03/05/20 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2629679
Pace Project No.: 30353293

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629679001	DGWA-70A	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629679002	DGWA-71	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629679
Pace Project No.: 30353293

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWA-70A		Lab ID: 2629679001	Collected: 03/02/20 14:45	Received: 03/05/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.267 ± 0.293 (0.603)	pCi/L	03/12/20 08:27	13982-63-3		
Radium-228	EPA 9320	0.152 ± 0.349 (0.774)	pCi/L	03/24/20 19:43	15262-20-1		
Total Radium	Total Radium Calculation	0.419 ± 0.642 (1.38)	pCi/L	03/27/20 14:53	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWA-71		Lab ID: 2629679002	Collected: 03/02/20 16:20	Received: 03/05/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.752 ± 0.337 (0.312)	pCi/L	03/12/20 08:32	13982-63-3		
Radium-228	EPA 9320	0.545 ± 0.424 (0.835)	pCi/L	03/24/20 19:44	15262-20-1		
Total Radium	Total Radium Calculation	1.30 ± 0.761 (1.15)	pCi/L	03/27/20 14:53	7440-14-4		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2629679
Pace Project No.: 30353293

QC Batch: 387205	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
Associated Lab Samples: 2629679001, 2629679002	

METHOD BLANK: 1875683	Matrix: Water
Associated Lab Samples: 2629679001, 2629679002	

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.605 ± 0.326 (0.434) C:90% T:NA	pCi/L	03/12/20 08:26	

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: 2629679
Pace Project No.: 30353293

QC Batch: 387208	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
Associated Lab Samples: 2629679001, 2629679002	

METHOD BLANK: 1875688	Matrix: Water
Associated Lab Samples: 2629679001, 2629679002	

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.275 ± 0.357 (0.757) C:73% T:81%	pCi/L	03/24/20 19:45	

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: 2629679
Pace Project No.: 30353293

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Owner Received Date: 3/3/2020 Results Requested By: *21 days* 3/17/2020



Workorder: 2629679 Workorder Name: Plant McDonough Background

Report To: Kevin Herring
 Subcontract To: Pace Analytical Pittsburgh
 Requested Analysis: *21 days*

Kevin Herring
 Pace Analytical Charlotte
 9800 Kincey Ave.
 Suite 100
 Huntersville, NC 28078
 Phone (704)875-9092

Pace Analytical Pittsburgh
 1638 Roseytown Road
 Suites 2,3, & 4
 Greensburg, PA 15601
 Phone (724)850-5600

WO# : 30353293



RAD 9815
 RAD 9820

Item	Sample ID	Sample Type	Collection Date/Time	Lab ID	Matrix	Preserved Containers		RAD 9815	RAD 9820	LAB USE ONLY
						1	2			
1	DGWA-70A	PS	3/2/2020 14:45	2629679001	Water	1	2			X X CC1
2	DGWA-71	PS	3/2/2020 16:20	2629679002	Water	1	2			X X CC2
3										
4										
5										

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3-4-20/1:20	<i>[Signature]</i>	3-5-20/9:15
2				
3				

Cooler Temperature on Receipt *11.1* °C Custody Seal Y or *(N)* Received on Ice Y or *(N)* Samples Intact Y or *(N)*

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 30353293

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1857 9506 7400

Label	<u>PK</u>
LIMS Login	<u>PK</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp °C Correction Factor: °C Final Temp: °C
 Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents: <u>PK 3-5-20</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PK</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>OK</u> Date: <u>3-5-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/11/2020
Worklist: 52794
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875683
MB concentration:	0.605
M/B Counting Uncertainty:	0.314
MB MDC:	0.434
MB Numerical Performance Indicator:	3.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52794	LCSD52794
Count Date:	3/12/2020	3/12/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050	24.050
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.511
Target Conc. (pCi/L, g, F):	4.736	4.705
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	5.759	4.415
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.851	0.768
Numerical Performance Indicator:	2.35	-0.74
Percent Recovery:	121.60%	93.83%
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.:	LCSD52794	Enter Duplicate
Duplicate Sample I.D.:	LCSD52794	sample IDs if
Sample Result (pCi/L, g, F):	5.759	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.851	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	4.415	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.768	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	2.299	2629679001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.78%	2629679001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail****	
% RPD Limit:	25%	40K

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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

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

N/A OK 3/12/20

OK 3/12/2020

LAL 3/12/20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/11/2020
Worklist: 52794
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875683
MB concentration:	0.605
M/B Counting Uncertainty:	0.314
MB MDC:	0.434
MB Numerical Performance Indicator:	3.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD52794	LCSD52794
Count Date:	3/12/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.050	
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):	5.759	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.851	
Numerical Performance Indicator:	2.35	
Percent Recovery:	121.60%	
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.:	2629679001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	2629679001DUP	
Sample Result (pCi/L, g, F):	0.267	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.290	
Sample Duplicate Result (pCi/L, g, F):	0.676	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.313	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.677	2629679001
Duplicate RPD:	86.67%	2629679001DUP
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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

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

LAL
3/12/20

3/12/2020

LAM 3/12/20



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/13/2020
Worklist: 52796
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1875688
MB concentration:	0.275
M/B 2 Sigma CSU:	0.357
MB MDC:	0.757
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS52796	LCS52796
Count Date:	3/24/2020	3/24/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.729	34.729
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.315	4.294
Uncertainty (Calculated):	0.311	0.309
Result (pCi/L, g, F):	2.200	3.349
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.658	0.938
Numerical Performance Indicator:	-5.69	-1.88
Percent Recovery:	50.99%	77.99%
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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.	LCS52796	
Duplicate Sample I.D.	LCS52796	
Sample Result (pCi/L, g, F):	2.200	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.658	
Sample Duplicate Result (pCi/L, g, F):	3.349	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.938	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.964	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	41.86%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Fail**	
% 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.

*Full on 40 & space
su 2nd basket
3/27/20*

*JJ
3-25-20*

Arblastro



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/25/2020
Worklist: 52796
Matrix:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	
MB concentration:	
MB MDC:	
MB Numerical Performance Indicator:	
MB Status vs Numerical Indicator:	
MB Status vs. MDC:	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52796	LCSD52796
Count Date:	3/27/2020	3/27/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.699	34.699
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.809
Target Conc. (pCi/L, g, F):	4.312	4.290
Uncertainty (Calculated):	0.310	0.309
Result (pCi/L, g, F):	3.656	3.410
	0.919	0.889
Numerical Performance Indicator:	-1.32	-1.83
Percent Recovery:	84.79%	79.49%
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 Matrix Spike Result:		
Sample Matrix Spike Duplicate Result:		
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	LCSD52796	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCSD52796	
Duplicate Sample I.D.:	LCSD52796	
Sample Result (pCi/L, g, F):	3.656	
	0.919	
Sample Duplicate Result (pCi/L, g, F):	3.410	
	0.889	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.378	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	6.45%	
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:		
Sample Matrix Spike Duplicate Result:		
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:

TV
3-27-20

April 06, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2629765
Pace Project No.: 30353502

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 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,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2629765
Pace Project No.: 30353502

Pace Analytical Services Pennsylvania

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2629765
Pace Project No.: 30353502

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629765001	DGWC-2	Water	03/03/20 14:15	03/06/20 09:30
2629765002	DGWC-8	Water	03/03/20 09:40	03/06/20 09:30
2629765003	DGWC-9	Water	03/03/20 13:05	03/06/20 09:30
2629765004	DGWC-10	Water	03/03/20 13:25	03/06/20 09:30
2629765005	DGWC-13	Water	03/03/20 11:15	03/06/20 09:30
2629765006	DGWC-14	Water	03/03/20 14:45	03/06/20 09:30
2629765007	DGWC-15	Water	03/03/20 16:25	03/06/20 09:30
2629765008	DGWC-17	Water	03/04/20 10:00	03/06/20 09:30
2629765009	DGWC-19	Water	03/03/20 16:32	03/06/20 09:30
2629765010	DGWC-21	Water	03/03/20 14:17	03/06/20 09:30
2629765011	DGWC-22	Water	03/03/20 15:35	03/06/20 09:30
2629765012	FD-2	Water	03/03/20 00:01	03/06/20 09:30
2629765013	FB-2	Water	03/03/20 15:05	03/06/20 09:30
2629765014	EB-1	Water	03/03/20 16:15	03/06/20 09:30
2629765015	EB-2	Water	03/03/20 16:30	03/06/20 09:30
2629765016	DGWC-20	Water	03/04/20 14:05	03/06/20 09:30
2629765017	DGWC-23	Water	03/04/20 15:35	03/06/20 09:30
2629765018	DGWC-42	Water	03/04/20 09:55	03/06/20 09:30
2629765019	DGWC-47	Water	03/04/20 11:25	03/06/20 09:30
2629765020	DGWC-48	Water	03/04/20 14:00	03/06/20 09:30
2629765021	FB-3	Water	03/04/20 16:10	03/06/20 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2629765
Pace Project No.: 30353502

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765001	DGWC-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765002	DGWC-8	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765003	DGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765004	DGWC-10	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765005	DGWC-13	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765006	DGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765007	DGWC-15	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765008	DGWC-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765009	DGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765010	DGWC-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765011	DGWC-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765012	FD-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765013	FB-2	EPA 9315	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: 2629765
Pace Project No.: 30353502

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629765014	EB-1	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765015	EB-2	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765016	DGWC-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2629765017	DGWC-23	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765018	DGWC-42	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2629765019	DGWC-47	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2629765020	DGWC-48	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2629765021	FB-3	Total Radium Calculation	CMC	1	PASI-PA
		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: 2629765
Pace Project No.: 30353502

Sample: DGWC-2		Lab ID: 2629765001	Collected: 03/03/20 14:15	Received: 03/06/20 09:30	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	0.664 ± 0.277 (0.329) C:93% T:NA	pCi/L	03/23/20 10:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.565 ± 0.329 (0.597) C:86% T:88%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.23 ± 0.606 (0.926)	pCi/L	04/03/20 15:09	7440-14-4	

Sample: DGWC-8		Lab ID: 2629765002	Collected: 03/03/20 09:40	Received: 03/06/20 09:30	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	0.294 ± 0.216 (0.390) C:93% T:NA	pCi/L	03/23/20 10:06	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.187 ± 0.272 (0.584) C:86% T:88%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.481 ± 0.488 (0.974)	pCi/L	04/03/20 15:09	7440-14-4	

Sample: DGWC-9		Lab ID: 2629765003	Collected: 03/03/20 13:05	Received: 03/06/20 09:30	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	0.926 ± 0.342 (0.344) C:89% T:NA	pCi/L	03/23/20 10:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.447 ± 0.311 (0.594) C:85% T:91%	pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.37 ± 0.653 (0.938)	pCi/L	04/03/20 15:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: DGWC-10		Lab ID: 2629765004	Collected: 03/03/20 13:25	Received: 03/06/20 09:30	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	1.05 ± 0.334 (0.237) C:94% T:NA		pCi/L	03/23/20 10:07	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.638 ± 0.336 (0.586) C:85% T:88%		pCi/L	04/02/20 11:46	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.69 ± 0.670 (0.823)		pCi/L	04/03/20 15:09	7440-14-4	

Sample: DGWC-13		Lab ID: 2629765005	Collected: 03/03/20 11:15	Received: 03/06/20 09:30	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	0.608 ± 0.256 (0.243) C:82% T:NA		pCi/L	03/23/20 10:13	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.421 ± 0.377 (0.764) C:84% T:86%		pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.03 ± 0.633 (1.01)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-14		Lab ID: 2629765006	Collected: 03/03/20 14:45	Received: 03/06/20 09:30	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	0.838 ± 0.297 (0.217) C:90% T:NA		pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.603 ± 0.414 (0.804) C:83% T:83%		pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.44 ± 0.711 (1.02)		pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: DGWC-15		Lab ID: 2629765007	Collected: 03/03/20 16:25	Received: 03/06/20 09:30	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	0.293 ± 0.181 (0.223) C:88% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.119 ± 0.447 (1.04) C:86% T:79%	pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.293 ± 0.628 (1.26)	pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-17		Lab ID: 2629765008	Collected: 03/04/20 10:00	Received: 03/06/20 09:30	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	0.324 ± 0.179 (0.203) C:93% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.169 ± 0.347 (0.766) C:84% T:87%	pCi/L	04/02/20 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.493 ± 0.526 (0.969)	pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-19		Lab ID: 2629765009	Collected: 03/03/20 16:32	Received: 03/06/20 09:30	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	0.383 ± 0.193 (0.202) C:95% T:NA	pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.299 ± 0.337 (0.841) C:82% T:81%	pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.383 ± 0.530 (1.04)	pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: DGWC-21		Lab ID: 2629765010	Collected: 03/03/20 14:17	Received: 03/06/20 09:30	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	0.567 ± 0.239 (0.229) C:93% T:NA		pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	-0.0636 ± 0.334 (0.791) C:80% T:85%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.567 ± 0.573 (1.02)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-22		Lab ID: 2629765011	Collected: 03/03/20 15:35	Received: 03/06/20 09:30	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	0.388 ± 0.197 (0.195) C:88% T:NA		pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.129 ± 0.307 (0.683) C:84% T:89%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.517 ± 0.504 (0.878)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: FD-2		Lab ID: 2629765012	Collected: 03/03/20 00:01	Received: 03/06/20 09:30	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	0.423 ± 0.196 (0.171) C:95% T:NA		pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.221 ± 0.332 (0.717) C:82% T:81%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.644 ± 0.528 (0.888)		pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: FB-2		Lab ID: 2629765013	Collected: 03/03/20 15:05	Received: 03/06/20 09:30	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	0.338 ± 0.185 (0.214) C:95% T:NA		pCi/L	03/23/20 10:14	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.145 ± 0.358 (0.794) C:82% T:94%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.483 ± 0.543 (1.01)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: EB-1		Lab ID: 2629765014	Collected: 03/03/20 16:15	Received: 03/06/20 09:30	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	0.285 ± 0.169 (0.205) C:90% T:NA		pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.337 ± 0.320 (0.654) C:85% T:88%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.622 ± 0.489 (0.859)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: EB-2		Lab ID: 2629765015	Collected: 03/03/20 16:30	Received: 03/06/20 09:30	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	0.526 ± 0.219 (0.177) C:97% T:NA		pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	-0.155 ± 0.338 (0.806) C:82% T:94%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.526 ± 0.557 (0.983)		pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: DGWC-20		Lab ID: 2629765016	Collected: 03/04/20 14:05	Received: 03/06/20 09:30	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	0.763 ± 0.293 (0.326) C:95% T:NA		pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.908 ± 0.431 (0.743) C:84% T:85%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.67 ± 0.724 (1.07)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-23		Lab ID: 2629765017	Collected: 03/04/20 15:35	Received: 03/06/20 09:30	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	0.791 ± 0.288 (0.235) C:90% T:NA		pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.601 ± 0.414 (0.810) C:83% T:89%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.39 ± 0.702 (1.05)		pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-42		Lab ID: 2629765018	Collected: 03/04/20 09:55	Received: 03/06/20 09:30	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	0.615 ± 0.254 (0.254) C:90% T:NA		pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.107 ± 0.392 (0.881) C:81% T:86%		pCi/L	04/02/20 11:48	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.722 ± 0.646 (1.14)		pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

Sample: DGWC-47		Lab ID: 2629765019	Collected: 03/04/20 11:25	Received: 03/06/20 09:30	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	0.930 ± 0.316 (0.244) C:91% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.751 ± 0.387 (0.675) C:82% T:83%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.68 ± 0.703 (0.919)	pCi/L	04/06/20 07:58	7440-14-4	

Sample: DGWC-48		Lab ID: 2629765020	Collected: 03/04/20 14:00	Received: 03/06/20 09:30	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	0.598 ± 0.243 (0.201) C:91% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.707 ± 0.373 (0.656) C:81% T:89%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.31 ± 0.616 (0.857)	pCi/L	04/06/20 07:58	7440-14-4	

Sample: FB-3		Lab ID: 2629765021	Collected: 03/04/20 16:10	Received: 03/06/20 09:30	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	0.650 ± 0.269 (0.209) C:100% T:NA	pCi/L	03/23/20 10:17	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.136 ± 0.262 (0.577) C:82% T:93%	pCi/L	04/02/20 11:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.786 ± 0.531 (0.786)	pCi/L	04/06/20 07:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2629765
Pace Project No.: 30353502

QC Batch: 388318	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

METHOD BLANK: 1880999 Matrix: Water

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.364 ± 0.221 (0.350) C:92% T:NA	pCi/L	03/23/20 10:04	

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: 2629765
Pace Project No.: 30353502

QC Batch: 388321	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

METHOD BLANK: 1881004 Matrix: Water

Associated Lab Samples: 2629765001, 2629765002, 2629765003, 2629765004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.474 ± 0.338 (0.655) C:83% T:89%	pCi/L	04/02/20 11:45	

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: 2629765
Pace Project No.: 30353502

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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30353502

Chain of Custody



Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

Owner Received Date: 3/4/2020 Results Requested By: 3/18/2020

Workorder: 2629765

Workorder Name: Plant McDonough AP-2, 3/4

Report To		Subcontract To					Requested Analysis											
Kevin Herring Pace Analytical Charlotte 9800 Kinsey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092		Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600																
						LAB USE ONLY												
						020												
						021												

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3															
20	DGWC-48	PS	3/4/2020 14:00	2629765020	Water	1															
21	FB-3	PS	3/4/2020 16:10	2629765021	Water	1															
22																					
23																					
24																					

Comments

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3/5/20 1700	<i>[Signature]</i>	3/6/20 0930
2				
3				

Cooler Temperature on Receipt °C Custody Seal Y or **(N)** Received on Ice Y or **(N)** Samples Intact **(Y)** or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pittsburgh Lab Sample Condition Upon Receipt

30353502



Client Name: Pace GA

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1657 9506 8083

Label: <u>JSM</u>
LIMS Login

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

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>1000391</u>	<u>JSM 3/6/2020</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
-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"/>	11.	
Orthophosphate field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					<u>pH < 2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date/time of preservation
				<u>JSM</u>	
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.	
Trip Blank Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date: <u>3/6/2020</u>
				<u>JSM</u>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/20/2020
Worklist: 52921
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1880999
MB concentration:	0.364
M/B Counting Uncertainty:	0.215
MB MDC:	0.350
MB Numerical Performance Indicator:	3.32
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52921	LCSD52921
Count Date:	3/23/2020	3/23/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049	24.049
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.502
Target Conc. (pCi/L, g, F):	4.762	4.789
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.919	4.732
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.637	0.633
Numerical Performance Indicator:	0.48	-0.17
Percent Recovery:	103.28%	98.82%
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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS52921	
Duplicate Sample I.D.:	LCSD52921	
Sample Result (pCi/L, g, F):	4.919	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.637	
Sample Duplicate Result (pCi/L, g, F):	4.732	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.633	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.407	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.41%	
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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

lan 3/23/20

Cu 3/23/20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/20/2020
Worklist: 52921
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	1880999	
MB concentration:	0.384	
M/B Counting Uncertainty:	0.215	
MB MDC:	0.350	
MB Numerical Performance Indicator:	3.32	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	See Comment*	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD52921	LCSD52921
Count Date:	3/23/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.049	0.10
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.505	
Target Conc. (pCi/L, g, F):	4.762	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.919	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.637	
Numerical Performance Indicator:	0.48	
Percent Recovery:	103.28%	
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.:	2629980002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	2629980002DUP	
Sample Result (pCi/L, g, F):	1.046	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.339	
Sample Duplicate Result (pCi/L, g, F):	0.829	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.268	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.985	
Duplicate RPD:	23.16%	
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:

*The method blank result is below the reporting limit for this analysis and is acceptable.

AM 3/23/20

Signature 3/23/20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/20/2020
Worklist: 52922
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	1881002	
MB concentration:	0.174	
M/B Counting Uncertainty:	0.138	
MB MDC:	0.217	
MB Numerical Performance Indicator:	2.48	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD52922	LCSD52922
Count Date:	3/23/2020	3/23/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049	24.049
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.504	0.515
Target Conc. (pCi/L, g, F):	4.768	4.669
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.424	3.883
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.603	0.538
Numerical Performance Indicator:	-1.11	-2.85
Percent Recovery:	92.78%	83.16%
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	LCSD52922	LCSD52922
Sample I.D.:	LCSD52922	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD52922	
Sample Result (pCi/L, g, F):	4.424	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.603	
Sample Duplicate Result (pCi/L, g, F):	3.883	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.538	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.313	2629734007
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	10.94%	2629734007DUP
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:

AM 3/23/20

3/23/20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/20/2020
Worklist: 52922
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1881002
MB concentration:	0.174
M/B Counting Uncertainty:	0.138
MB MDC:	0.217
MB Numerical Performance Indicator:	2.48
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS52922	LCSD52922
Count Date:	3/23/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.049	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.504	
Target Conc. (pCi/L, g, F):	4.768	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.424	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.603	
Numerical Performance Indicator:	-1.11	
Percent Recovery:	92.78%	
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.:	2629734007	Enter Duplicate
Duplicate Sample I.D.:	2629734007DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.462	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.199	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.628	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.232	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.064	2629734007
Duplicate RPD:	30.40%	2629734007DUP
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.

Cee 3/23/20

LAL
3/23/20

LAM 3/23/20



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/24/2020
Worklist: 52924
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1881004
MB concentration:	0.474
M/B 2 Sigma CSU:	0.338
MB MDC:	0.655
MB Numerical Performance Indicator:	2.75
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	N
	LCS52924	LCS/D52924
Count Date:	4/2/2020	
Spike I.D.:	19-057	
Decay Corrected Spike Concentration (pCi/mL):	34.630	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.802	
Target Conc. (pCi/L, g, F):	4.318	
Uncertainty (Calculated):	0.311	
Result (pCi/L, g, F):	3.525	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.833	
Numerical Performance Indicator:	-1.75	
Percent Recovery:	81.62%	
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		
Sample I.D.:	2629980001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	2629980001DUP	
Sample Result (pCi/L, g, F):	0.271	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.325	
Sample Duplicate Result (pCi/L, g, F):	0.242	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.351	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.119	2629980001
Duplicate RPD:	11.32%	2629980001DUP
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:

JJ
4-3-20



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/25/2020
Worklist: 52925
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1881005
MB concentration:	0.510
M/B 2 Sigma CSU:	0.340
MB MDC:	0.651
MB Numerical Performance Indicator:	2.94
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS52925	LCSD52925
Count Date:	4/2/2020	4/2/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.630	34.630
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.821	0.803
Target Conc. (pCi/L, g, F):	4.220	4.311
Uncertainty (Calculated):	0.304	0.310
Result (pCi/L, g, F):	2.911	3.106
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.733	0.767
Numerical Performance Indicator:	-3.23	-2.86
Percent Recovery:	68.99%	72.05%
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.:	LCS52925	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD52925	
Sample Result (pCi/L, g, F):	2.911	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.733	
Sample Duplicate Result (pCi/L, g, F):	3.106	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.767	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.359	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.34%	
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:

Handwritten signature

*KLK
4-16-2020*

April 01, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2629901
Pace Project No.: 30354096

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 11, 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,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2629901
Pace Project No.: 30354096

Pace Analytical Services Pennsylvania

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2629901
Pace Project No.: 30354096

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629901001	DGWA-53	Water	03/09/20 12:12	03/11/20 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2629901
Pace Project No.: 30354096

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629901001	DGWA-53	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

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2629901
Pace Project No.: 30354096

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DGWA-53 Lab ID: 2629901001 Collected: 03/09/20 12:12 Received: 03/11/20 09:20 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	2.32 ± 0.659 (0.411) C:89% T:NA	pCi/L	03/19/20 08:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.19 ± 0.469 (0.718) C:81% T:96%	pCi/L	03/29/20 17:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.51 ± 1.13 (1.13)	pCi/L	03/30/20 15:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2629901
Pace Project No.: 30354096

QC Batch: 388189	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629901001

METHOD BLANK: 1880480 Matrix: Water

Associated Lab Samples: 2629901001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.349 ± 0.224 (0.368) C:90% T:NA	pCi/L	03/18/20 19:54	

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: 2629901
Pace Project No.: 30354096

QC Batch: 388190	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2629901001

METHOD BLANK: 1880481 Matrix: Water

Associated Lab Samples: 2629901001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0172 ± 0.277 (0.657) C:79% T:93%	pCi/L	03/29/20 17:28	

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: 2629901
Pace Project No.: 30354096

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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

Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA
 Cert. Needed: Yes No



Workorder: 2629901 Workorder Name: PLANT MCDONOUGH BACKGROUND Owner Received Date: 3/9/2020 Results Requested By: 3/24/2020

Report To: Subcontractor: Requested Analysis:

Kevin Herring
 Pace Analytical Charlotte
 9800 Kincey Ave.
 Suite 100
 Huntersville, NC 28078
 Phone (704)875-9092

Pace Analytical Pittsburgh
 1638 Roseytown Road
 Suites 2,3, & 4
 Greensburg, PA 15601
 Phone (724)850-5600

RAD 9815
 RAD 9820

WO# : 30354096



Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				LAB USE ONLY			
						HNO3							
1	DGWA-53	PS	3/9/2020 12:12	2629901001	Water	A	2			X	X		CO
2													
3													
4													
5													

Comments:

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3/10/20 17:00	<i>[Signature]</i>	3-11-20 9:20
2				
3				

Cooler Temperature on Receipt *NA* °C Custody Seal Y or **(N)** Received on Ice Y or **(N)** Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 30354096

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1057 9506 8911

Label	<u>DK</u>
LIMS Login	<u>DK</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>10D2191</u>	<u>DK 3-11-20</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
-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"/>	11.	
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					<u>DK</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.	
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>DK</u>	Date: <u>3-11-20</u>

Client Notification/ Resolution:

Person-Contacted: _____ Date/Time: _____ Contacted-By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/18/2020
Worklist: 52916
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1880480
MB concentration:	0.349
M/B Counting Uncertainty:	0.218
MB MDC:	0.368
MB Numerical Performance Indicator:	3.14
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS52916	LCS52916
Count Date:	3/19/2020	3/19/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.050	24.050
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.500	0.507
Target Conc. (pCi/L, g, F):	4.814	4.745
Uncertainty (Calculated):	0.058	0.057
Result (pCi/L, g, F):	3.914	4.217
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.746	0.760
Numerical Performance Indicator:	-2.36	-1.36
Percent Recovery:	81.31%	88.88%
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.:	LCS52916	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS52916	
Sample Result (pCi/L, g, F):	3.914	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.746	
Sample Duplicate Result (pCi/L, g, F):	4.217	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.760	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.557	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	8.89%	
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:

Ch 3/19/20

JJI
3-19-20



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: LAL
Date: 3/18/2020
Worklist: 52916
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1880480
MB concentration:	0.349
M/B Counting Uncertainty:	0.218
MB MDC:	0.368
MB Numerical Performance Indicator:	3.14
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS52916	LCSD52916
Count Date:	3/19/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.050	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.500	
Target Conc. (pCi/L, g, F):	4.814	
Uncertainty (Calculated):	0.058	
Result (pCi/L, g, F):	3.914	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.746	
Numerical Performance Indicator:	-2.36	
Percent Recovery:	81.31%	
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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	92468160004	
Duplicate Sample I.D.:	92468160004DUP	
Sample Result (pCi/L, g, F):	0.705	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.273	
Sample Duplicate Result (pCi/L, g, F):	0.619	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.358	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.377	
Duplicate RPD:	13.07%	
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:

JJL
3-19-20

AL 3/19/20



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 3/19/2020
Worklist: 52917
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		
MB Sample ID	1880481	
MB concentration:	-0.017	
M/B 2 Sigma CSU:	0.277	
MB MDC:	0.657	
MB Numerical Performance Indicator:	-0.12	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS52917	LCS52917
Count Date:	3/29/2020	3/29/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.673	34.673
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.806	0.806
Target Conc. (pCi/L, g, F):	4.291	4.301
Uncertainty (Calculated):	0.309	0.310
Result (pCi/L, g, F):	3.889	3.464
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.927	0.881
Numerical Performance Indicator:	-0.81	-1.76
Percent Recovery:	90.64%	80.54%
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.:	LCS52917	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD52917	
Sample Result (pCi/L, g, F):	3.889	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.927	
Sample Duplicate Result (pCi/L, g, F):	3.464	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.652	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	11.80%	
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:

JD
3-30-20

KLB
3-30-20

**Quality Control Review of Analytical Data- Ash Pond AP-2, 3/4
Submitted by Pace Analytical Services, LLC
August – October 2019**

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 27, 2019 and October 18, 2019. 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), 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

Laboratory Precision:	Laboratory goals for precision were met.
Field Precision:	Field goals for precision were met.
Accuracy:	Laboratory goals for accuracy were met with the exception of fluoride and chloride as described in the qualification sections below.
Detection Limits:	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.
Completeness:	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 with the exception of total dissolved solids (TDS) in samples DGWC-2, DGWC-9, DGWC-15, DGWC-20, DGWC-21, DGWC-42, and DGWC-47. The analysis was conducted one day past the TDS seven day holding time requirement. Using professional judgment, no qualifications were applied.

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 that may be biased low.
- J+** The analyte was reported above the method detection limit; however, the concentration reported is an estimated value that may be biased high.
- 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 the SDGs, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- Certain arsenic, chromium, fluoride, total radium, radium-226, radium-228, sulfate and TDS 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) or the minimum detectable concentration (MDC), the results were qualified as non-detect (U) and the results were raised to the RL or MDC. If results were above the RL or MDC, the results were qualified U and the RL or MDC was raised to the sample result.
- Total radium was qualified as biased high (J+) in certain samples when one radium isotope was detected above the MDC and the other isotope was U qualified.
- Fluoride for DGWC-20 was qualified as estimated biased high (J+) as the associated matrix spike/matrix spike duplicate (MS/MSD) recoveries were above the QC criteria. Certain chloride and fluoride results in SDGs 2624388 and 2624567 were qualified as estimated biased low (J-) as the associated MS/MSD recoveries were below the QC criteria.

Golder reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-2, 3/4 between August 27, 2019 and October 18, 2019 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
Qualifier Summary Table
SCS Plant McDonough AP-2,3/4

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses				
						Select Metals (6020B)	Anions (300.0)	TDS (SM 2540C)	Mercury (7470)	Radium (EPA 9315/9320)
2622479/2622480	DGWC-10	8/27/2019	2622479005/2622480005	GW	-	X	X	-	X	X
2622479/2622480	DGWC-11	8/27/2019	2622479006/2622480006	GW	-	X	X	-	X	X
2622479/2622480	DGWC-12	8/27/2019	2622479007/2622480007	GW	-	X	X	-	X	X
2622479/2622480	DGWC-14	8/27/2019	2622479008/2622480008	GW	-	X	X	-	X	X
2622479/2622480	DGWC-17	8/27/2019	2622479009/2622480009	GW	-	X	X	-	X	X
2622479/2622480	DGWC-2	8/27/2019	2622479001/2622480001	GW	-	X	X	-	X	X
2622479/2622480	DGWC-4	8/27/2019	2622479002/2622480002	GW	-	X	X	-	X	X
2622479/2622480	DGWC-5	8/27/2019	2622479003/2622480003	GW	-	X	X	-	X	X
2622479/2622480	DGWC-9	8/27/2019	2622479004/2622480004	GW	-	X	X	-	X	X
2622479/2622480	FD-1	8/27/2019	2622479010/2622480010	GW	FD (DGWC-4)	X	X	-	X	X
2622481/2622482	DGWA-70A	8/27/2019	2622481001/2622482001	GW	-	X	X	-	X	X
2622481/2622482	DGWA-71	8/27/2019	2622481002/2622482002	GW	-	X	X	-	X	X
2622585/2622586	DGWC-13	8/28/2019	2622585002/2622586002	GW	-	X	X	-	X	X
2622585/2622586	DGWC-15	8/28/2019	2622585003/2622586003	GW	-	X	X	-	X	X
2622585/2622586	DGWC-19	8/28/2019	2622585004/2622586004	GW	-	X	X	-	X	X
2622585/2622586	DGWC-42	8/28/2019	2622585005/2622586005	GW	-	X	X	-	X	X
2622585/2622586	DGWC-8	8/28/2019	2622585001/2622586001	GW	-	X	X	-	X	X
2622589/2622590	DGWA-53	8/28/2019	2622589001/2622590001	GW	-	X	X	-	X	X
2622574/2622572	DGWC-20	8/29/2019	2622574001/2622572001	GW	-	X	X	-	X	X
2622574/2622572	DGWC-21	8/29/2019	2622574002/2622572002	GW	-	X	X	-	X	X
2622574/2622572	DGWC-22	8/29/2019	2622574003/2622572003	GW	-	X	X	-	X	X
2622574/2622572	DGWC-23	8/29/2019	2622574004/2622572004	GW	-	X	X	-	X	X
2622574/2622572	DGWC-47	8/29/2019	2622574005/2622572005	GW	-	X	X	-	X	X
2622574/2622572	DGWC-48	8/29/2019	2622574006/2622572006	GW	-	X	X	-	X	X
2622574/2622572	FD-3	8/29/2019	2622574009/2622572009	GW	FD (DGWC-22)	X	X	-	X	X
2624388/2624390	DGWC-10	10/15/2019	2624388002/2624390002	GW	-	X	X	X	X	X
2624388/2624390	DGWC-11	10/15/2019	2624388003/2624390003	GW	-	X	X	X	X	X
2624388/2624390	DGWC-12	10/15/2019	2624388004/2624390004	GW	-	X	X	X	X	X
2624388/2624390	DGWC-4	10/15/2019	2624388001/2624390001	GW	-	X	X	X	X	X
2624388/2624390	FD-1	10/15/2019	2624388005/2624390005	GW	FD (DGWC-12)	X	X	X	X	X
2624397/2624398	DGWA-70A	10/15/2019	2624397001/2624398001	GW	-	X	X	X	X	X
2624397/2624398	DGWA-71	10/15/2019	2624397002/2624398002	GW	-	X	X	X	X	X
2624491/2624493	DGWC-14	10/16/2019	2624491003/2624493003	GW	-	X	X	X	X	X
2624491/2624493	DGWC-19	10/16/2019	2624491004/2624493004	GW	-	X	X	X	X	X
2624491/2624493	DGWC-5	10/16/2019	2624491001/2624493001	GW	-	X	X	X	X	X
2624491/2624493	DGWC-8	10/16/2019	2624491002/2624493002	GW	-	X	X	X	X	X
2624491/2624493	FD-2	10/16/2019	2624491005/2624493005	GW	FD (DGWC-13)	X	X	X	X	X
2624494/2624495	DGWA-53	10/16/2019	2624494001/2624495001	GW	-	X	X	-	X	X
2624567/2624569	DGWC-15	10/17/2019	2624567003/2624569003	GW	-	X	X	X	X	X
2624567/2624569	DGWC-2	10/17/2019	2624567001/2624569001	GW	-	X	X	X	X	X
2624567/2624569	DGWC-20	10/17/2019	2624567004/2624569004	GW	-	X	X	X	X	X
2624567/2624569	DGWC-21	10/17/2019	2624567005/2624569005	GW	-	X	X	X	X	X
2624567/2624569	DGWC-42	10/17/2019	2624567006/2624569006	GW	-	X	X	X	X	X
2624567/2624569	DGWC-47	10/17/2019	2624567007/2624569007	GW	-	X	X	X	X	X
2624567/2624569	DGWC-9	10/17/2019	2624567002/2624569002	GW	-	X	X	X	X	X
2624567/2624569	DGWC-17	10/18/2019	2624567009/2624569009	GW	-	X	X	X	X	X
2624567/2624569	DGWC-22	10/18/2019	2624567010/2624569010	GW	-	X	X	X	X	X
2624567/2624569	DGWC-23	10/18/2019	2624567011/2624569011	GW	-	X	X	X	X	X
2624567/2624569	DGWC-48	10/18/2019	2624567012/2624569012	GW	-	X	X	X	X	X

Abbreviations:

- FD - Field duplicate
- GW - Groundwater
- TDS - Total Dissolved Solids
- SDG - Sample Delivery Group

TABLE 2
Qualifier Summary Table
SCS Plant McDonough AP-2,3/4

SDG	Sample Name	Constituent	New Result	New RL or MDC	Qualifier	Reason
2624491	DGWC-14	Fluoride	0.3	-	U	Blank contamination
2624491	DGWC-19	Fluoride	0.3	-	U	Blank contamination
2624491	DGWC-5	Fluoride	-	0.32	U	Blank contamination
2624491	DGWC-8	Fluoride	0.3	-	U	Blank contamination
2624491	FD-2	Fluoride	0.3	-	U	Blank contamination
2624494	DGWA-53	Fluoride	0.3	-	U	Blank contamination
2622574	DGWC-22	Total Radium	-	1.870	U	Blank contamination
2622574	DGWC-23	Total Radium	-	2.210	U	Blank contamination
2622574	DGWC-47	Total Radium	-	3.050	U	Blank contamination
2622574	DGWC-48	Total Radium	-	2.370	U	Blank contamination
2622586	DGWC-13	Radium-226	-	0.916	U	Blank contamination
2622586	DGWC-15	Radium-226	-	0.544	U	Blank contamination
2622586	DGWC-42	Radium-226	-	0.507	U	Blank contamination
2622586	DGWC-8	Radium-226	-	0.474	U	Blank contamination
2622586	DGWC-13	Total Radium	-	1.430	U	Blank contamination
2622590	DGWA-53	Radium-226	-	1.380	U	Blank contamination
2622590	DGWA-53	Total Radium	-	-	J+	Blank contamination
2624388	DGWC-12	Arsenic	0.005	-	U	Blank contamination
2624388	FD-1	Arsenic	0.005	-	U	Blank contamination
2624388	DGWC-10	Chromium	0.01	-	U	Blank contamination
2624390	DGWC-10	Radium-226	-	0.615	U	Blank contamination
2624390	DGWC-4	Radium-226	-	1.06	U	Blank contamination
2624390	FD-1	Radium-226	-	0.581	U	Blank contamination
2624397	DGWA-70A	Arsenic	0.005	-	U	Blank contamination
2624397	DGWA-71	Arsenic	0.005	-	U	Blank contamination
2624397	DGWA-71	Chromium	0.01	-	U	Blank contamination
2624397	DGWA-70A	Sulfate	1	-	U	Blank contamination
2624397	DGWA-70A	TDS	-	70	U	Blank contamination
2624397	DGWA-71	TDS	-	89	U	Blank contamination
2624398	DGWA-71	Radium-226	-	0.628	U	Blank contamination
2624567	DGWC-15	Arsenic	0.005	-	U	Blank contamination
2624567	DGWC-17	Arsenic	0.005	-	U	Blank contamination
2624567	DGWC-47	Arsenic	0.005	-	U	Blank contamination
2624567	DGWC-48	Arsenic	0.005	-	U	Blank contamination
2624567	DGWC-17	Chromium	0.01	-	U	Blank contamination
2622572	FD-3	Chromium	0.010	-	U	Blank contamination
2622574	FD-3	Radium-226	-	2.100	U	Blank contamination
2622574	FD-3	Total Radium	-	2.920	U	Blank contamination

Abbreviations:

MDC: Minimum detectable concentration
MS/MSD: Matrix spike / matrix spike duplicate
RL : Reporting limit
SDG : Sample delivery group
TDS: Total Dissolved Solids

Qualifiers:

J+ : Estimated result, biased high
J- : Estimated result, biased low
U : Non-detect result

TABLE 2
Qualifier Summary Table
SCS Plant McDonough AP-2,3/4

SDG	Sample Name	Constituent	New Result	New RL or MDC	Qualifier	Reason
2624567	DGWC-23	Chromium	0.01	-	U	Blank contamination
2622574	DGWC-22	Radium-228	-	1.390	U	Blank contamination
2622574	DGWC-23	Radium-228	-	1.150	U	Blank contamination
2622574	DGWC-47	Radium-228	-	1.370	U	Blank contamination
2622574	DGWC-48	Radium-228	-	1.400	U	Blank contamination
2622479	DGWC-10	Chromium	0.010	-	U	Blank contamination
2622479	DGWC-11	Chromium	0.010	-	U	Blank contamination
2622479	DGWC-17	Chromium	0.010	-	U	Blank contamination
2622479	DGWC-2	Chromium	0.010	-	U	Blank contamination
2622479	DGWC-9	Chromium	0.010	-	U	Blank contamination
2622480	DGWC-2	Radium-226	-	0.982	U	Blank contamination
2622480	DGWC-10	Radium-228	-	1.080	U	Blank contamination
2622480	DGWC-10	Total Radium	-	-	J+	Blank contamination
2622480	DGWC-2	Total Radium	-	-	U	Blank contamination
2622481	DGWA-70A	Chromium	0.010	-	U	Blank contamination
2622481	DGWA-71	Chromium	0.010	-	U	Blank contamination
2622482	DGWA-70A	Radium-226	-	1.110	U	Blank contamination
2622482	DGWA-70A	Radium-228	-	0.863	U	Blank contamination
2622482	DGWA-71	Radium-228	-	0.867	U	Blank contamination
2622482	DGWA-70A	Total Radium	-	-	J+	Blank contamination
2622572	DGWC-20	Chromium	0.010	-	U	Blank contamination
2622572	DGWC-21	Chromium	0.010	-	U	Blank contamination
2622574	DGWC-20	Radium-226	-	0.666	U	Blank contamination
2622574	DGWC-21	Radium-226	-	0.582	U	Blank contamination
2622574	DGWC-22	Radium-226	-	0.480	U	Blank contamination
2622574	DGWC-23	Radium-226	-	1.060	U	Blank contamination
2622574	DGWC-47	Radium-226	-	1.680	U	Blank contamination
2622574	DGWC-48	Radium-226	-	0.973	U	Blank contamination
2622572	DGWC-20	Fluoride	-	-	J+	MS/MSD recovered above the upper acceptance limit
2624388	DGWC-4	Chloride	-	-	J-	MS/MSD recovered below the lower acceptance limit
2624567	DGWC-9	Chloride	-	-	J-	MS/MSD recovered below the lower acceptance limit
2624567	DGWC-10	Flouride	-	-	J-	MS/MSD recovered below the lower acceptance limit

Abbreviations:

MDC: Minimum detectable concentration
MS/MSD: Matrix spike / matrix spike duplicate
RL : Reporting limit
SDG : Sample delivery group
TDS: Total Dissolved Solids

Qualifiers:

J+ : Estimated result, biased high
J- : Estimated result, biased low
U : Non-detect result

**Quality Control Review of Analytical Data- Ash Pond AP-2, 3/4
Submitted by Pace Analytical Services, LLC
March 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 March 2, 2020 and March 9, 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

Laboratory Precision:	Laboratory goals for precision were met.
Field Precision:	Field goals for precision were met.
Accuracy:	Laboratory goals for accuracy were met with the exception of fluoride and sulfate as described in the qualification sections below.
Detection Limits:	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.
Completeness:	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 that may be biased low.
- J+** The analyte was reported above the method detection limit; however, the concentration reported is an estimated value that may be biased high.
- 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 2629679, 2629681, 2629765, 30353292, 30353293, 30353502, 30354096, 2629901, and 2629903, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- Certain antimony, chromium, and radium-226 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) or the minimum detectable concentration (MDC), the results were qualified as non-detect (U) and the results were raised to the RL or MDC. If results were above the RL or MDC, the results were qualified U and the RL or MDC was raised to the sample result.
- Certain fluoride and sulfate results in SDG 2629765 were qualified as estimated biased high (J+) as the associated matrix spike/matrix spike duplicate (MS/MSD) recoveries were above the QC criteria. Certain sulfate results in SDGs 2629765 were qualified as estimated biased low (J-) as the associated MS/MSD recoveries were below the QC criteria.

Golder reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-2, 3/4 between March 2, 2020 and March 9, 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					
							Total Metals (EPA 6020B)	Calcium (EPA 6010D)	Mercury (EPA 7470A)	Anions (EPA 300.0)	TDS (SM 2540C)	Radium 226, Radium 228 (9315, 9320)
2629679	DGWA-70A	3/2/2020	2629679001	GW	-	X	X	X	X	X	X	-
2629679	DGWA-71	3/2/2020	2629679002	GW	-	X	X	X	X	X	X	-
2629681	DGWC-4	3/2/2020	2629681001	GW	-	X	X	X	X	X	X	-
2629681	DGWC-5	3/2/2020	2629681002	GW	-	X	X	X	X	X	X	-
2629681	DGWC-11	3/2/2020	2629681003	GW	-	X	X	X	X	X	X	-
2629681	DGWC-12	3/2/2020	2629681004	GW	-	X	X	X	X	X	X	-
2629681	FB-1	3/2/2020	2629681005	WQ	FB	X	X	X	X	X	X	-
2629681	FD-1	3/2/2020	2629681006	WQ	FD (DGWC-12)	X	X	X	X	X	X	-
2629765	DGWC-2	3/3/2020	2629765001	GW	-	X	X	X	X	X	X	-
2629765	DGWC-8	3/3/2020	2629765002	GW	-	X	X	X	X	X	X	-
2629765	DGWC-9	3/3/2020	2629765003	GW	-	X	X	X	X	X	X	-
2629765	DGWC-10	3/3/2020	2629765004	GW	-	X	X	X	X	X	X	-
2629765	DGWC-13	3/3/2020	2629765005	GW	-	X	X	X	X	X	X	-
2629765	DGWC-14	3/3/2020	2629765006	GW	-	X	X	X	X	X	X	-
2629765	DGWC-15	3/3/2020	2629765007	GW	-	X	X	X	X	X	X	-
2629765	DGWC-17	3/4/2020	2629765008	GW	-	X	X	X	X	X	X	-
2629765	DGWC-19	3/3/2020	2629765009	GW	-	X	X	X	X	X	X	-
2629765	DGWC-21	3/3/2020	2629765010	GW	-	X	X	X	X	X	X	-
2629765	DGWC-22	3/3/2020	2629765011	GW	-	X	X	X	X	X	X	-
2629765	FD-2	3/3/2020	2629765012	GW	FD (DGWC-21)	X	X	X	X	X	X	-
2629765	FB-2	3/3/2020	2629765013	WQ	FB	X	X	X	X	X	X	-
2629765	EB-1	3/3/2020	2629765014	WQ	EB	X	X	X	X	X	X	-
2629765	EB-2	3/3/2020	2629765015	WQ	EB	X	X	X	X	X	X	-
2629765	DGWC-20	3/4/2020	2629765016	GW	-	X	X	X	X	X	X	-
2629765	DGWC-23	3/4/2020	2629765017	GW	-	X	X	X	X	X	X	-
2629765	DGWC-42	3/4/2020	2629765018	GW	-	X	X	X	X	X	X	-
2629765	DGWC-47	3/4/2020	2629765019	GW	-	X	X	X	X	X	X	-
2629765	DGWC-48	3/4/2020	2629765020	GW	-	X	X	X	X	X	X	-
2629765	FB-3	3/4/2020	2629765021	WQ	FB	X	X	X	X	X	X	-
2629901/2629903	DGWA-53	3/9/2020	2629901001/2629901003	GW	-	X	X	X	X	X	X	-
30353292	DGWC-4	3/2/2020	2629681001	GW	-	-	-	-	-	-	-	X
30353292	DGWC-5	3/2/2020	2629681002	GW	-	-	-	-	-	-	-	X
30353292	DGWC-11	3/2/2020	2629681003	GW	-	-	-	-	-	-	-	X
30353292	DGWC-12	3/2/2020	2629681004	GW	-	-	-	-	-	-	-	X
30353292	FB-1	3/2/2020	2629681005	WQ	FB	-	-	-	-	-	-	X
30353292	FD-1	3/2/2020	2629681006	GW	FD (DGWC-12)	-	-	-	-	-	-	X
30353293	DGWA-70A	3/2/2020	2629679001	GW	-	-	-	-	-	-	-	X
30353293	DGWA-71	3/2/2020	2629679002	GW	-	-	-	-	-	-	-	X
30353502	DGWC-2	3/3/2020	2629765001	GW	-	-	-	-	-	-	-	X
30353502	DGWC-8	3/3/2020	2629765002	GW	-	-	-	-	-	-	-	X
30353502	DGWC-9	3/3/2020	2629765003	GW	-	-	-	-	-	-	-	X
30353502	DGWC-10	3/3/2020	2629765004	GW	-	-	-	-	-	-	-	X
30353502	DGWC-13	3/3/2020	2629765005	GW	-	-	-	-	-	-	-	X
30353502	DGWC-14	3/3/2020	2629765006	GW	-	-	-	-	-	-	-	X
30353502	DGWC-15	3/3/2020	2629765007	GW	-	-	-	-	-	-	-	X
30353502	DGWC-17	3/4/2020	2629765008	GW	-	-	-	-	-	-	-	X
30353502	DGWC-19	3/3/2020	2629765009	GW	-	-	-	-	-	-	-	X
30353502	DGWC-21	3/3/2020	2629765010	GW	-	-	-	-	-	-	-	X
30353502	DGWC-22	3/3/2020	2629765011	GW	-	-	-	-	-	-	-	X
30353502	FD-2	3/3/2020	2629765012	GW	FD (DGWC-21)	-	-	-	-	-	-	X
30353502	FB-2	3/3/2020	2629765013	WQ	FB	-	-	-	-	-	-	X
30353502	EB-1	3/3/2020	2629765014	WQ	EB	-	-	-	-	-	-	X
30353502	EB-2	3/3/2020	2629765015	WQ	EB	-	-	-	-	-	-	X
30353502	DGWC-20	3/4/2020	2629765016	GW	-	-	-	-	-	-	-	X
30353502	DGWC-23	3/4/2020	2629765017	GW	-	-	-	-	-	-	-	X
30353502	DGWC-42	3/4/2020	2629765018	GW	-	-	-	-	-	-	-	X
30353502	DGWC-47	3/4/2020	2629765019	GW	-	-	-	-	-	-	-	X
30353502	DGWC-48	3/4/2020	2629765020	GW	-	-	-	-	-	-	-	X
30353502	FB-3	3/4/2020	2629765021	WQ	FB	-	-	-	-	-	-	X
30354096	DGWA-53	3/9/2020	2629901001	GW	-	-	-	-	-	-	-	X

Abbreviations:

- 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

SDG	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
2629679	DGWA-71	Antimony	0.003	-	U	Blank contamination
2629681	DGWC-4	Antimony	0.003	-	U	Blank contamination
2629681	DGWC-5	Antimony	0.003	-	U	Blank contamination
2629681	DGWC-12	Antimony	0.003	-	U	Blank contamination
2629765	DGWC-20	Chromium	0.01	-	U	Blank contamination
2629765	DGWC-23	Chromium	0.01	-	U	Blank contamination
2629765	DGWC-42	Chromium	0.01	-	U	Blank contamination
2629765	DGWC-48	Chromium	0.01	-	U	Blank contamination
2629765	DGWC-47	Fluoride	-	-	J+	MS/MSD outside of acceptance criteria
2629765	DGWC-47	Sulfate	-	-	J+	MS/MSD outside of acceptance criteria
2629765	DGWC-8	Sulfate	-	-	J-	MS/MSD outside of acceptance criteria
30353292	DGWC-11	Radium-226	-	0.833	U	Blank contamination
30353292	DGWC-12	Radium-226	-	0.456	U	Blank contamination
30353292	DGWC-4	Radium-226	-	0.968	U	Blank contamination
30353292	DGWC-5	Radium-226	-	1.1	U	Blank contamination
30353292	FD-1	Radium-226	-	0.651	U	Blank contamination
30353293	DGWA-71	Radium-226	-	0.752	U	Blank contamination
30353502	DGWC-10	Radium-226	-	1.05	U	Blank contamination
30353502	DGWC-2	Radium-226	-	0.664	U	Blank contamination
30353502	DGWC-9	Radium-226	-	0.926	U	Blank contamination
30353502	DGWC-2	Radium-226	-	1.05	U	Blank contamination
30353502	DGWC-8	Radium-226	-	0.608	U	Blank contamination
30353502	DGWC-9	Radium-226	-	0.838	U	Blank contamination
30353502	DGWC-10	Radium-226	-	0.293	U	Blank contamination
30353502	DGWC-13	Radium-226	-	0.383	U	Blank contamination
30353502	DGWC-14	Radium-226	-	0.664	U	Blank contamination
30353502	DGWC-15	Radium-226	-	0.567	U	Blank contamination
30353502	DGWC-19	Radium-226	-	0.388	U	Blank contamination
30353502	DGWC-22	Radium-226	-	0.926	U	Blank contamination
30353502	FD-2	Radium-226	-	0.423	U	Blank contamination
30353502	DGWC-17	Radium-226	-	0.324	U	Blank contamination
30353502	DGWC-20	Radium-226	-	0.763	U	Blank contamination
30353502	DGWC-23	Radium-226	-	0.791	U	Blank contamination
30353502	DGWC-42	Radium-226	-	0.615	U	Blank contamination
30353502	DGWC-47	Radium-226	-	0.93	U	Blank contamination
30353502	DGWC-48	Radium-226	-	0.598	U	Blank contamination

Abbreviations:

RL : Reporting limit
SDG : Sample delivery group
MS/MSD: Matrix spike/matrix spike duplicate

Qualifiers:

U : Non-detect result
J : Estimated value
J- : Estimated value, bias low
J+ : Estimated value, bias high

Product Name: Low-Flow System

Date: 2019-08-27 15:12:10

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 43.05 ft

Pump placement from TOC 43.05 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 250 mL/min
Total System Volume 0.4381711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.4 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:49:32	300.03	22.12	5.82	73.52	5.48	29.00	2.30	99.06
Last 5	14:54:32	600.02	20.98	5.86	74.00	3.18	29.00	3.27	88.08
Last 5	14:59:32	900.02	20.97	5.88	74.19	3.62	29.00	3.47	81.08
Last 5	15:04:32	1200.02	21.17	5.87	73.95	2.98	29.00	3.52	81.70
Last 5	15:09:32	1500.02	21.27	5.87	73.53	3.33	29.00	3.56	78.32
Variance 0			-0.01	0.01	0.19			0.20	-7.00
Variance 1			0.20	-0.00	-0.23			0.05	0.62
Variance 2			0.11	-0.00	-0.42			0.04	-3.38

Notes

Sampled DGWA-71
Sampled DGWA-71

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 10:01:56

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 643819
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 DGWA-53
Well diameter 2 in
Well Total Depth 36.89 ft
Screen Length 10 ft
Depth to Water 15.63 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 137.64 in
Total Volume Pumped 13.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:38:45	1200.00	19.32	5.99	163.51	17.10	24.67	0.36	73.84
Last 5	09:43:45	1499.99	19.71	5.97	165.81	11.10	25.80	0.42	72.33
Last 5	09:48:45	1799.99	20.32	5.98	166.85	6.71	26.25	0.45	69.93
Last 5	09:53:45	2099.98	20.62	5.98	171.34	5.55	26.88	0.47	66.93
Last 5	09:58:45	2399.98	21.08	5.99	172.58	5.07	27.10	0.49	63.67
Variance 0			0.61	0.01	1.04			0.03	-2.40
Variance 1			0.30	-0.00	4.49			0.02	-2.99
Variance 2			0.46	0.01	1.24			0.01	-3.27

Notes

Purged dry with final DTW at 27.10. Returning to sample 8/28

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 11:06:07

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 643819
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 DGWA-53
Well diameter 2 in
Well Total Depth 36.89 ft
Screen Length 10 ft
Depth to Water 15.59 ft

Pumping Information:

Final Pumping Rate 480 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 141.24 in
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:42:13	2099.98	20.35	6.17	188.61	5.89	21.31	0.12	41.31
Last 5	10:47:13	2399.98	19.86	6.17	172.49	5.14	23.50	0.20	43.20
Last 5	10:52:13	2699.97	20.26	6.15	170.78	4.01	25.45	0.26	44.73
Last 5	10:57:13	2999.97	20.48	6.13	170.58	3.80	26.80	0.33	45.67
Last 5	11:02:13	3299.96	21.24	6.11	170.74	3.88	27.36	0.41	45.80
Variance 0			0.40	-0.02	-1.71			0.06	1.52
Variance 1			0.23	-0.02	-0.20			0.07	0.94
Variance 2			0.75	-0.02	0.16			0.08	0.13

Notes

Missed 24hr sample deadline. Purged dry again, will sample 8/29

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 15:58:36

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 643819
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 DGWA-53
Well diameter 2 in
Well Total Depth 36.89 ft
Screen Length 10 ft
Depth to Water 15.80 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.2 in
Total Volume Pumped 30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:56:26	300.04	26.84	6.04	208.53	2.99	16.65	0.88	51.78
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Sampled DGWA-53 at 1555. Previously purged dry twice

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 10:16:14

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 56.00 ft

Pump placement from TOC 56.00 ft

Well Information:

Well ID DGWA-70A
Well diameter 2 in
Well Total Depth 62.54 ft
Screen Length 10 ft
Depth to Water 40.40 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.5051225 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:50:15	600.02	20.32	5.50	63.51	9.71	41.05	4.71	79.84
Last 5	09:55:15	899.92	20.17	5.52	64.35	3.20	41.05	4.64	76.74
Last 5	10:00:15	1199.92	20.22	5.54	65.40	1.92	41.05	4.66	75.61
Last 5	10:05:15	1499.91	20.04	5.54	65.74	1.80	41.05	4.64	76.17
Last 5	10:10:15	1799.92	20.17	5.53	65.72	1.12	41.05	4.61	75.13
Variance 0			0.05	0.02	1.05			0.01	-1.13
Variance 1			-0.18	0.00	0.34			-0.02	0.56
Variance 2			0.13	-0.00	-0.02			-0.03	-1.04

Notes

Sampling GWA-70A plus field blank
Sampled DGWA-70A and FB-1

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 17:12:30

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 46.35 ft

Pump placement from TOC 46.35 ft

Well Information:

Well ID DGWC-2
Well diameter 2 in
Well Total Depth 52.42 ft
Screen Length 10 ft
Depth to Water 30.89 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4604883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.68 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:47:48	300.02	21.77	5.92	405.12	2.43	31.25	0.30	80.31
Last 5	16:52:48	600.02	21.45	5.93	405.47	2.53	31.25	0.21	76.78
Last 5	16:57:48	900.02	21.55	5.93	404.43	1.68	31.28	0.18	74.21
Last 5	17:07:48	1500.02	21.68	5.94	402.14	1.57	31.28	0.13	72.12
Last 5									
Variance 0			-0.33	0.01	0.35			-0.09	-3.52
Variance 1			0.10	-0.01	-1.03			-0.03	-2.58
Variance 2			0.13	0.01	-2.30			-0.05	-2.08

Notes

Sampled DGWC-2

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 09:56:32

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID DGWC-4
Well diameter 2 in
Well Total Depth 46.71 ft
Screen Length 10 ft
Depth to Water 22.90 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:31:02	300.08	20.72	5.80	1796.46	4.57	23.12	0.47	107.87
Last 5	09:36:03	600.58	20.49	5.81	1797.13	4.70	23.13	0.34	106.75
Last 5	09:41:03	900.58	20.44	5.81	1788.93	4.30	23.12	0.29	106.90
Last 5	09:46:03	1200.58	20.38	5.82	1774.49	5.86	23.13	0.27	107.22
Last 5	09:51:03	1500.58	20.39	5.84	1760.74	4.38	23.13	0.26	108.74
Variance 0			-0.05	0.00	-8.20			-0.04	0.15
Variance 1			-0.06	0.01	-14.44			-0.02	0.32
Variance 2			0.01	0.02	-13.75			-0.01	1.52

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 11:48:54

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 32 ft

Pump placement from TOC 32 ft

Well Information:

Well ID DGWC-5
Well diameter 2 in
Well Total Depth 33.25 ft
Screen Length 10 ft
Depth to Water 9.23 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 8.55 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:22:17	1500.02	21.97	4.86	986.26	0.37	9.52	0.20	297.66
Last 5	11:27:22	1805.02	22.08	4.85	962.25	0.56	9.52	0.34	303.99
Last 5	11:32:22	2105.39	22.05	4.82	917.68	0.47	9.53	0.25	307.77
Last 5	11:37:22	2405.39	22.05	4.82	915.38	0.44	9.53	0.24	314.57
Last 5	11:42:22	2705.39	22.00	4.83	925.79	0.48	9.53	0.23	297.69
Variance 0			-0.03	-0.03	-44.57			-0.09	3.78
Variance 1			0.00	0.00	-2.30			-0.01	6.80
Variance 2			-0.05	0.01	10.40			-0.01	-16.88

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 10:32:43

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 46.65 ft

Pump placement from TOC 46.65 ft

Well Information:

Well ID DGWC-8
Well diameter 2 in
Well Total Depth 51.36 ft
Screen Length 10 ft
Depth to Water 32.05 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4604883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:09:11	300.04	22.98	5.15	496.89	17.50	32.25	0.49	133.72
Last 5	10:14:11	600.02	21.31	5.12	515.27	4.44	32.25	0.17	133.25
Last 5	10:19:11	900.35	20.92	5.12	517.21	2.48	32.25	0.12	128.91
Last 5	10:24:11	1200.35	20.69	5.11	518.95	3.84	32.25	0.09	121.34
Last 5	10:29:11	1500.35	21.26	5.11	524.23	1.78	32.25	0.07	118.14
Variance 0			-0.39	-0.01	1.95			-0.05	-4.34
Variance 1			-0.22	-0.00	1.74			-0.03	-7.57
Variance 2			0.56	-0.00	5.27			-0.02	-3.21

Notes

Sampled DGWC-8 and FB-2
Sampled DGWC-8 and FB-2

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 15:21:28

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID DGWC-9
Well diameter 2 in
Well Total Depth 33.75 ft
Screen Length 10 ft
Depth to Water 25.13 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:57:55	300.02	23.16	4.02	722.77	0.70	25.35	0.79	180.34
Last 5	15:02:55	600.02	23.01	4.02	730.63	1.68	25.36	0.74	191.68
Last 5	15:07:55	900.02	23.10	4.02	731.31	1.09	25.37	0.69	195.71
Last 5	15:12:55	1200.02	23.26	4.02	735.15	1.14	25.38	0.61	197.23
Last 5	15:17:55	1500.02	23.00	4.02	739.23	1.21	25.41	0.43	201.94
Variance 0			0.09	0.00	0.69			-0.05	4.03
Variance 1			0.16	-0.00	3.84			-0.07	1.52
Variance 2			-0.25	0.00	4.08			-0.18	4.72

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 16:29:49

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID DGWC-10
Well diameter 2 in
Well Total Depth 47.85 ft
Screen Length 10 ft
Depth to Water 31.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:06:28	300.02	22.87	5.14	524.11	8.52	31.25	3.32	153.16
Last 5	16:11:28	600.02	22.49	5.15	528.85	8.85	31.25	3.23	157.13
Last 5	16:16:29	900.74	22.23	5.16	532.60	9.03	31.25	3.17	157.43
Last 5	16:21:29	1200.74	22.15	5.14	538.08	4.94	31.26	3.12	157.48
Last 5	16:26:29	1500.74	22.04	5.14	533.81	3.37	31.26	3.07	158.69
Variance 0			-0.27	0.00	3.74			-0.06	0.30
Variance 1			-0.07	-0.02	5.48			-0.05	0.05
Variance 2			-0.11	0.00	-4.27			-0.05	1.21

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 11:02:38

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 643819
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID DGWC-11
Well diameter 2 in
Well Total Depth 51.65 ft
Screen Length 10 ft
Depth to Water 13.75 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:50:08	300.03	21.24	5.65	619.84	2.83	14.31	0.44	83.27
Last 5	10:55:08	600.01	20.84	5.57	623.68	3.12	14.39	0.28	87.00
Last 5	11:00:08	900.01	20.69	5.55	621.19	4.18	14.40	0.23	89.60
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.40	-0.08	3.84			-0.16	3.73
Variance 2			-0.15	-0.02	-2.49			-0.05	2.60

Notes

Sampled DGWC-11 at 1100

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 13:34:25

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 643819
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID DGWC-12
Well diameter 2 in
Well Total Depth 28.28 ft
Screen Length 10 ft
Depth to Water 9.39 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:12:31	1200.00	21.37	5.58	754.60	12.20	9.69	0.47	104.63
Last 5	13:17:31	1500.00	21.38	5.58	753.79	9.47	9.69	0.29	106.04
Last 5	13:22:31	1799.99	21.28	5.57	750.04	7.18	9.69	0.18	107.34
Last 5	13:27:31	2099.98	20.99	5.56	751.34	5.99	9.69	0.15	108.23
Last 5	13:32:31	2399.98	20.84	5.55	749.95	3.58	9.69	0.18	109.41
Variance 0			-0.10	-0.01	-3.75			-0.11	1.30
Variance 1			-0.29	-0.01	1.30			-0.04	0.89
Variance 2			-0.15	-0.01	-1.39			0.03	1.18

Notes

Sampled DGWC-12 at 1330. Extra radium

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 12:30:25

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 41.25 ft

Pump placement from TOC 41.25 ft

Well Information:

Well ID DGWC-13
Well diameter 2 in
Well Total Depth 46.66 ft
Screen Length 10 ft
Depth to Water 33.21 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4292443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:08:44	300.03	21.87	5.70	449.83	4.05	33.55	3.64	128.96
Last 5	12:13:44	600.02	22.61	5.71	446.99	2.42	33.55	3.53	149.92
Last 5	12:18:44	899.88	22.39	5.70	446.38	2.56	33.55	3.49	179.38
Last 5	12:23:44	1199.88	22.21	5.71	446.92	1.81	33.55	3.49	203.51
Last 5	12:28:44	1499.88	22.57	5.71	447.36	1.77	33.55	3.47	229.55
Variance 0			-0.22	-0.01	-0.62			-0.04	29.46
Variance 1			-0.18	0.01	0.54			-0.00	24.13
Variance 2			0.36	-0.00	0.44			-0.02	26.05

Notes

Sampled DGWC-13

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 14:51:44

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 643819
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 37.95 ft
Screen Length 10 ft
Depth to Water 21.03 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:30:01	300.02	24.00	6.12	218.08	2.97	21.18	0.64	97.64
Last 5	14:35:01	600.02	21.82	5.92	174.39	1.13	21.18	2.65	90.78
Last 5	14:40:01	900.01	21.56	5.65	150.47	0.33	21.18	4.13	94.43
Last 5	14:45:01	1200.00	21.22	5.60	149.20	0.42	21.18	4.34	98.61
Last 5	14:50:01	1500.00	20.97	5.58	148.16	0.30	21.18	4.43	101.54
Variance 0			-0.27	-0.27	-23.93			1.48	3.65
Variance 1			-0.34	-0.05	-1.26			0.21	4.17
Variance 2			-0.25	-0.02	-1.05			0.09	2.93

Notes

Sampled at 1450

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 15:10:30

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 64.40 ft

Pump placement from TOC 64.40 ft

Well Information:

Well ID DGWC-15
Well diameter 2 in
Well Total Depth 70.83 ft
Screen Length 10 ft
Depth to Water 39.60 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.54083 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 27.6 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:46:02	300.02	26.16	5.83	452.08	29.10	41.05	0.67	41.09
Last 5	14:51:02	600.02	25.00	5.85	454.28	7.29	41.75	0.52	18.01
Last 5	14:56:02	900.02	24.71	5.89	459.07	5.83	41.80	0.48	11.00
Last 5	15:01:04	1202.02	24.61	5.89	458.74	4.78	41.90	0.41	11.92
Last 5	15:06:04	1502.02	24.57	5.88	457.12	3.30	41.90	0.37	18.88
Variance 0			-0.29	0.03	4.79			-0.04	-7.01
Variance 1			-0.11	0.00	-0.32			-0.07	0.92
Variance 2			-0.03	-0.00	-1.62			-0.04	6.96

Notes

Sampled DGWC-15
Sampled DGWC-15

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 15:59:26

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 643819
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID DGWC-17
Well diameter 2 in
Well Total Depth 47.96 ft
Screen Length 10 ft
Depth to Water 30.36 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 2.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:39:43	300.02	22.76	5.01	617.33	4.45	30.50	0.72	127.94
Last 5	15:44:43	600.02	22.31	4.97	622.56	4.70	30.50	0.36	134.98
Last 5	15:49:43	900.01	22.18	4.97	621.11	3.90	30.50	0.29	140.61
Last 5	15:54:43	1200.01	22.01	4.96	620.77	4.73	30.50	0.26	145.12
Last 5									
Variance 0			-0.45	-0.03	5.23			-0.36	7.04
Variance 1			-0.13	-0.01	-1.45			-0.07	5.63
Variance 2			-0.17	-0.00	-0.34			-0.03	4.51

Notes

Accidentally hit enter prior to 3L purged.. starting a 2nd low flow prior to collecting sample

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-27 16:18:47

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 643819
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 44 ft

Pump placement from TOC 44 ft

Well Information:

Well ID DGWC-17
Well diameter 2 in
Well Total Depth 47.95 ft
Screen Length 10 ft
Depth to Water 30.36 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:06:04	300.03	22.30	4.96	620.12	2.96	30.50	0.22	153.58
Last 5	16:11:04	600.02	22.10	4.96	618.04	3.35	30.50	0.22	156.33
Last 5	16:16:04	900.01	22.09	4.96	618.23	2.12	30.50	0.21	158.66
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.20	0.00	-2.07			-0.01	2.75
Variance 2			-0.01	-0.00	0.18			-0.01	2.33

Notes

Second low flow document, ended initial document at 2.4L removed
Sampled DGWC-17 at 1615

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 16:33:09

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 38 ft

Pump placement from TOC 37 ft

Well Information:

Well ID DGWC-19
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 22.25 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:08:34	600.02	22.90	4.85	710.94	25.63	22.45	0.17	251.96
Last 5	16:13:34	900.02	22.59	4.88	721.06	22.99	22.45	0.16	287.98
Last 5	16:18:35	1200.87	22.77	4.86	718.25	12.23	22.45	0.15	303.28
Last 5	16:23:35	1500.87	22.90	4.87	715.25	13.58	22.45	0.15	314.46
Last 5	16:28:35	1800.87	22.62	4.85	710.02	4.92	22.45	0.14	328.27
Variance 0			0.18	-0.02	-2.80			-0.01	15.29
Variance 1			0.12	0.00	-3.00			-0.01	11.18
Variance 2			-0.28	-0.02	-5.23			-0.01	13.82

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 10:06:47

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
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 23.15 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.8 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:44:15	300.14	22.42	4.63	987.57	1.98	24.55	1.06	314.36
Last 5	09:49:15	600.02	22.49	4.66	988.05	3.55	24.55	0.78	317.03
Last 5	09:54:15	900.02	22.59	4.66	986.34	1.43	24.55	0.47	335.74
Last 5	09:59:15	1200.02	22.66	4.66	983.55	3.47	24.55	0.39	358.22
Last 5	10:04:15	1500.02	22.87	4.64	974.06	2.79	24.55	0.35	377.84
Variance 0			0.10	0.00	-1.71			-0.31	18.70
Variance 1			0.07	-0.00	-2.79			-0.08	22.48
Variance 2			0.21	-0.02	-9.49			-0.04	19.62

Notes

Sampled DGWC-20 and FB-3

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 11:33:13

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 66.0 ft

Pump placement from TOC 66.0 ft

Well Information:

Well ID DGWC-21
Well diameter 2 in
Well Total Depth 72.60 ft
Screen Length 10 ft
Depth to Water 19.15 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4202933 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:10:51	300.03	24.52	5.61	694.92	0.87	19.45	0.36	616.73
Last 5	11:15:51	600.02	23.69	5.61	697.50	0.77	19.47	0.19	626.49
Last 5	11:20:51	900.02	23.70	5.61	695.68	0.77	19.50	0.15	621.77
Last 5	11:25:51	1200.02	23.79	5.61	695.45	0.47	19.50	0.13	617.66
Last 5	11:30:52	1500.38	23.80	5.61	693.66	0.60	19.50	0.12	613.28
Variance 0			0.01	0.00	-1.82			-0.04	-4.72
Variance 1			0.09	0.00	-0.23			-0.02	-4.11
Variance 2			0.01	-0.00	-1.79			-0.01	-4.39

Notes

Sampled DGWC-21

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 12:10:55

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 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 19.59 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec 3.84
Stabilization Drawdown in 5.00 L
Total Volume Pumped

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:47:31	300.09	23.03	5.64	672.55	0.65	19.86	0.32	273.63
Last 5	11:52:31	600.05	22.49	5.68	667.93	0.83	19.92	0.23	287.25
Last 5	11:57:31	900.04	22.49	5.68	666.23	0.32	19.89	0.20	308.31
Last 5	12:02:31	1200.04	22.46	5.67	664.69	0.37	19.89	0.18	330.20
Last 5	12:07:31	1500.04	22.49	5.66	667.39	0.92	19.91	0.17	347.26
Variance 0			-0.00	-0.01	-1.70			-0.03	21.06
Variance 1			-0.02	-0.01	-1.54			-0.02	21.89
Variance 2			0.03	-0.00	2.70			-0.01	17.06

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 10:52:04

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 643819
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID DGWC-23
Well diameter 2 in
Well Total Depth 63.26 ft
Screen Length 10 ft
Depth to Water 19.65 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 22.08 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:30:33	600.02	21.64	5.96	656.65	4.88	20.73	0.56	112.47
Last 5	10:35:33	900.01	21.39	5.95	655.93	3.22	21.08	0.37	111.68
Last 5	10:40:33	1200.00	21.18	5.95	654.76	1.87	21.31	0.30	111.17
Last 5	10:45:33	1500.00	21.06	5.95	657.90	0.63	21.49	0.27	111.17
Last 5	10:50:34	1801.03	20.93	5.96	656.07	1.15	21.49	0.25	111.31
Variance 0			-0.21	0.00	-1.17			-0.07	-0.52
Variance 1			-0.12	0.00	3.14			-0.03	0.00
Variance 2			-0.13	0.01	-1.83			-0.01	0.14

Notes

Sampled DGWC-23 at 1050

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-28 16:49:54

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 47.00 ft

Pump placement from TOC 47.00 ft

Well Information:

Well ID DGWC-42
Well diameter 2 in
Well Total Depth 52.79 ft
Screen Length 10 ft
Depth to Water 32.39 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.4604883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.72 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:28:35	300.14	24.43	5.35	833.10	11.10	33.60	0.74	130.74
Last 5	16:33:35	600.02	25.03	5.33	835.71	6.45	33.70	0.53	112.36
Last 5	16:38:35	900.02	24.80	5.32	826.36	4.68	33.70	0.38	99.09
Last 5	16:43:35	1200.02	25.12	5.29	830.05	4.42	33.70	0.30	90.98
Last 5	16:48:35	1500.02	24.95	5.30	822.11	3.67	33.70	0.24	84.99
Variance 0			-0.23	-0.02	-9.34			-0.15	-13.27
Variance 1			0.32	-0.02	3.68			-0.09	-8.11
Variance 2			-0.17	0.01	-7.94			-0.06	-6.00

Notes

Sampled DGWC-42
Sampled DGWC-42

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 09:15:37

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 27 ft

Pump placement from TOC 27 ft

Well Information:

Well ID DGWC-47
Well diameter 2 in
Well Total Depth 31.95 ft
Screen Length 10 ft
Depth to Water 22.91 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.68 in
Total Volume Pumped 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:53:08	300.10	21.38	4.36	431.58	1.98	23.25	0.76	128.24
Last 5	08:58:08	600.10	21.73	4.38	432.04	2.00	23.34	0.59	135.45
Last 5	09:03:08	900.10	22.00	4.38	431.85	2.02	23.43	0.52	145.93
Last 5	09:08:08	1200.10	22.35	4.36	433.03	1.94	23.49	0.50	161.27
Last 5	09:13:08	1500.10	22.60	4.35	432.21	1.87	23.55	0.46	177.78
Variance 0			0.27	-0.00	-0.20			-0.07	10.48
Variance 1			0.35	-0.02	1.18			-0.02	15.34
Variance 2			0.25	-0.01	-0.81			-0.04	16.51

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-29 10:48:29

Project Information:

Operator Name C. Tidwell
Company Name Golder
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
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID DGWC-48
Well diameter 2 in
Well Total Depth 33.49 ft
Screen Length 10 ft
Depth to Water 18.71 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:24:59	300.04	23.07	4.28	767.20	2.55	19.46	0.30	202.42
Last 5	10:29:59	600.02	22.69	4.28	766.08	5.59	19.52	0.23	209.67
Last 5	10:34:59	900.02	22.79	4.28	764.65	2.97	19.56	0.48	217.46
Last 5	10:39:59	1200.02	22.63	4.28	769.03	2.81	19.63	0.20	225.91
Last 5	10:44:59	1500.02	22.65	4.28	770.60	2.58	19.71	0.19	233.76
Variance 0			0.09	0.00	-1.43			0.25	7.79
Variance 1			-0.16	-0.00	4.38			-0.28	8.45
Variance 2			0.03	0.00	1.57			-0.01	7.85

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 11:02:28

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 463453
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type
Tubing Type
Tubing Diameter
Tubing Length
Bailer Teflon
in
ft

Pump placement from TOC ft

Well Information:

Well ID DGWA-53
Well diameter 2 in
Well Total Depth 36.85 ft
Screen Length 10 ft
Depth to Water 15.22 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 259.44 in
Total Volume Pumped 17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:54:56	180.05	17.94	6.46	205.79	--	--	2.84	-15.61
Last 5	10:57:56	360.02	17.45	6.47	190.24	--	--	4.01	-15.53
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.49	0.01	-15.55			1.17	0.08
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Purging dry via bailer. Will sample within 24hr. Recording well volumes until dry
Purged dry at 4.5gal removed. Recorded initial + 1 well volume (3.5 gal)

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 10:07:38

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 463453
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 DGWA-53
Well diameter 2 in
Well Total Depth 36.85 ft
Screen Length 10 ft
Depth to Water 15.05 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 30 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:04:15	30.05	20.35	6.69	190.27	2.27	15.05	4.85	15.16
Last 5	10:04:45	60.03	20.21	6.60	191.32	--	--	4.77	16.32
Last 5	10:05:15	90.02	20.12	6.55	192.38	--	--	4.73	16.77
Last 5	10:05:45	120.02	20.08	6.51	193.62	--	--	4.70	16.89
Last 5									
Variance 0			-0.14	-0.09	1.05			-0.09	1.16
Variance 1			-0.09	-0.05	1.07			-0.03	0.45
Variance 2			-0.04	-0.03	1.23			-0.03	0.12

Notes

Purged dry 10-15-19. Use initial reading for field data.Sampled at 1000.

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 12:18:51

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 54.7 ft

Pump placement from TOC 54.7 ft

Well Information:

Well ID DGWA-70A
Well diameter 2 in
Well Total Depth 62.41 ft
Screen Length 10 ft
Depth to Water 42.68 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4591492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.84 in
Total Volume Pumped 15.0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:54:49	1800.01	14.03	5.59	67.00	0.45	43.75	5.13	112.11
Last 5	11:59:50	2101.00	13.98	5.59	66.79	0.65	43.75	5.13	111.94
Last 5	12:04:50	2401.00	13.90	5.60	66.83	0.63	43.75	5.12	110.12
Last 5	12:09:50	2700.99	13.91	5.61	66.69	0.66	43.75	5.12	109.93
Last 5	12:14:51	3001.99	13.80	5.61	66.72	0.19	43.75	5.11	108.54
Variance 0			-0.08	0.01	0.04			-0.01	-1.81
Variance 1			0.01	0.00	-0.14			-0.01	-0.19
Variance 2			-0.11	0.00	0.03			-0.01	-1.39

Notes

Sampled DGWA-70A and FB-1

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 15:11:35

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42.71 ft

Pump placement from TOC 42.71 ft

Well Information:

Well ID DGWA-71
Well diameter 2 in
Well Total Depth 47.71 ft
Screen Length 10 ft
Depth to Water 29.42 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4056328 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.48 in
Total Volume Pumped 13.50 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:47:05	1500.01	14.63	5.87	75.11	6.56	29.96	1.14	56.32
Last 5	14:52:05	1800.01	14.62	5.88	74.98	5.42	29.96	1.11	57.14
Last 5	14:57:05	2100.00	14.60	5.87	76.50	4.08	29.96	0.70	58.25
Last 5	15:02:05	2400.00	14.59	5.88	76.22	3.50	29.96	0.70	58.58
Last 5	15:07:05	2699.99	14.62	5.88	76.06	1.99	29.96	0.71	60.21
Variance 0			-0.02	-0.01	1.52			-0.41	1.11
Variance 1			-0.02	0.01	-0.28			0.01	0.33
Variance 2			0.03	-0.00	-0.16			0.00	1.63

Notes

Sampled DGWA-71

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 15:19:03

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 45.7 ft

Pump placement from TOC 45.7 ft

Well Information:

Well ID DGWC-2
Well diameter 2 in
Well Total Depth 52.42 ft
Screen Length 10 ft
Depth to Water 31.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4189785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:55:57	1200.01	15.71	6.14	415.53	8.42	31.40	6.20	91.03
Last 5	15:00:57	1500.04	15.76	6.15	405.60	7.04	31.40	6.25	89.17
Last 5	15:05:57	1800.03	15.57	6.16	415.73	5.97	31.40	6.50	88.03
Last 5	15:10:57	2100.00	15.57	6.16	411.50	5.46	31.40	6.45	87.23
Last 5	15:15:57	2400.00	15.61	6.16	415.26	4.67	31.40	6.42	88.25
Variance 0			-0.19	0.00	10.13			0.25	-1.14
Variance 1			-0.00	0.00	-4.23			-0.05	-0.80
Variance 2			0.04	-0.00	3.77			-0.04	1.03

Notes

Sampled DGWC-2

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 10:59:04

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID DGWC-4
Well diameter 2 in
Well Total Depth 47.02 ft
Screen Length 10 ft
Depth to Water 23.49 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:35:05	300.10	21.18	5.88	814.84	6.02	23.73	7.57	163.13
Last 5	10:40:05	600.02	19.14	6.01	1659.45	1.80	23.76	0.39	114.62
Last 5	10:45:05	900.02	18.79	5.98	1666.61	0.54	23.77	0.21	95.67
Last 5	10:50:05	1200.02	18.72	5.98	1670.28	0.45	23.77	0.20	87.59
Last 5	10:55:05	1500.02	18.70	5.98	1675.78	0.88	23.77	0.18	81.64
Variance 0			-0.36	-0.02	7.16			-0.18	-18.95
Variance 1			-0.07	-0.01	3.67			-0.02	-8.07
Variance 2			-0.02	0.01	5.51			-0.01	-5.95

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 13:01:47

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 463453
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 9.6 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:40:06	300.03	19.88	4.38	614.95	0.66	9.90	0.56	434.89
Last 5	12:45:06	600.02	19.86	4.38	619.24	0.19	9.92	0.38	469.08
Last 5	12:50:06	900.02	19.77	4.76	857.81	0.44	9.93	0.27	533.00
Last 5	12:55:06	1200.02	19.64	4.77	859.56	0.45	9.93	0.25	538.84
Last 5	13:00:06	1500.02	19.72	4.78	860.01	0.38	9.94	0.23	539.87
Variance 0			-0.09	0.38	238.57			-0.10	63.91
Variance 1			-0.13	0.01	1.75			-0.02	5.84
Variance 2			0.09	0.01	0.46			-0.02	1.03

Notes

Sampled DGWC-5 at 1300. Extra radium

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 15:12:17

Project Information:

Operator Name Yong Cheng Soo
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 46.33 ft

Pump placement from TOC 46.33 ft

Well Information:

Well ID DGWC-8
Well diameter 2 in
Well Total Depth 51.33 ft
Screen Length 10 ft
Depth to Water 32.61 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4217904 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 68.98 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:49:09	12595.08	15.48	5.32	534.16	13.00	32.85	8.46	142.55
Last 5	14:54:09	12895.07	15.43	5.32	533.30	12.90	32.85	8.48	122.05
Last 5	14:59:09	13195.07	15.48	5.33	532.26	11.30	32.85	8.52	120.49
Last 5	15:04:09	13495.06	15.42	5.33	535.15	11.00	32.85	8.05	118.15
Last 5	15:09:09	13795.07	15.35	5.33	534.23	8.67	32.85	8.25	117.48
Variance 0			0.06	0.01	-1.03			0.03	-1.55
Variance 1			-0.06	0.00	2.88			-0.46	-2.34
Variance 2			-0.07	-0.00	-0.92			0.20	-0.67

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 15:07:08

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
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-9
Well diameter 2 in
Well Total Depth 33.66 ft
Screen Length 10 ft
Depth to Water 25.67 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.76 in
Total Volume Pumped 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:43:13	2100.21	18.83	4.01	751.86	1.64	26.38	0.48	129.93
Last 5	14:48:13	2400.21	18.85	4.02	750.80	1.25	26.39	0.44	126.19
Last 5	14:53:13	2700.21	18.85	4.02	749.43	0.69	26.41	0.37	123.14
Last 5	14:58:14	3001.21	18.87	4.02	749.88	1.10	26.40	0.38	120.41
Last 5	15:03:14	3301.21	18.92	4.02	749.18	1.00	26.40	0.36	118.75
Variance 0			0.00	0.00	-1.36			-0.06	-3.05
Variance 1			0.02	-0.00	0.44			0.01	-2.73
Variance 2			0.05	0.00	-0.70			-0.02	-1.67

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 15:11:39

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID DGWC-10
Well diameter 2 in
Well Total Depth 47.85 ft
Screen Length 10 ft
Depth to Water 29.45 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 7.02 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:48:00	900.50	19.23	4.99	577.54	1.04	29.74	2.94	134.58
Last 5	14:53:00	1200.50	19.27	4.97	588.18	0.69	29.74	2.89	132.64
Last 5	14:58:00	1500.51	19.30	4.96	593.88	0.55	29.74	2.63	130.99
Last 5	15:03:05	1805.50	19.25	4.94	598.52	0.43	29.75	2.44	129.52
Last 5	15:08:06	2106.51	19.28	4.96	596.55	0.50	29.75	2.56	127.88
Variance 0			0.03	-0.01	5.70			-0.26	-1.65
Variance 1			-0.05	-0.02	4.63			-0.18	-1.47
Variance 2			0.02	0.02	-1.96			0.12	-1.63

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 11:59:11

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 463453
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
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 51.75 ft
Screen Length 10 ft
Depth to Water 12.89 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:44:08	300.02	19.22	5.63	617.29	1.03	13.50	0.42	149.57
Last 5	11:49:08	600.02	19.00	5.60	617.58	3.22	13.59	0.27	143.28
Last 5	11:54:08	900.02	18.96	5.60	616.92	4.92	13.59	0.23	137.74
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.22	-0.03	0.30			-0.15	-6.30
Variance 2			-0.04	0.00	-0.66			-0.04	-5.53

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-15 13:30:23

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 463453
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID DGWC-12
Well diameter 2 in
Well Total Depth 28.26 ft
Screen Length 10 ft
Depth to Water 9.18 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:09:07	900.02	18.25	5.67	725.15	14.20	9.40	0.21	122.49
Last 5	13:14:07	1200.02	18.36	5.79	665.75	11.30	9.40	0.19	79.43
Last 5	13:19:07	1500.02	18.47	5.88	621.37	8.07	9.40	0.18	57.71
Last 5	13:24:07	1800.02	18.52	5.89	616.18	6.63	9.40	0.16	56.01
Last 5	13:29:07	2100.02	18.52	5.89	622.11	4.34	9.40	0.16	57.39
Variance 0			0.11	0.09	-44.38			-0.01	-21.73
Variance 1			0.05	0.01	-5.19			-0.01	-1.69
Variance 2			-0.00	0.00	5.94			-0.01	1.38

Notes

FD-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 15:52:54

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 41.25 ft

Pump placement from TOC 41.25 ft

Well Information:

Well ID DGWC-13
Well diameter 2 in
Well Total Depth 46.70 ft
Screen Length 10 ft
Depth to Water 33.90 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3991162 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 μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:30:13	3301.04	19.91	5.72	28.11	0.89	34.15	3.74	58.16
Last 5	15:35:13	3601.04	19.28	5.71	450.43	0.61	34.15	3.92	71.90
Last 5	15:40:13	3901.04	19.24	5.69	450.55	0.68	34.15	3.53	71.32
Last 5	15:45:13	4201.04	19.19	5.69	450.55	0.66	34.15	3.45	71.14
Last 5	15:50:13	4501.04	19.19	5.69	450.54	0.67	34.15	3.42	70.38
Variance 0			-0.05	-0.02	0.12			-0.39	-0.59
Variance 1			-0.05	-0.00	0.00			-0.08	-0.17
Variance 2			0.00	0.00	-0.01			-0.03	-0.76

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 13:31:56

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 32 ft

Pump placement from TOC 32 ft

Well Information:

Well ID DGWC-14
Well diameter 2 in
Well Total Depth 37.97 ft
Screen Length 10 ft
Depth to Water 21.46 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:18:18	300.03	20.93	5.65	144.46	0.68	21.60	4.48	111.74
Last 5	13:23:18	600.02	20.57	5.66	144.57	0.64	21.60	4.56	105.29
Last 5	13:28:18	900.02	20.38	5.66	142.77	0.55	21.60	4.57	103.13
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.36	0.01	0.11			0.08	-6.45
Variance 2			-0.19	0.00	-1.80			0.01	-2.16

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 10:03:10

Project Information:

Operator Name Y. C. Soo
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 66.75 ft

Pump placement from TOC 66.75 ft

Well Information:

Well ID DGWC-15
Well diameter 2 in
Well Total Depth 70.73 ft
Screen Length 10 ft
Depth to Water 40.1 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.5129335 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 31.32 in
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:38:01	900.03	18.07	5.75	457.81	2.40	42.66	0.16	1.49
Last 5	09:43:01	1200.03	18.03	5.76	458.74	1.60	42.69	0.13	1.12
Last 5	09:48:01	1500.03	18.03	5.76	458.67	1.71	42.71	0.10	-0.79
Last 5	09:53:01	1800.03	18.08	5.76	458.98	1.16	42.71	0.09	-0.53
Last 5	09:58:01	2100.04	18.08	5.76	458.44	1.23	42.71	0.08	1.13
Variance 0			0.01	0.01	-0.06			-0.03	-1.91
Variance 1			0.04	-0.00	0.30			-0.02	0.26
Variance 2			0.00	-0.00	-0.54			-0.01	1.66

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-18 13:04:04

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42.5 ft

Pump placement from TOC 42.5 ft

Well Information:

Well ID DGWC-17
Well diameter 2 in
Well Total Depth 47.95 ft
Screen Length 10 ft
Depth to Water 31.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4046955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 24.03 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:39:57	3599.99	15.52	5.09	594.53	9.22	31.40	0.44	62.69
Last 5	12:44:57	3899.99	15.66	5.09	593.35	9.07	31.40	0.44	64.52
Last 5	12:50:03	4205.99	15.74	5.09	591.40	8.66	31.40	0.38	61.66
Last 5	12:55:03	4505.98	15.79	5.08	591.14	6.19	31.40	0.35	56.63
Last 5	13:00:03	4805.98	15.74	5.08	590.81	4.98	31.40	0.33	54.94
Variance 0			0.09	-0.00	-1.95			-0.06	-2.85
Variance 1			0.05	-0.00	-0.26			-0.03	-5.03
Variance 2			-0.05	-0.01	-0.33			-0.02	-1.69

Notes

Sampled DGWC-17

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-16 15:36:35

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
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 22.87 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:17:14	300.02	20.74	4.91	727.48	1.71	23.07	0.29	324.25
Last 5	15:22:14	600.02	20.27	4.89	732.88	0.82	23.07	0.23	408.41
Last 5	15:27:14	900.19	20.19	4.88	731.54	1.89	23.07	0.22	443.54
Last 5	15:32:14	1200.19	20.04	4.87	731.12	4.09	23.10	0.20	452.98
Last 5									
Variance 0			-0.47	-0.02	5.40			-0.06	84.16
Variance 1			-0.08	-0.01	-1.35			-0.01	35.13
Variance 2			-0.15	-0.00	-0.41			-0.02	9.44

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 09:35:43

Project Information:

Operator Name A. McClure
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
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 43.40 ft
Screen Length 10 ft
Depth to Water 23.58 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.12 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:11:27	300.04	14.27	5.05	1028.66	2.52	24.13	0.38	119.42
Last 5	09:16:27	600.02	15.12	4.78	1014.66	1.01	24.27	0.26	106.12
Last 5	09:21:28	900.28	15.80	4.69	994.61	0.95	24.31	0.26	104.25
Last 5	09:26:28	1200.28	15.56	4.66	991.87	0.74	24.32	0.32	107.13
Last 5	09:31:28	1500.27	16.02	4.64	991.50	0.45	24.34	0.36	112.12
Variance 0			0.67	-0.09	-20.05			-0.01	-1.87
Variance 1			-0.23	-0.03	-2.74			0.06	2.88
Variance 2			0.46	-0.02	-0.37			0.04	4.98

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 14:32:42

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 463453
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 72.6 ft
Screen Length 10 ft
Depth to Water 19.34 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.3890494 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.16 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:21:21	300.05	19.06	5.56	686.06	0.36	19.74	0.41	148.52
Last 5	14:26:21	600.02	18.61	5.57	684.21	0.27	19.77	0.24	151.19
Last 5	14:31:21	900.02	18.53	5.57	690.14	0.45	19.77	0.21	146.22
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.45	0.01	-1.85			-0.16	2.67
Variance 2			-0.09	0.00	5.93			-0.03	-4.97

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-18 09:54:02

Project Information:

Operator Name Y. C. Soo
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 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 20.42 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.32 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:30:50	300.08	17.45	5.64	671.27	2.25	20.78	0.16	138.79
Last 5	09:35:50	600.03	17.67	5.62	670.78	1.41	20.78	0.15	130.85
Last 5	09:40:50	900.03	17.68	5.62	672.32	1.17	20.78	0.13	130.80
Last 5	09:45:50	1200.03	17.83	5.62	672.22	1.54	20.78	0.12	130.50
Last 5	09:50:50	1500.03	18.02	5.61	670.06	0.71	20.78	0.12	133.52
Variance 0			0.01	-0.00	1.54			-0.02	-0.05
Variance 1			0.15	-0.00	-0.10			-0.01	-0.30
Variance 2			0.20	-0.01	-2.16			0.00	3.03

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-18 10:00:48

Project Information:

Operator Name D. Herrera
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID DGWC-23
Well diameter 2 in
Well Total Depth 63.26 ft
Screen Length 10 ft
Depth to Water 20.82 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 54.96 in
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:35:27	900.02	13.25	6.00	604.15	1.23	24.65	0.45	254.13
Last 5	09:40:27	1200.01	13.23	6.00	630.49	1.19	24.95	0.50	309.28
Last 5	09:45:27	1500.01	13.57	6.01	635.91	1.11	25.20	0.56	327.12
Last 5	09:50:27	1800.01	14.02	6.00	629.99	1.21	25.30	0.58	323.76
Last 5	09:55:27	2100.01	14.17	5.99	622.66	0.76	25.40	0.53	303.33
Variance 0			0.34	0.00	5.41			0.06	17.85
Variance 1			0.45	-0.01	-5.91			0.02	-3.36
Variance 2			0.14	-0.00	-7.33			-0.05	-20.43

Notes

Sampled DGWC-23
Sampled DGWC-23

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 16:02:07

Project Information:

Operator Name Y. C. Soo
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 47.08 ft

Pump placement from TOC 47.08 ft

Well Information:

Well ID DGWC-42
Well diameter 2 in
Well Total Depth 52.49 ft
Screen Length 10 ft
Depth to Water 32.74 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4251379 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18.48 in
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:38:30	900.03	19.70	5.21	804.61	7.38	34.28	0.14	0.09
Last 5	15:43:30	1200.03	19.68	5.21	813.07	5.68	34.28	0.13	0.86
Last 5	15:48:30	1500.03	19.67	5.21	813.42	4.67	34.28	0.12	1.46
Last 5	15:53:30	1800.03	19.72	5.20	812.13	4.60	34.28	0.11	3.43
Last 5	15:58:30	2100.03	19.62	5.20	811.91	4.14	34.28	0.10	4.76
Variance 0			-0.00	-0.00	0.35			-0.01	0.61
Variance 1			0.05	-0.01	-1.29			-0.00	1.97
Variance 2			-0.10	0.01	-0.22			-0.01	1.32

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-17 13:55:50

Project Information:

Operator Name Y. C. Soo
Company Name Golder
Project Name 166849618
Site Name Plant McDonough
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 26 ft

Pump placement from TOC 26 ft

Well Information:

Well ID DGWC-47
Well diameter 2 in
Well Total Depth 31.95 ft
Screen Length 10 ft
Depth to Water 23.71 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 60.12 in
Total Volume Pumped 24.01 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:29:10	3600.03	20.31	4.29	469.38	1.37	28.10	0.66	161.53
Last 5	13:34:10	3900.04	20.39	4.32	455.14	1.22	28.22	0.47	136.86
Last 5	13:39:10	4200.04	20.60	4.32	454.66	1.34	28.37	0.32	121.81
Last 5	13:44:12	4502.04	20.44	4.46	446.54	1.26	28.56	0.14	87.18
Last 5	13:49:12	4802.04	20.50	4.60	447.66	1.12	28.72	0.14	8.70
Variance 0			0.21	-0.00	-0.48			-0.15	-15.05
Variance 1			-0.16	0.14	-8.12			-0.19	-34.63
Variance 2			0.06	0.14	1.12			-0.00	-78.48

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-18 10:41:37

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 463453
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-48
Well diameter 2 in
Well Total Depth 33.52 ft
Screen Length 10 ft
Depth to Water 19.90 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.08 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:24:22	300.03	17.36	4.33	766.14	2.37	20.76	0.29	147.65
Last 5	10:29:22	600.02	17.37	4.23	754.22	3.26	21.05	0.21	141.03
Last 5	10:34:22	900.02	17.45	4.23	750.80	4.26	21.19	0.18	135.50
Last 5	10:39:22	1200.02	17.50	4.22	744.41	3.65	21.24	0.19	134.94
Last 5									
Variance 0			0.00	-0.10	-11.92			-0.08	-6.62
Variance 1			0.09	-0.01	-3.42			-0.03	-5.53
Variance 2			0.05	-0.00	-6.40			0.01	-0.57

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-09 12:14:05

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 565679
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
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 12.83 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 110.76 in
Total Volume Pumped 24.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:52:54	9603.70	18.69	6.41	239.37	8.91	22.06	0.32	-49.05
Last 5	11:57:54	9903.69	18.47	6.41	238.76	8.39	22.06	0.33	-48.03
Last 5	12:02:54	10203.68	18.53	6.41	239.83	8.74	22.06	0.32	-50.04
Last 5	12:07:54	10503.67	18.92	6.41	240.66	8.92	22.06	0.31	-51.33
Last 5	12:12:56	10805.66	18.69	6.41	240.41	8.84	22.06	0.32	-50.44
Variance 0			0.06	0.01	1.07			-0.00	-2.01
Variance 1			0.39	-0.00	0.83			-0.01	-1.29
Variance 2			-0.23	-0.00	-0.25			0.01	0.89

Notes

Final purge (3hr) taking total and dissolved metals

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 14:47:40

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .170 in
Tubing Length 57 ft

Pump placement from TOC 57 ft

Well Information:

Well ID DGWA-70A
Well diameter 2 in
Well Total Depth 62.41 ft
Screen Length 10 ft
Depth to Water 38.52 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4591492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.56 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	14:25:03	300.11	15.12	5.85	53.48	13.20	38.90	5.31	156.26
Last 5	14:30:03	600.02	15.12	5.62	53.80	6.65	38.90	5.26	155.31
Last 5	14:35:03	900.02	15.17	5.58	54.34	4.82	38.90	5.24	152.62
Last 5	14:40:03	1200.02	15.21	5.55	54.47	2.47	38.90	5.21	149.83
Last 5	14:45:03	1500.42	15.26	5.54	54.61	2.30	38.90	5.20	148.63
Variance 0			0.04	-0.04	0.53			-0.01	-2.69
Variance 1			0.04	-0.03	0.13			-0.03	-2.79
Variance 2			0.05	-0.00	0.14			-0.01	-1.20

Notes

Started purging at 1420
Stopped purging and began sampling at 1445

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 16:19:02

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
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 47.71 ft
Screen Length 10 ft
Depth to Water 26.42 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4024638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.32 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:01:06	300.03	16.40	5.75	64.77	1.64	26.60	0.39	47.11
Last 5	16:06:06	600.02	16.37	5.75	65.97	0.83	26.60	0.33	51.31
Last 5	16:11:06	900.02	16.38	5.77	66.85	0.58	26.60	0.32	55.57
Last 5	16:16:06	1200.02	16.29	5.77	67.10	0.57	26.60	0.31	62.37
Last 5									
Variance 0			-0.03	0.00	1.20			-0.07	4.20
Variance 1			0.01	0.01	0.88			-0.01	4.26
Variance 2			-0.09	0.01	0.25			-0.01	6.80

Notes

Started purging at 1556
Stopped purging and began sampling at 1620

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 14:15:28

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .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 52.42 ft
Screen Length 10 ft
Depth to Water 29.50 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4247809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	13:53:24	1200.02	18.67	5.95	376.63	0.78	29.85	0.90	73.08
Last 5	13:58:24	1500.02	18.61	5.95	376.81	0.54	29.85	0.69	71.68
Last 5	14:03:24	1800.02	18.63	5.94	376.37	0.60	29.85	0.58	70.99
Last 5	14:08:25	2100.65	18.79	5.95	376.36	0.72	29.85	0.51	69.81
Last 5	14:13:25	2400.65	19.10	5.94	374.99	0.54	29.85	0.45	69.17
Variance 0			0.02	-0.00	-0.44			-0.11	-0.69
Variance 1			0.16	0.00	-0.01			-0.07	-1.18
Variance 2			0.31	-0.00	-1.37			-0.06	-0.64

Notes

Started purging at 1333
Stopped purging and began sampling at 1415

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 15:30:18

Project Information:

Operator Name Jude Waguespack
Company Name Golder
Project Name SCS Plant McDonough Semi-Annual
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 Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 42.02 ft

Pump placement from TOC 42.02 ft

Well Information:

Well ID DGWC-4
Well diameter 2 in
Well Total Depth 47.02 ft
Screen Length 10 ft
Depth to Water 20.0 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.2887478 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:46:53	300.07	16.47	5.96	1638.12	9.90	20.45	0.29	64.82
Last 5	14:51:53	600.02	16.57	5.95	1631.07	4.05	20.48	0.26	65.10
Last 5	14:56:53	900.02	16.47	5.90	1683.94	1.50	20.49	0.20	65.84
Last 5	15:01:53	1200.01	16.47	5.88	1696.65	0.83	20.51	0.18	66.44
Last 5									
Variance 0			0.10	-0.01	-7.05			-0.03	0.28
Variance 1			-0.10	-0.05	52.87			-0.07	0.74
Variance 2			0.00	-0.03	12.71			-0.02	0.59

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 16:43:04

Project Information:

Operator Name Jude Waguespack
Company Name Golder
Project Name SCS Plant McDonough Semi-Annual
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 Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 28.23 ft

Pump placement from TOC 28.23 ft

Well Information:

Well ID DGWC-5
Well diameter 2 in
Well Total Depth 33.23 ft
Screen Length 10 ft
Depth to Water 7.20 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.1718318 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 9.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:02:48	600.02	15.75	4.44	618.38	0.56	7.70	1.01	64.89
Last 5	16:07:48	900.02	15.98	4.79	891.37	0.46	7.72	0.33	76.31
Last 5	16:12:48	1200.02	16.01	4.80	901.80	0.48	7.73	0.30	82.42
Last 5	16:17:48	1500.01	16.02	4.80	892.76	0.40	7.73	0.28	88.80
Last 5	16:22:48	1800.01	16.06	4.80	896.26	0.51	7.73	0.27	96.38
Variance 0			0.03	0.00	10.43			-0.03	6.11
Variance 1			0.01	-0.00	-9.05			-0.03	6.39
Variance 2			0.04	-0.00	3.51			-0.00	7.58

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 09:42:42

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .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 28.20 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4203174 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.92 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	09:18:24	600.77	17.81	5.15	488.62	2.62	28.36	0.51	143.78
Last 5	09:23:24	900.77	17.80	5.12	488.50	1.54	28.36	0.31	130.26
Last 5	09:28:24	1200.77	17.81	5.12	488.64	1.20	28.36	0.23	120.18
Last 5	09:33:24	1500.77	17.84	5.12	488.65	1.16	28.36	0.19	112.68
Last 5	09:38:24	1800.77	17.86	5.12	488.61	1.05	28.36	0.17	107.93
Variance 0			0.02	-0.01	0.14			-0.08	-10.08
Variance 1			0.03	0.00	0.01			-0.04	-7.50
Variance 2			0.02	-0.00	-0.04			-0.02	-4.75

Notes

Started purging at 0908
Stopped purging and began sampling at 0940

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 13:06:03

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 565679
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID DGWC-9
Well diameter 2 in
Well Total Depth 33.73 ft
Screen Length 10 ft
Depth to Water 20.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:54:23	300.05	18.95	4.04	617.44	2.39	20.50	3.73	226.98
Last 5	12:59:23	600.00	18.93	4.06	620.74	3.11	20.56	3.55	214.29
Last 5	13:04:23	899.99	19.02	4.07	621.87	1.69	20.58	3.46	204.83
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.02	0.01	3.30			-0.18	-12.69
Variance 2			0.08	0.01	1.13			-0.09	-9.45

Notes

Extra rads here

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 13:33:07

Project Information:

Operator Name Jude Waguespack
Company Name Golder
Project Name SCS Plant McDonough Semi-Annual
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 Alexis
Tubing Type poly
Tubing Diameter 0.170 in
Tubing Length 42.85 ft

Pump placement from TOC 42.85 ft

Well Information:

Well ID DGWC-10
Well diameter 2 in
Well Total Depth 47.85 ft
Screen Length 10 ft
Depth to Water 24.27 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.1967403 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.2 in
Total Volume Pumped 12.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:52:37	600.03	18.96	4.83	507.61	5.01	24.70	4.23	102.25
Last 5	12:57:37	900.03	18.97	4.80	522.87	3.56	24.70	3.89	104.41
Last 5	13:02:37	1200.02	19.06	4.79	530.05	2.71	24.70	3.70	105.99
Last 5	13:17:40	2103.02	18.97	4.77	545.31	1.63	24.70	3.43	110.44
Last 5	13:22:40	2403.02	18.79	4.77	550.06	2.34	24.70	3.37	111.73
Variance 0			0.09	-0.01	7.18			-0.19	1.58
Variance 1			-0.09	-0.02	15.26			-0.27	4.45
Variance 2			-0.18	-0.00	4.75			-0.07	1.30

Notes

Some readings skipped recording

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 14:13:43

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 565679
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
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 7.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.24 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:56:21	300.07	14.34	5.73	648.53	1.18	8.26	0.45	102.46
Last 5	14:01:21	600.00	14.98	5.63	641.93	2.03	8.33	0.20	86.72
Last 5	14:06:21	899.99	14.91	5.62	634.23	1.33	8.38	0.15	78.58
Last 5	14:11:21	1199.98	15.02	5.62	636.92	1.84	8.39	0.14	74.79
Last 5									
Variance 0			0.63	-0.10	-6.60			-0.25	-15.74
Variance 1			-0.07	-0.01	-7.69			-0.05	-8.14
Variance 2			0.12	-0.00	2.69			-0.01	-3.79

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-02 17:19:38

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 565679
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
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 7.06 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1926587 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.96 in
Total Volume Pumped 30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:57:37	7812.75	15.81	6.13	534.59	6.78	7.29	0.03	7.68
Last 5	17:02:37	8112.74	15.76	6.13	529.37	6.59	7.29	0.02	6.47
Last 5	17:07:38	8413.73	15.76	6.13	528.14	6.01	7.29	0.02	5.92
Last 5	17:12:38	8713.71	15.83	6.13	530.79	5.43	7.29	0.02	6.33
Last 5	17:17:38	9013.70	15.79	6.13	531.55	4.89	7.29	0.02	6.18
Variance 0			0.00	0.00	-1.23			-0.00	-0.55
Variance 1			0.07	-0.00	2.65			-0.00	0.42
Variance 2			-0.04	0.00	0.76			-0.00	-0.16

Notes

FD1 here

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 11:19:42

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .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 32.10 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3980004 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:05:27	300.02	19.08	5.71	438.87	0.52	32.35	4.36	93.08
Last 5	11:10:27	600.02	18.92	5.71	442.44	0.51	32.35	4.37	90.42
Last 5	11:15:27	900.02	18.99	5.71	442.87	0.54	32.35	4.34	89.27
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.16	0.01	3.57			0.01	-2.65
Variance 2			0.07	0.00	0.43			-0.03	-1.15

Notes

Started purging at 1100
Stopped purging and began sampling DGWC-13

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 14:47:16

Project Information:

Operator Name Jude Waguespack
Company Name Golder
Project Name SCS Plant McDonough Semi-Annual
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 Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 32.95 ft

Pump placement from TOC 32.95 ft

Well Information:

Well ID DGWC-14
Well diameter 2 in
Well Total Depth 37.95 ft
Screen Length 10 ft
Depth to Water 17.47 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.1720792 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:33:22	300.03	19.43	5.73	190.27	6.89	17.65	3.45	107.58
Last 5	14:38:22	600.02	19.24	5.72	190.07	7.16	17.65	3.46	108.99
Last 5	14:43:22	900.03	19.16	5.73	187.91	3.79	17.65	3.51	110.32
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.20	-0.02	-0.21			0.01	1.41
Variance 2			-0.07	0.01	-2.16			0.04	1.33

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 16:27:52

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .170 in
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID DGWC-15
Well diameter 2 in
Well Total Depth 70.73 ft
Screen Length 10 ft
Depth to Water 38.40 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5095859 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 20.64 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	16:05:02	1500.02	19.50	5.78	437.18	0.73	40.12	0.21	-63.87
Last 5	16:10:02	1800.02	19.47	5.79	438.25	0.53	40.12	0.18	-54.46
Last 5	16:15:02	2099.97	19.51	5.79	438.36	0.45	40.12	0.16	-42.82
Last 5	16:20:02	2399.97	19.47	5.79	438.86	0.39	40.12	0.15	-33.52
Last 5	16:25:02	2699.97	19.46	5.79	438.18	0.27	40.12	0.13	-27.01
Variance 0			0.03	-0.00	0.10			-0.02	11.64
Variance 1			-0.03	0.00	0.50			-0.01	9.30
Variance 2			-0.01	0.00	-0.68			-0.01	6.50

Notes

Started purging at 1540
Stopped purging and began sampling at 1625

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 10:01:30

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 565679
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
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 29.29 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:39:35	1500.97	17.58	5.07	593.14	13.60	29.44	0.24	101.03
Last 5	09:44:35	1800.96	17.62	5.07	592.72	11.40	29.44	0.22	97.73
Last 5	09:49:35	2100.95	17.62	5.07	592.71	7.50	29.44	0.21	94.70
Last 5	09:54:35	2400.94	17.62	5.08	592.16	6.57	29.44	0.20	93.10
Last 5	09:59:35	2700.93	17.72	5.07	592.21	4.85	29.44	0.20	91.44
Variance 0			0.00	-0.00	-0.01			-0.01	-3.03
Variance 1			0.00	0.00	-0.55			-0.01	-1.60
Variance 2			0.09	-0.00	0.05			-0.01	-1.66

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-03 16:34:49

Project Information:

Operator Name Jude Waguespack
Company Name Golder
Project Name SCS Plant McDonough Semi-Annual
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 Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 38.25 ft

Pump placement from TOC 38.25 ft

Well Information:

Well ID DGWC-19
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 21.78 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.1852816 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.12 in
Total Volume Pumped 14.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:09:10	1500.02	19.59	4.93	773.93	17.00	22.02	0.12	158.79
Last 5	16:14:10	1800.02	19.59	4.91	768.81	13.40	22.03	0.11	168.07
Last 5	16:19:10	2100.02	19.53	4.90	764.46	11.10	22.03	0.11	178.48
Last 5	16:24:10	2400.02	19.59	4.90	764.69	6.08	22.04	0.10	190.84
Last 5	16:29:10	2700.02	19.55	4.89	762.10	4.82	22.04	0.09	206.10
Variance 0			-0.06	-0.01	-4.35			-0.00	10.41
Variance 1			0.06	-0.01	0.23			-0.01	12.36
Variance 2			-0.04	-0.01	-2.59			-0.00	15.26

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-04 15:35:45

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .170 in
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID DGWC-23
Well diameter 2 in
Well Total Depth 63.26 ft
Screen Length 10 ft
Depth to Water 14.80 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 28.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:12:57	300.03	16.53	5.67	558.81	0.68	16.15	0.51	500.78
Last 5	15:17:57	600.02	16.65	5.68	555.75	0.85	16.50	0.36	508.29
Last 5	15:22:57	900.02	16.69	5.68	554.88	0.68	16.95	0.31	501.39
Last 5	15:27:57	1200.02	16.70	5.68	555.32	0.58	17.15	0.31	505.35
Last 5	15:32:57	1500.02	16.69	5.68	554.49	0.59	17.20	0.34	512.22
Variance 0			0.04	0.00	-0.87			-0.05	-6.90
Variance 1			0.00	0.01	0.44			-0.00	3.95
Variance 2			-0.01	-0.00	-0.83			0.02	6.88

Notes

Started purging at 1507
Stopped purging and began sampling at 1535

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-04 09:57:57

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Samplepro
Tubing Type Poly
Tubing Diameter .170 in
Tubing Length 47 ft

Pump placement from TOC 47 ft

Well Information:

Well ID DGWC-42
Well diameter 2 in
Well Total Depth 52.49 ft
Screen Length 10 ft
Depth to Water 28.80 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4247809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.2 in
Total Volume Pumped 9.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:35:02	2700.00	17.37	5.19	776.31	1.21	29.65	0.19	49.16
Last 5	09:40:02	3000.00	17.50	5.19	774.76	1.15	29.65	0.17	49.32
Last 5	09:45:02	3300.00	17.49	5.19	774.53	1.05	29.65	0.15	49.85
Last 5	09:50:02	3600.01	17.41	5.19	773.91	1.08	29.65	0.15	49.82
Last 5	09:55:02	3900.01	17.33	5.18	774.34	0.98	29.65	0.14	49.91
Variance 0			-0.01	-0.01	-0.23			-0.01	0.54
Variance 1			-0.08	0.00	-0.62			-0.01	-0.03
Variance 2			-0.08	-0.00	0.42			-0.01	0.09

Notes

Started purging at 0850
Stopped purging and began sampling at 0955

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-04 11:28:03

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 410135
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type Alexis
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 14.63 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 28.2 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:05:11	300.03	14.78	3.87	447.02	3.67	15.42	0.44	314.27
Last 5	11:10:11	600.02	14.76	3.87	448.03	2.30	16.74	0.41	352.30
Last 5	11:15:11	900.02	14.80	3.87	446.19	1.86	16.85	0.39	379.34
Last 5	11:20:11	1200.02	14.76	3.86	446.60	1.43	16.87	0.39	398.96
Last 5	11:25:12	1500.84	14.78	3.86	446.34	1.34	16.98	0.37	400.88
Variance 0			0.04	-0.00	-1.84			-0.02	27.04
Variance 1			-0.04	-0.01	0.41			-0.01	19.61
Variance 2			0.02	0.00	-0.26			-0.01	1.92

Notes

Started purging at 1100
Stopped purging and began sampling 1125

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-04 14:04:10

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 565679
Turbidity Make/Model LaMotte

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-48
Well diameter 2 in
Well Total Depth 33.49 ft
Screen Length 10 ft
Depth to Water 10.64 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.48 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:46:11	300.06	16.02	4.29	808.24	3.87	11.46	0.28	238.76
Last 5	13:51:11	600.00	16.60	4.27	798.38	2.21	11.79	0.18	249.19
Last 5	13:56:11	899.99	16.68	4.26	798.90	2.42	11.89	0.15	254.16
Last 5	14:01:11	1199.98	16.76	4.27	794.20	1.17	11.93	0.13	255.42
Last 5									
Variance 0			0.58	-0.02	-9.86			-0.10	10.43
Variance 1			0.09	-0.01	0.53			-0.03	4.98
Variance 2			0.07	0.00	-4.70			-0.01	1.26

Notes

Extra rads

Grab Samples

Well-ID	POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well properly 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 properly 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)
	↑ or ↓					
DGWA-53	↑	Yes	Yes	Yes	Yes	Poor yield. Purge dry and sample within 24hr
DGWA-70A	↑	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWA-71	↑	Yes	Top lid cracked	Yes	Yes	Yes (No for C.)
DGWC-2	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-4	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-5	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-8	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-9	↓	Yes	Yes	Yes	Yes	Rapid drawdown, potential 3-volume purge
DGWC-10	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-11	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-12	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-13	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-14	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-15	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-17	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-19	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-20	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-21	↓	Yes	Yes	Yes	Yes	Stainless steel tubing weight required. Potential kink in well
DGWC-22	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-23	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-37	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-38	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-39	↓	Inaccessible via UTV, fallen trees	Yes	Yes	Yes	Yes (No for C.)
DGWC-40	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-42	↓	Yes	Yes	Yes	Yes	
DGWC-47	↓	Yes	Yes	Yes	Yes	Rapid drawdown, potential 3-volume purge
DGWC-48	↓	Yes	Wasp nest	Yes	Yes	Yes (No for C.)
DGWC-67	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-68A	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
DGWC-69	↓	Yes	Yes	Yes	Yes	Yes (No for C.)
B-3		Yes	Yes	Yes	Yes	Yes (No for C.)
B-6		Yes	Yes	Yes	Yes	Yes (No for C.)
B-7		Yes	Yes	Yes	Yes	Yes (No for C.)
B-16		Yes	Yes	Yes	Yes	Yes (No for C.)
B-18		Yes	Yes	Yes	Yes	Yes (No for C.)
B-24		Yes	Yes	Yes	Yes	Yes (No for C.)
B-25		Yes	Yes	Yes	Yes	Yes (No for C.)
B-26		Yes	Yes	Yes	Yes	Yes (No for C.)
B-28		Yes	Yes	Yes	Yes	Yes (No for C.)
B-29		Yes	Yes	Yes	Yes	Yes (No for C.)
B-31		Yes	Yes	Yes	Yes	Yes (No for C.)
B-41		Yes	Yes	Yes	Yes	Yes (No for C.)
B-50		Yes	Yes	Yes	Yes	Yes (No for C.)
B-51		Yes	Yes	Yes	Yes	Yes (No for C.)

Well-ID	POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well properly 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 properly 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)
	↑ or ↓					
B-52		Yes	Yes	Yes	Yes	Yes (No for C.)
B-54		Yes	Yes	Yes	Yes	Yes (No for C.)
B-55		Yes	Yes	Yes	Yes	Yes (No for C.)
B-56		Yes	Insufficient amount of pea gravel	Yes	Yes	Yes (No for C.)
B-57		Yes	Yes	Yes	Yes	Yes (No for C.)
B-58		Yes	Yes	Yes	Yes	Yes (No for C.)
B-59		Yes	Yes	Yes	Yes	Yes (No for C.)
B-60		Yes	Yes	Yes	Yes	Yes (No for C.)
B-61		Yes	Yes	Yes	Yes	Yes (No for C.)
B-62		Yes	Yes	Yes	Yes	Yes (No for C.)
B-63		Yes	Yes	Yes	Yes	Yes (No for C.)
B-64		Yes	BrYesen lock bar (1 of 2)	Yes	Yes	Yes (No for C.)
B-65		Yes	BrYesen screw catcher	Yes	Yes	Yes (No for C.)
B-66		Yes	Yes	Yes	Yes	Yes (No for C.)
B-68		Yes	Yes	Yes	Yes	Yes (No for C.)
B-76		Yes	Yes	Yes	Yes	Yes (No for C.)
B-77		Yes	Water in annulus	Yes	Yes	Yes (No for C.)
B-78		Yes	Yes	Yes	Yes	Yes (No for C.)
B-79		Yes	Yes	Yes	Missing weephole (PVC)	Yes (No for C.)
B-80		Yes	Insufficient amount of pea gravel	Yes	Missing weephole (PVC)	Yes (No for C.)
B-81		Yes	Yes	Piles of dirt on pad	Yes	Yes (No for C.)
B-82		Located downgradient from Argos Plant discharge pipe	Yes	Yes	Yes	Yes (No for C.)
B-83		Yes	Yes	Yes	Yes	Yes (No for C.)
B-84		Yes	Missing bolt. Flooded annulus	Yes	Yes	Yes (No for C.)
B-85		Yes	Yes	Pad flooded with sediment deposits	Yes	Yes (No for C.)
B-86		Yes	Yes	Yes	Yes	Yes (No for C.)
B-87		Yes	Yes	Yes	Yes	Yes (No for C.)
B-88		Yes	Yes	Yes	Yes	Yes (No for C.)
B-89		Yes	Yes	Yes	Yes	Yes (No for C.)
B-90		Yes	Yes	Yes	Yes	Yes (No for C.)
B-91		Yes	Needs washers for bolts	Yes	Yes	Yes (No for C.)
B-92		Yes	Yes	Yes	Yes	Yes (No for C.)
B-93		Yes	Yes	Yes	Yes	Yes (No for C.)
B-94		Yes	Yes	Yes	Yes	Yes (No for C.)
B-95		Yes	Yes	Yes	Yes	Yes (No for C.)
B-96		Yes	Yes	Yes	Yes	Yes (No for C.)
B-97		Yes	Yes	Yes	Yes	Yes (No for C.)
B-98		Yes	Yes	Yes	Yes	Yes (No for C.)
AP-1-B-3	IW	Yes	Yes	Yes	Yes	Yes (No for C.)
AP-1-B-7	IW	Yes	Yes	Yes	Yes	Yes (No for C.)
AP-1-B-8	IW	Yes	Yes	Yes	Yes	Yes (No for C.)

NOTES:

1. Provide pictures of any deficiencies.
2. Notify SCS /GPC of any noted deficiencies.
3. Provide additional comments as necessary to address any deficiencies.

APPENDIX B
Statistical Analyses

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	10/15/2019	1.6	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-11	0.13	n/a	10/15/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-12	0.13	n/a	10/15/2019	5.9	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-13	0.13	n/a	10/16/2019	0.65	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-15	0.13	n/a	10/17/2019	1.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-17	0.13	n/a	10/18/2019	0.82	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-19	0.13	n/a	10/16/2019	2.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-20	0.13	n/a	10/17/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-21	0.13	n/a	10/17/2019	7	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-22	0.13	n/a	10/18/2019	4.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-42	0.13	n/a	10/17/2019	0.94	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-47	0.13	n/a	10/17/2019	0.25	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-48	0.13	n/a	10/18/2019	0.74	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-5	0.13	n/a	10/16/2019	4.3	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-4	0.13	n/a	10/15/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-9	0.13	n/a	10/17/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-8	0.13	n/a	10/16/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-2	0.13	n/a	10/17/2019	0.73	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-23	0.13	n/a	10/18/2019	4.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Calcium (mg/L)	DGWC-10	40.3	n/a	10/15/2019	79.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-11	40.3	n/a	10/15/2019	61.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-12	40.3	n/a	10/15/2019	61.4	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-13	40.3	n/a	10/16/2019	43.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-19	40.3	n/a	10/16/2019	85.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-20	40.3	n/a	10/17/2019	86.9	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-21	40.3	n/a	10/17/2019	79.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-22	40.3	n/a	10/18/2019	61.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-42	40.3	n/a	10/17/2019	44.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-48	40.3	n/a	10/18/2019	72.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-5	40.3	n/a	10/16/2019	109	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-4	40.3	n/a	10/15/2019	276	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-9	40.3	n/a	10/17/2019	75.6	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-8	40.3	n/a	10/16/2019	47.3	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-2	40.3	n/a	10/17/2019	47.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-23	40.3	n/a	10/18/2019	67.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Chloride (mg/L)	DGWC-10	4.277	n/a	10/15/2019	9.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.277	n/a	10/15/2019	15.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.277	n/a	10/15/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.277	n/a	10/16/2019	17.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.277	n/a	10/17/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.277	n/a	10/18/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.277	n/a	10/16/2019	33.2	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.277	n/a	10/17/2019	24.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.277	n/a	10/17/2019	20.1	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-22	4.277	n/a	10/18/2019	23.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.277	n/a	10/17/2019	25.8	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.277	n/a	10/17/2019	7	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.277	n/a	10/18/2019	9.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.277	n/a	10/16/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.277	n/a	10/15/2019	20.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	DGWC-9	4.277	n/a	10/17/2019	10	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.277	n/a	10/16/2019	10.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.277	n/a	10/18/2019	14.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	0.5046	n/a	10/15/2019	1.4	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-9	0.5046	n/a	10/17/2019	1.2	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-10	6.664	5.159	10/15/2019	4.96	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-17	6.664	5.159	10/18/2019	5.08	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-19	6.664	5.159	10/16/2019	4.87	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-20	6.664	5.159	10/17/2019	4.64	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-47	6.664	5.159	10/17/2019	4.6	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-48	6.664	5.159	10/18/2019	4.22	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-5	6.664	5.159	10/16/2019	4.78	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-9	6.664	5.159	10/17/2019	4.02	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-10	37.58	n/a	10/15/2019	263	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	37.58	n/a	10/15/2019	273	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	37.58	n/a	10/15/2019	270	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	37.58	n/a	10/16/2019	167	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	37.58	n/a	10/16/2019	42.1	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	37.58	n/a	10/17/2019	146	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	37.58	n/a	10/18/2019	222	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	37.58	n/a	10/16/2019	323	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	37.58	n/a	10/17/2019	426	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	37.58	n/a	10/17/2019	255	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	37.58	n/a	10/18/2019	254	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	37.58	n/a	10/17/2019	321	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	37.58	n/a	10/17/2019	179	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	37.58	n/a	10/18/2019	336	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	37.58	n/a	10/16/2019	493	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	37.58	n/a	10/15/2019	888	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	37.58	n/a	10/17/2019	331	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	37.58	n/a	10/16/2019	235	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	37.58	n/a	10/17/2019	134	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	37.58	n/a	10/18/2019	203	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	331	n/a	10/15/2019	447	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	331	n/a	10/15/2019	461	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	331	n/a	10/15/2019	472	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	331	n/a	10/18/2019	403	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	331	n/a	10/16/2019	500	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	331	n/a	10/17/2019	751	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	331	n/a	10/17/2019	498	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	331	n/a	10/18/2019	480	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	331	n/a	10/17/2019	612	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	331	n/a	10/18/2019	593	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	331	n/a	10/16/2019	702	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	331	n/a	10/15/2019	1520	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	331	n/a	10/17/2019	550	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	331	n/a	10/16/2019	374	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	331	n/a	10/18/2019	448	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	10/15/2019	1.6	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-11	0.13	n/a	10/15/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-12	0.13	n/a	10/15/2019	5.9	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-13	0.13	n/a	10/16/2019	0.65	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-14	0.13	n/a	10/16/2019	0.052	No	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-15	0.13	n/a	10/17/2019	1.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-17	0.13	n/a	10/18/2019	0.82	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-19	0.13	n/a	10/16/2019	2.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-20	0.13	n/a	10/17/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-21	0.13	n/a	10/17/2019	7	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-22	0.13	n/a	10/18/2019	4.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-42	0.13	n/a	10/17/2019	0.94	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-47	0.13	n/a	10/17/2019	0.25	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-48	0.13	n/a	10/18/2019	0.74	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-5	0.13	n/a	10/16/2019	4.3	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-4	0.13	n/a	10/15/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-9	0.13	n/a	10/17/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-8	0.13	n/a	10/16/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-2	0.13	n/a	10/17/2019	0.73	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-23	0.13	n/a	10/18/2019	4.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Calcium (mg/L)	DGWC-10	40.3	n/a	10/15/2019	79.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-11	40.3	n/a	10/15/2019	61.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-12	40.3	n/a	10/15/2019	61.4	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-13	40.3	n/a	10/16/2019	43.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-14	40.3	n/a	10/16/2019	9.4	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-15	40.3	n/a	10/17/2019	37	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-17	40.3	n/a	10/18/2019	12.9	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-19	40.3	n/a	10/16/2019	85.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-20	40.3	n/a	10/17/2019	86.9	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-21	40.3	n/a	10/17/2019	79.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-22	40.3	n/a	10/18/2019	61.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-42	40.3	n/a	10/17/2019	44.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-47	40.3	n/a	10/17/2019	36.2	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-48	40.3	n/a	10/18/2019	72.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-5	40.3	n/a	10/16/2019	109	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-4	40.3	n/a	10/15/2019	276	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-9	40.3	n/a	10/17/2019	75.6	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-8	40.3	n/a	10/16/2019	47.3	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-2	40.3	n/a	10/17/2019	47.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-23	40.3	n/a	10/18/2019	67.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Chloride (mg/L)	DGWC-10	4.277	n/a	10/15/2019	9.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.277	n/a	10/15/2019	15.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.277	n/a	10/15/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.277	n/a	10/16/2019	17.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.277	n/a	10/16/2019	3.5	No	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.277	n/a	10/17/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.277	n/a	10/18/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.277	n/a	10/16/2019	33.2	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.277	n/a	10/17/2019	24.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.277	n/a	10/17/2019	20.1	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

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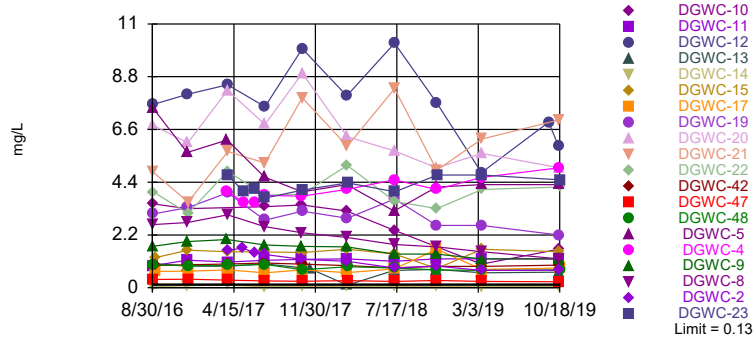
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	DGWC-22	4.277	n/a	10/18/2019	23.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.277	n/a	10/17/2019	25.8	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.277	n/a	10/17/2019	7	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.277	n/a	10/18/2019	9.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.277	n/a	10/16/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.277	n/a	10/15/2019	20.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.277	n/a	10/17/2019	10	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.277	n/a	10/16/2019	10.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.277	n/a	10/17/2019	2.8	No	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.277	n/a	10/18/2019	14.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	0.5046	n/a	10/15/2019	1.4	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-11	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-12	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-13	0.5046	n/a	10/16/2019	0.14	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-14	0.5046	n/a	10/16/2019	0.052	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-15	0.5046	n/a	10/17/2019	0.079	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-17	0.5046	n/a	10/18/2019	0.086	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-19	0.5046	n/a	10/16/2019	0.23	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-20	0.5046	n/a	10/17/2019	0.26	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-21	0.5046	n/a	10/17/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-22	0.5046	n/a	10/18/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-42	0.5046	n/a	10/17/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-47	0.5046	n/a	10/17/2019	0.46	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-48	0.5046	n/a	10/18/2019	0.46	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-5	0.5046	n/a	10/16/2019	0.32	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-4	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-9	0.5046	n/a	10/17/2019	1.2	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-8	0.5046	n/a	10/16/2019	0.14	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-2	0.5046	n/a	10/17/2019	0.042	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-23	0.5046	n/a	10/18/2019	0.079	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-10	6.664	5.159	10/15/2019	4.96	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-11	6.664	5.159	10/15/2019	5.6	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-12	6.664	5.159	10/15/2019	5.89	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-13	6.664	5.159	10/16/2019	5.69	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-14	6.664	5.159	10/16/2019	5.66	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-15	6.664	5.159	10/17/2019	5.76	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-17	6.664	5.159	10/18/2019	5.08	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-19	6.664	5.159	10/16/2019	4.87	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-20	6.664	5.159	10/17/2019	4.64	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-21	6.664	5.159	10/17/2019	5.57	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-22	6.664	5.159	10/18/2019	5.61	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-42	6.664	5.159	10/17/2019	5.2	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-47	6.664	5.159	10/17/2019	4.6	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-48	6.664	5.159	10/18/2019	4.22	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-5	6.664	5.159	10/16/2019	4.78	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-4	6.664	5.159	10/15/2019	5.98	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-9	6.664	5.159	10/17/2019	4.02	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-8	6.664	5.159	10/16/2019	5.33	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-2	6.664	5.159	10/17/2019	6.16	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-23	6.664	5.159	10/18/2019	5.99	No	35	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	DGWC-10	37.58	n/a	10/15/2019	263	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	37.58	n/a	10/15/2019	273	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	37.58	n/a	10/15/2019	270	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	37.58	n/a	10/16/2019	167	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	37.58	n/a	10/16/2019	42.1	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	37.58	n/a	10/17/2019	146	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	37.58	n/a	10/18/2019	222	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	37.58	n/a	10/16/2019	323	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	37.58	n/a	10/17/2019	426	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	37.58	n/a	10/17/2019	255	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	37.58	n/a	10/18/2019	254	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	37.58	n/a	10/17/2019	321	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	37.58	n/a	10/17/2019	179	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	37.58	n/a	10/18/2019	336	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	37.58	n/a	10/16/2019	493	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	37.58	n/a	10/15/2019	888	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	37.58	n/a	10/17/2019	331	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	37.58	n/a	10/16/2019	235	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	37.58	n/a	10/17/2019	134	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	37.58	n/a	10/18/2019	203	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	331	n/a	10/15/2019	447	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	331	n/a	10/15/2019	461	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	331	n/a	10/15/2019	472	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-13	331	n/a	10/16/2019	296	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-14	331	n/a	10/16/2019	104	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-15	331	n/a	10/17/2019	319	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	331	n/a	10/18/2019	403	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	331	n/a	10/16/2019	500	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	331	n/a	10/17/2019	751	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	331	n/a	10/17/2019	498	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	331	n/a	10/18/2019	480	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	331	n/a	10/17/2019	612	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	331	n/a	10/17/2019	327	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	331	n/a	10/18/2019	593	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	331	n/a	10/16/2019	702	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	331	n/a	10/15/2019	1520	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	331	n/a	10/17/2019	550	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	331	n/a	10/16/2019	374	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-2	331	n/a	10/17/2019	302	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	331	n/a	10/18/2019	448	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2

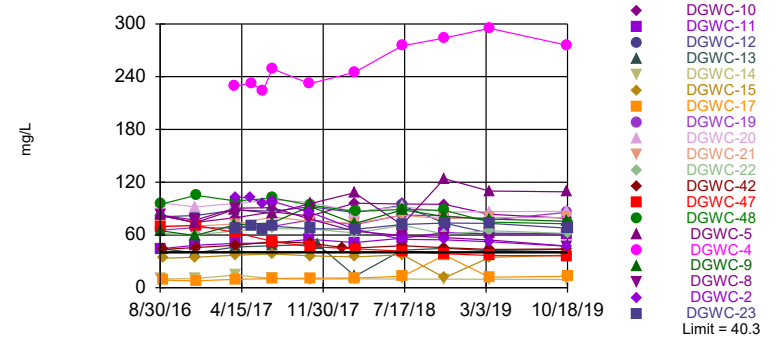
Prediction Limit
Interwell Non-parametric



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 31 background values. 12.9% NDs. Annual per-constituent alpha = 0.06452. Individual comparison alpha = 0.001666 (1 of 2). Comparing 20 points to limit.

Constituent: Boron Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

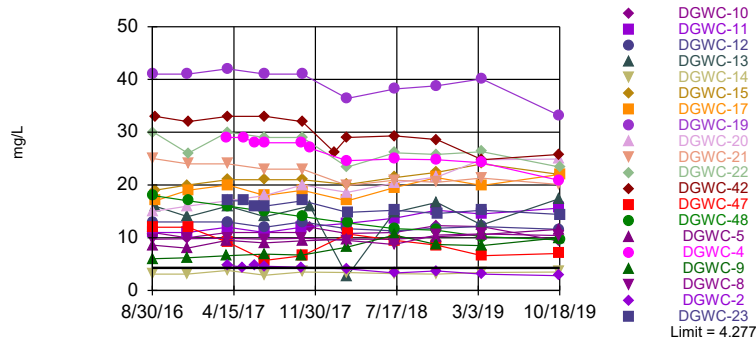
Prediction Limit
Interwell Non-parametric



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 32 background values. Annual per-constituent alpha = 0.06146. Individual comparison alpha = 0.001585 (1 of 2). Comparing 20 points to limit.

Constituent: Calcium Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

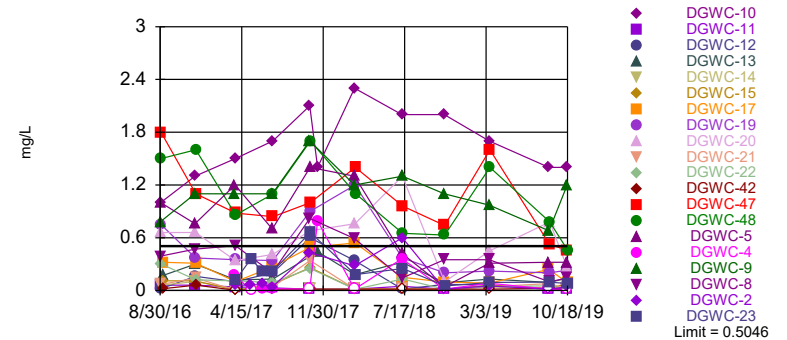
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=0.9725, Std. Dev.=0.21, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9084, critical = 0.908. Kappa = 2.29 (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 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

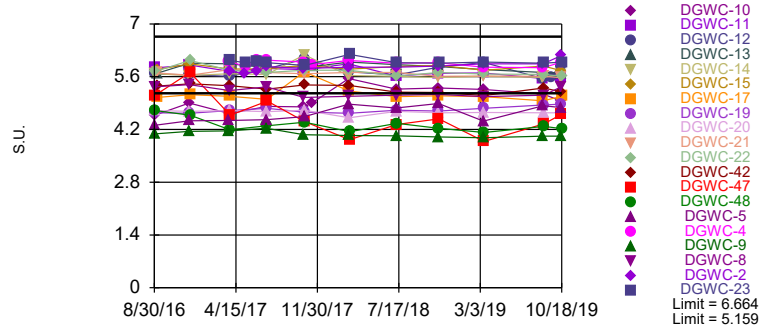
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=3.862, Std. Dev.=1.393, n=35, 42.86% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9384, critical = 0.91. Kappa = 2.282 (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: Fluoride Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

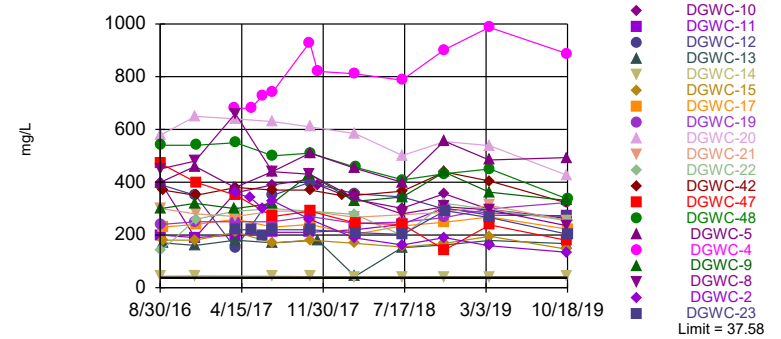
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=1.769, Std. Dev.=0.05611, n=35.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9131, critical = 0.91. Kappa = 2.282 (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 [field] Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

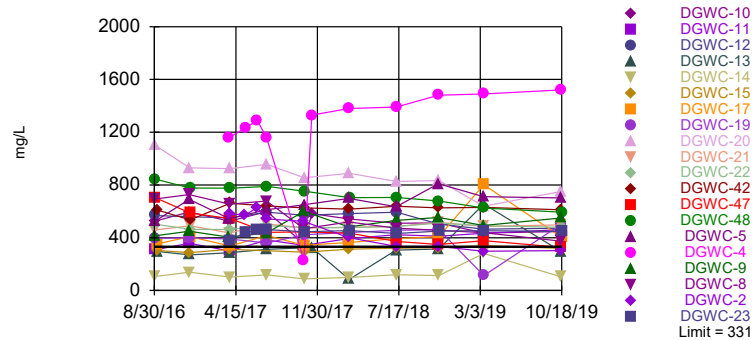
Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=2.61, Std. Dev.=1.537, n=34.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9363, critical = 0.908. Kappa = 2.29 (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 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

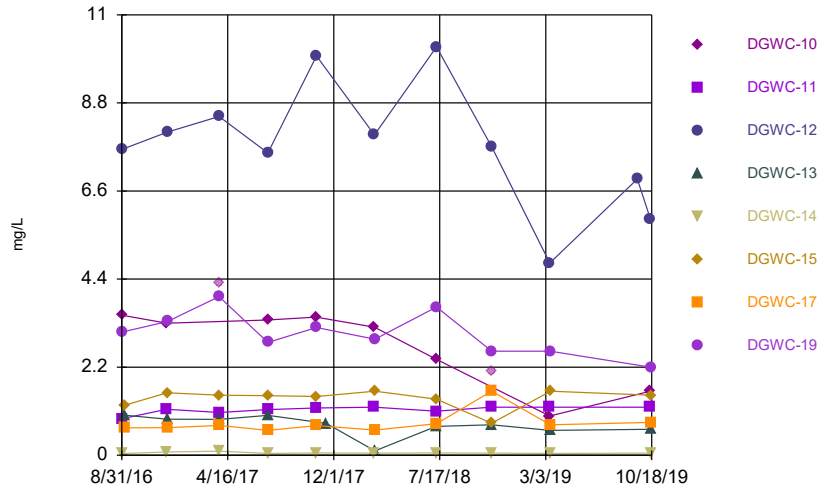
Prediction Limit
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.718, Std. Dev.=0.9514, n=31.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9111, critical = 0.902. Kappa = 2.312 (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.

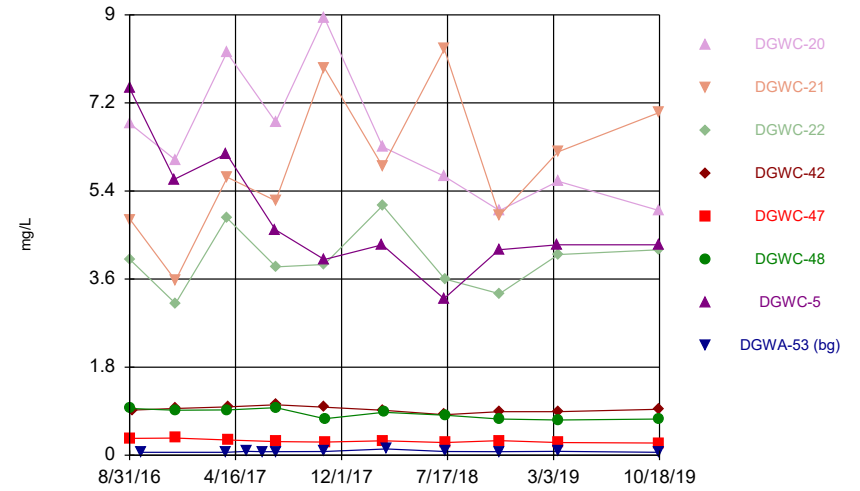
Constituent: TDS Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



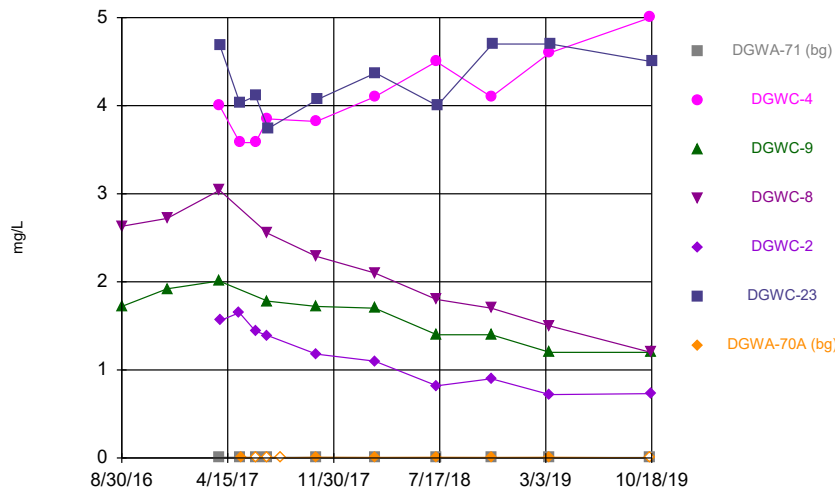
Constituent: Boron Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



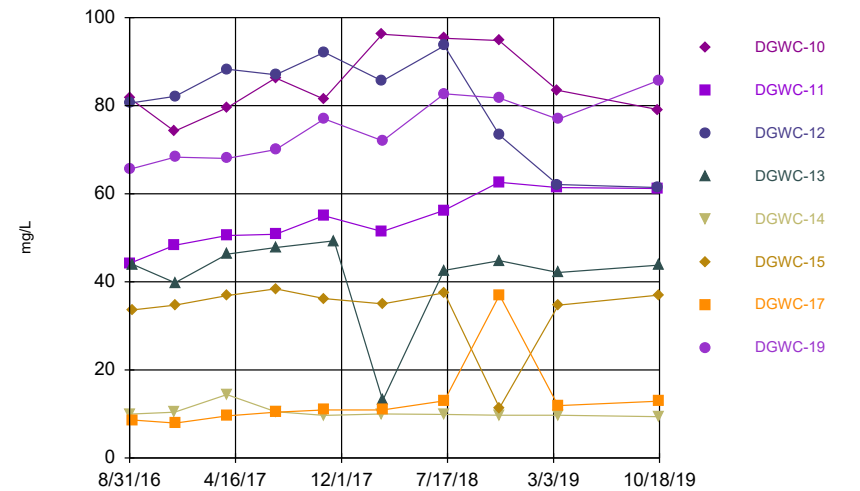
Constituent: Boron Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



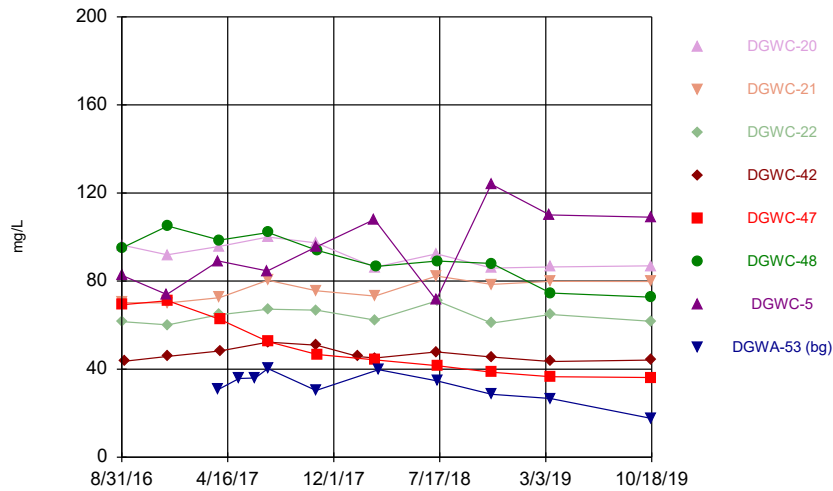
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



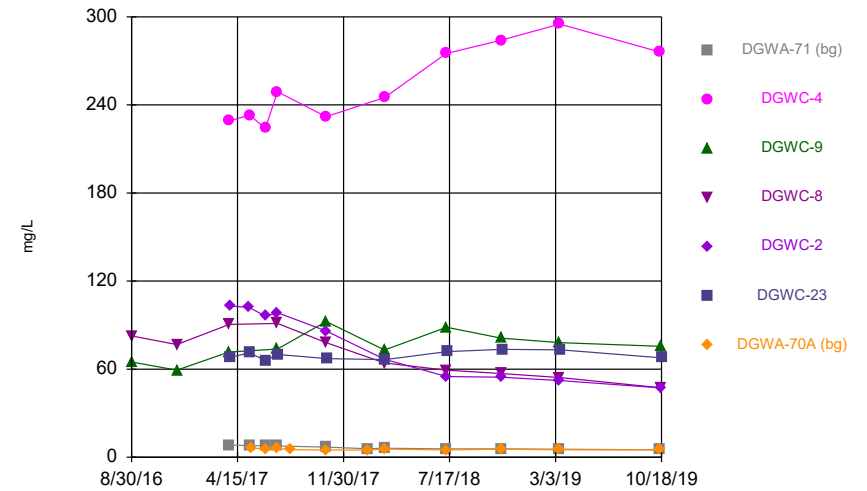
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



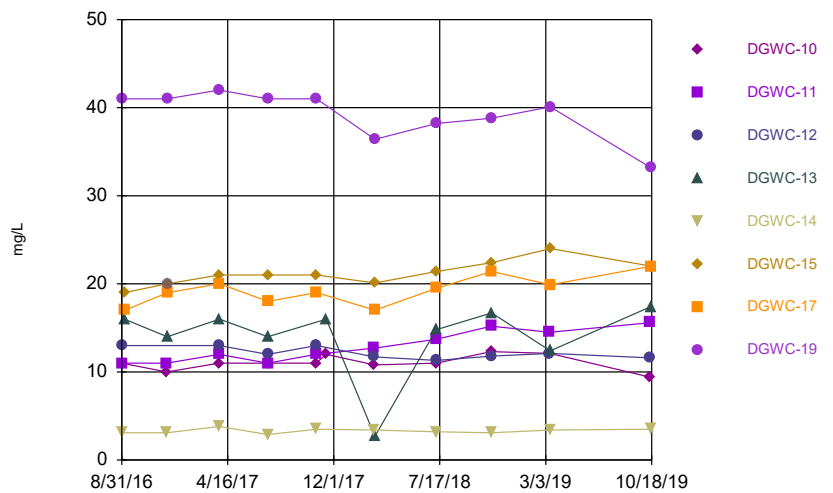
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



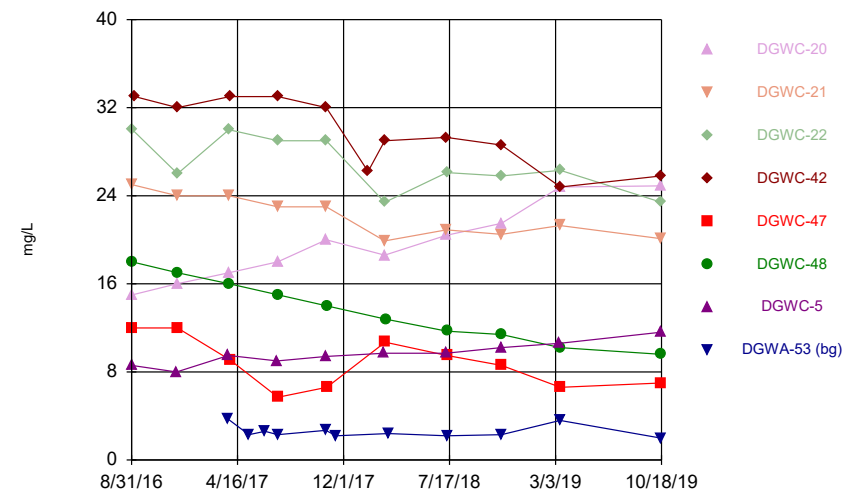
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



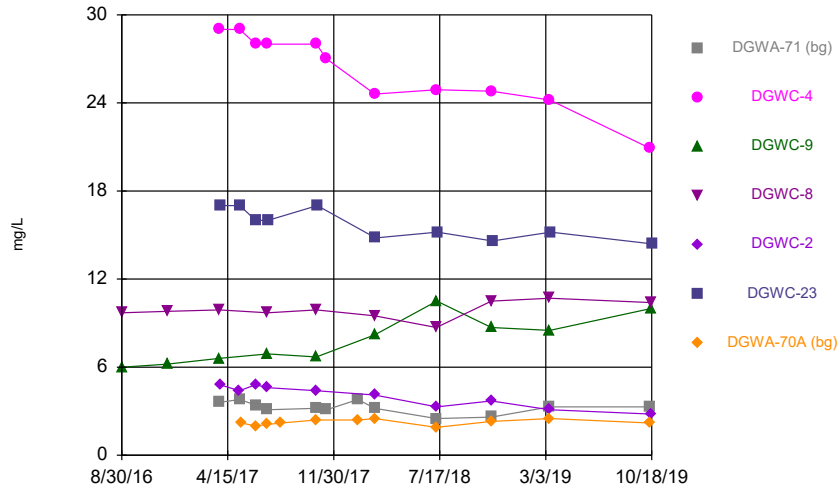
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



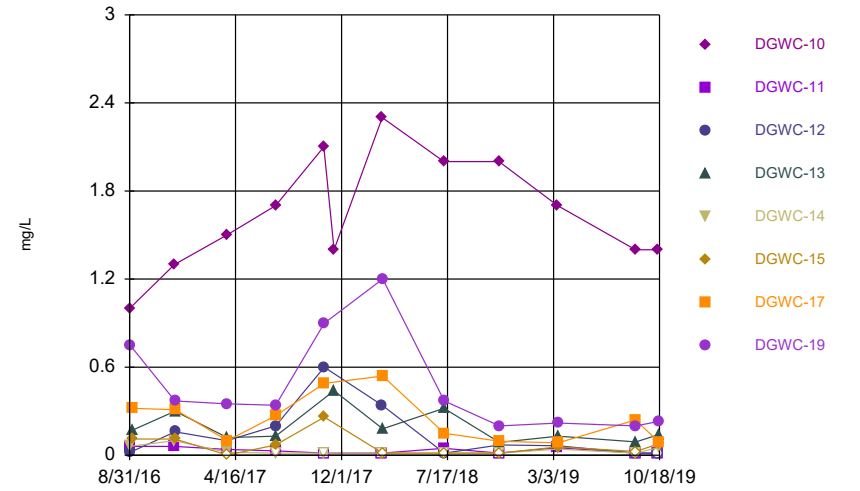
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



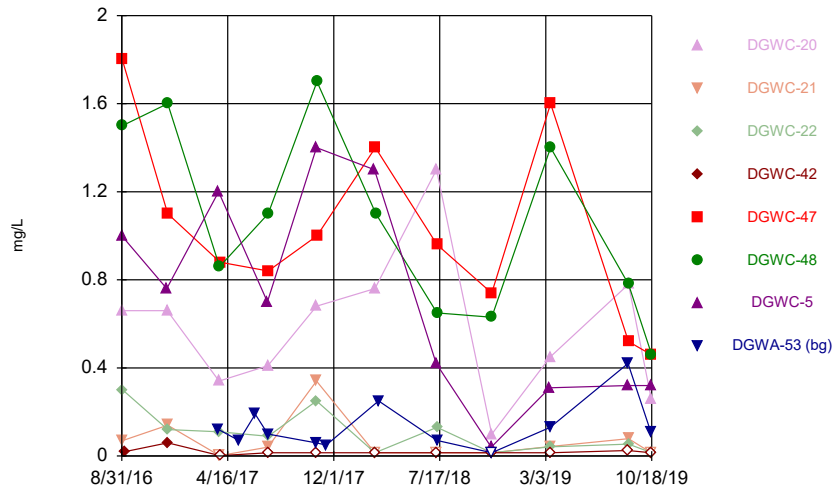
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



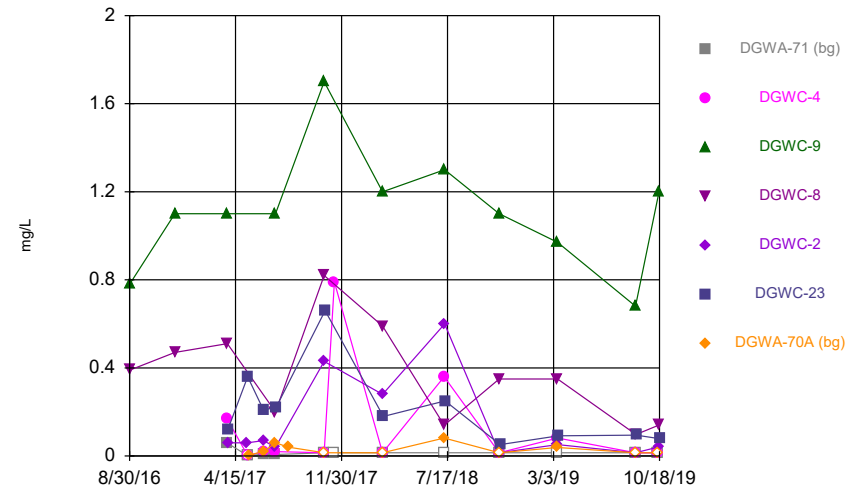
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



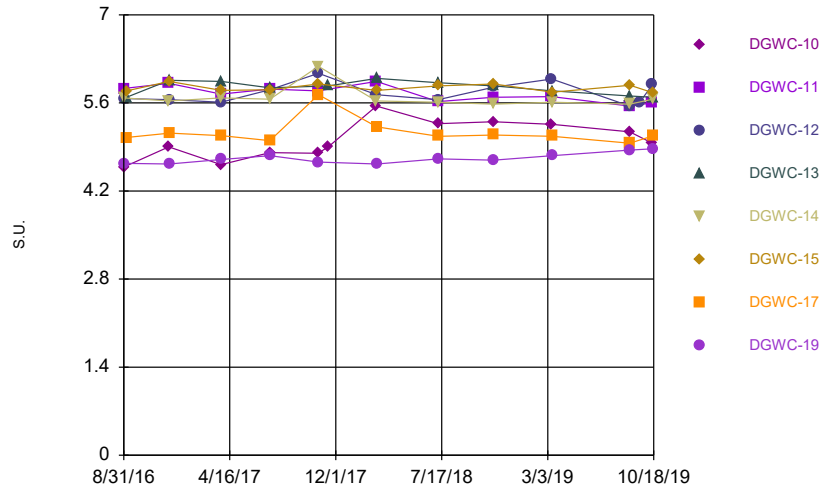
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



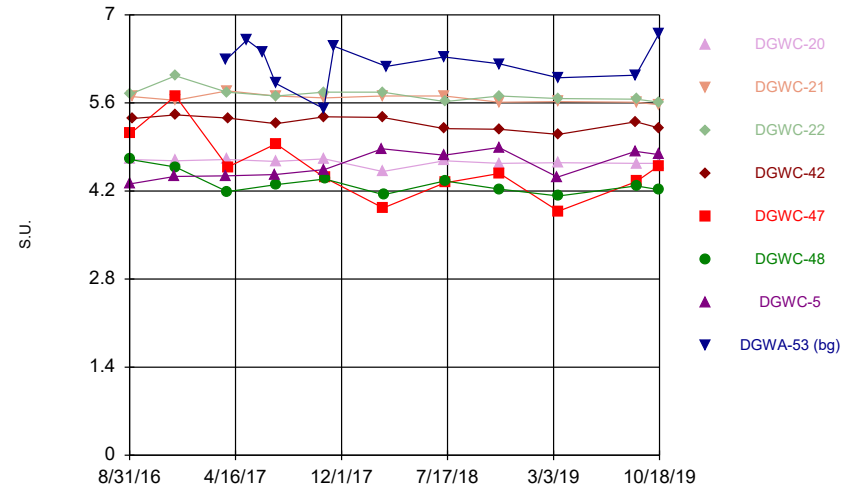
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



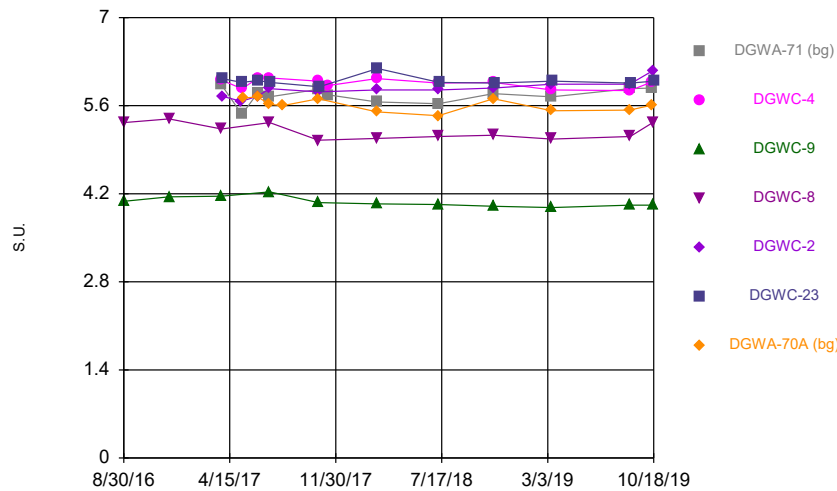
Constituent: pH [field] Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



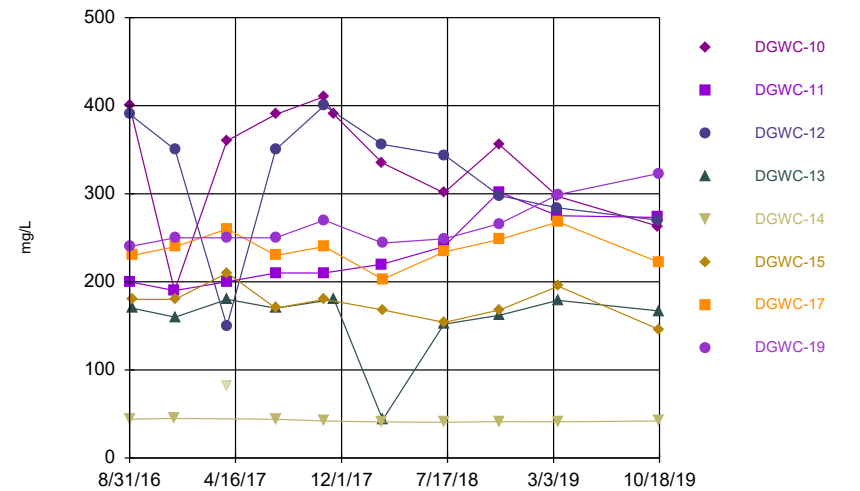
Constituent: pH [field] Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



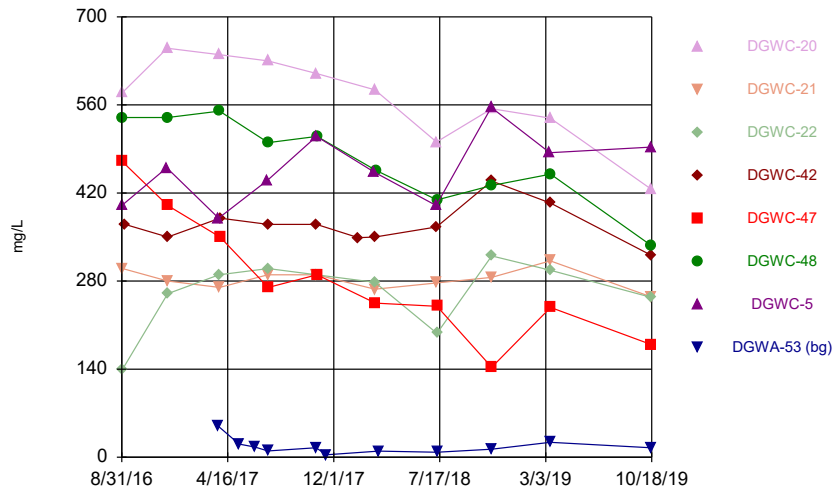
Constituent: pH [field] Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



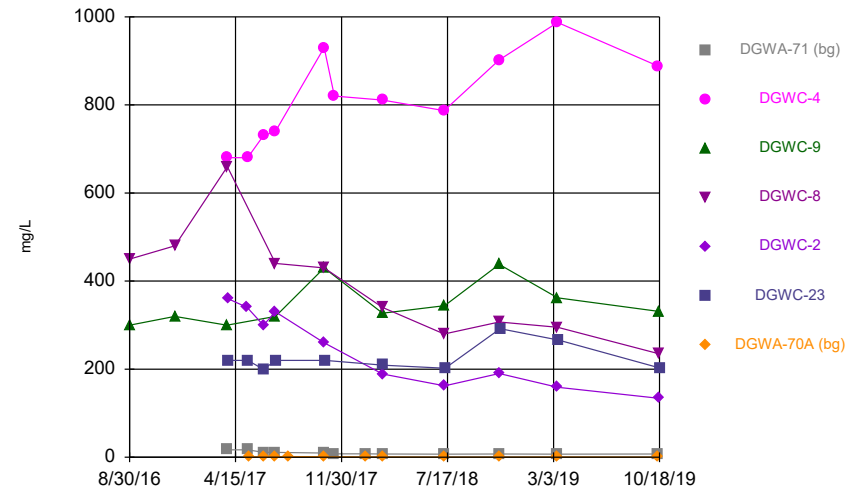
Constituent: Sulfate Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



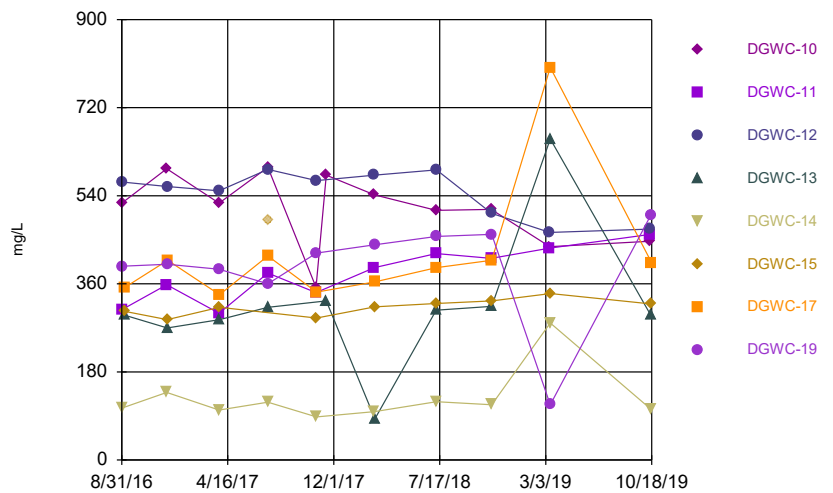
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



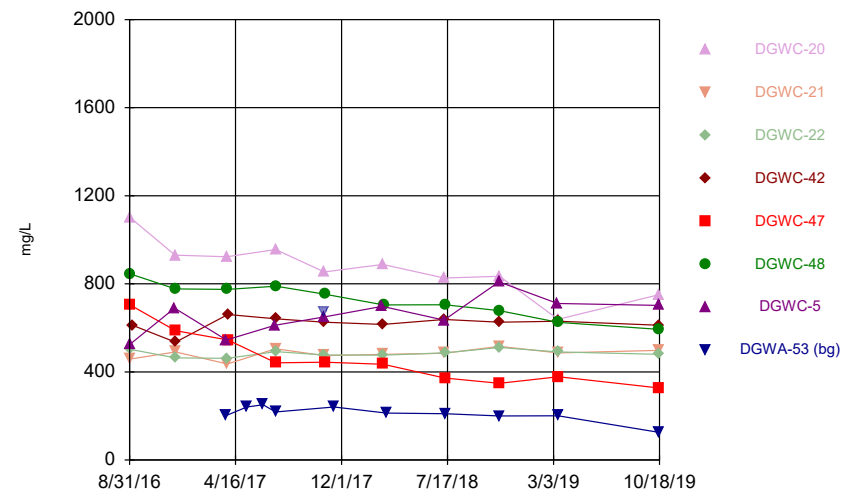
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



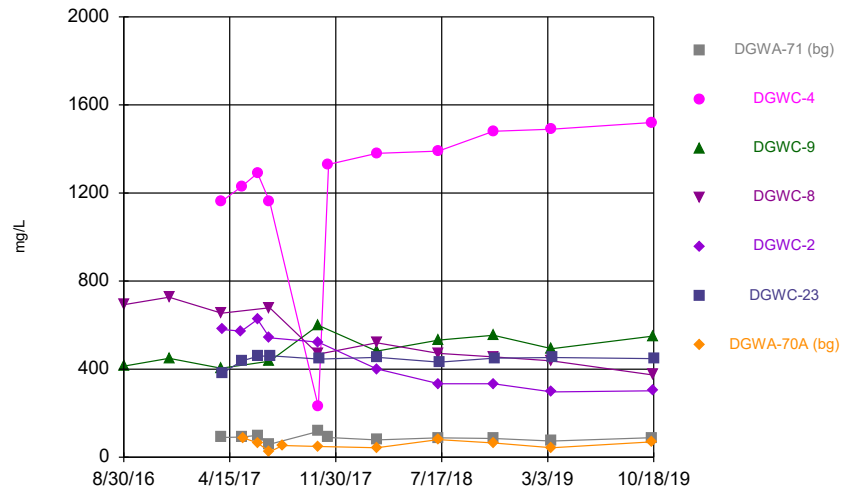
Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Tolerance Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 12:11 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0007	n/a	n/a	n/a	30	90	n/a	0.2146	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0018	n/a	n/a	n/a	32	78.13	n/a	0.1937	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	30	0	n/a	0.2146	NP Inter(normal...
Beryllium (mg/L)	n/a	0.0015	n/a	n/a	n/a	31	67.74	n/a	0.2039	NP Inter(normal...
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	31	93.55	n/a	0.2039	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0025	n/a	n/a	n/a	29	62.07	n/a	0.2259	NP Inter(Cohens...
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	30	33.33	n/a	0.2146	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	n/a	6.316	n/a	n/a	n/a	30	10	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	35	42.86	n/a	0.1661	NP Inter(Cohens...
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	30	83.33	n/a	0.2146	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	30	36.67	n/a	0.2146	NP Inter(normal...
Mercury (mg/L)	n/a	0.0001	n/a	n/a	n/a	30	76.67	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	30	63.33	n/a	0.2146	NP Inter(normal...
Selenium (mg/L)	n/a	0.00065	n/a	n/a	n/a	30	100	n/a	0.2146	NP Inter(NDs)
Thallium (mg/L)	n/a	0.00007	n/a	n/a	n/a	30	96.67	n/a	0.2146	NP Inter(NDs)

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-9	0.03137	0.01273	0.01	Yes	10	10	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.012	0.0046	0.004	Yes	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01429	0.01029	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009959	0.007961	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.008722	0.005118	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006221	0.004859	0.004	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.2003	0.1669	0.0322	Yes	10	0	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05385	0.04797	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.5836	0.4372	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4369	0.3033	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5477	0.4443	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2025	0.12	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1051	0.0552	0.0322	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.08041	0.06525	0.03	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.1345	0.1131	0.03	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-2	0.08802	0.03906	0.03	Yes	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	DGWC-10	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-11	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-12	0.0004	0.000135	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-13	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-14	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-15	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-17	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-19	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-20	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-21	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-22	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-42	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-47	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-48	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-53 (bg)	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-71 (bg)	0.0007	0.000135	0.006	No	10	80	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-4	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-9	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-8	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-2	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-23	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-70A ...	0.00039	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.007627	0.002813	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-11	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-12	0.0008	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-13	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.0008	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.0008	0.000175	0.01	No	10	80	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.0009012	0.0003038	0.01	No	10	60	No	0.01	Param.
Arsenic (mg/L)	DGWC-19	0.002191	0.000739	0.01	No	10	10	No	0.01	Param.
Arsenic (mg/L)	DGWC-20	0.01502	0.005955	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-21	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-22	0.0008	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.0008	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003114	0.001484	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.001988	0.001093	0.01	No	10	40	No	0.01	Param.
Arsenic (mg/L)	DGWC-5	0.0203	0.000175	0.01	No	10	20	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWA-53 (bg)	0.0009	0.000175	0.01	No	10	60	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWA-71 (bg)	0.0004	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.0005	0.000175	0.01	No	10	70	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWC-9	0.03137	0.01273	0.01	Yes	10	10	No	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.001373	0.0002706	0.01	No	10	60	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.000285	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-23	0.000285	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWA-70A ...	0.000285	0.000175	0.01	No	11	90.91	No	0.006	NP (NDs)
Barium (mg/L)	DGWC-10	0.03188	0.02466	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.07	0.05664	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.02695	0.02256	2	No	11	0	No	0.01	Param.
Barium (mg/L)	DGWC-13	0.03412	0.02597	2	No	10	0	x^3	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Barium (mg/L)	DGWC-14	0.061	0.055	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	DGWC-15	0.05005	0.04499	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06155	0.04755	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02398	0.02034	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.015	0.0087	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	DGWC-21	0.02738	0.02552	2	No	10	0	x^3	0.01	Param.
Barium (mg/L)	DGWC-22	0.03988	0.03276	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-42	0.02	0.01766	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.02058	0.0154	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01487	0.01275	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01891	0.01602	2	No	9	0	No	0.01	Param.
Barium (mg/L)	DGWA-53 (bg)	0.1707	0.1025	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWA-71 (bg)	0.03664	0.0264	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-4	0.03613	0.03221	2	No	10	0	x^4	0.01	Param.
Barium (mg/L)	DGWC-9	0.01643	0.01461	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04163	0.02845	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02282	0.02084	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02207	0.01753	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWA-70A ...	0.03692	0.02636	2	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.012	0.0046	0.004	Yes	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.0001025	0.00003615	0.004	No	10	50	No	0.01	Param.
Beryllium (mg/L)	DGWC-12	0.00028	0.00016	0.004	No	11	0	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-13	0.00005602	0.00003358	0.004	No	10	70	No	0.01	Param.
Beryllium (mg/L)	DGWC-14	0.000045	0.000025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-15	0.000045	0.000025	0.004	No	10	90	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.0006511	0.0004261	0.004	No	10	10	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-19	0.002012	0.001768	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-20	0.0041	0.0024	0.004	No	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-21	0.0001887	0.0001173	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-22	0.0002009	0.0001468	0.004	No	10	0	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-42	0.00287	0.00231	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01429	0.01029	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009959	0.007961	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.008722	0.005118	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWA-53 (bg)	0.000125	0.000025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	DGWA-71 (bg)	0.0001055	0.00007281	0.004	No	10	40	No	0.01	Param.
Beryllium (mg/L)	DGWC-4	0.0002242	0.0001398	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006221	0.004859	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-8	0.003791	0.002049	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-2	0.000045	0.000025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-23	0.0004265	0.0003635	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWA-70A ...	0.000095	0.000035	0.004	No	10	60	No	0.011	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-10	0.001416	0.0009881	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.000055	0.00003	0.005	No	10	90	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0003866	0.0003025	0.005	No	11	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-13	0.00008	0.000035	0.005	No	10	80	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-14	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.00009	0.000035	0.005	No	10	70	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-17	0.0003121	0.0001953	0.005	No	10	10	x^2	0.01	Param.
Cadmium (mg/L)	DGWC-19	0.0004	0.00031	0.005	No	10	0	No	0.011	NP (normality)

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	DGWC-20	0.00218	0.0018	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.0007197	0.0005051	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-22	0.0007579	0.0004021	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-42	0.001371	0.000377	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002575	0.001165	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005361	0.002172	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007696	0.0002804	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWA-53 (bg)	0.00013	0.00003	0.005	No	11	81.82	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWA-71 (bg)	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-4	0.0007335	0.0005845	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.0006541	0.0004859	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002731	0.002129	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-2	0.0004488	0.0001492	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-23	0.0002996	0.0001577	0.005	No	10	10	No	0.01	Param.
Cadmium (mg/L)	DGWA-70A ...	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-10	0.0008	0.00045	0.1	No	10	50	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-12	0.0008	0.00015	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-13	0.0009	0.000195	0.1	No	10	80	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-14	0.0008	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.0008	0.000195	0.1	No	10	70	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-17	0.00281	0.001951	0.1	No	10	10	x^2	0.01	Param.
Chromium (mg/L)	DGWC-19	0.002835	0.001878	0.1	No	10	10	x^2	0.01	Param.
Chromium (mg/L)	DGWC-20	0.002991	0.001588	0.1	No	10	40	No	0.01	Param.
Chromium (mg/L)	DGWC-21	0.0007233	0.0003277	0.1	No	10	70	No	0.01	Param.
Chromium (mg/L)	DGWC-22	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.0008452	0.0003958	0.1	No	10	60	No	0.01	Param.
Chromium (mg/L)	DGWC-47	0.0008	0.000195	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-48	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-5	0.00225	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWA-53 (bg)	0.0008	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWA-71 (bg)	0.0023	0.00025	0.1	No	10	50	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-4	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.00115	0.00045	0.1	No	10	70	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-8	0.0008	0.000195	0.1	No	10	80	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-2	0.0008	0.00025	0.1	No	10	60	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-23	0.0012	0.000195	0.1	No	10	30	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWA-70A ...	0.0008	0.0005	0.1	No	9	33.33	No	0.002	NP (normality)
Cobalt (mg/L)	DGWC-10	0.2003	0.1669	0.0322	Yes	10	0	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.0006	0.00015	0.0322	No	10	70	No	0.011	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-12	0.0058	0.002	0.0322	No	11	0	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0004	0.00015	0.0322	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-14	0.00026	0.00015	0.0322	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.0042	0.0015	0.0322	No	10	0	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-17	0.0289	0.01894	0.0322	No	10	0	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05385	0.04797	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.5836	0.4372	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009923	0.008617	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-22	0.01038	0.00866	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-42	0.05652	0.02222	0.0322	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	DGWC-47	0.4369	0.3033	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5477	0.4443	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04136	0.01948	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWA-53 (bg)	0.02921	0.01633	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWA-71 (bg)	0.0016	0.00015	0.0322	No	10	50	No	0.011	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-4	0.0018	0.0015	0.0322	No	10	0	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-9	0.2025	0.12	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1051	0.0552	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03211	0.01467	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.00036	0.00015	0.0322	No	10	70	No	0.011	NP (normality)
Cobalt (mg/L)	DGWA-70A ...	0.0014	0.00015	0.0322	No	10	50	No	0.011	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.543	1.02	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.469	0.5924	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.11	0.0726	6.316	No	10	20	No	0.011	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.621	0.9701	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.443	0.5033	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.82	0.5421	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.224	0.5077	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.23	0.4637	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.459	0.6131	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.639	0.9762	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.481	0.683	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.239	0.5435	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.325	1.681	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.831	1.623	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.046	0.8625	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-53 (bg)	4.988	2.538	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-71 (bg)	1.74	0.1188	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.584	1.027	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.58	0.8654	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	1.357	0.2779	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.331	0.7023	6.316	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.479	0.4751	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-70A ...	1.421	0.4001	6.316	No	10	10	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.952	1.348	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.06	0.0145	4	No	11	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.34	0.0145	4	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-13	0.2723	0.1051	4	No	11	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.06	0.0145	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.002	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-17	0.3788	0.1094	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.647	0.2278	4	No	11	0	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-20	0.8518	0.3116	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.002	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-22	0.1847	-0.01093	4	No	11	27.27	No	0.01	Param.
Fluoride (mg/L)	DGWC-42	0.025	0.002	4	No	11	81.82	No	0.006	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.38	0.6744	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.429	0.7131	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.093	0.3201	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWA-53 (bg)	0.2001	0.0525	4	No	12	8.333	sqrt(x)	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	DGWA-71 (bg)	0.015	0.007	4	No	12	75	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-4	0.36	0.002	4	No	12	50	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-9	1.335	0.8891	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.5534	0.1844	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.0145	4	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-23	0.3253	0.08401	4	No	11	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWA-70A ...	0.06	0.005	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-10	0.0025	0.00014	0.005	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.0025	0.000076	0.005	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.0025	0.0001	0.005	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-13	0.0025	0.0002	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-14	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.0025	0.000059	0.005	No	10	60	No	0.011	NP (normality)
Lead (mg/L)	DGWC-17	0.0025	0.000074	0.005	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-19	0.0025	0.00026	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-20	0.0025	0.000097	0.005	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-21	0.0025	0.000046	0.005	No	10	40	No	0.011	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-22	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.00052	0.0002	0.005	No	10	10	No	0.011	NP (normality)
Lead (mg/L)	DGWC-47	0.001409	0.0006104	0.005	No	10	10	x^(1/3)	0.01	Param.
Lead (mg/L)	DGWC-48	0.002555	0.001095	0.005	No	10	0	No	0.01	Param.
Lead (mg/L)	DGWC-5	0.0025	0.000051	0.005	No	10	50	No	0.011	NP (normality)
Lead (mg/L)	DGWA-53 (bg)	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWA-71 (bg)	0.0025	0.00008	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-4	0.0025	0.000049	0.005	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-9	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-8	0.0025	0.000082	0.005	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-2	0.0025	0.00006	0.005	No	10	50	No	0.011	NP (normality)
Lead (mg/L)	DGWC-23	0.0025	0.000066	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWA-70A ...	0.0025	0.00007	0.005	No	10	60	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-10	0.006733	0.00215	0.03	No	10	10	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-11	0.002418	0.002002	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-12	0.015	0.00091	0.03	No	11	63.64	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-13	0.0035	0.0028	0.03	No	10	10	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.003916	0.003244	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-15	0.006445	0.005977	0.03	No	9	0	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.015	0.00089	0.03	No	10	70	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-19	0.003386	0.003013	0.03	No	10	0	x^5	0.01	Param.
Lithium (mg/L)	DGWC-20	0.0075	0.0019	0.03	No	10	0	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-21	0.006232	0.005648	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-22	0.004517	0.003823	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-42	0.012	0.01	0.03	No	10	0	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-47	0.08041	0.06525	0.03	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.1345	0.1131	0.03	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.006959	0.003201	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWA-53 (bg)	0.01026	0.008098	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWA-71 (bg)	0.015	0.0012	0.03	No	10	20	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-4	0.003071	0.002469	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-9	0.02985	0.02363	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-8	0.006708	0.004732	0.03	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

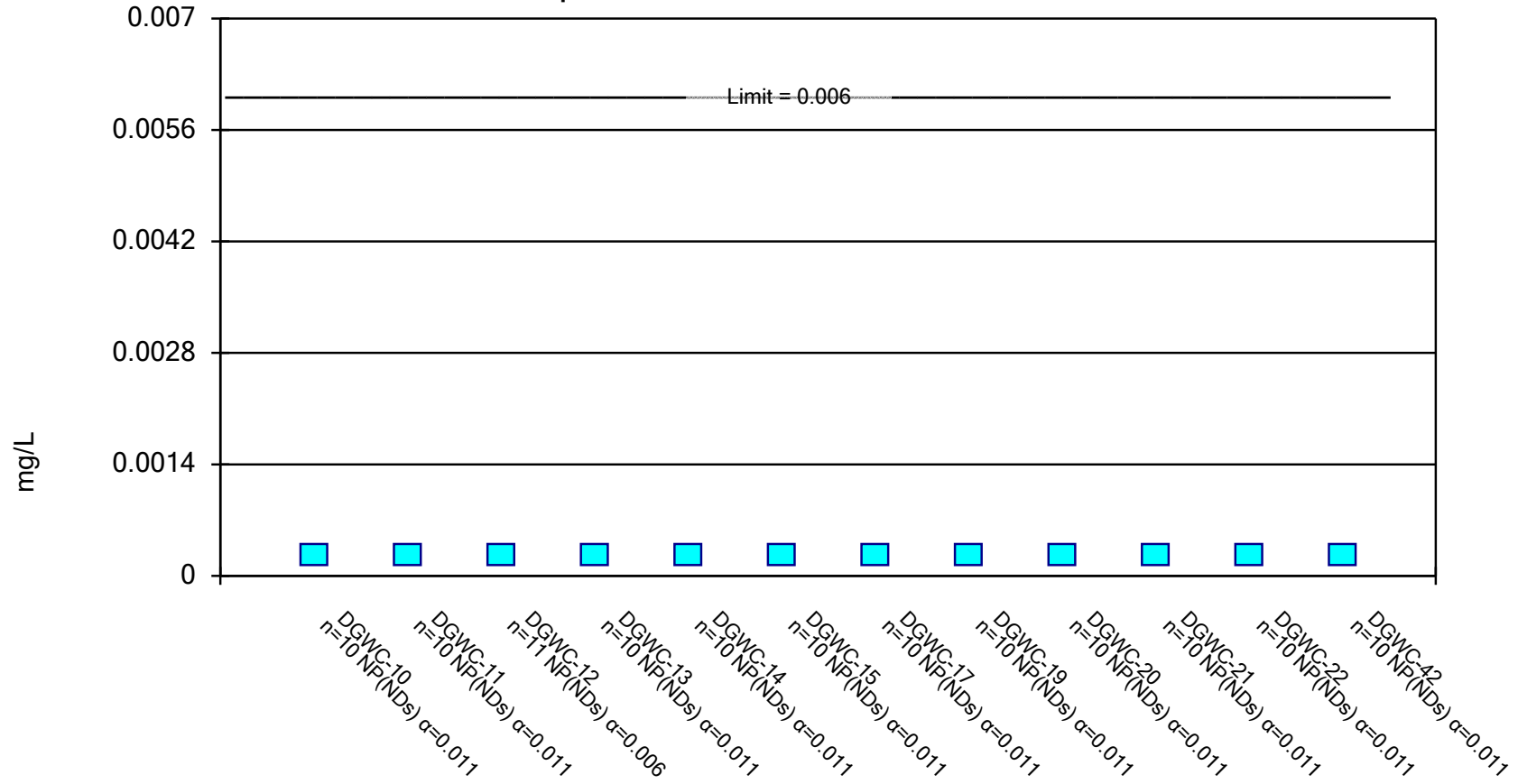
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	DGWC-2	0.08802	0.03906	0.03	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-23	0.01648	0.002632	0.03	No	10	0	ln(x)	0.01	Param.
Lithium (mg/L)	DGWA-70A ...	0.015	0.002	0.03	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-10	0.00009	0.000018	0.002	No	10	50	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-11	0.00008	0.000018	0.002	No	10	50	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-12	0.0001639	0.00006051	0.002	No	11	36.36	No	0.01	Param.
Mercury (mg/L)	DGWC-13	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-14	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-15	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0001853	0.0000654	0.002	No	10	40	No	0.01	Param.
Mercury (mg/L)	DGWC-19	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-20	0.00008	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-21	0.0001941	0.00006137	0.002	No	10	50	No	0.01	Param.
Mercury (mg/L)	DGWC-22	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-42	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-47	0.00007	0.000018	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-48	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002494	0.00008937	0.002	No	10	10	ln(x)	0.01	Param.
Mercury (mg/L)	DGWA-53 (bg)	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWA-71 (bg)	0.00007482	0.00002278	0.002	No	10	60	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.000082	0.000018	0.002	No	10	60	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00042	0.000018	0.002	No	10	50	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-8	0.00012	0.000018	0.002	No	10	30	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-2	0.000083	0.000018	0.002	No	10	60	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-23	0.0001738	0.00009617	0.002	No	10	20	No	0.01	Param.
Mercury (mg/L)	DGWA-70A ...	0.00007	0.000018	0.002	No	10	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-10	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-11	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-12	0.00095	0.0003	0.0409	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03148	0.01542	0.0409	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWC-14	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-15	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-17	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-19	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-20	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-21	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-22	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-42	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-47	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-48	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-5	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWA-53 (bg)	0.03752	0.02716	0.0409	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWA-71 (bg)	0.00095	0.0003	0.0409	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-4	0.007202	0.004858	0.0409	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWC-9	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-8	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-2	0.0018	0.0005	0.0409	No	10	60	No	0.011	NP (Cohens/xfrm)
Molybdenum (mg/L)	DGWC-23	0.01196	0.007197	0.0409	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWA-70A ...	0.00095	0.0003	0.0409	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-10	0.05413	0.01519	0.05	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 2:44 PM

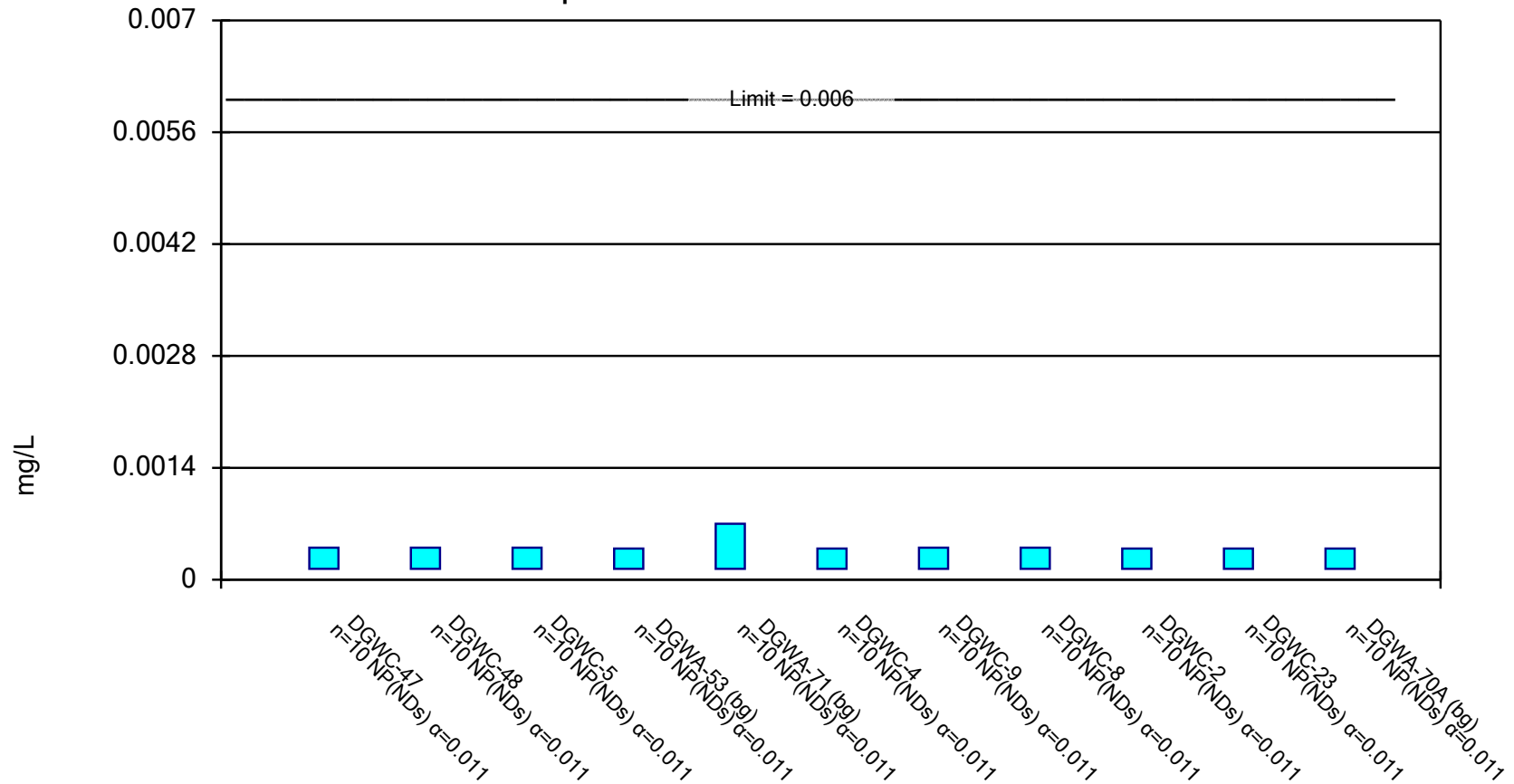
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	DGWC-11	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-12	0.002064	0.001261	0.05	No	11	27.27	No	0.01	Param.
Selenium (mg/L)	DGWC-13	0.003014	0.00115	0.05	No	10	20	No	0.01	Param.
Selenium (mg/L)	DGWC-14	0.001607	0.000643	0.05	No	10	60	No	0.01	Param.
Selenium (mg/L)	DGWC-15	0.0009	0.0005	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-17	0.009014	0.005835	0.05	No	10	10	x^2	0.01	Param.
Selenium (mg/L)	DGWC-19	0.009077	0.003623	0.05	No	10	10	No	0.01	Param.
Selenium (mg/L)	DGWC-20	0.06659	0.02655	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-21	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-22	0.0009	0.0005	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-42	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01627	0.005846	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009597	0.004243	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06628	0.004953	0.05	No	10	0	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWA-53 (bg)	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWA-71 (bg)	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-4	0.0009	0.00065	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-9	0.1316	0.04009	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-8	0.006062	-0.00049	0.05	No	10	30	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.0051	0.0007	0.05	No	10	50	No	0.011	NP (normality)
Selenium (mg/L)	DGWC-23	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWA-70A ...	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-10	0.0004781	0.0003437	0.002	No	10	10	x^(1/3)	0.01	Param.
Thallium (mg/L)	DGWC-11	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-12	0.0002481	0.00009108	0.002	No	11	45.45	No	0.01	Param.
Thallium (mg/L)	DGWC-13	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-14	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-15	0.0001	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-17	0.0002175	0.0001632	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-19	0.00053	0.0004	0.002	No	10	0	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-20	0.001019	0.0005311	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-21	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-22	0.0001	0.000026	0.002	No	10	60	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-42	0.0001	0.000026	0.002	No	10	60	No	0.011	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-47	0.0003085	0.0001815	0.002	No	10	10	No	0.01	Param.
Thallium (mg/L)	DGWC-48	0.00009656	0.00005824	0.002	No	10	60	No	0.01	Param.
Thallium (mg/L)	DGWC-5	0.0002	0.000026	0.002	No	10	80	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-53 (bg)	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-71 (bg)	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-4	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-9	0.00103	0.0005218	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-8	0.0002915	0.0001552	0.002	No	10	20	No	0.01	Param.
Thallium (mg/L)	DGWC-2	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-23	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-70A ...	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

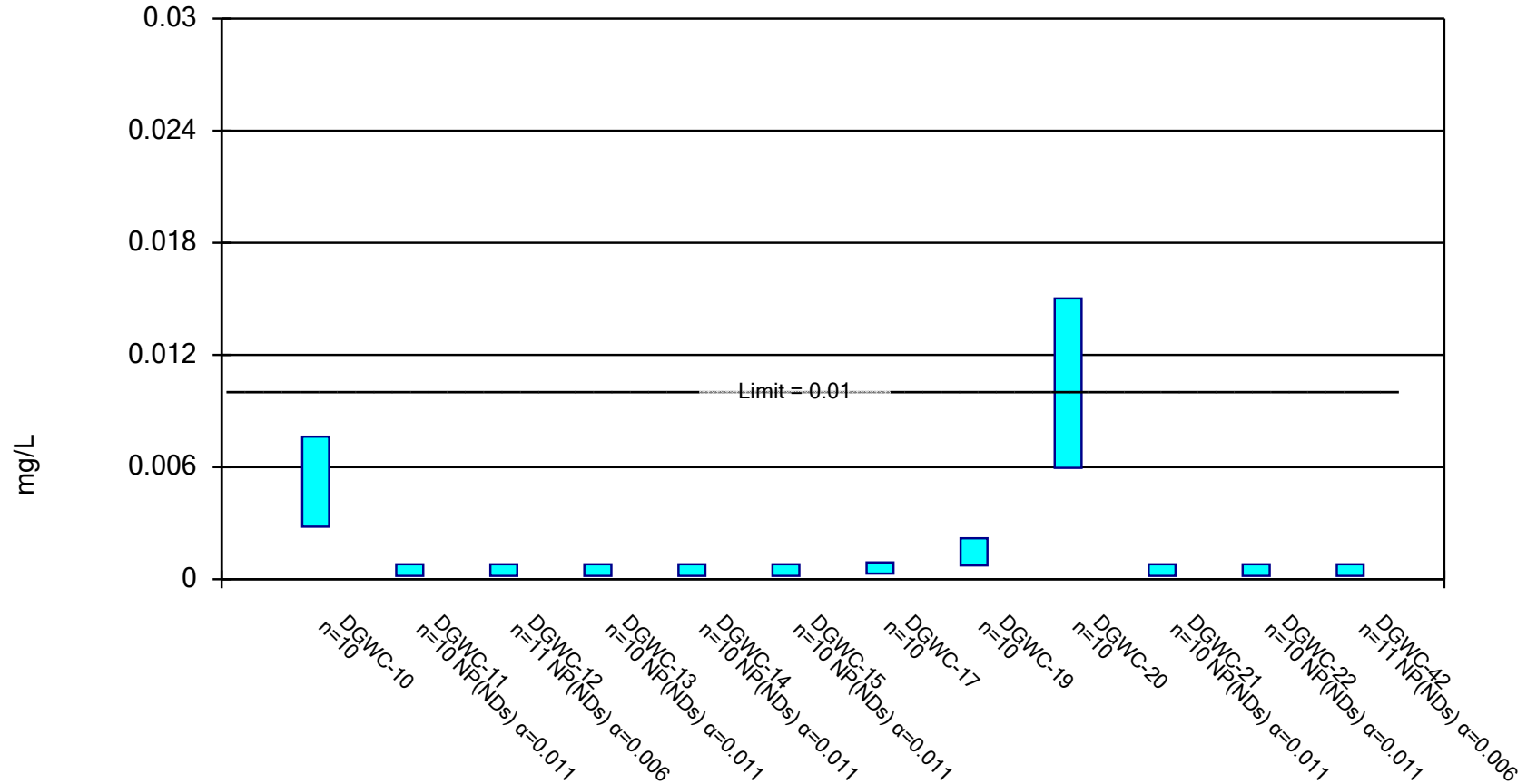
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

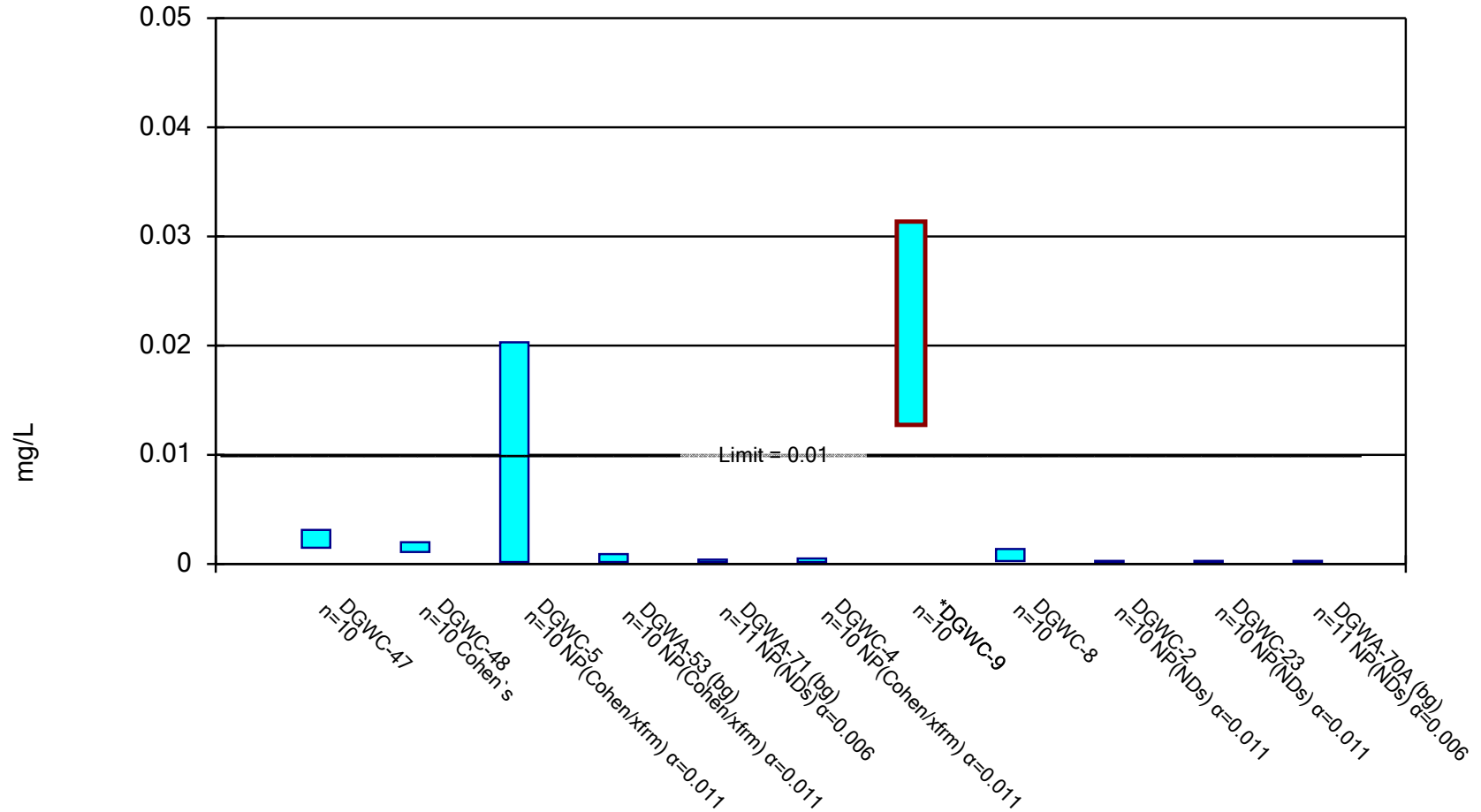


Constituent: Arsenic Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

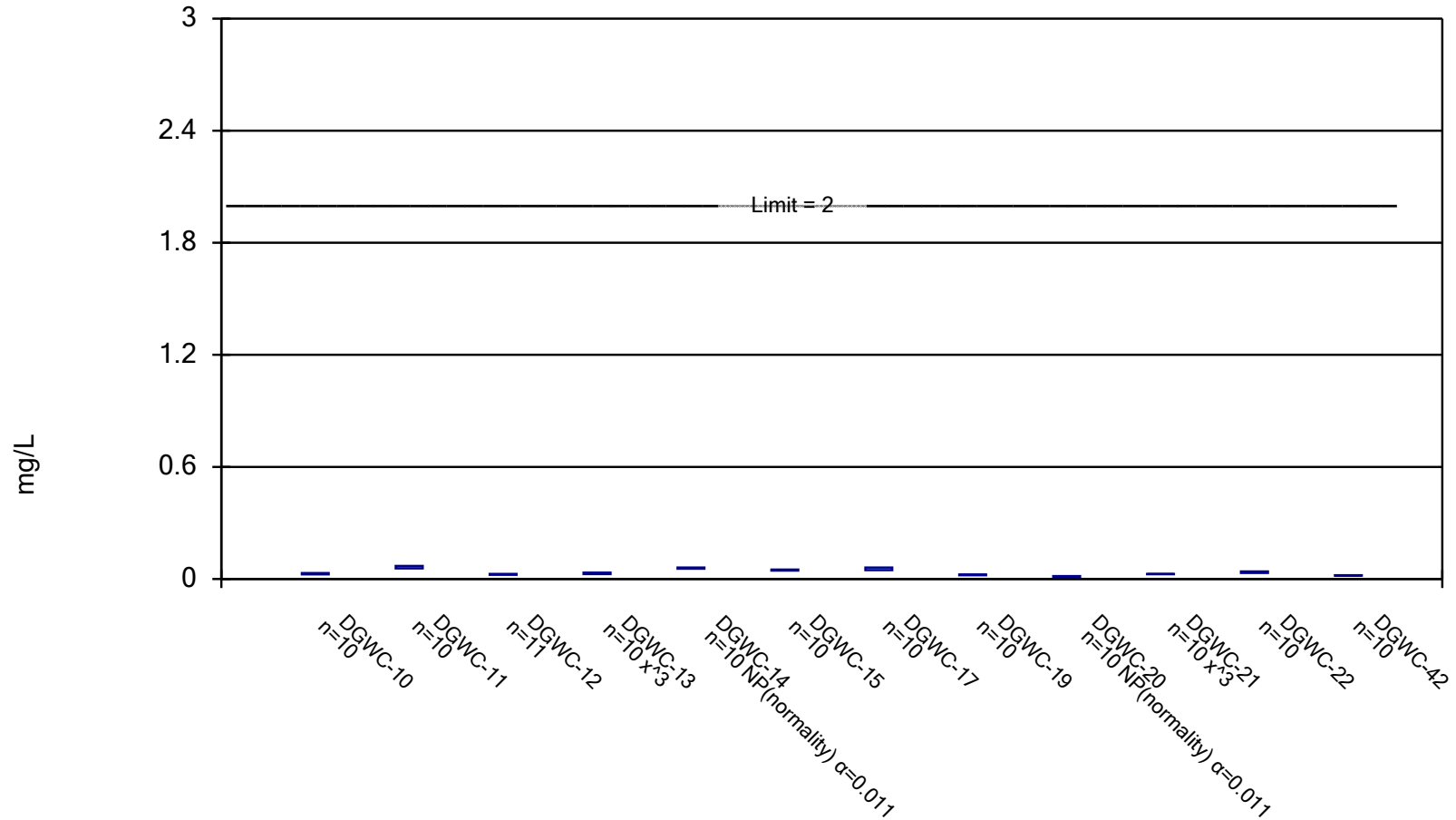


Constituent: Arsenic Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

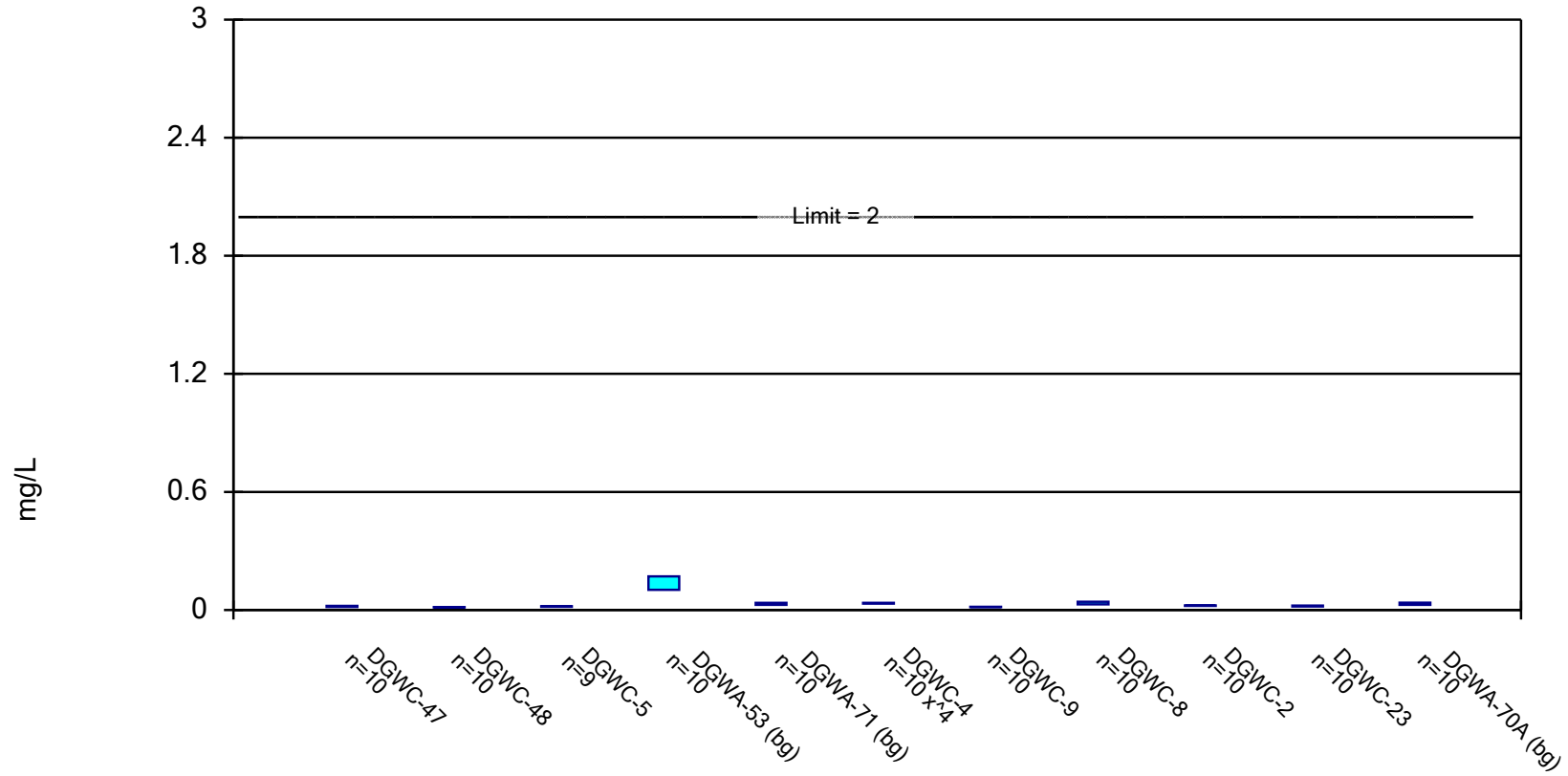
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric Confidence Interval

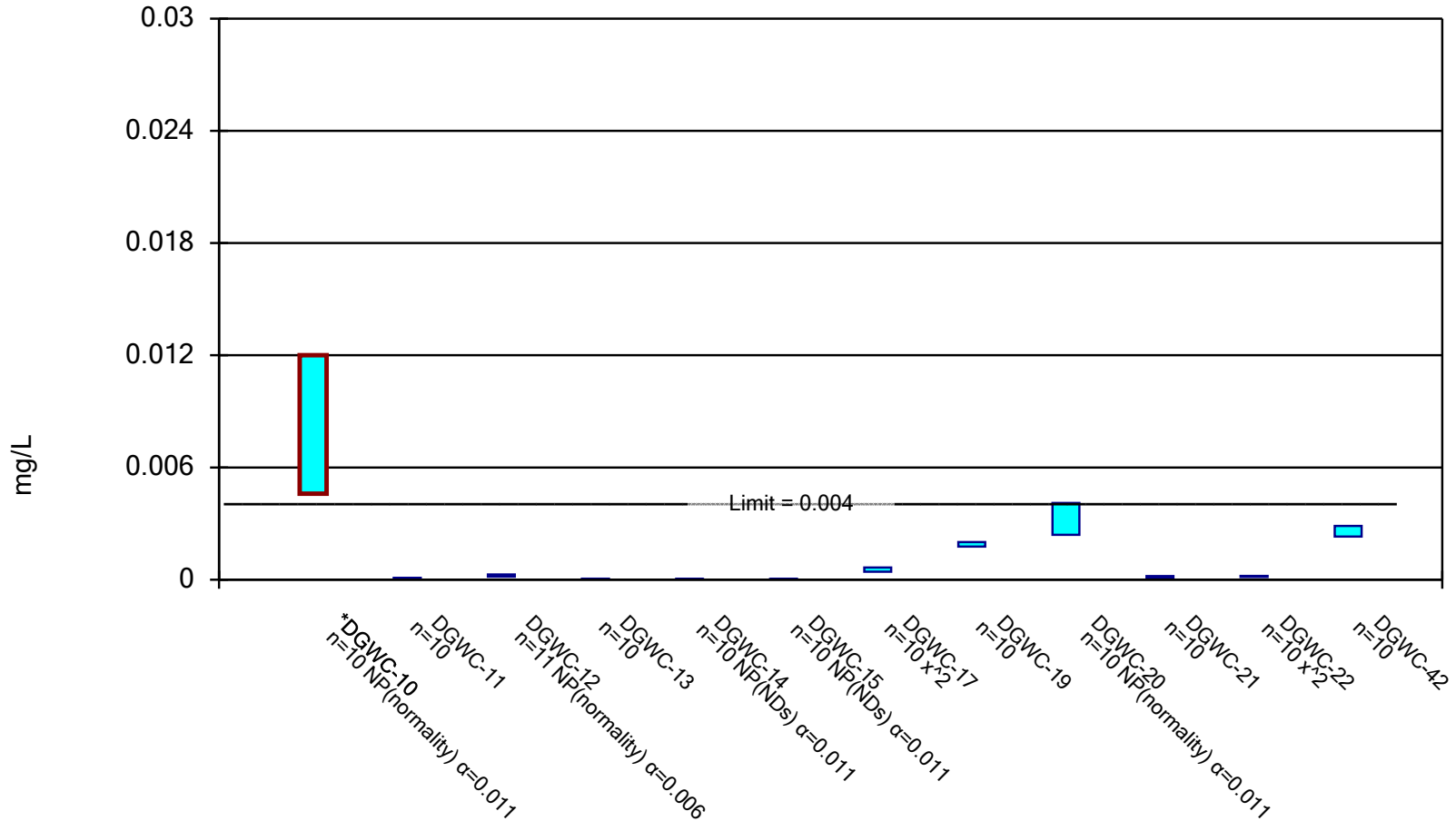
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

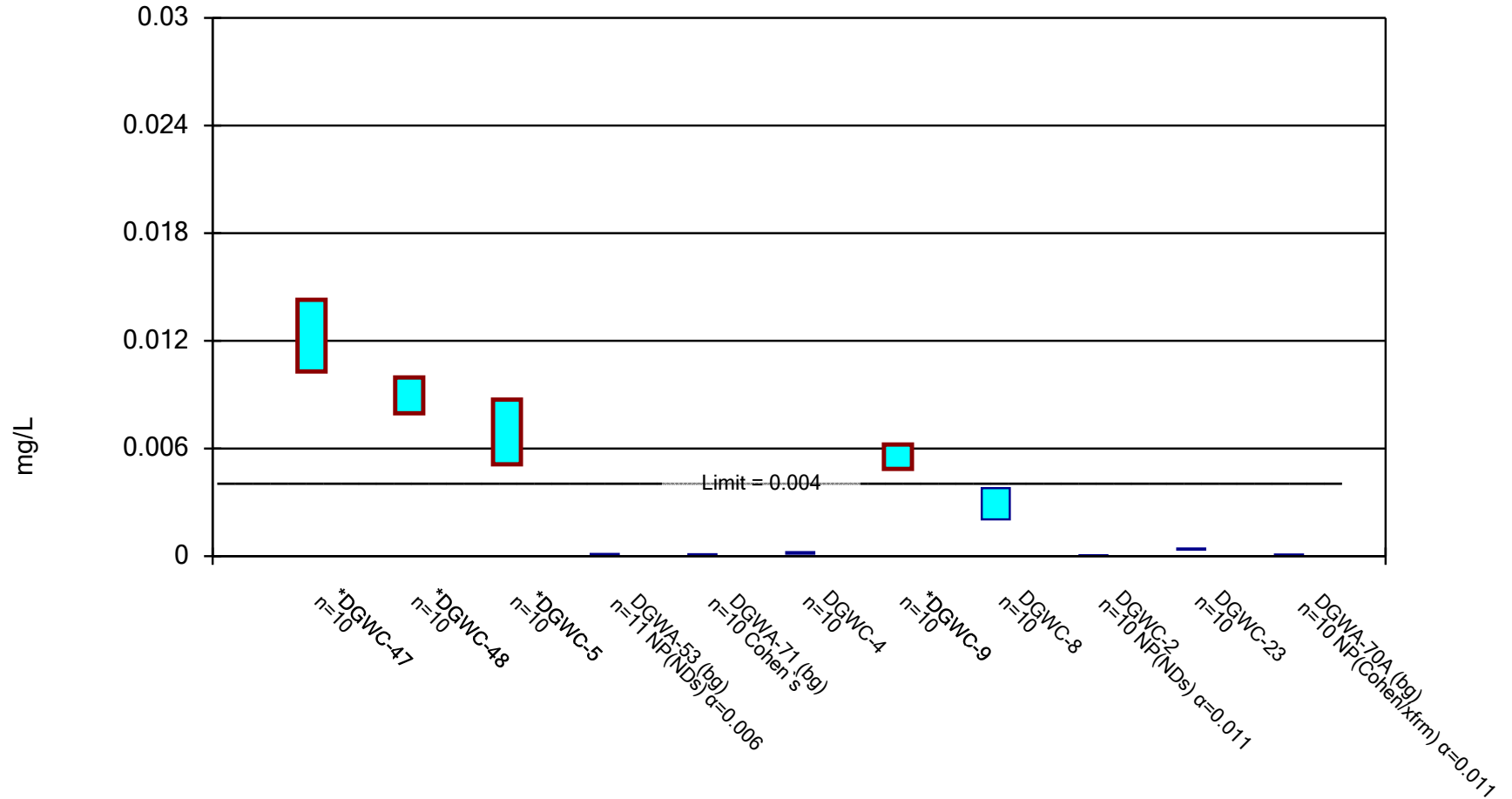
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

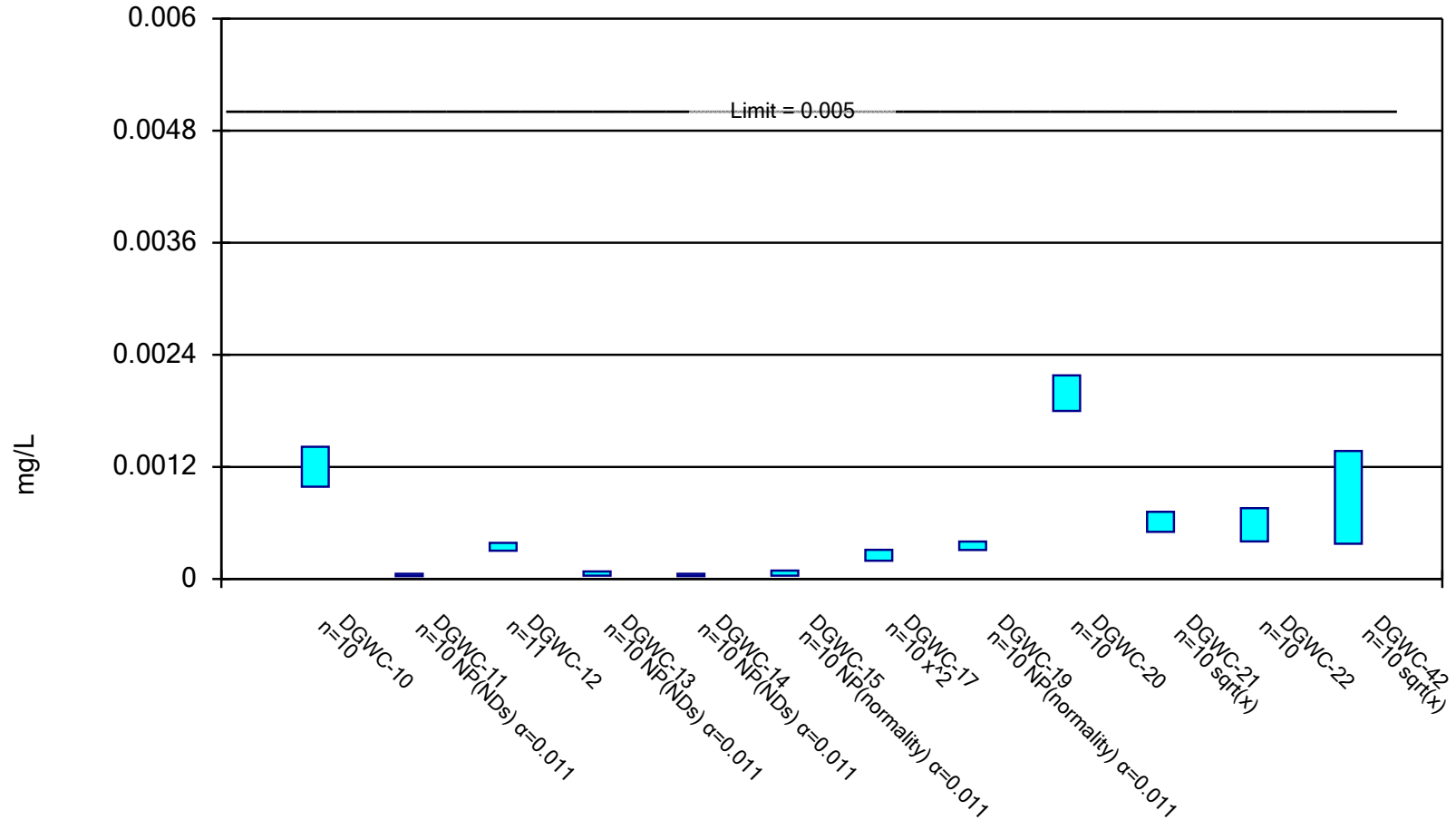
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

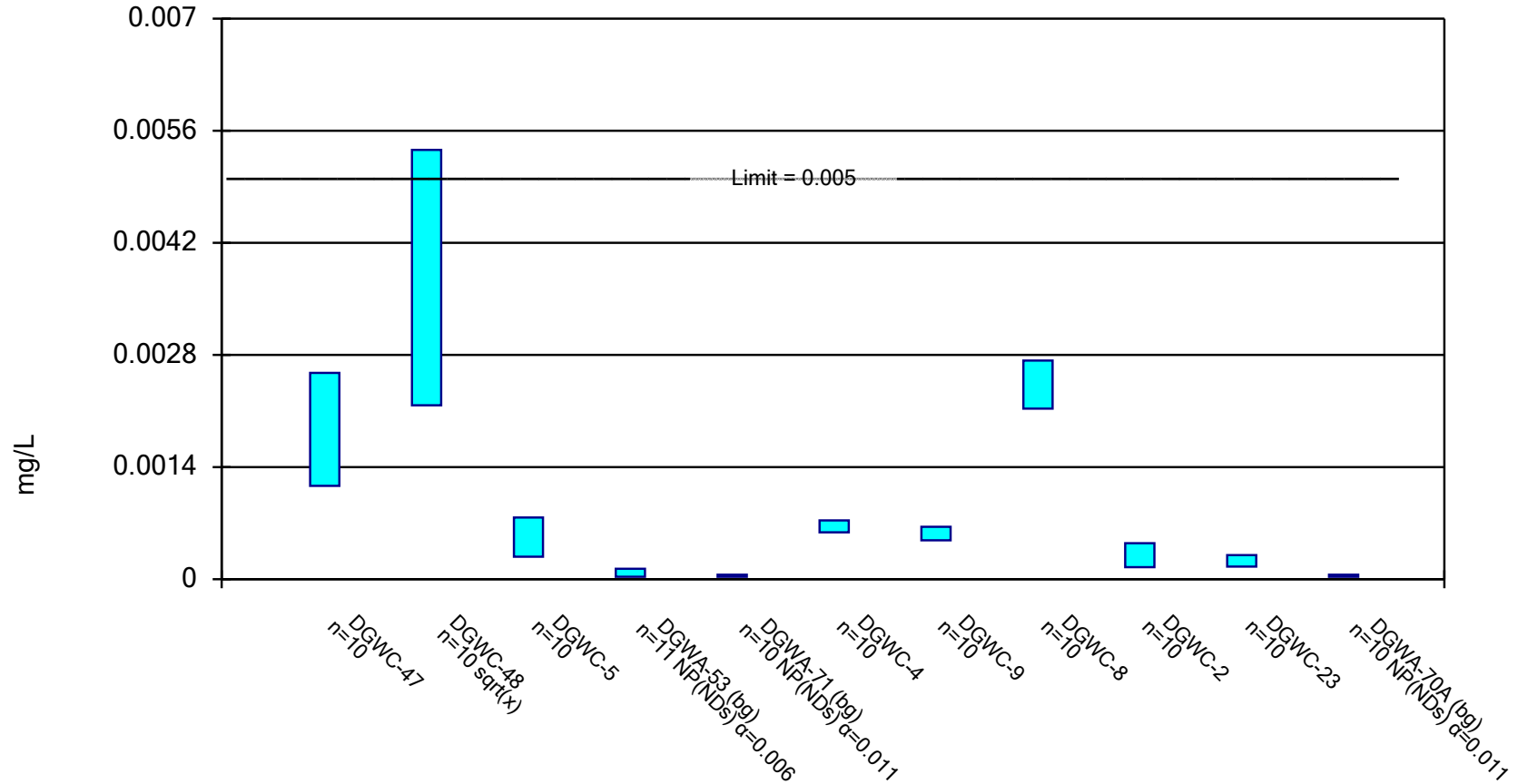


Constituent: Cadmium Analysis Run 3/20/2020 2:42 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

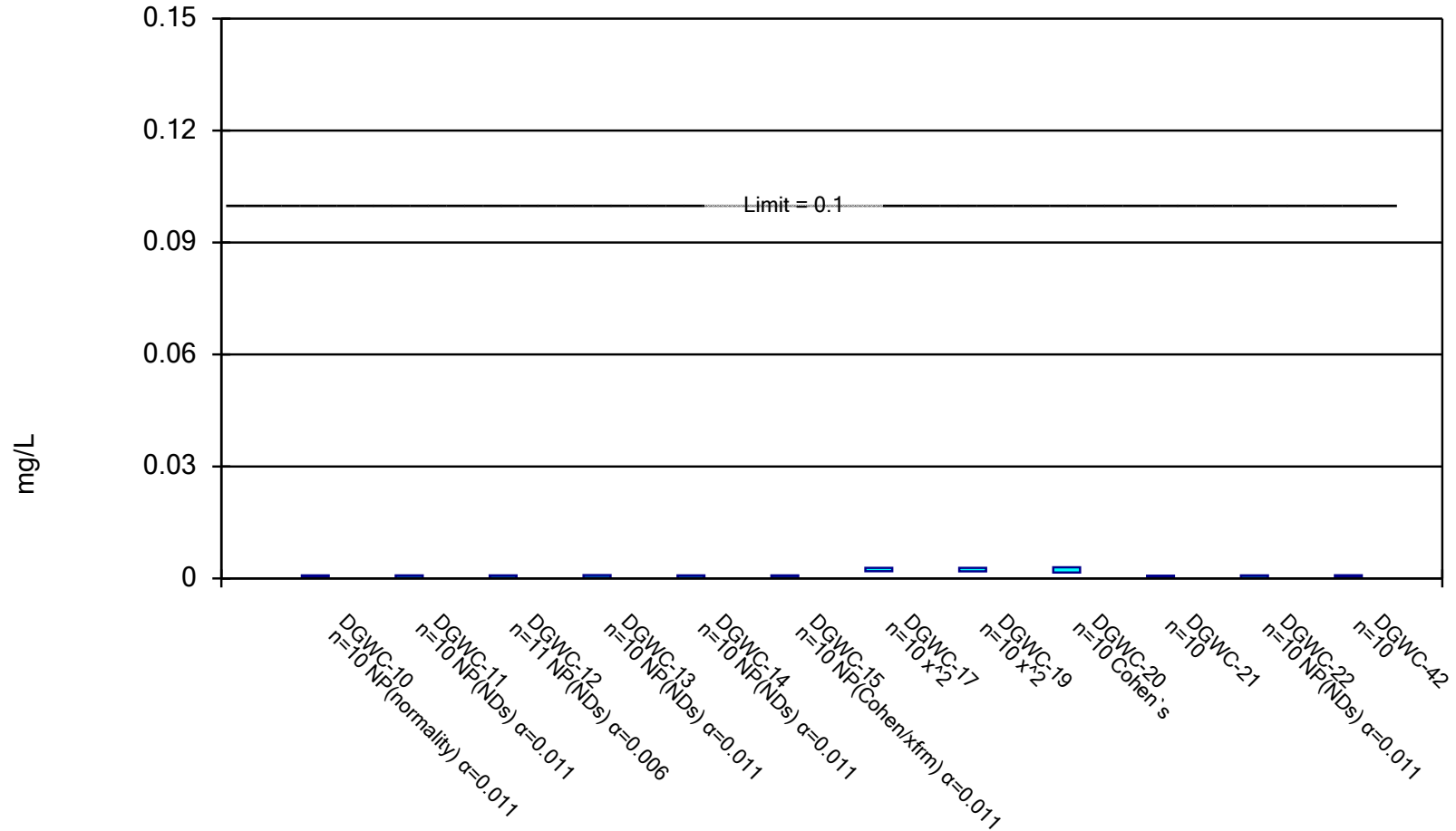


Constituent: Cadmium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

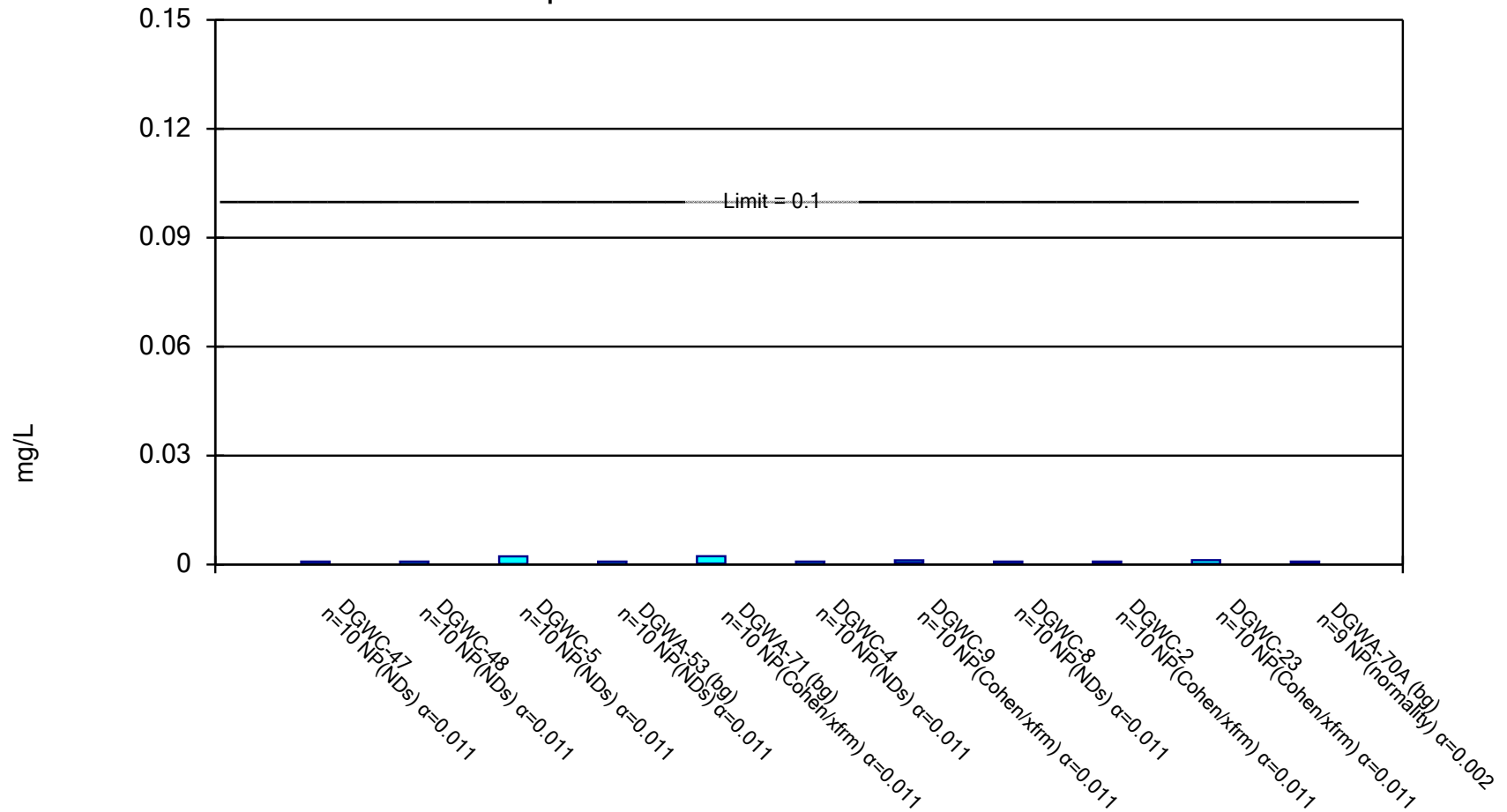
Parametric and Non-Parametric (NP) Confidence Interval

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



Constituent: Chromium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

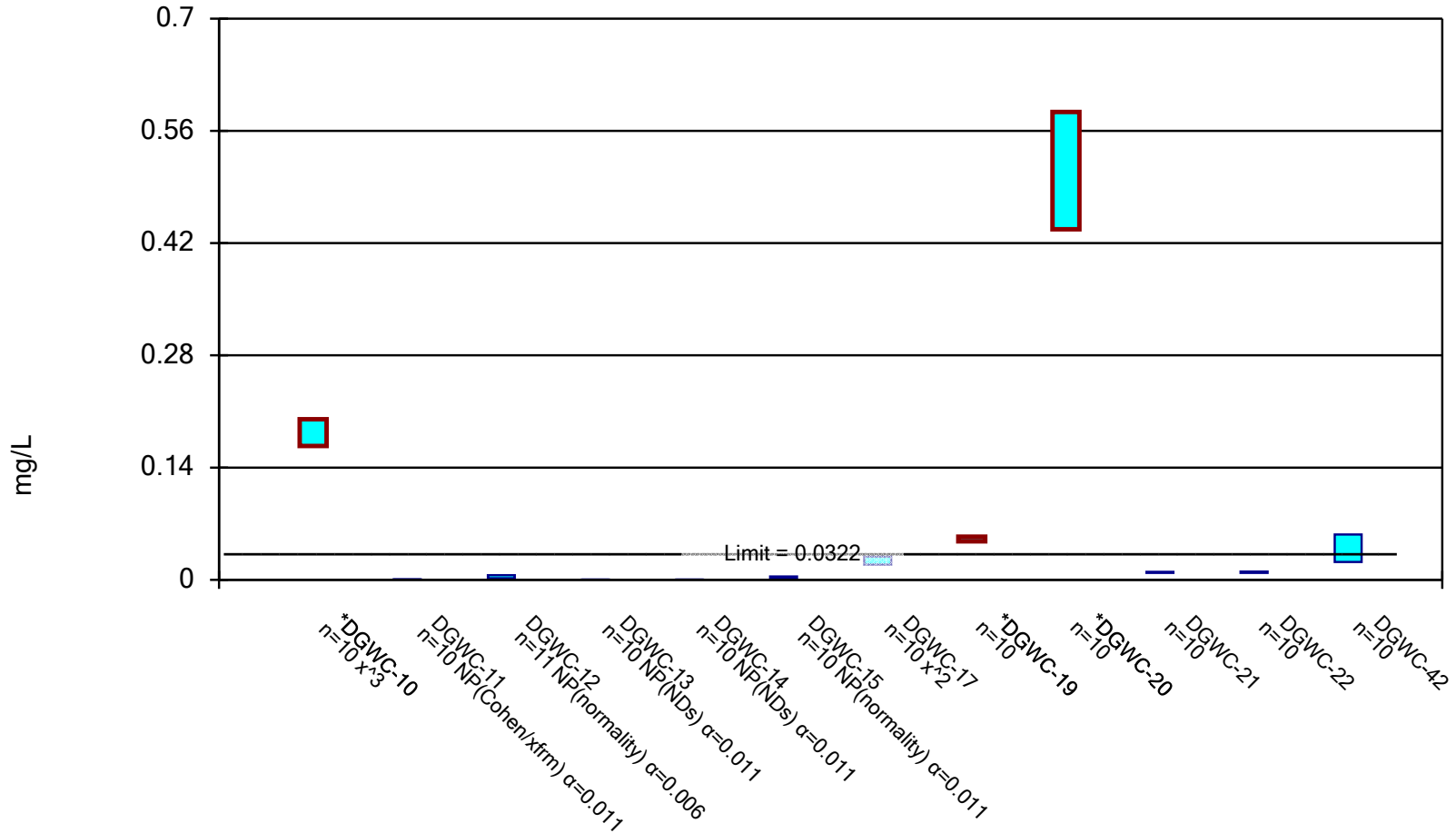
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

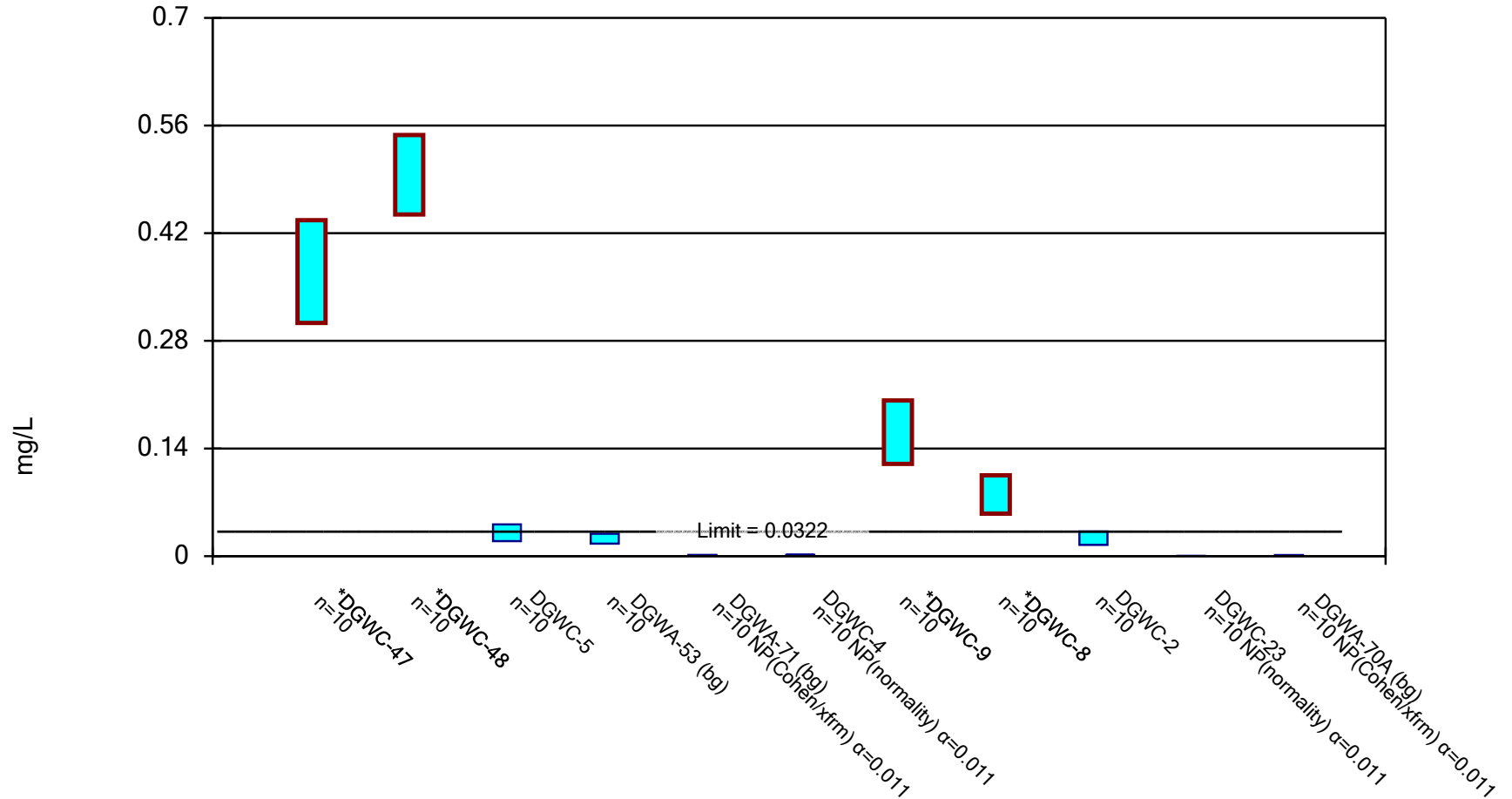


Constituent: Cobalt Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

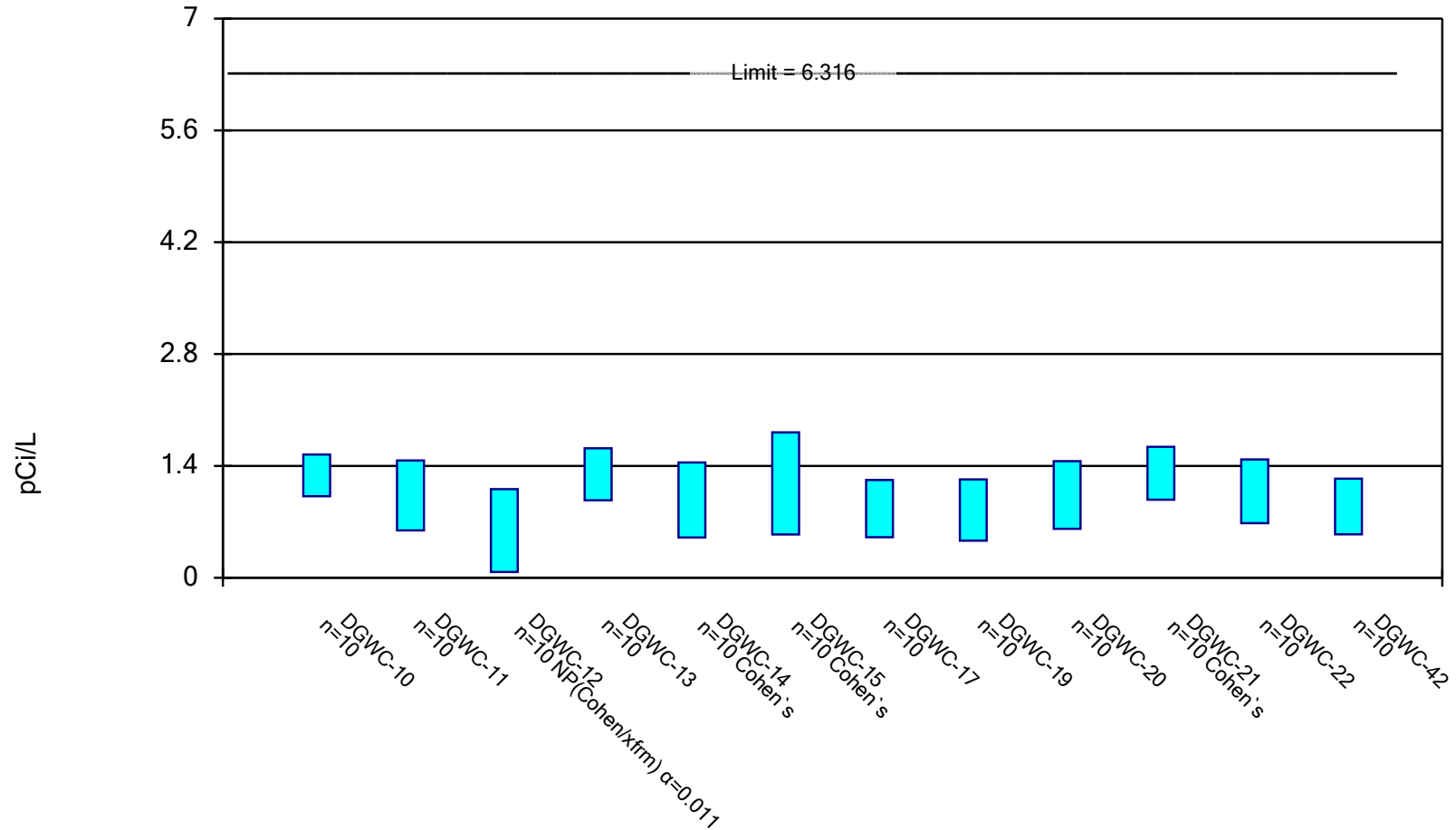


Constituent: Cobalt Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

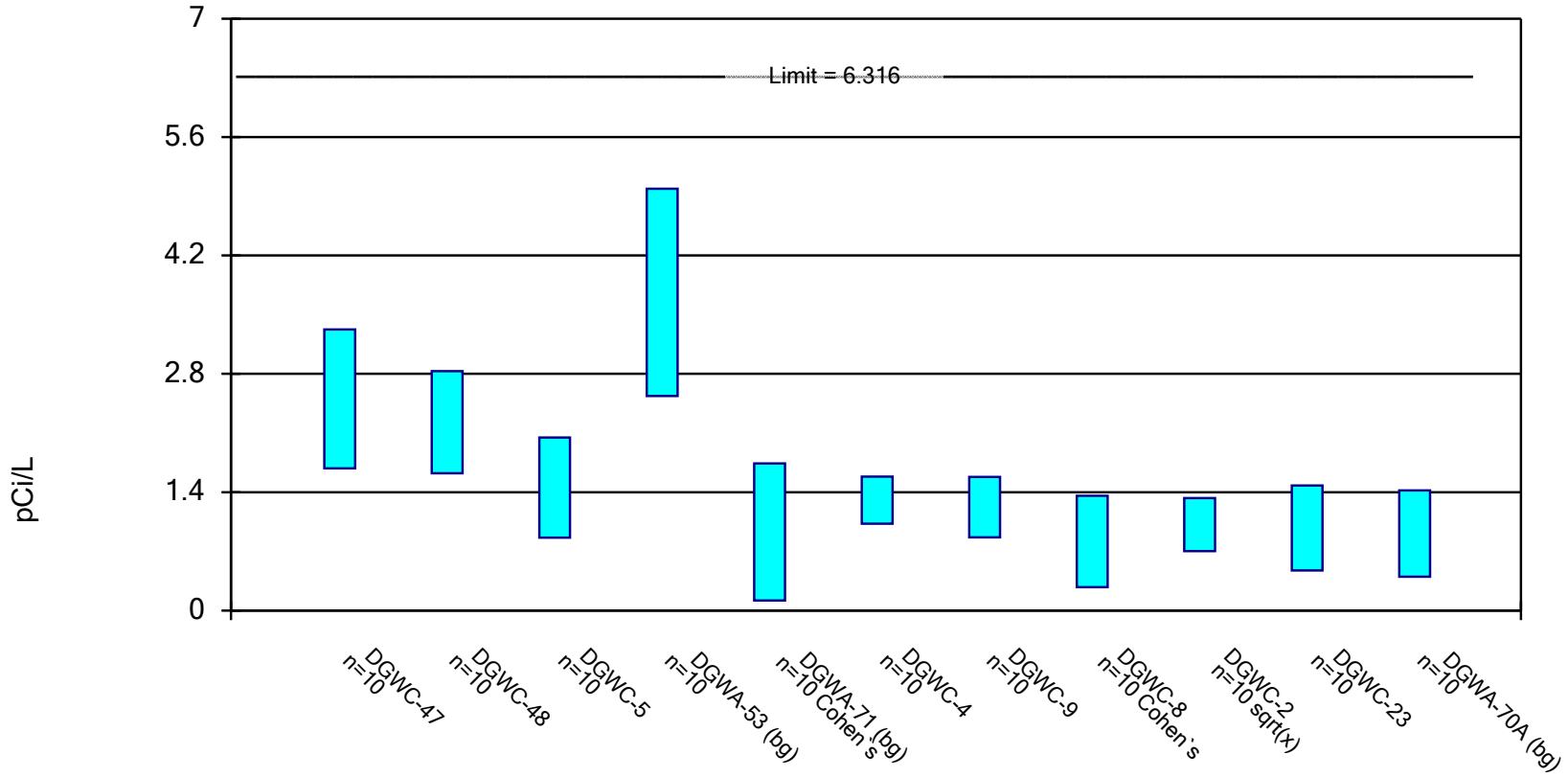
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2020 2:43 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric Confidence Interval

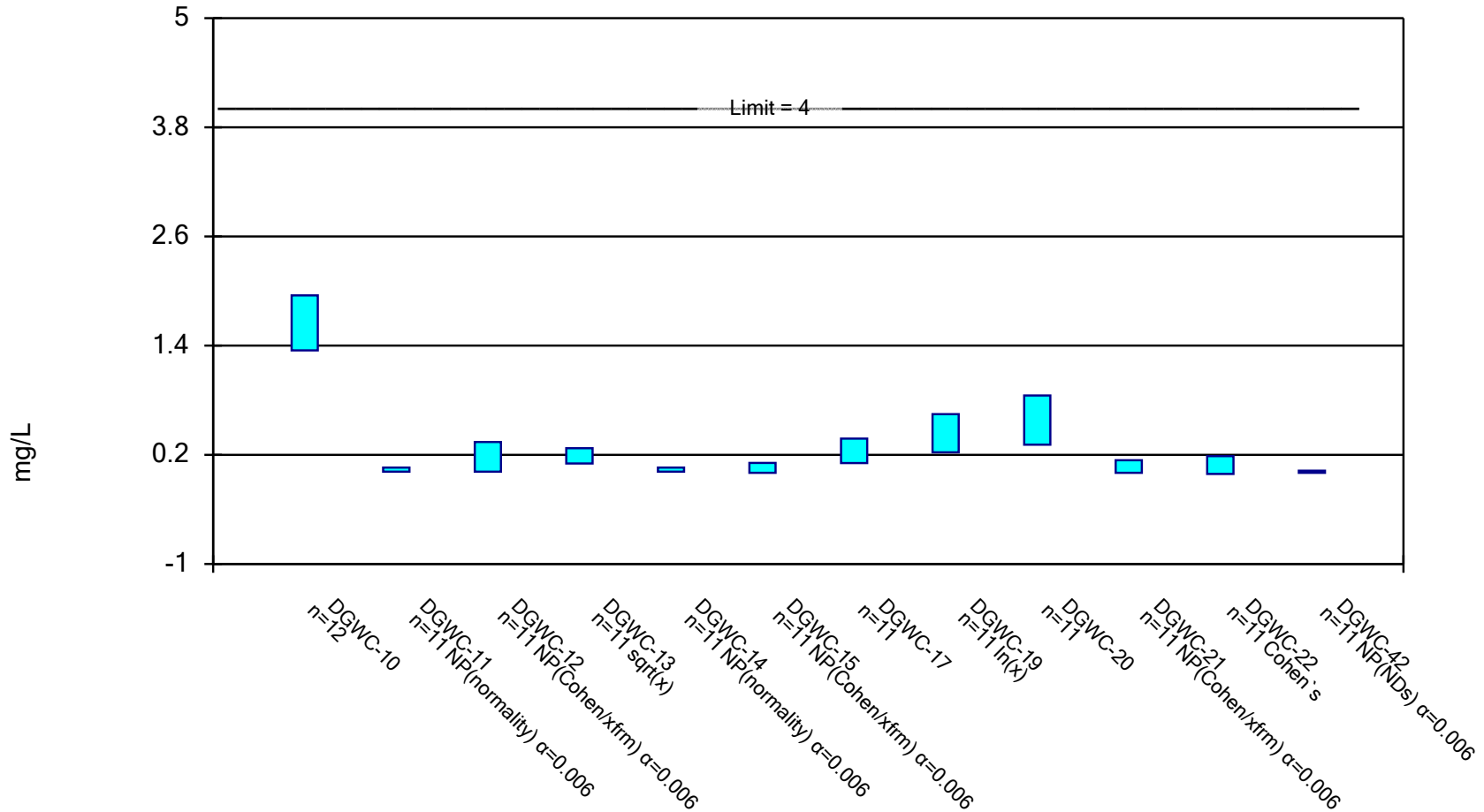
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2020 2:43 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

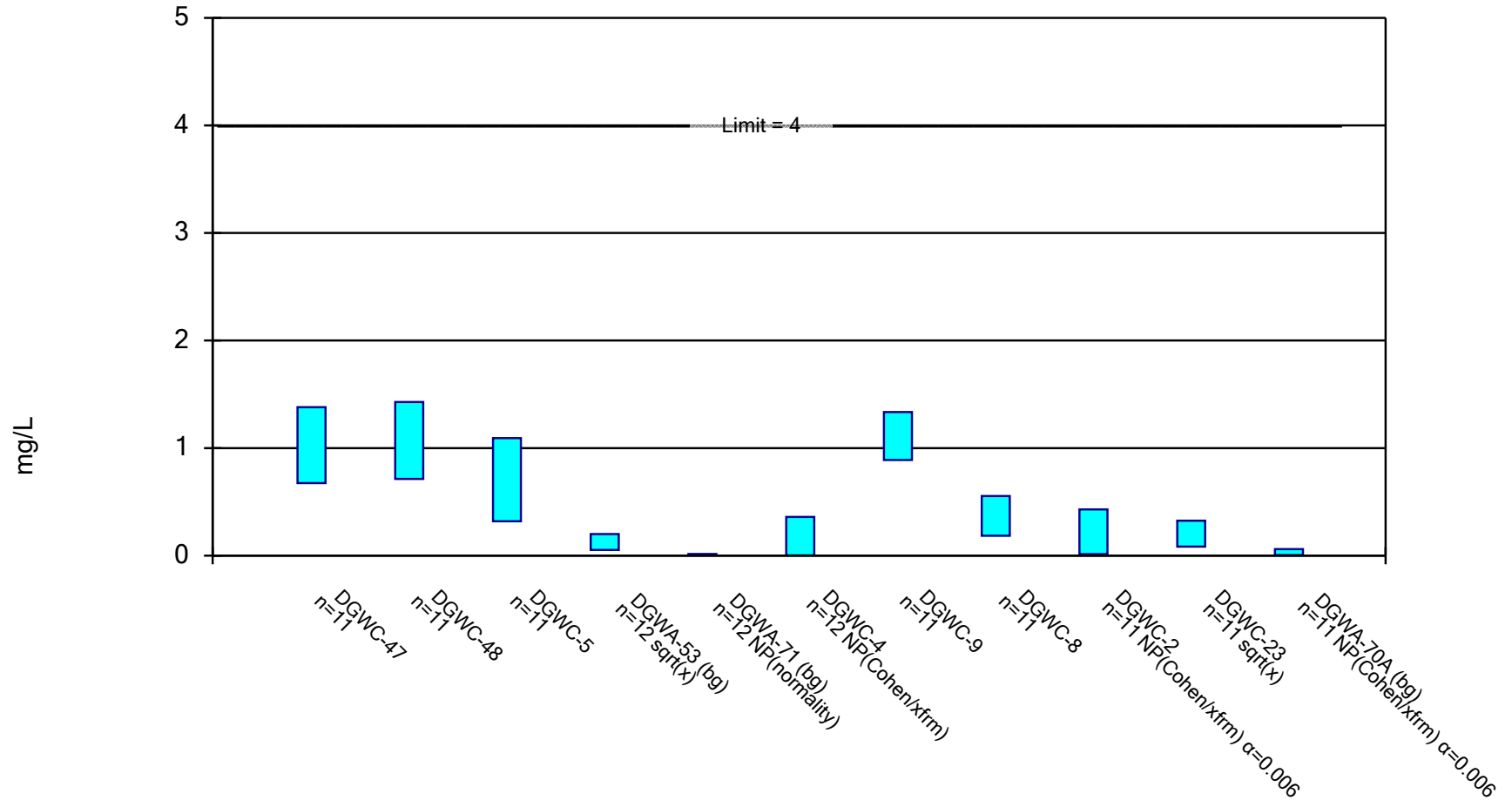
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

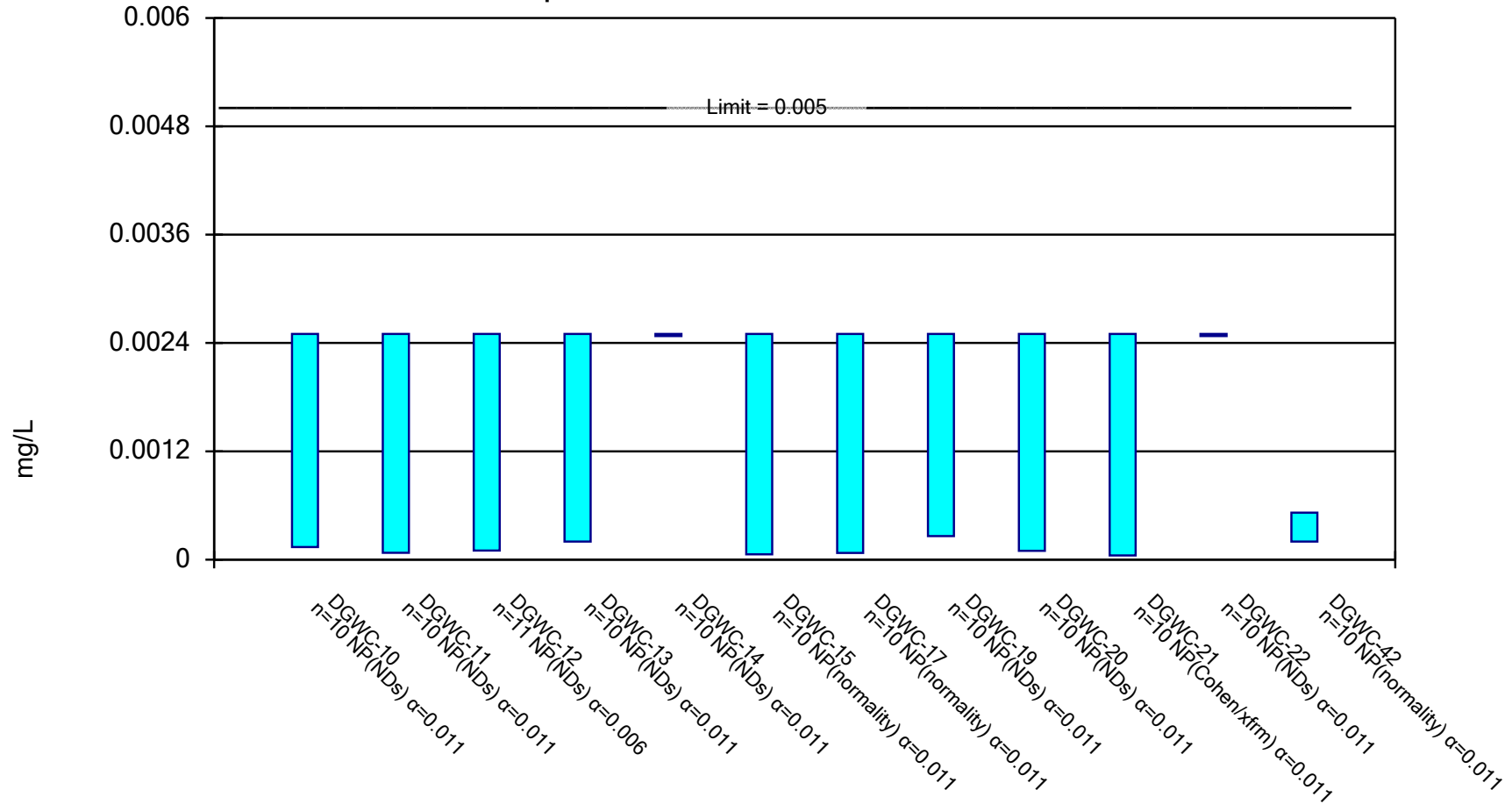


Constituent: Fluoride Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Non-Parametric Confidence Interval

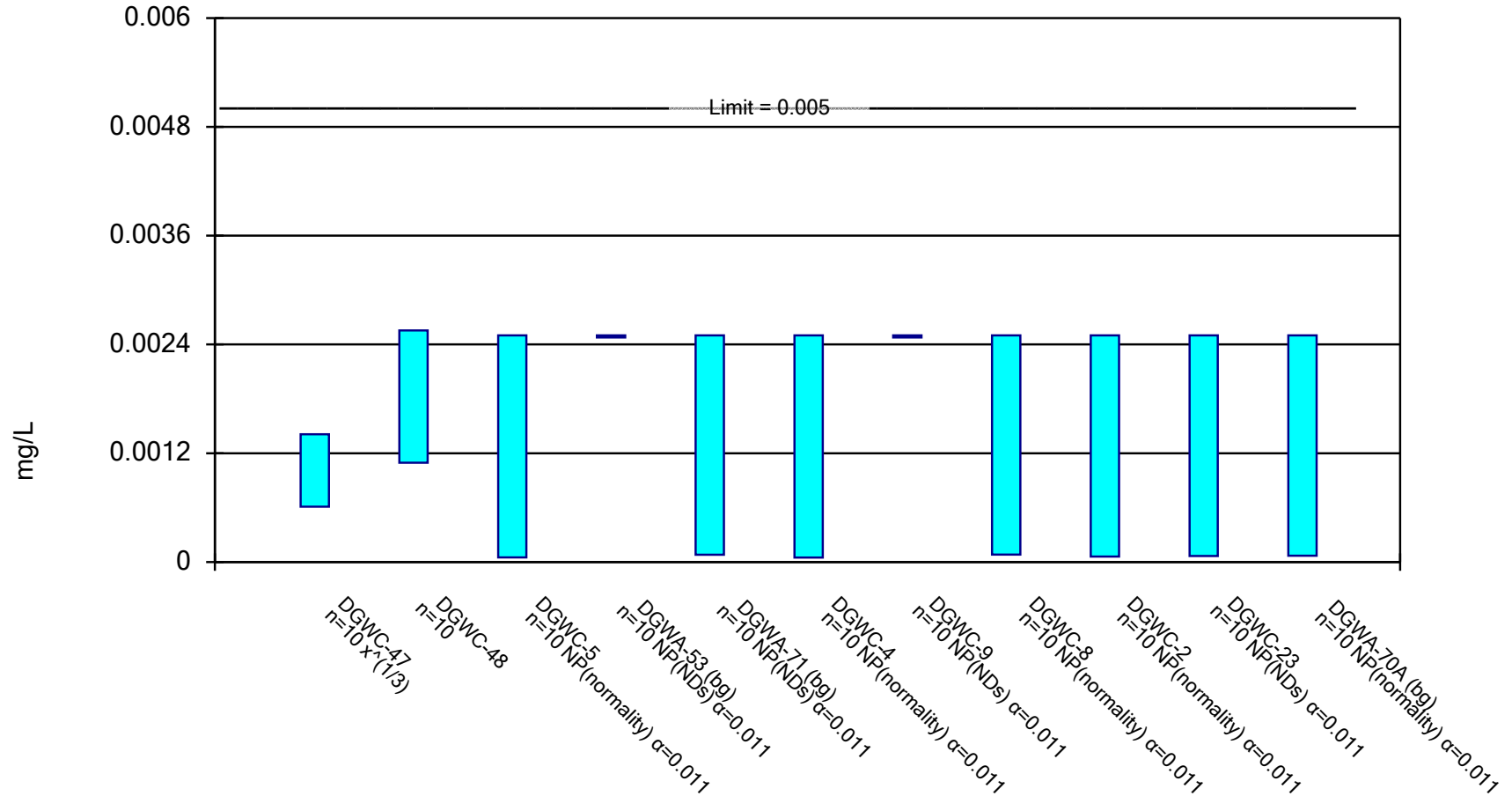
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

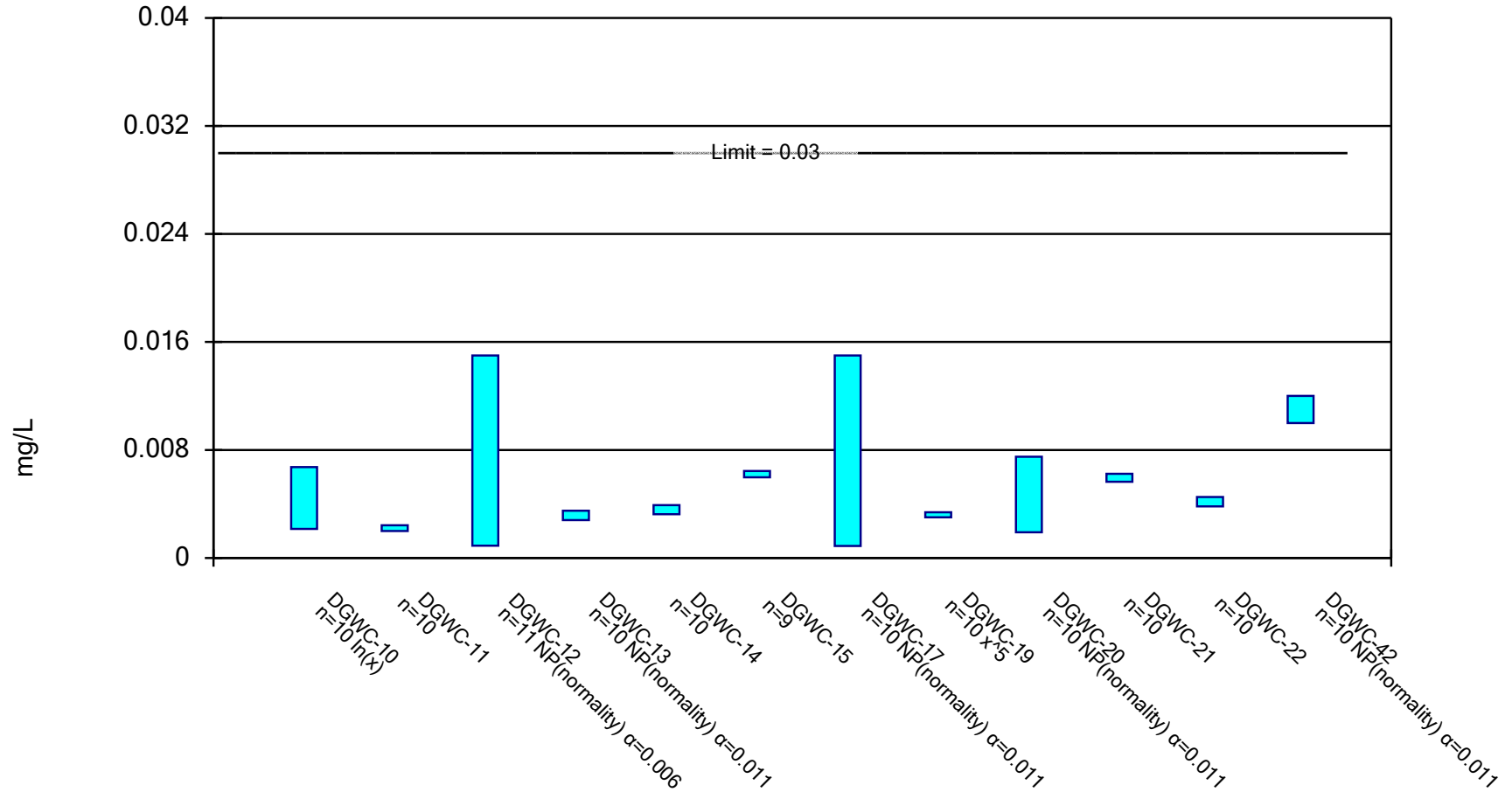


Constituent: Lead Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

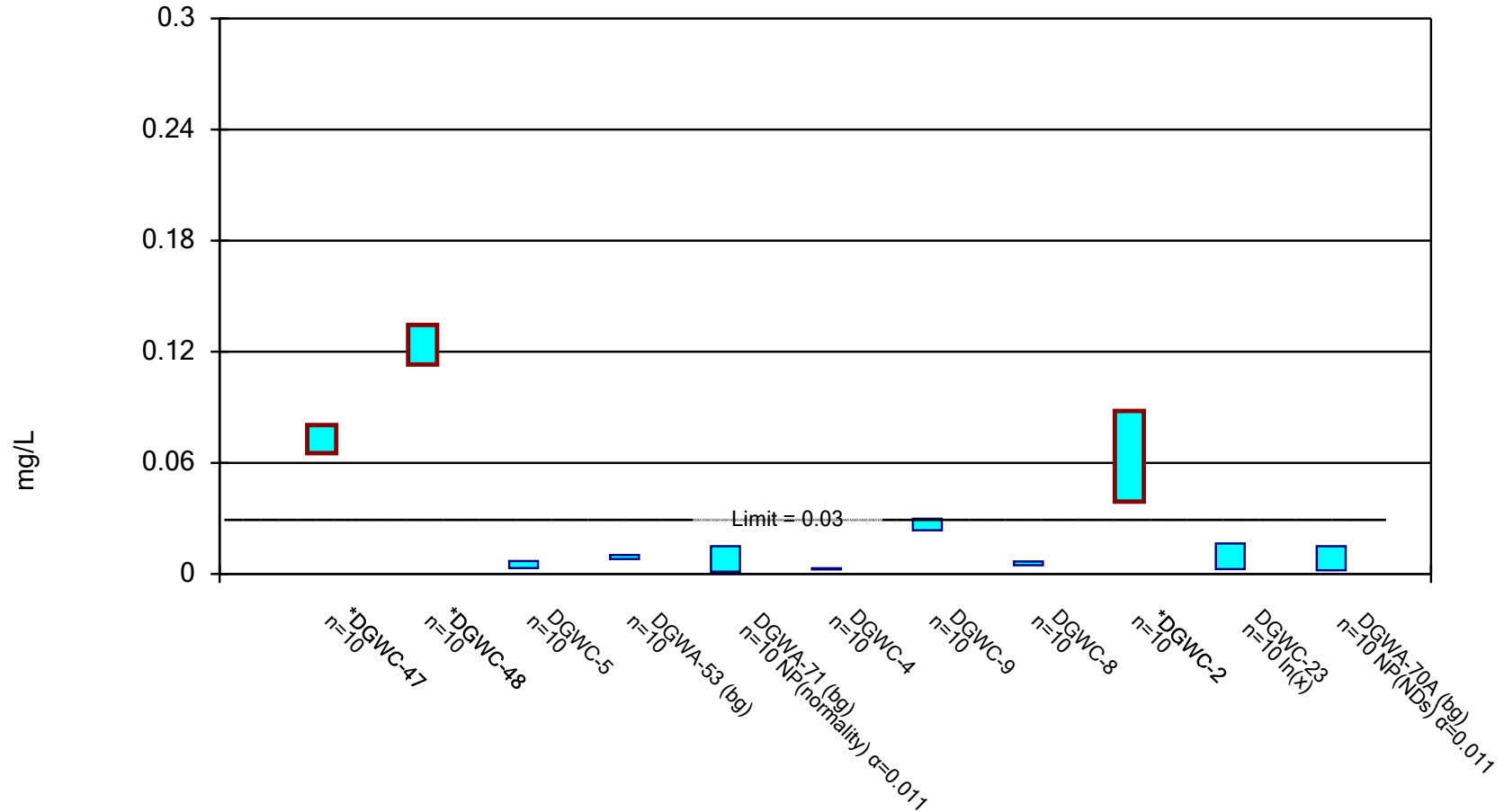


Constituent: Lithium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

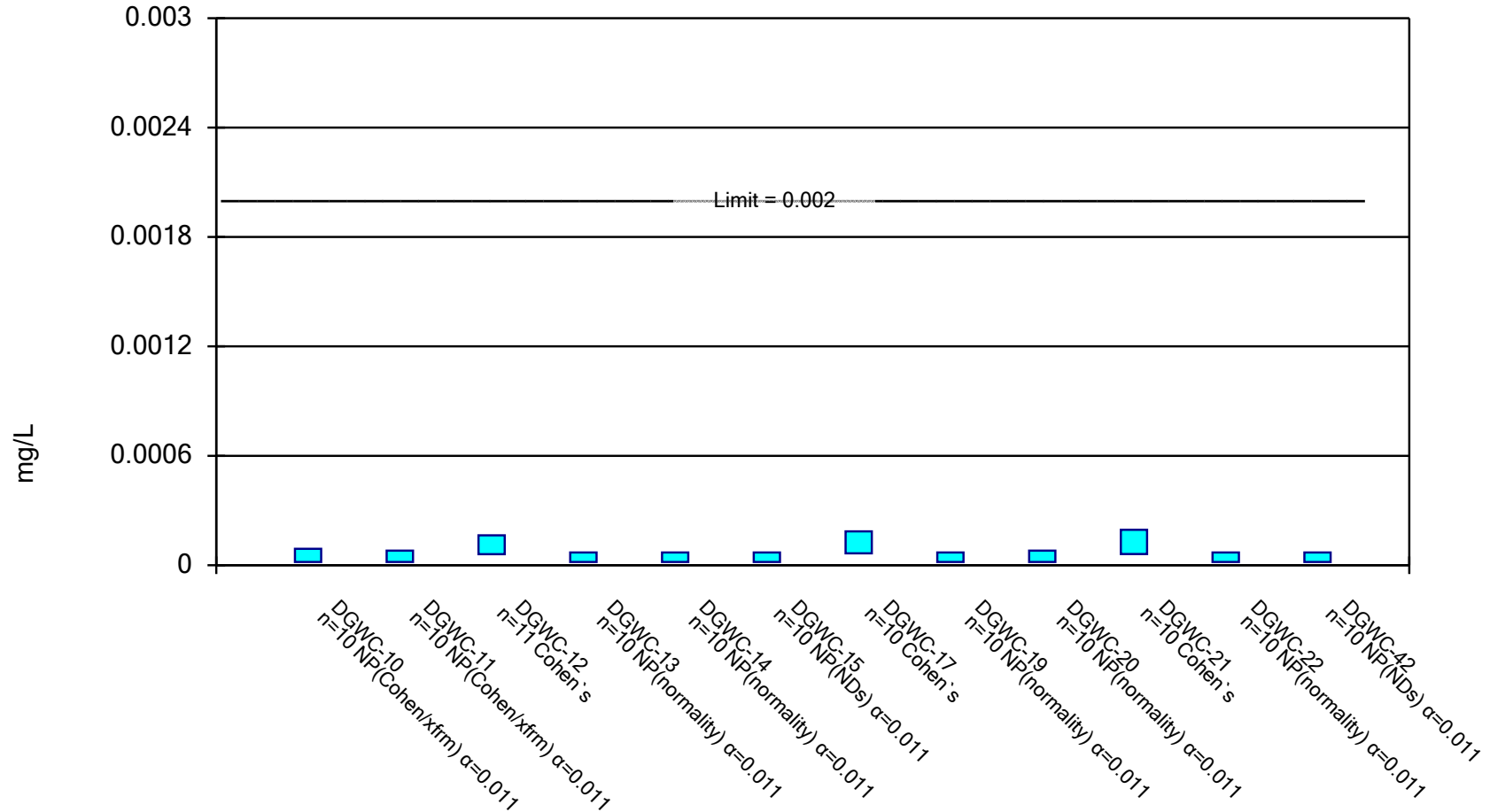
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

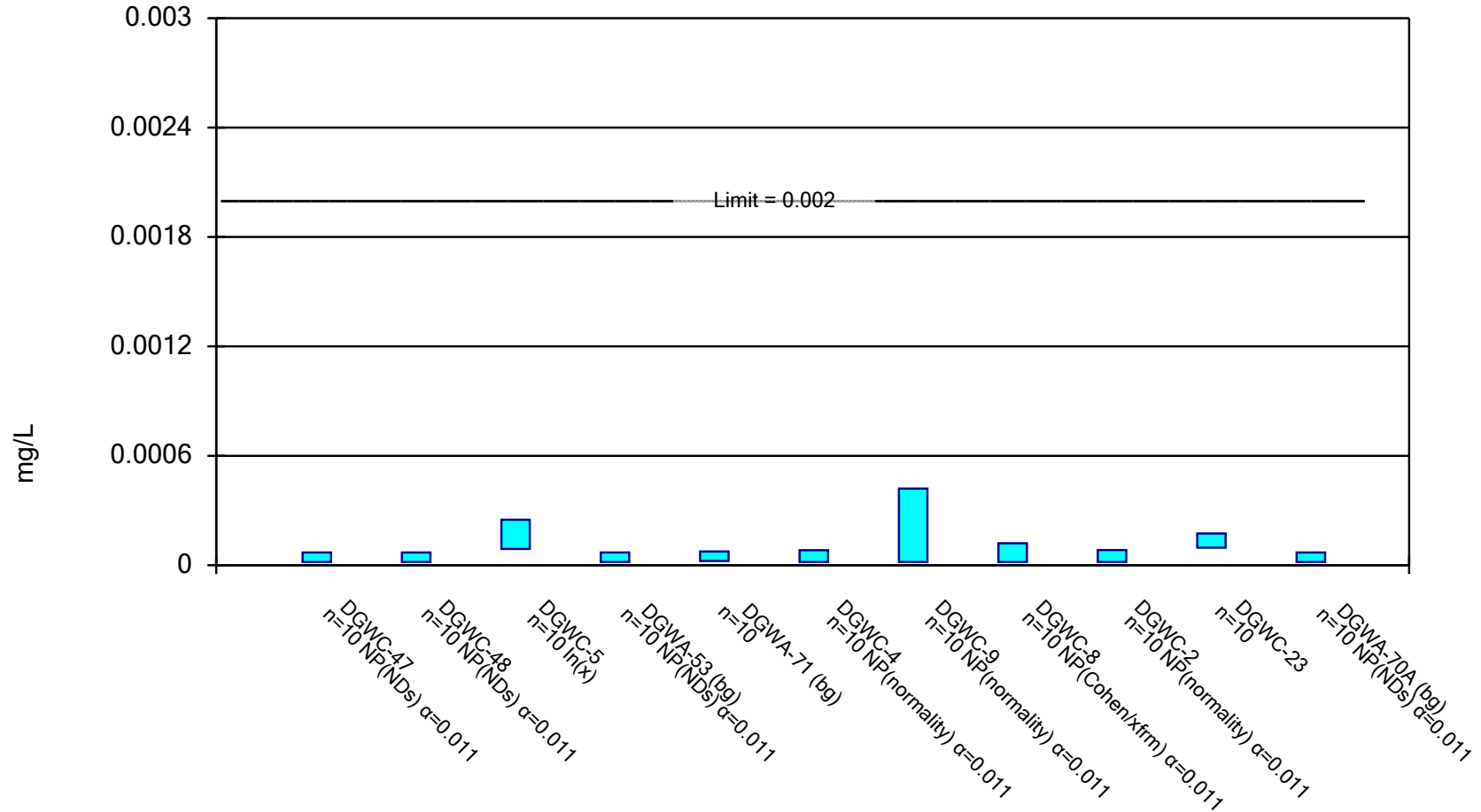
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

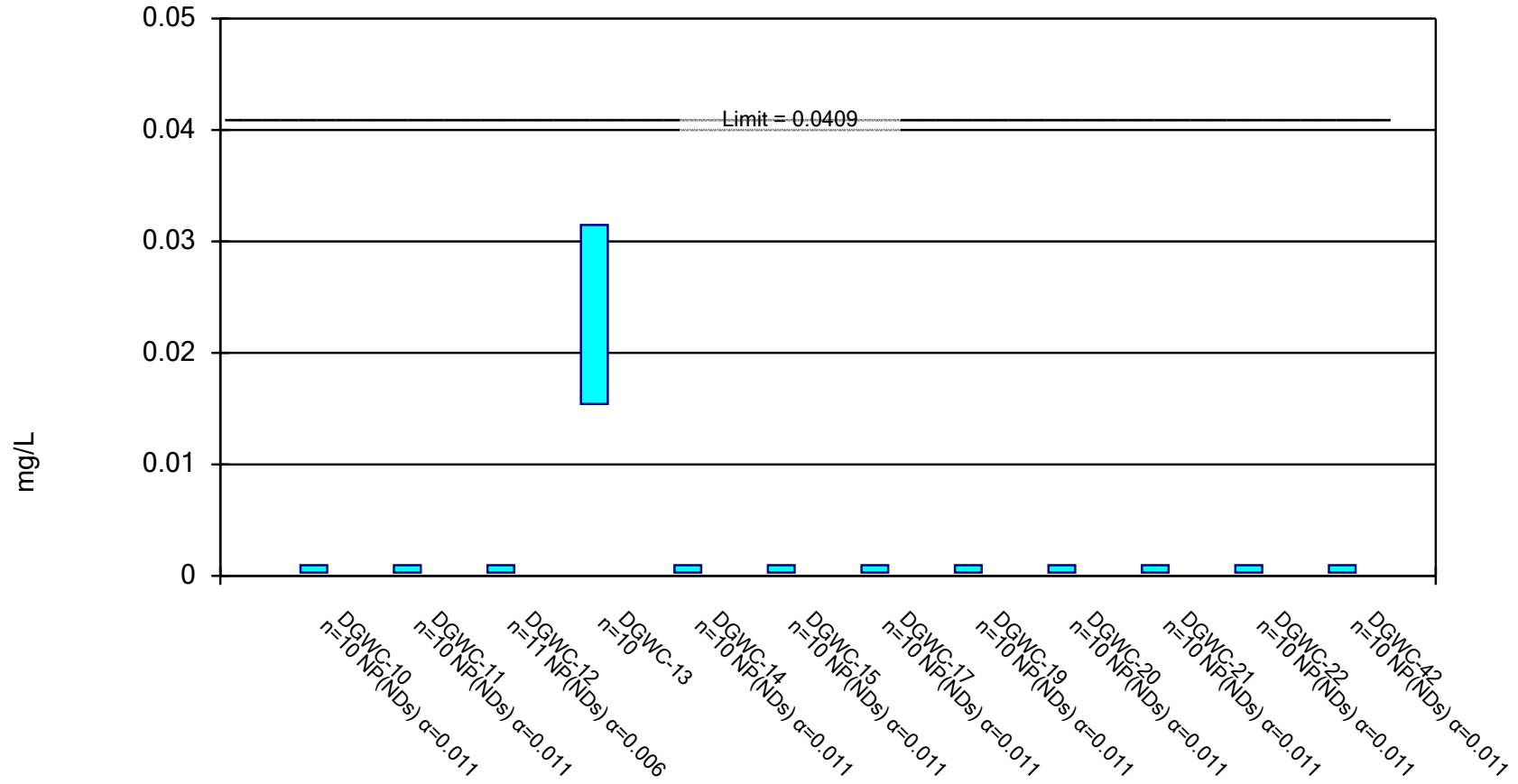
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

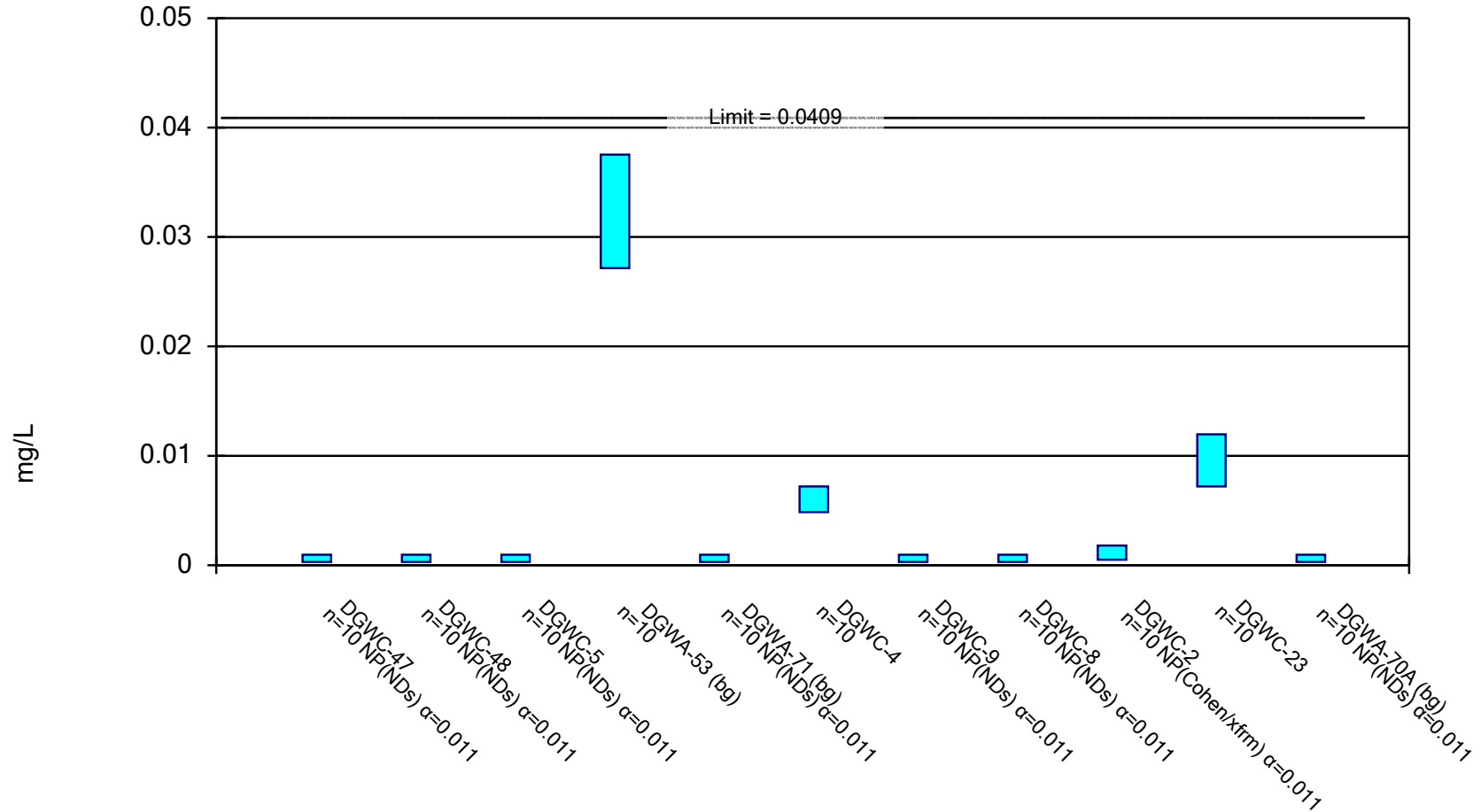
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

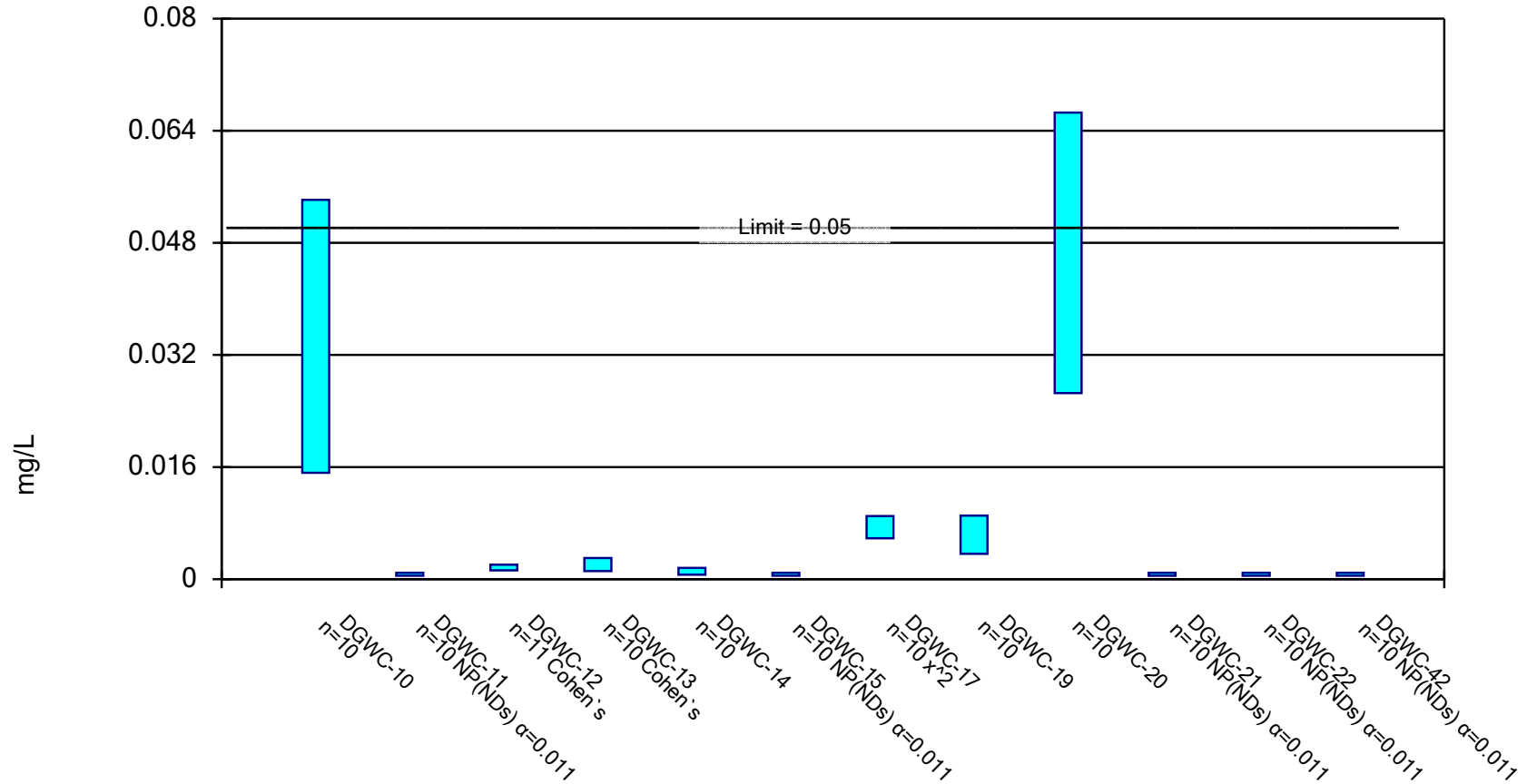
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

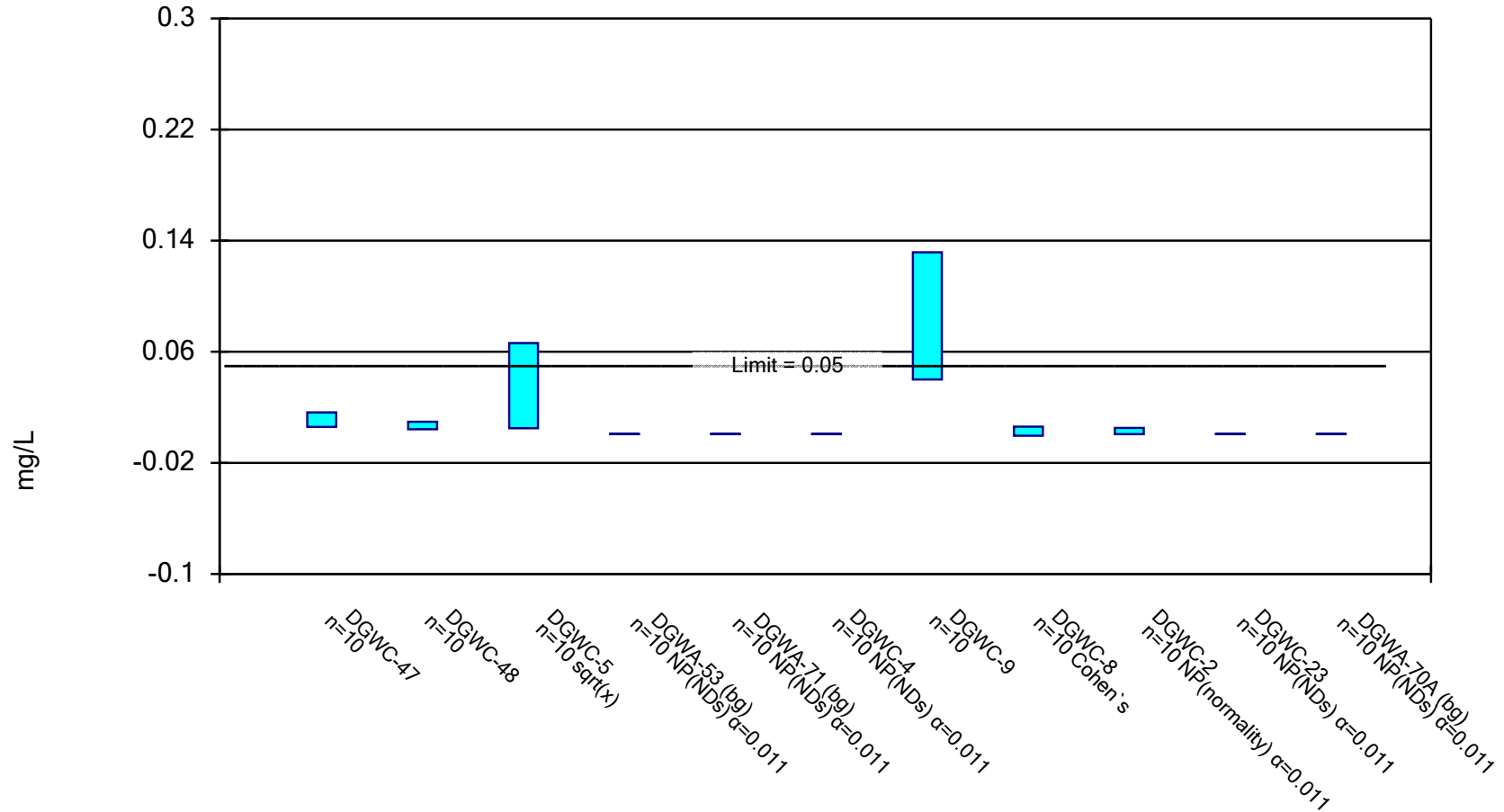


Constituent: Selenium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

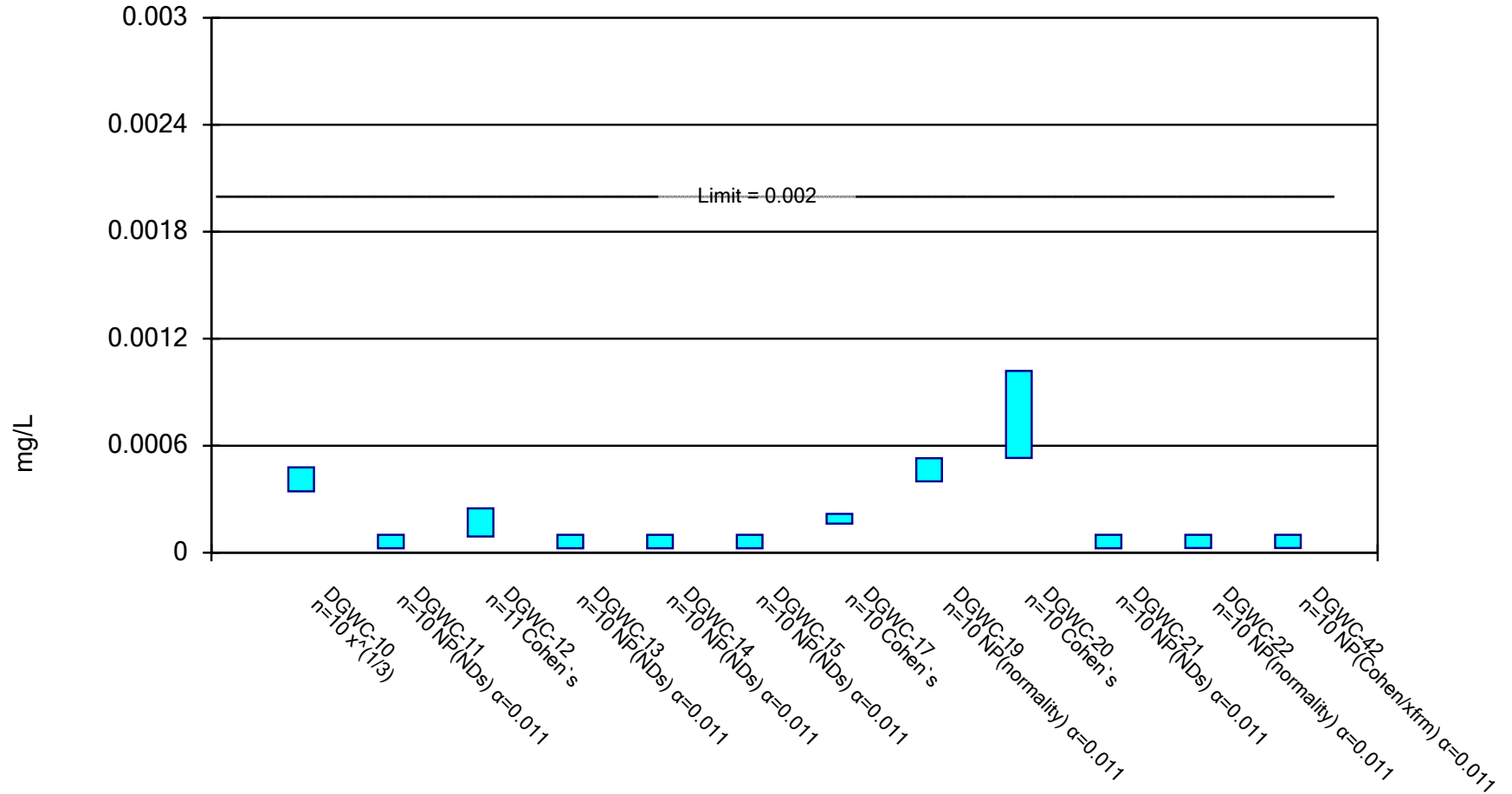


Constituent: Selenium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

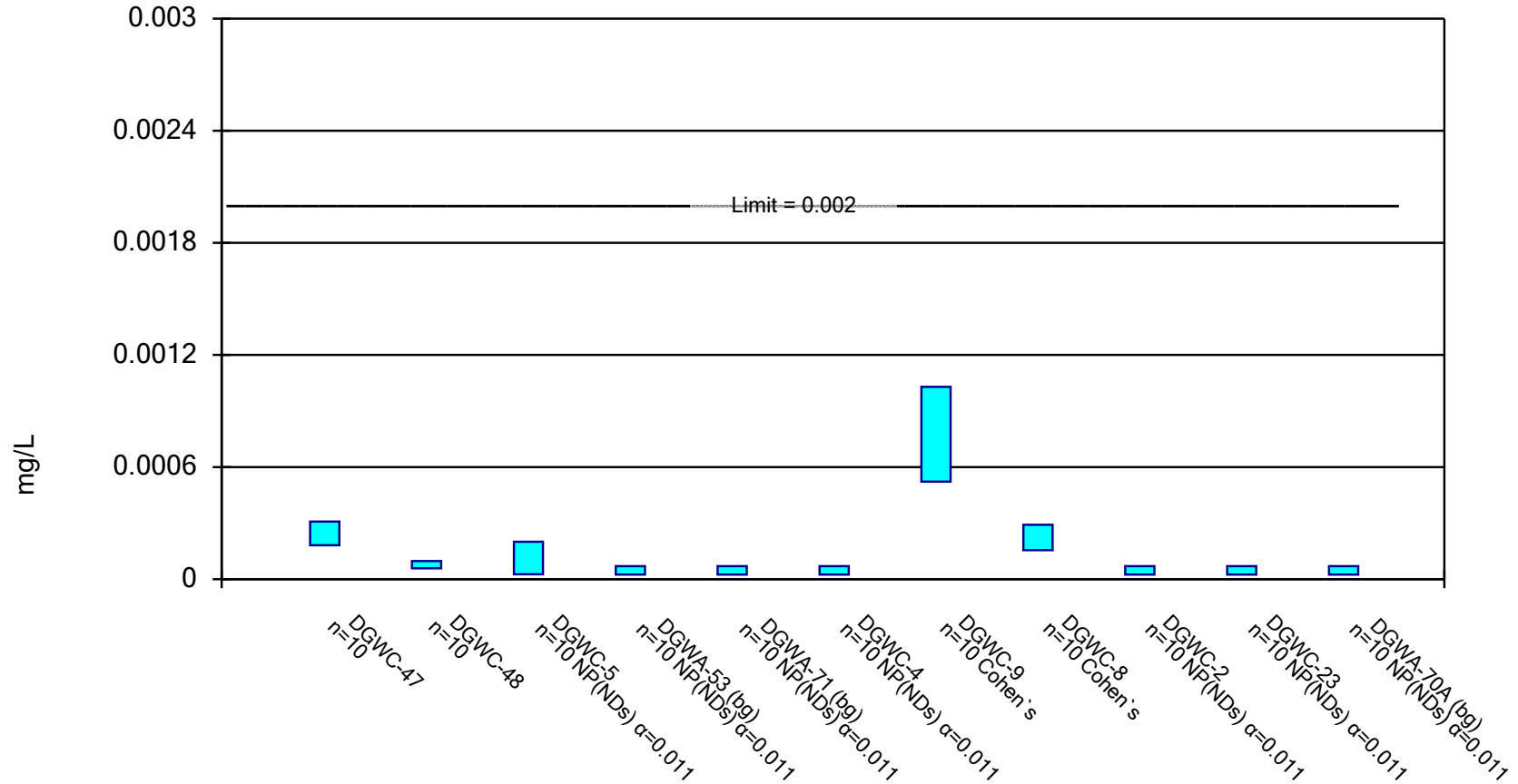


Constituent: Thallium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

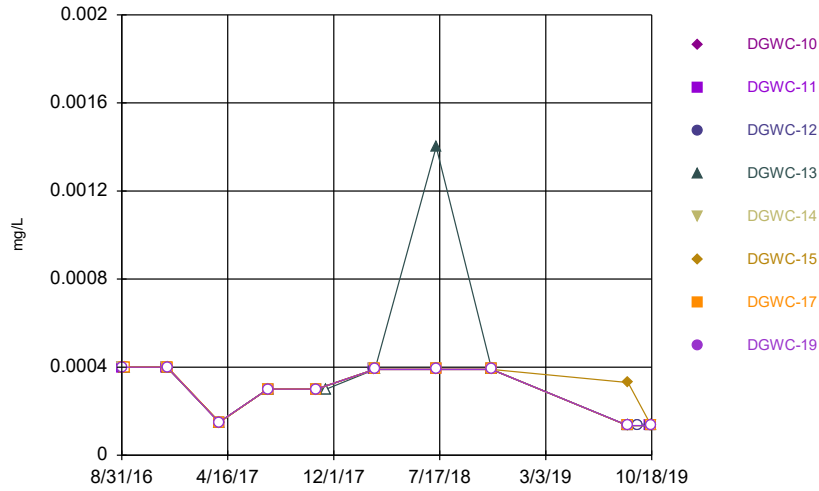
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 3/20/2020 2:43 PM View: APP IV_AP234

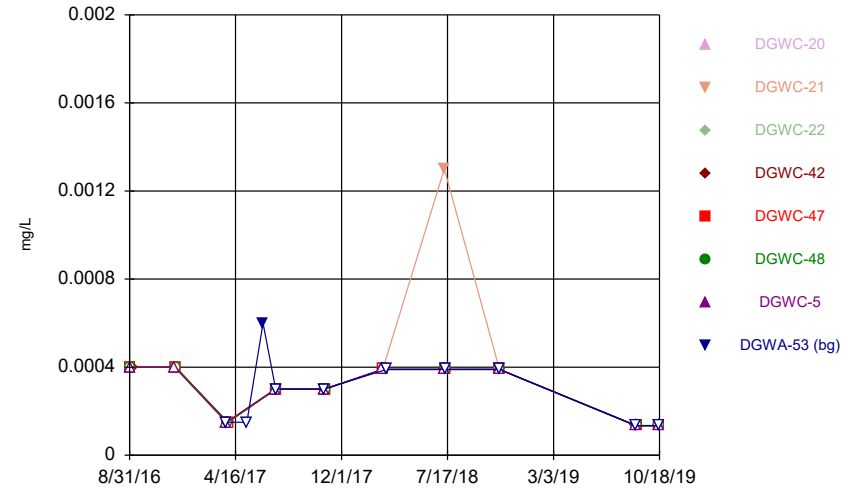
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



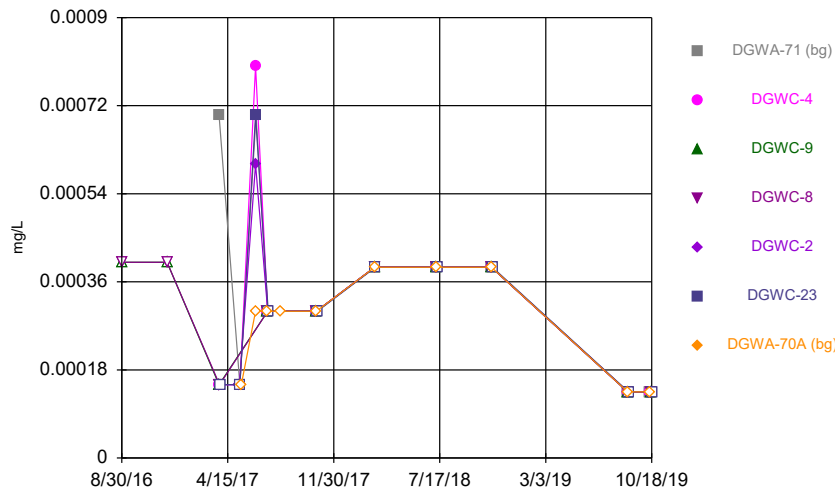
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



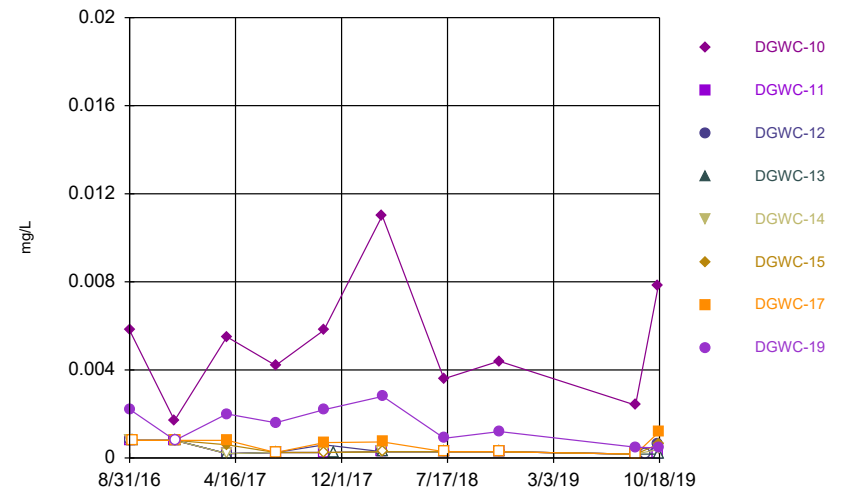
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



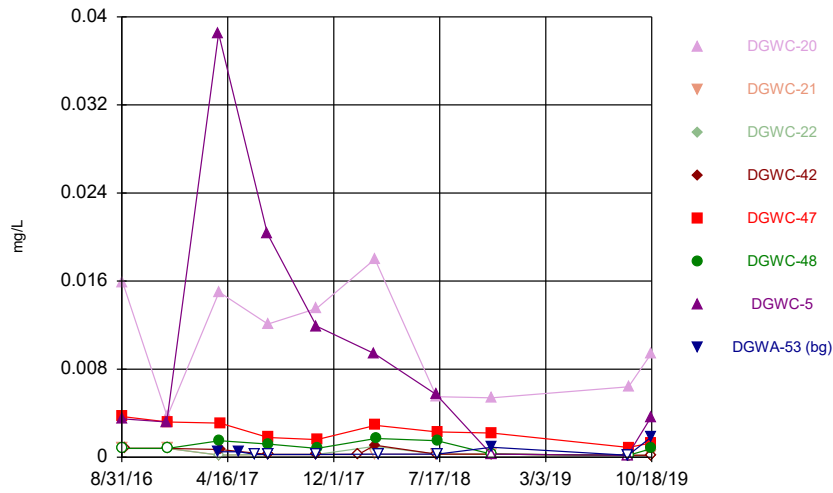
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



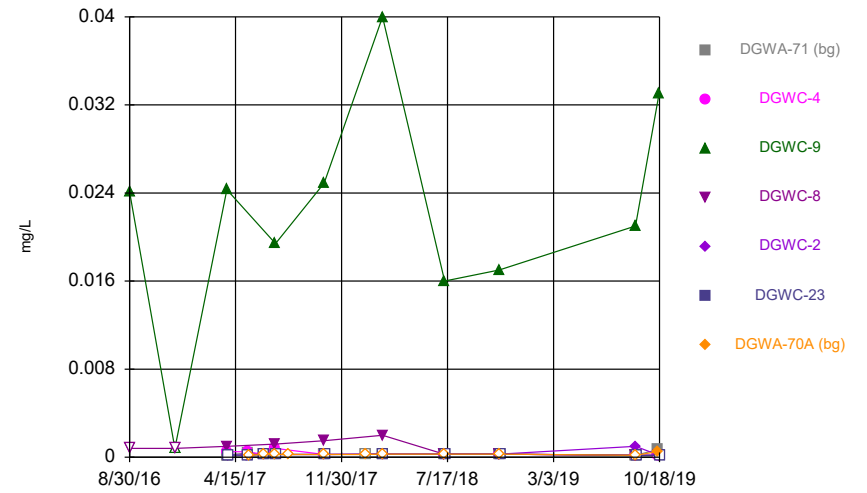
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



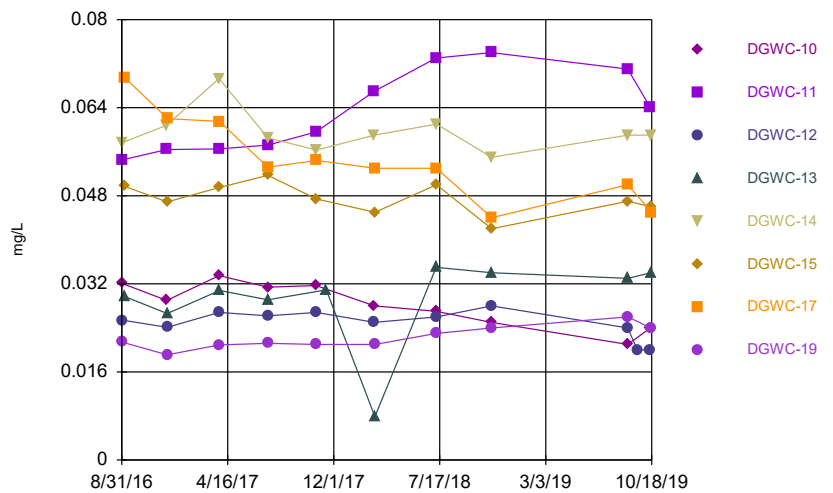
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



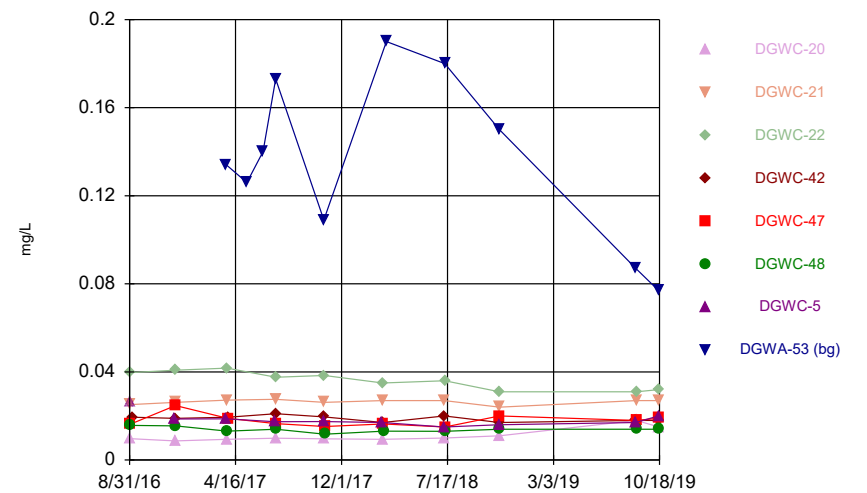
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



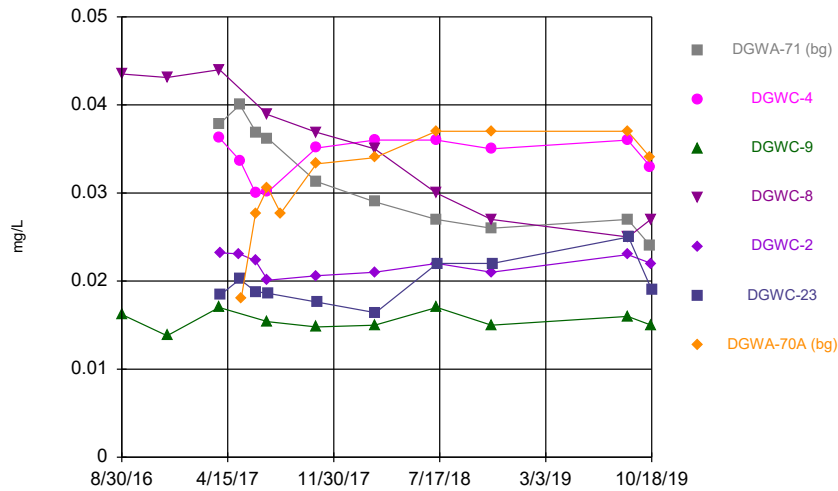
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



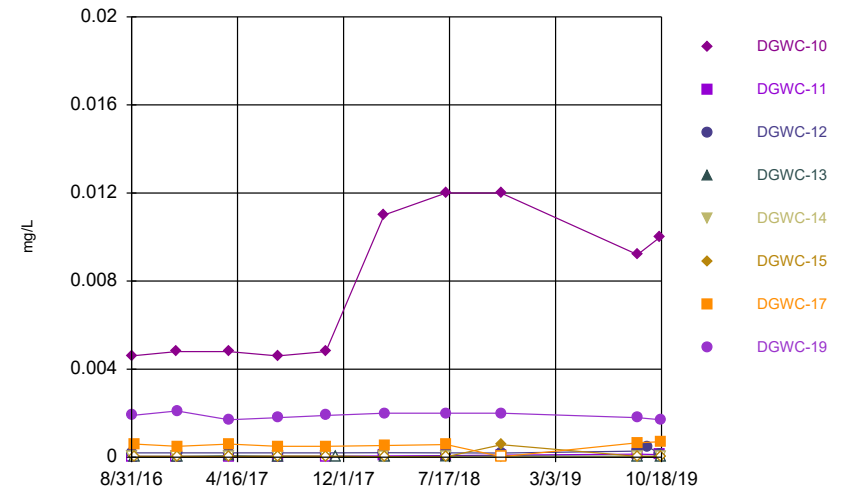
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



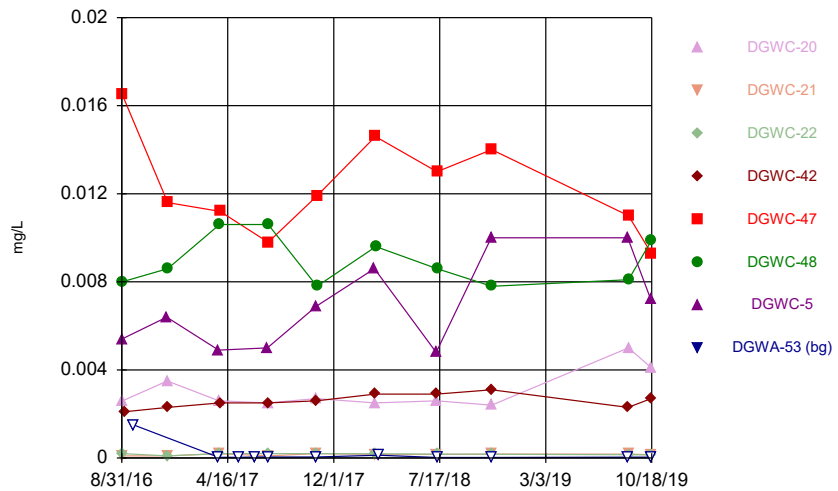
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



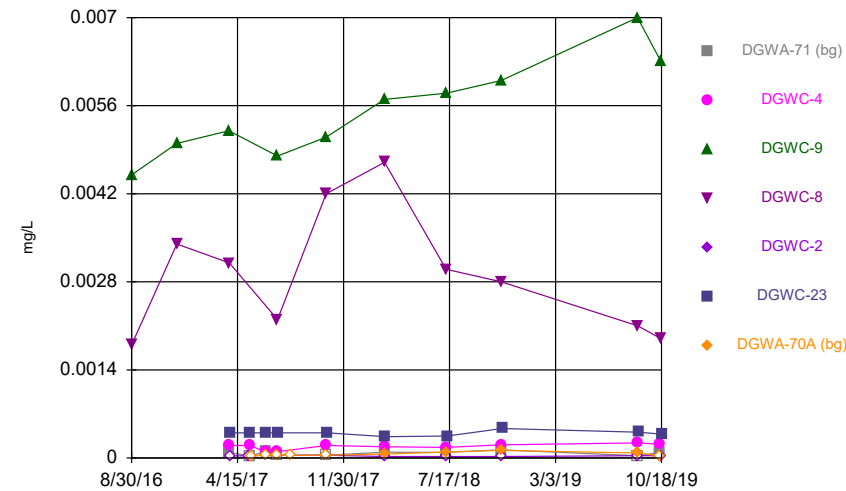
Constituent: Beryllium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



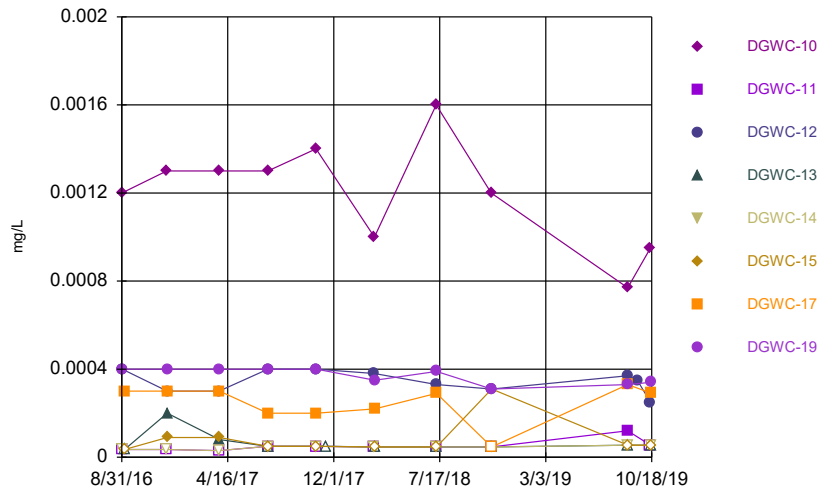
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



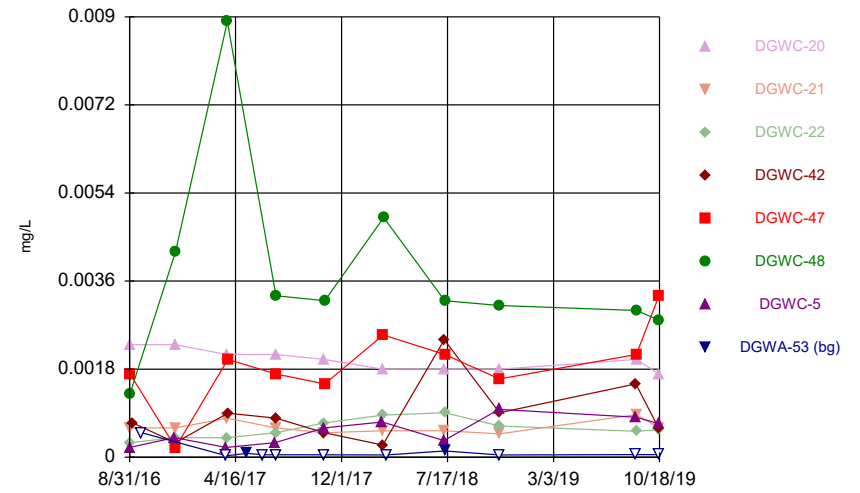
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



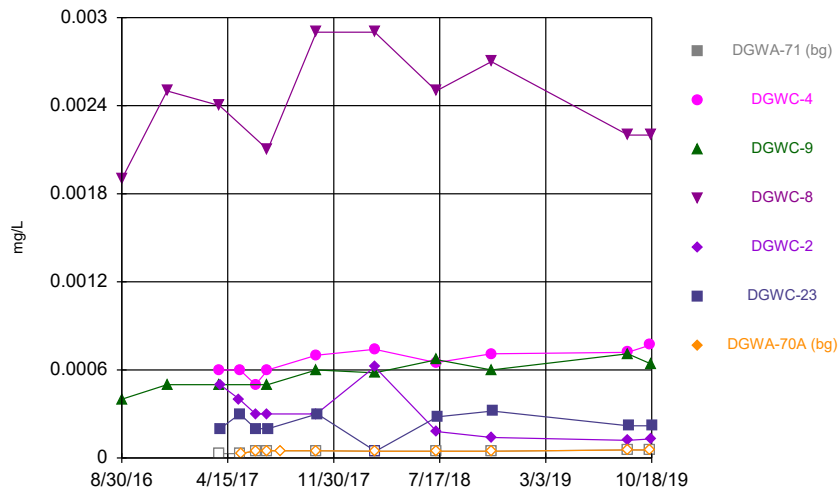
Constituent: Cadmium Analysis Run 2/13/2020 6:48 PM View: APP_IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



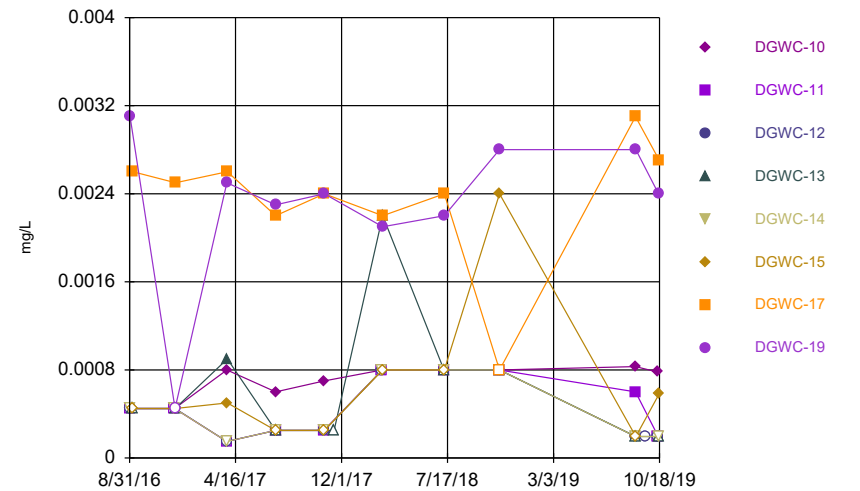
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



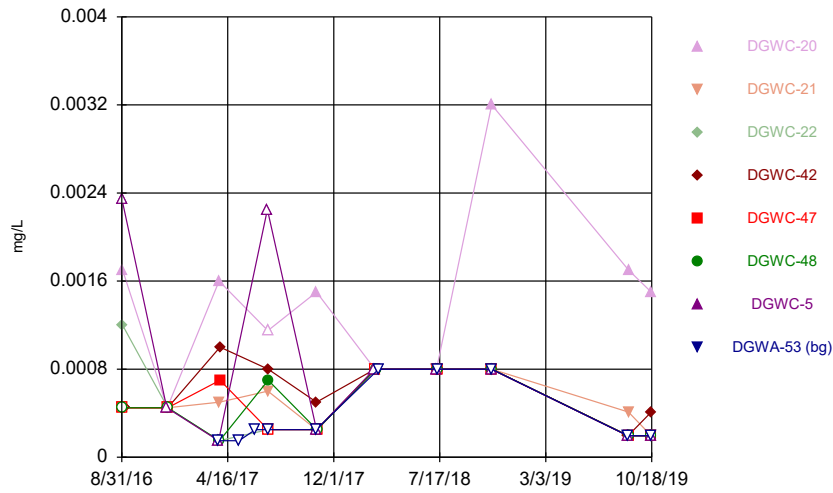
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



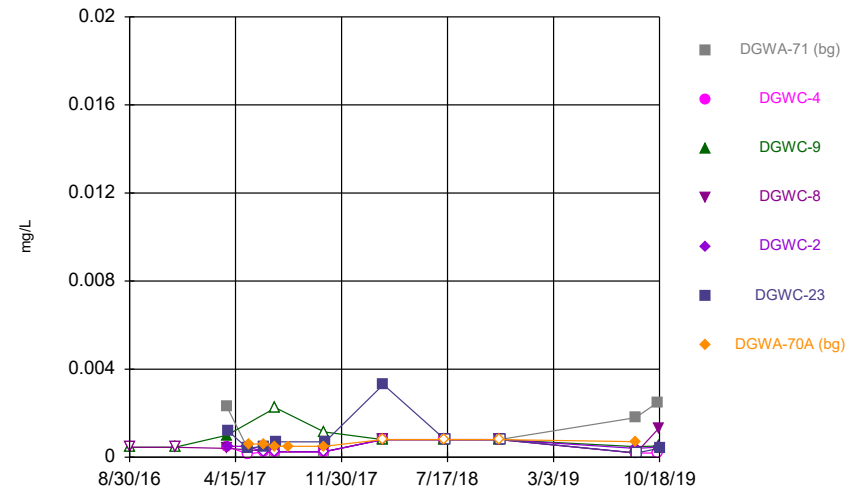
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



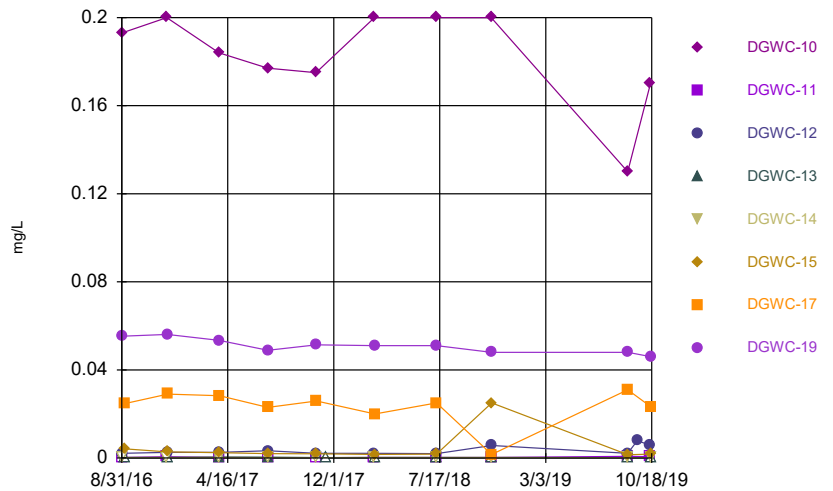
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



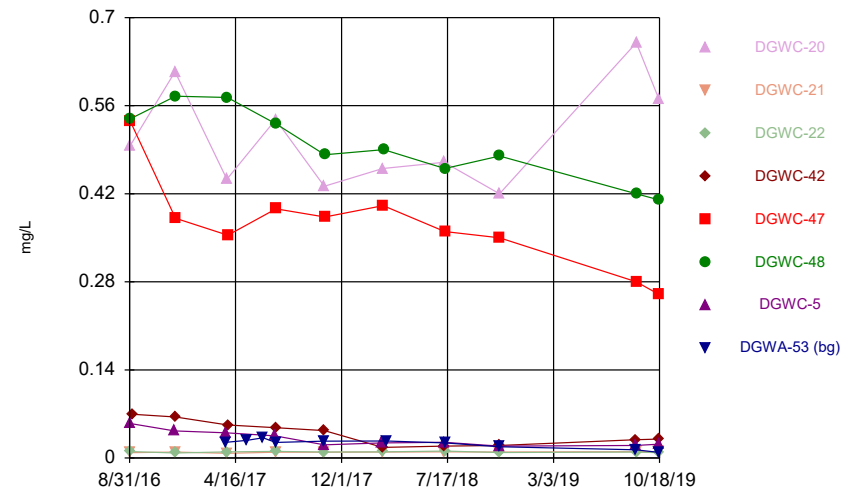
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



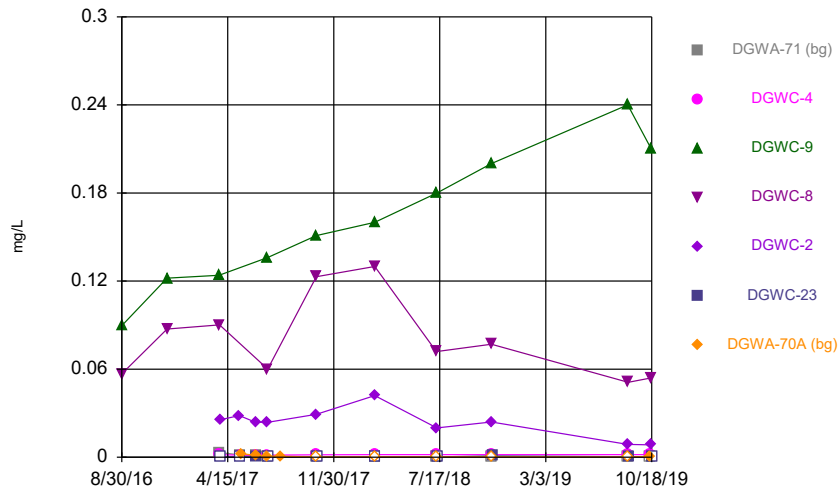
Constituent: Cobalt Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



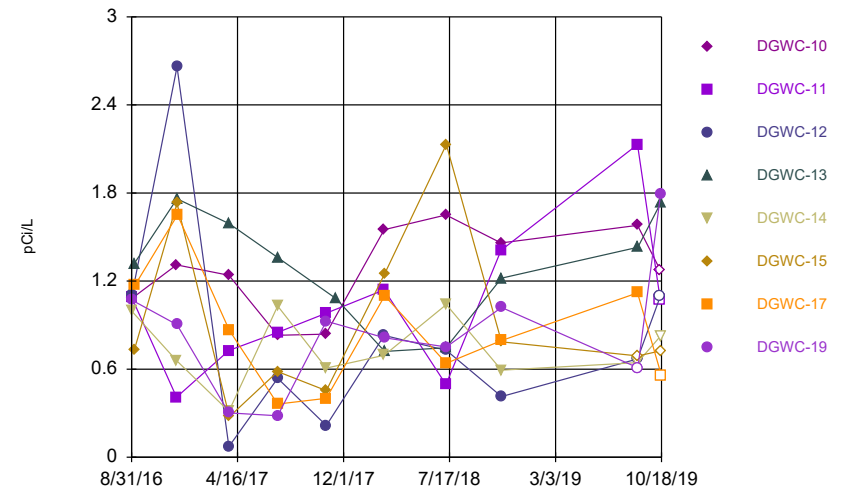
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



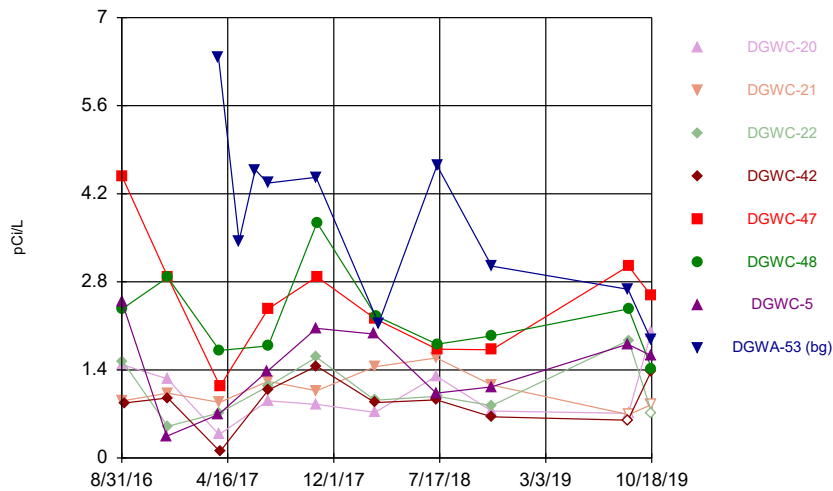
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



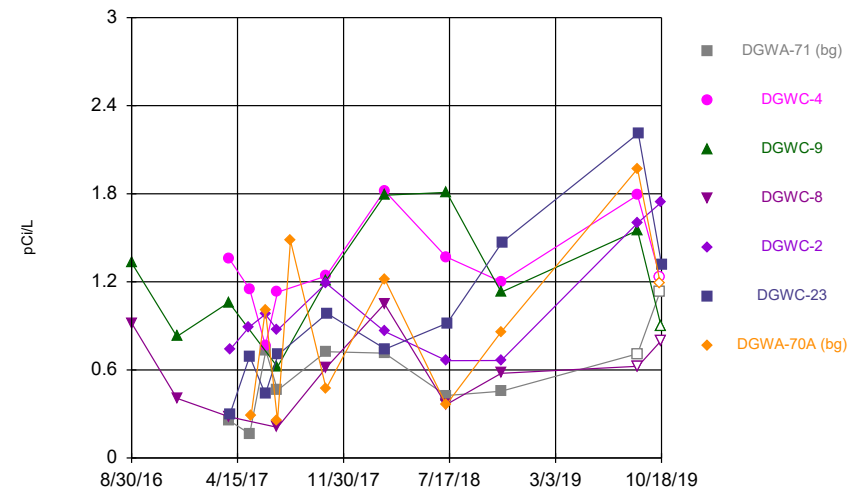
Constituent: Combined Radium 226 + 228 Analysis Run 2/13/2020 6:48 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



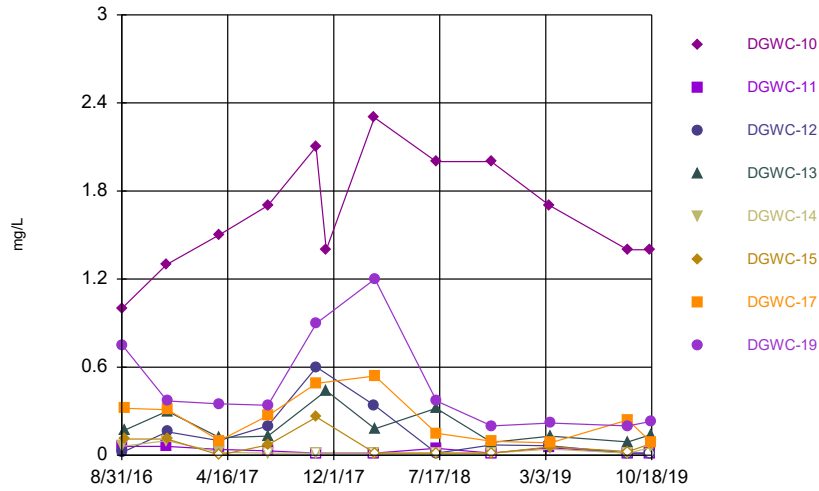
Constituent: Combined Radium 226 + 228 Analysis Run 2/13/2020 6:48 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



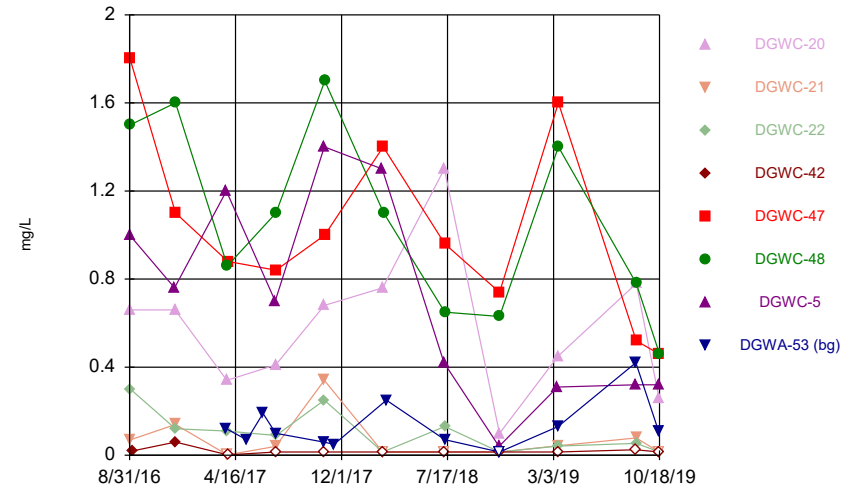
Constituent: Combined Radium 226 + 228 Analysis Run 2/13/2020 6:48 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



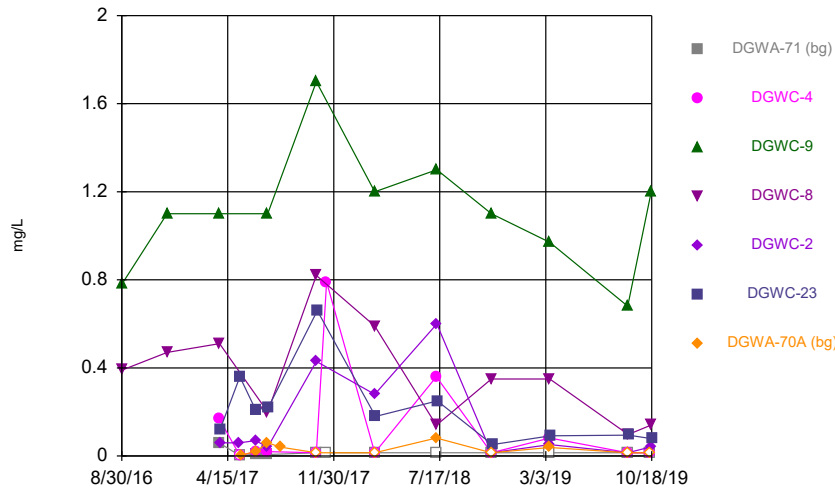
Constituent: Fluoride Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



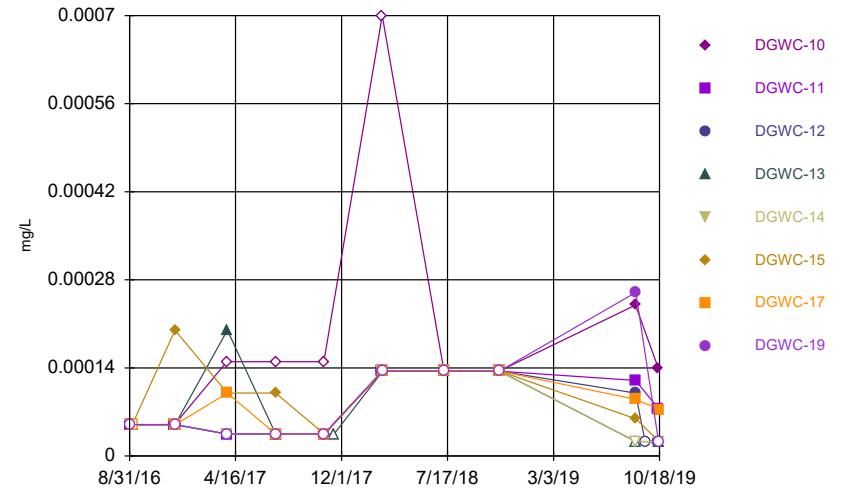
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



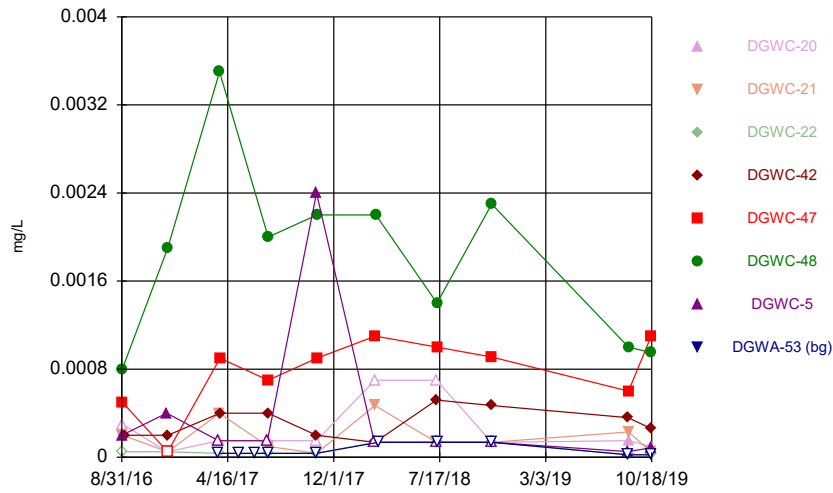
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



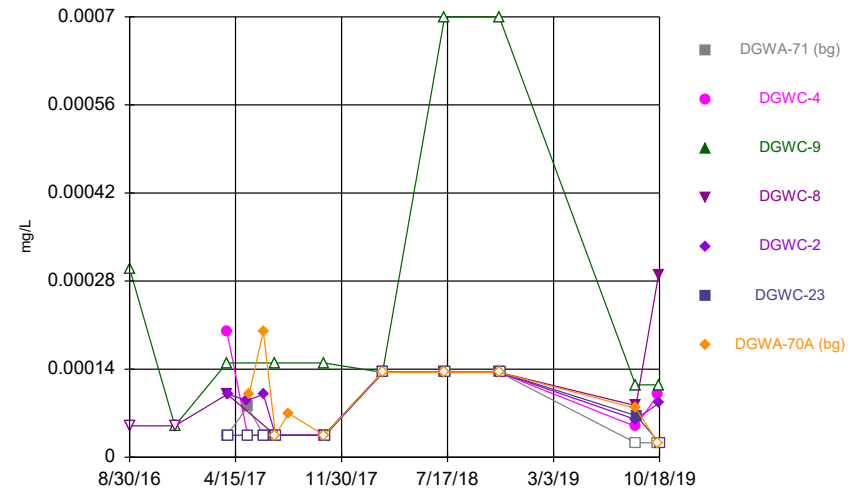
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



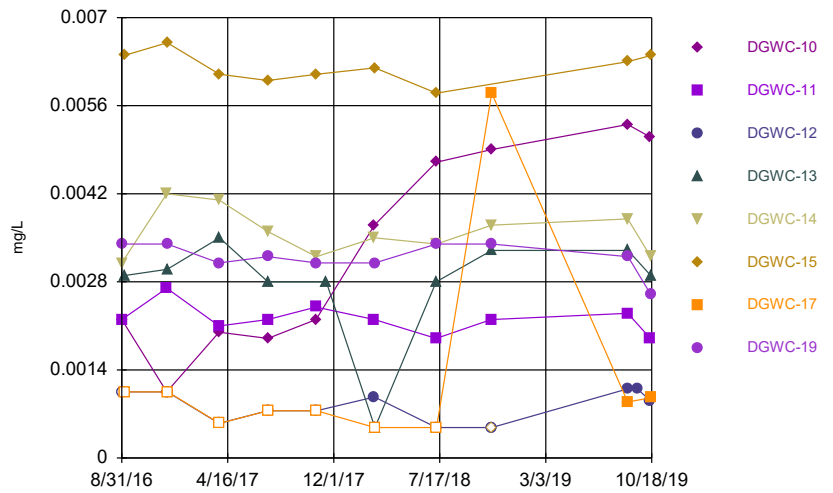
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



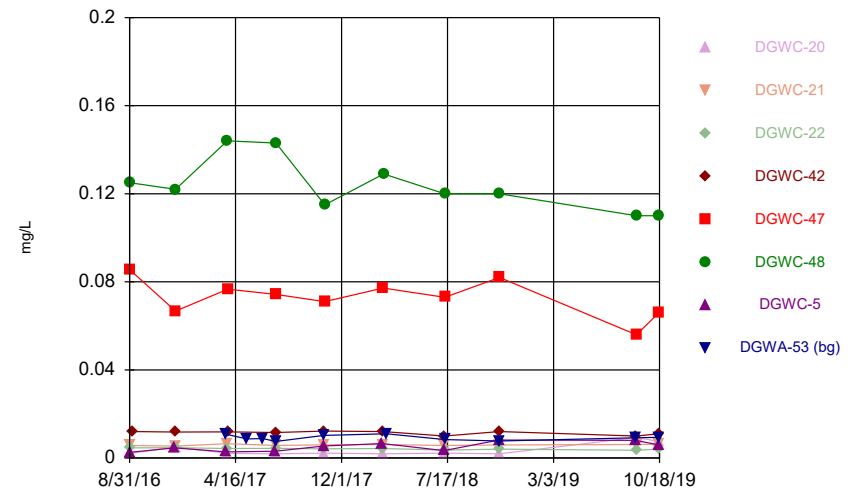
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



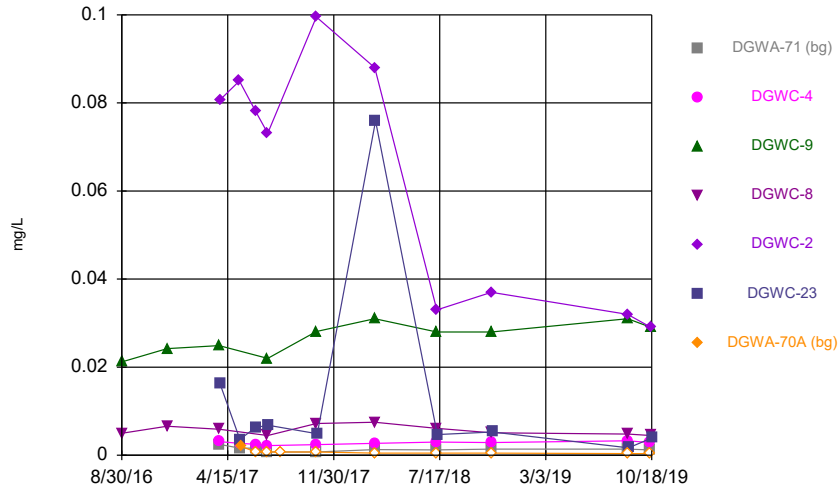
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



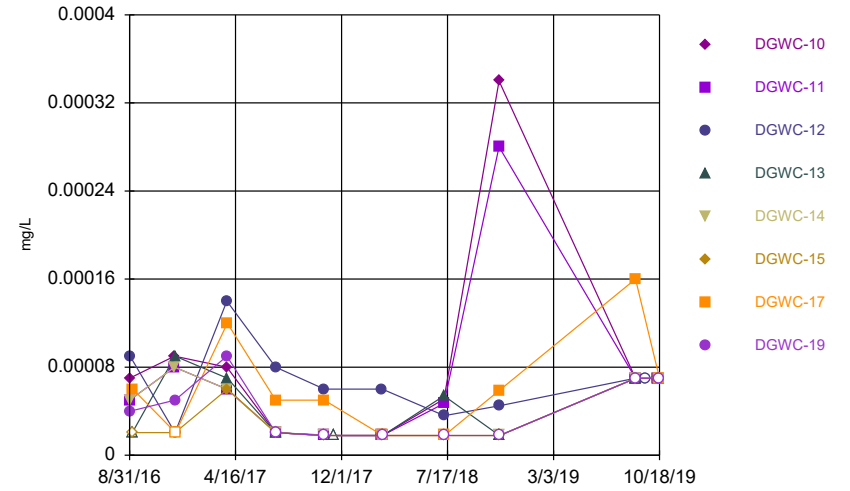
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



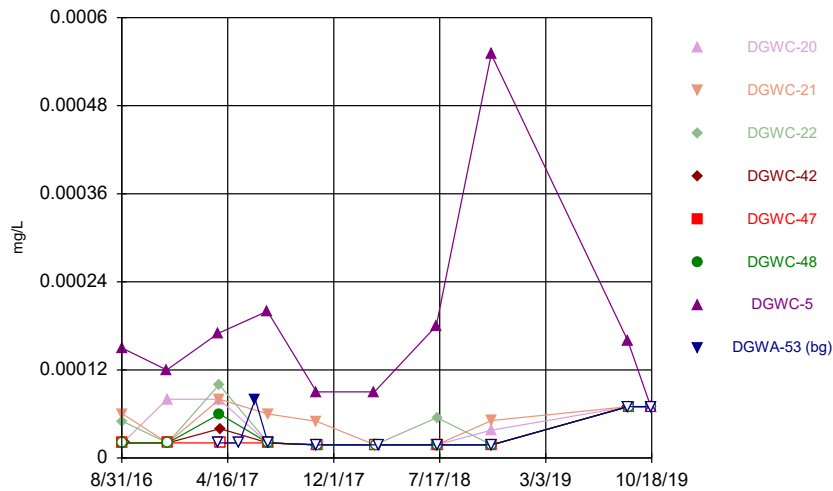
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



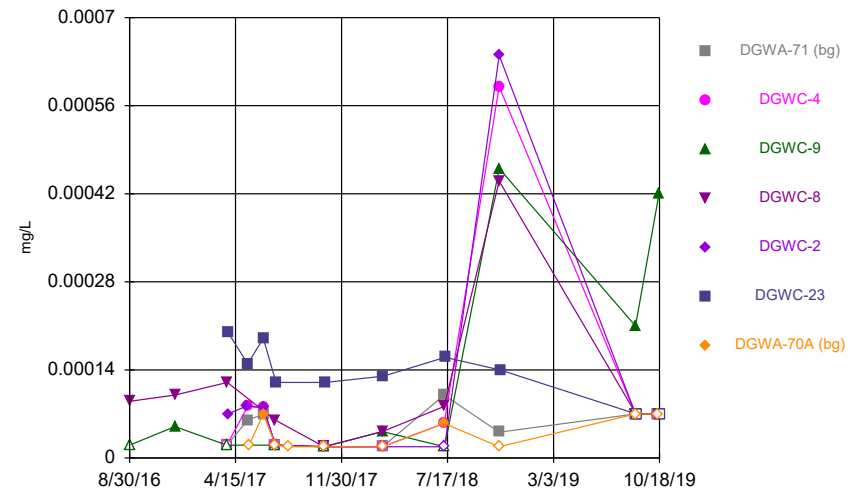
Constituent: Mercury Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



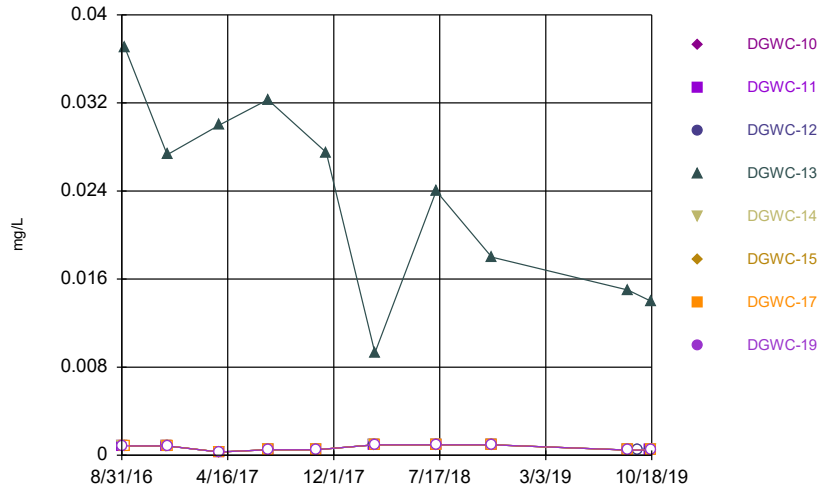
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



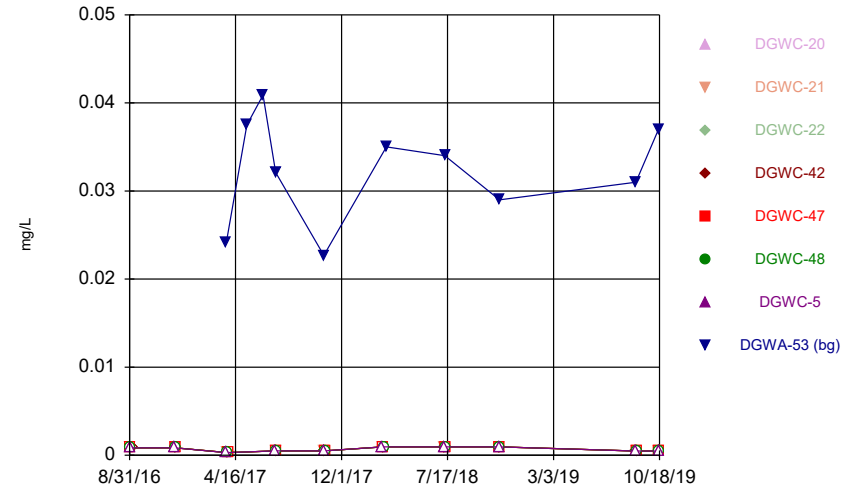
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



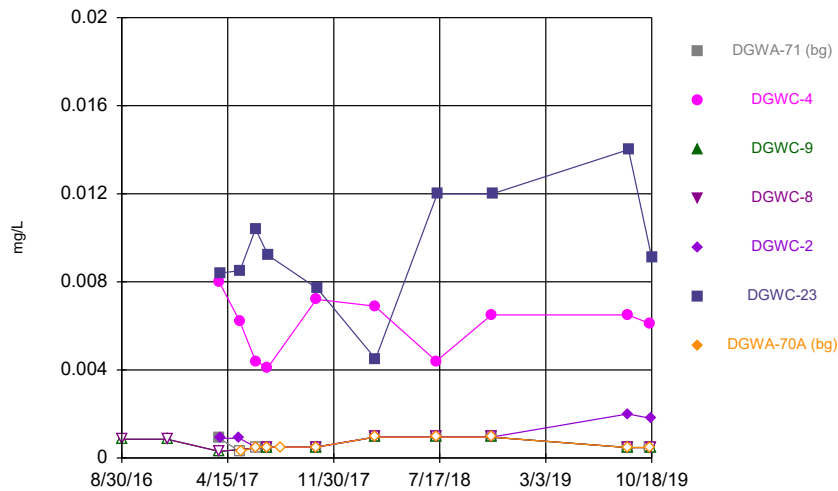
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



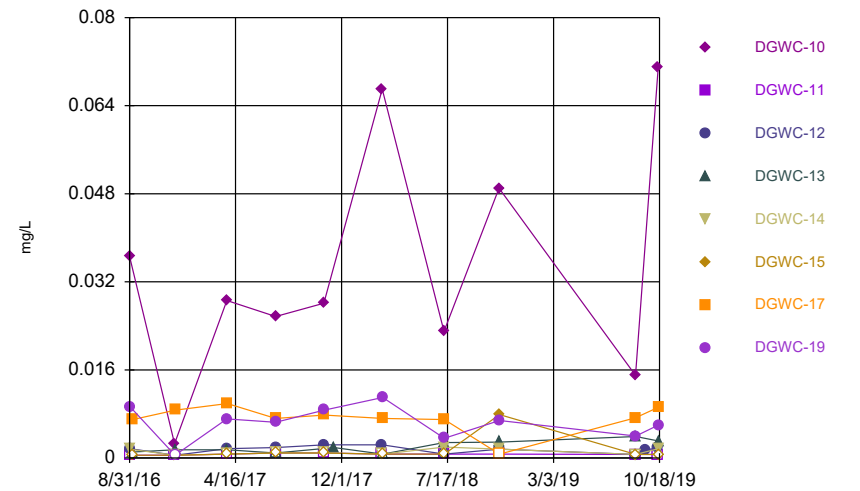
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



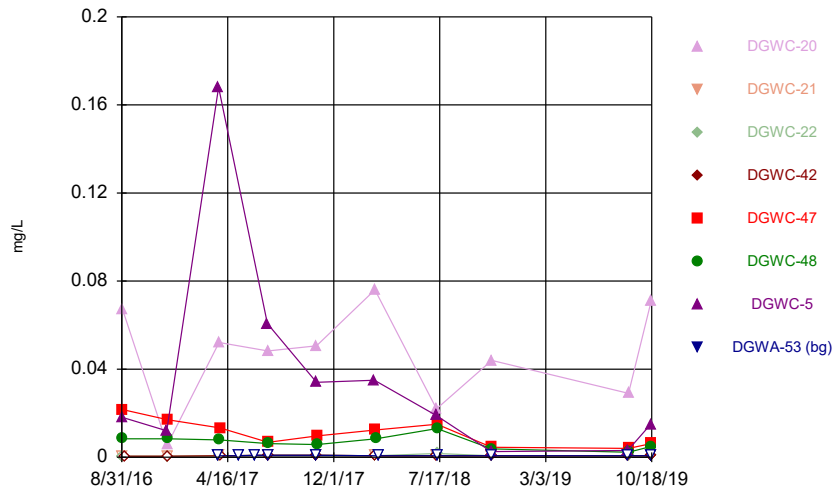
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



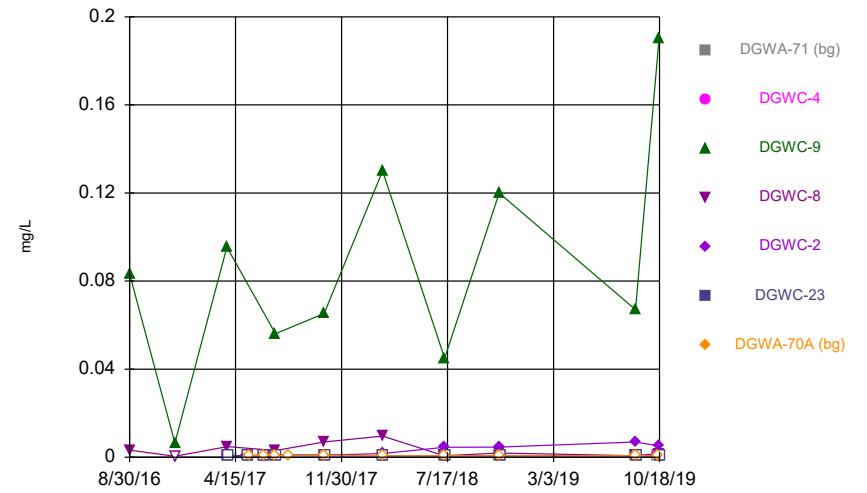
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



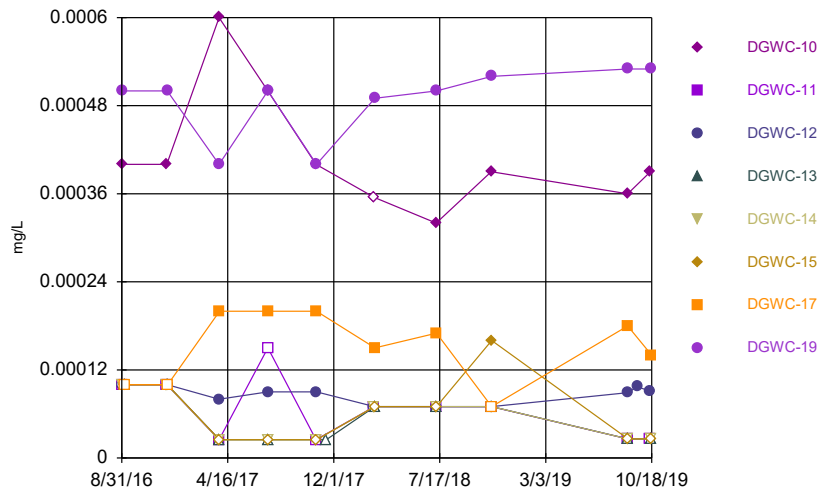
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



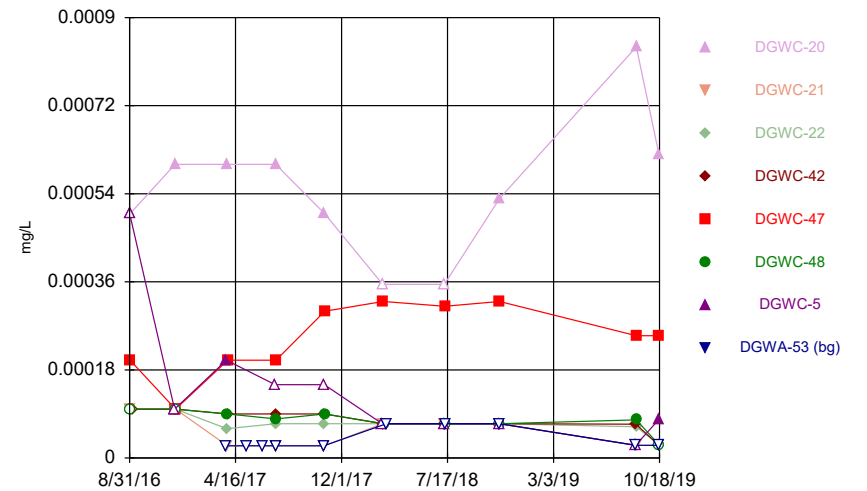
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



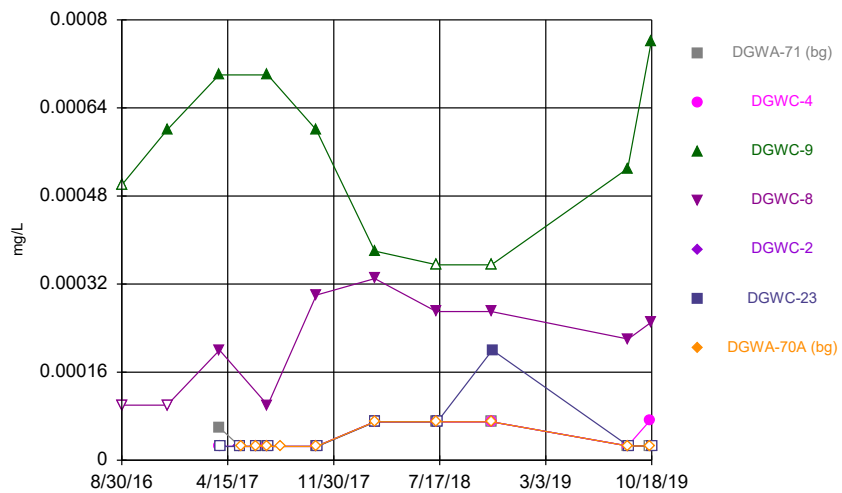
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: Thallium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: Thallium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Trend Test

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/14/2020, 2:55 PM

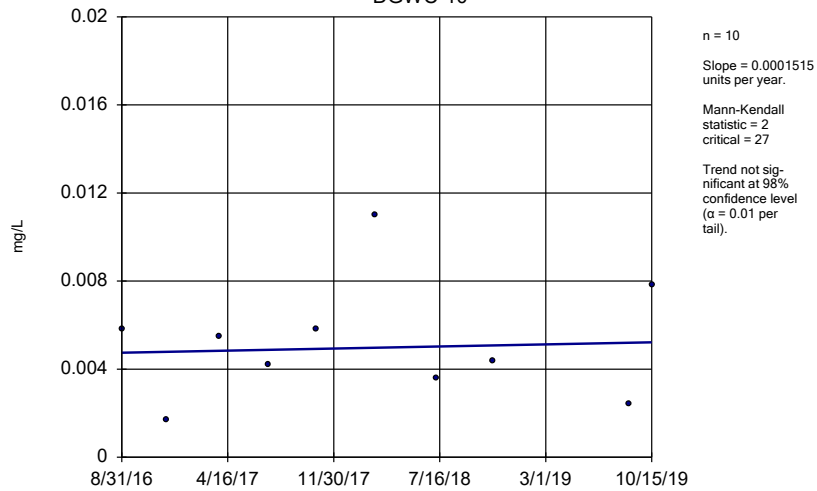
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-47	-0.00...	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-9	0.000...	37	27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-19	-0.00...	-35	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-48	-0.04961	-37	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-5	-0.01056	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.00...	-29	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-71 (bg)	-0.00...	-41	-27	Yes	10	50	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-9	0.044	43	27	Yes	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-10	0.001367	34	27	Yes	10	10	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-70A ...	-0.00...	-35	-27	Yes	10	90	n/a	n/a	0.02	NP

Trend Test

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/14/2020, 2:55 PM

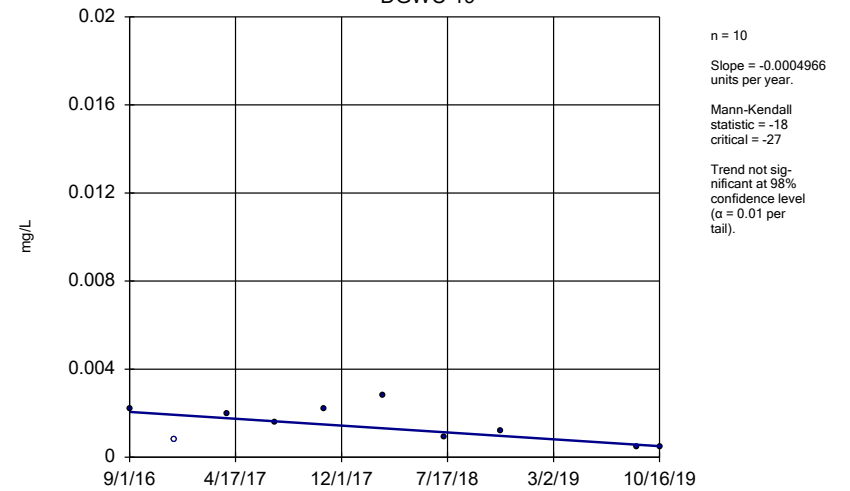
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-10	0.000...	2	27	No	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-19	-0.00...	-18	-27	No	10	10	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-20	-0.00...	-9	-27	No	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-47	-0.00...	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-48	-0.00...	-11	-27	No	10	40	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-5	-0.00...	-17	-27	No	10	20	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-53 (bg)	0	4	27	No	10	60	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-71 (bg)	0.000...	17	31	No	11	81.82	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-9	0.002842	9	27	No	10	10	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-8	-0.00...	-14	-27	No	10	60	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-2	0.000...	20	27	No	10	90	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-70A ...	0.000...	28	31	No	11	90.91	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-10	0.001823	24	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-19	0	-5	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-20	0	3	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-47	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-48	0	-2	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-5	0.001304	18	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-53 (bg)	-0.00...	-11	-31	No	11	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-71 (bg)	8.7e-7	4	27	No	10	40	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-9	0.000...	37	27	Yes	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-8	-0.00...	-9	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-2	0	-5	-27	No	10	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-70A ...	0.000...	19	27	No	10	60	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-10	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-19	-0.00...	-35	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-20	0.01412	1	27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-47	-0.05449	-27	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-48	-0.04961	-37	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-5	-0.01056	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.00...	-29	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-71 (bg)	-0.00...	-41	-27	Yes	10	50	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-9	0.044	43	27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-8	-0.00...	-7	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-2	-0.00...	-18	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-70A ...	-0.00...	-24	-27	No	10	50	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-10	0.001367	34	27	Yes	10	10	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-19	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-20	0.000...	8	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-47	-0.00...	-13	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-48	-0.00...	-25	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-5	0.00128	27	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-53 (bg)	-0.00...	-1	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-71 (bg)	-0.00...	-13	-27	No	10	20	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-9	0.002491	27	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-8	-0.00...	-10	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-2	-0.02299	-25	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-70A ...	-0.00...	-35	-27	Yes	10	90	n/a	n/a	0.02	NP

Sen's Slope Estimator
DGWC-10



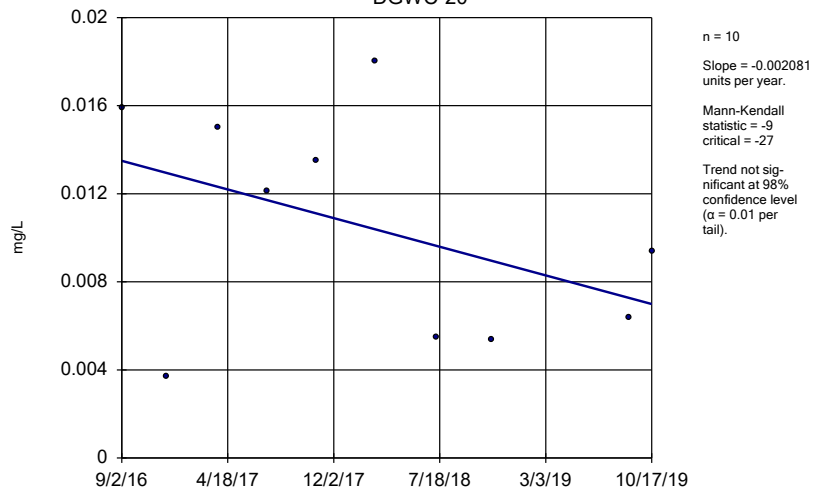
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-19



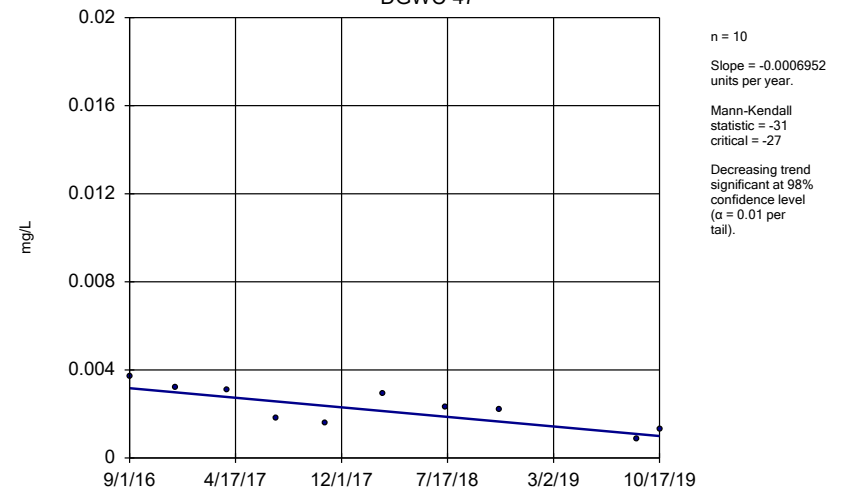
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-20



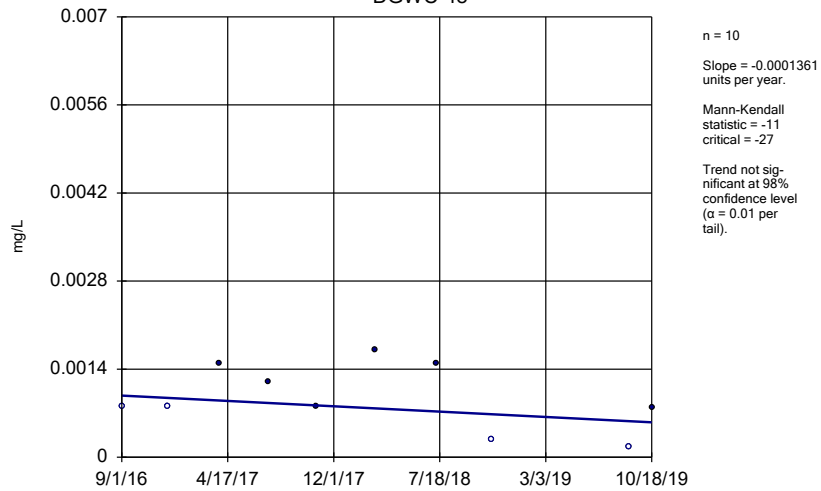
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-47



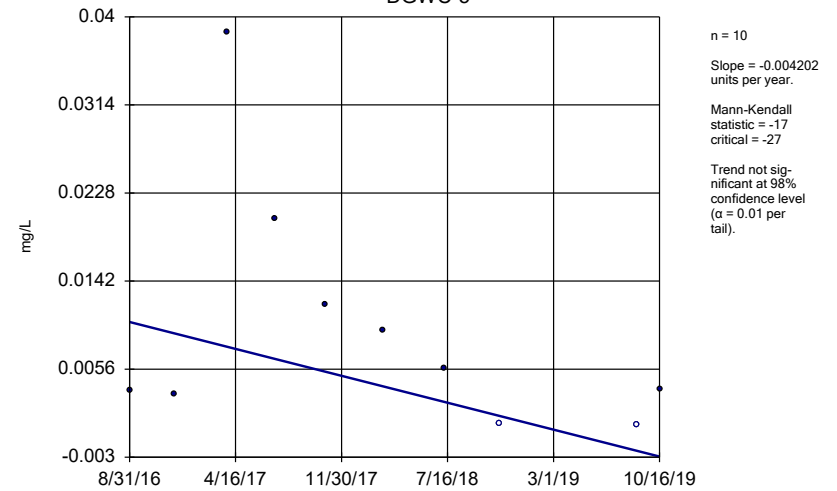
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-48



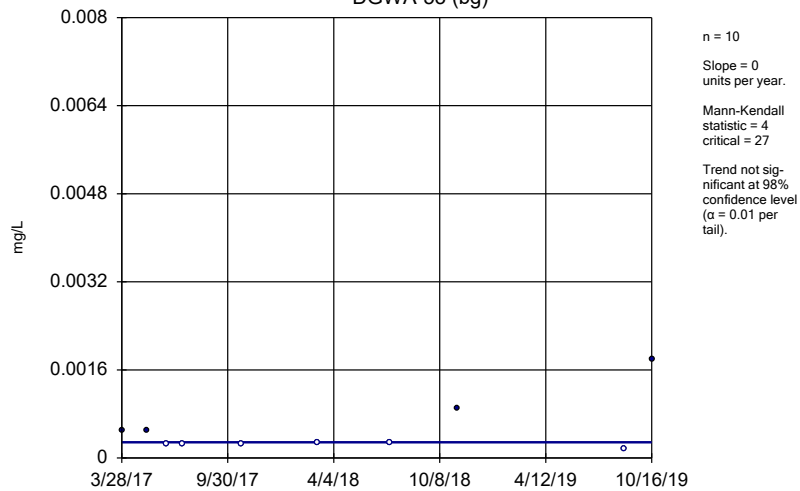
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-5



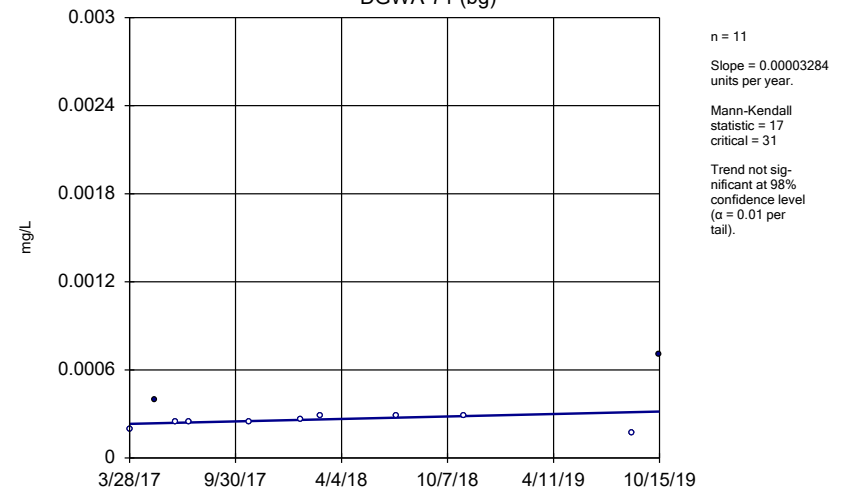
Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWA-53 (bg)



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

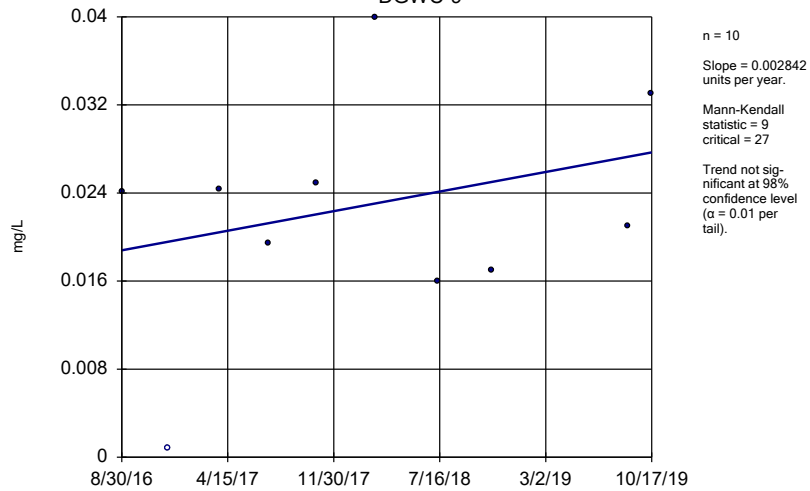
Sen's Slope Estimator DGWA-71 (bg)



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator

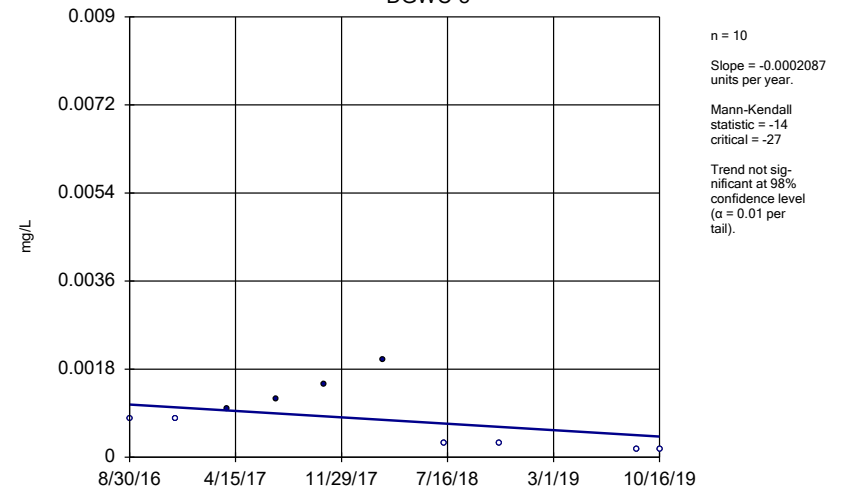
DGWC-9



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator

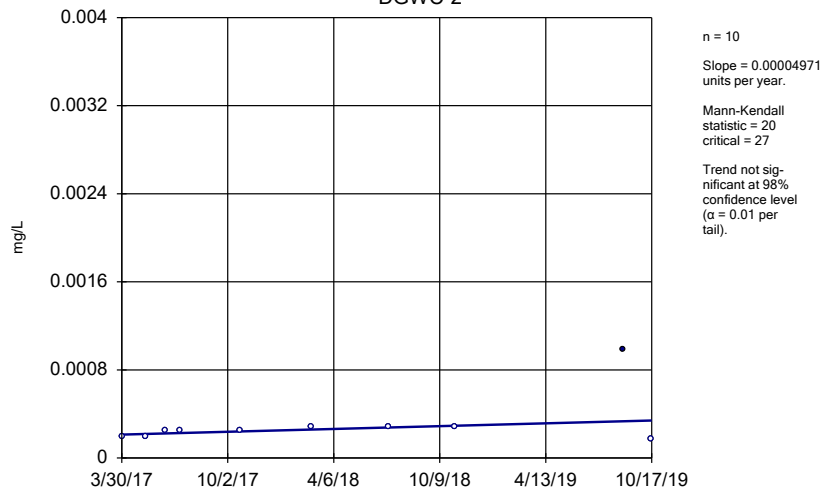
DGWC-8



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator

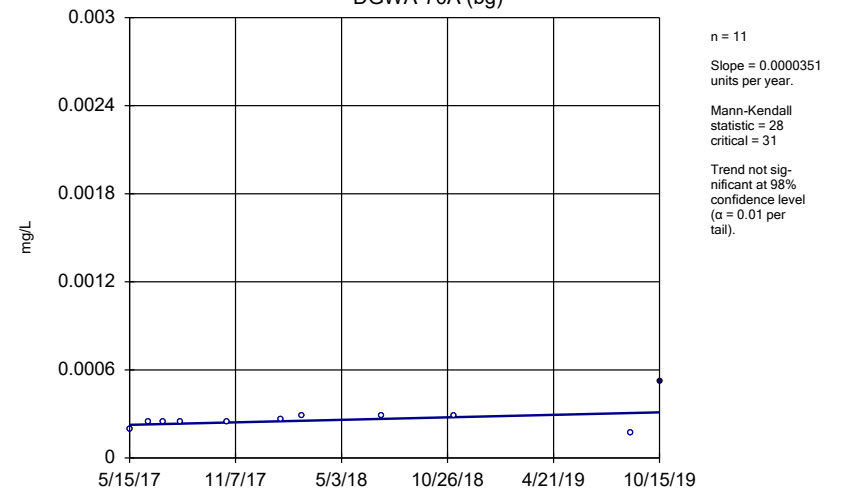
DGWC-2



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

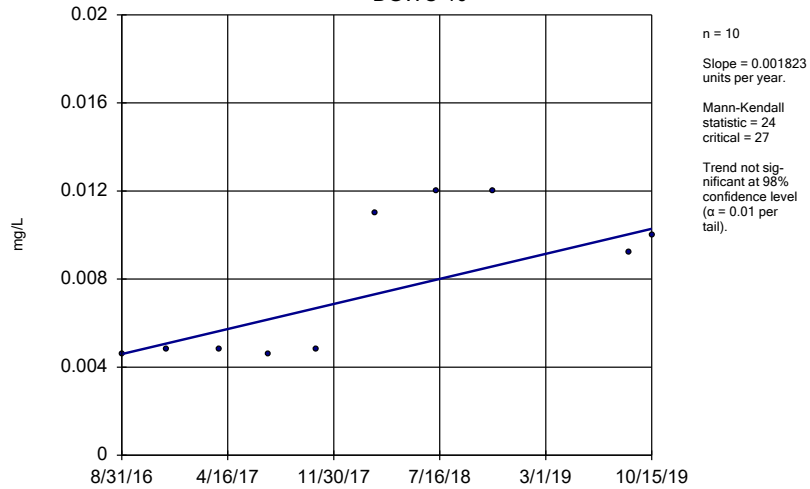
Sen's Slope Estimator

DGWA-70A (bg)



Constituent: Arsenic Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-10



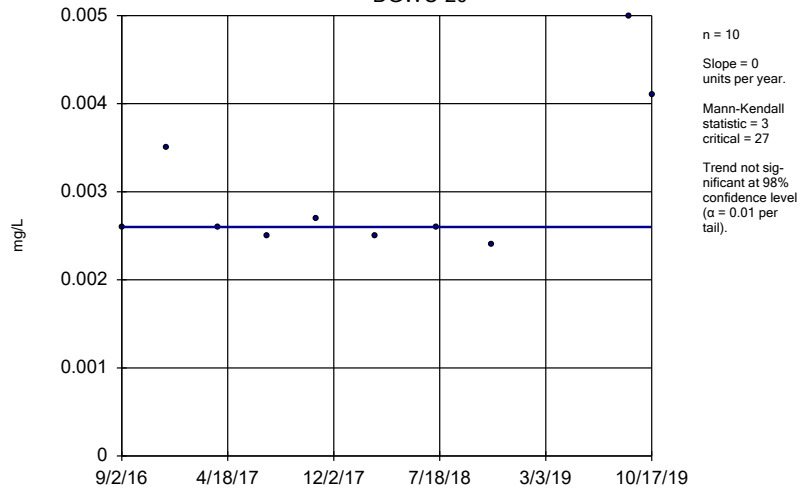
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-19



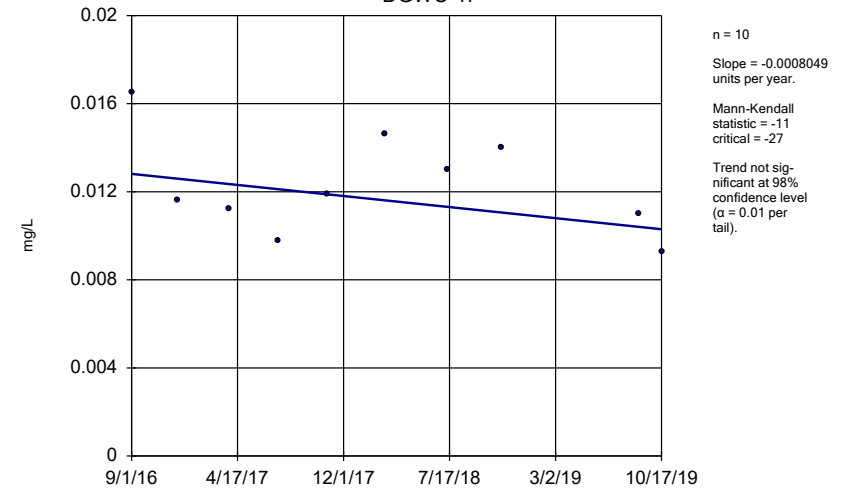
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-20



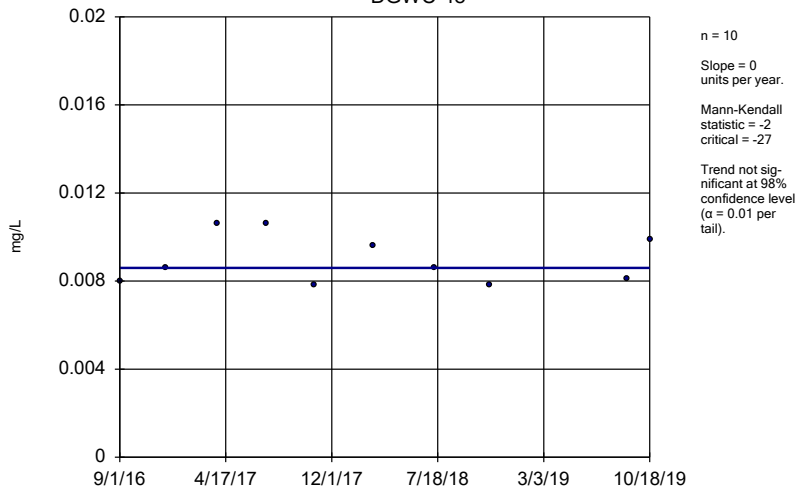
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-47



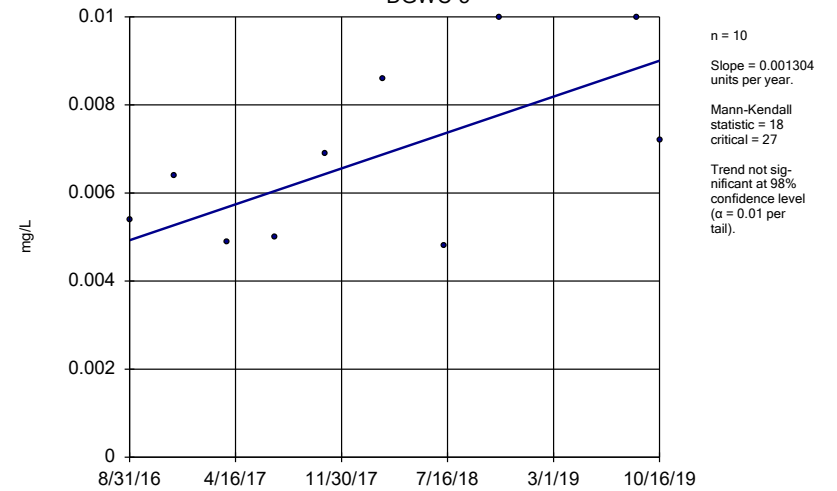
Constituent: Beryllium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-48



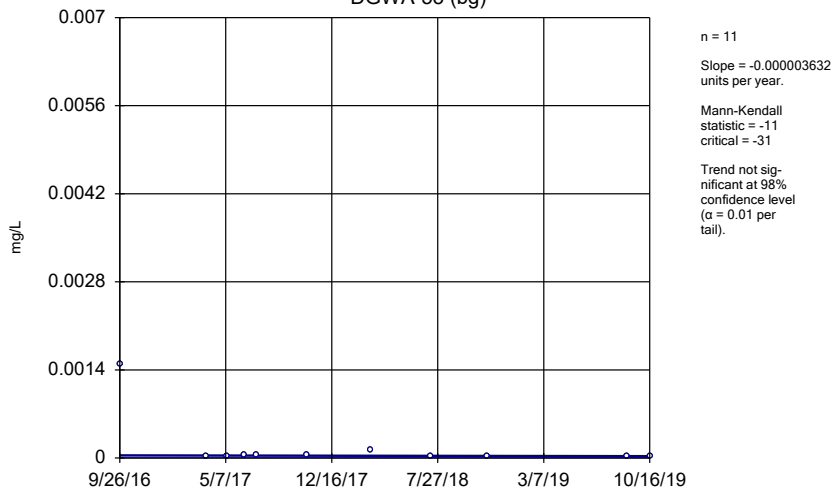
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-5



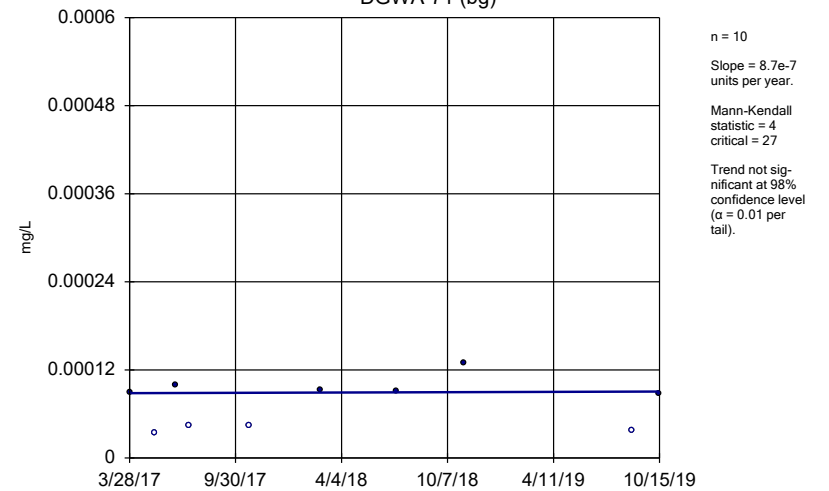
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-53 (bg)



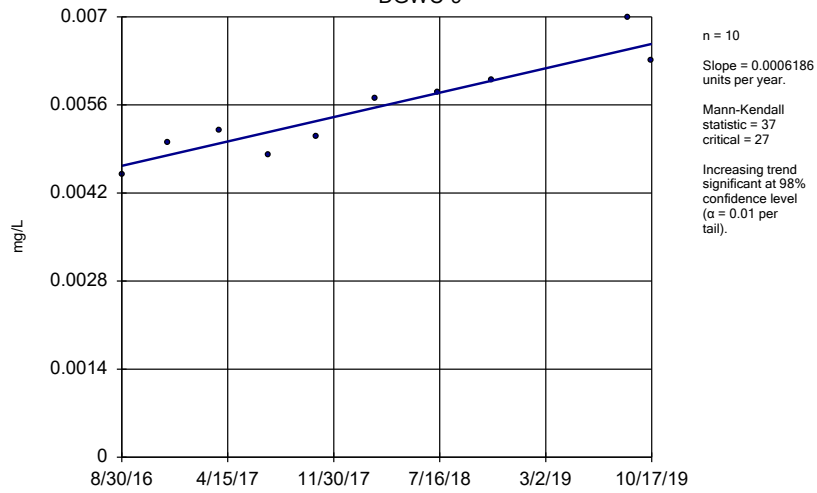
Constituent: Beryllium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-71 (bg)



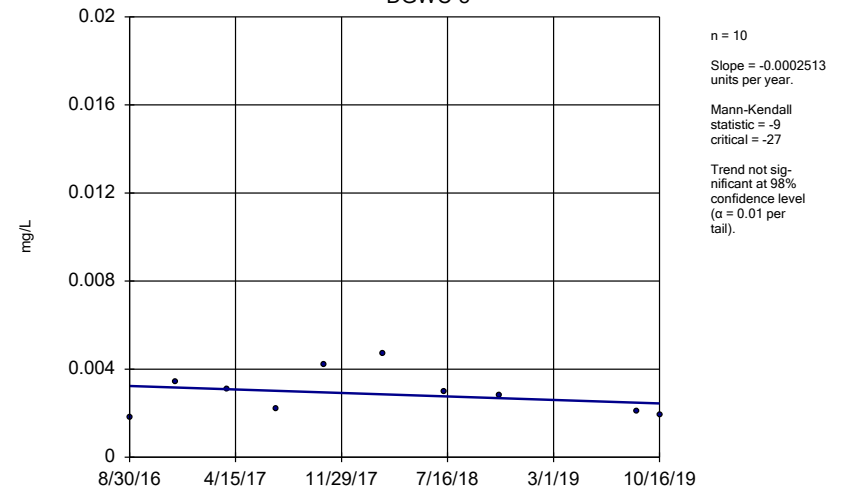
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-9



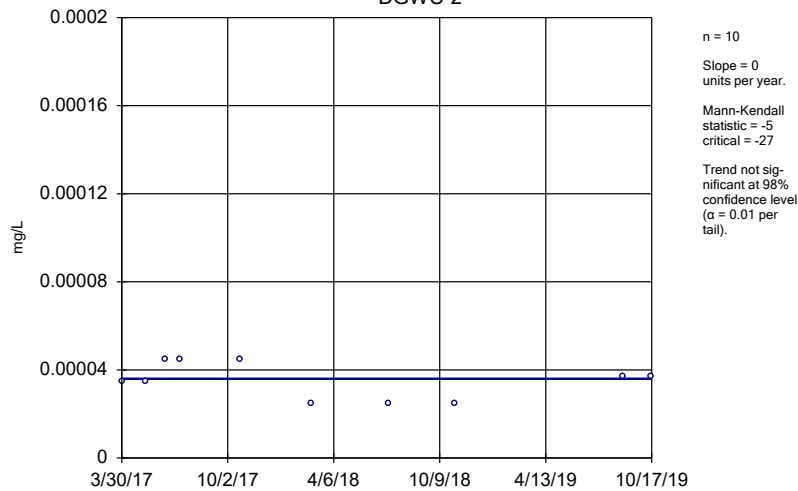
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-8



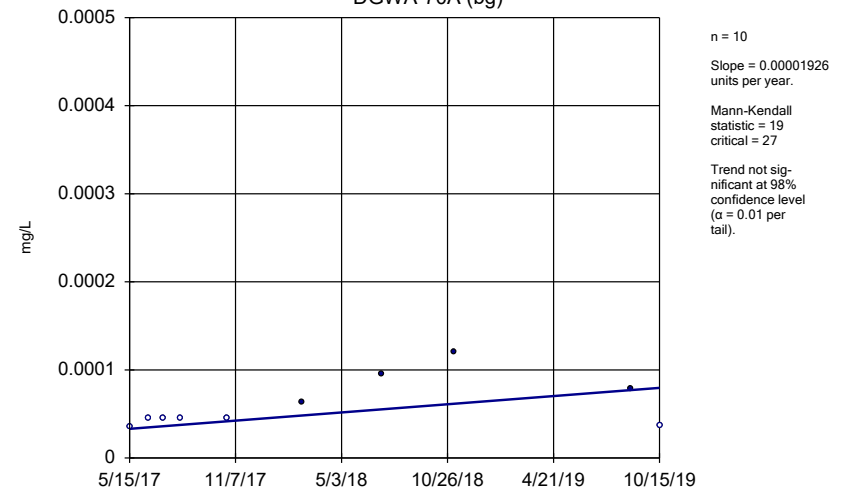
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-2



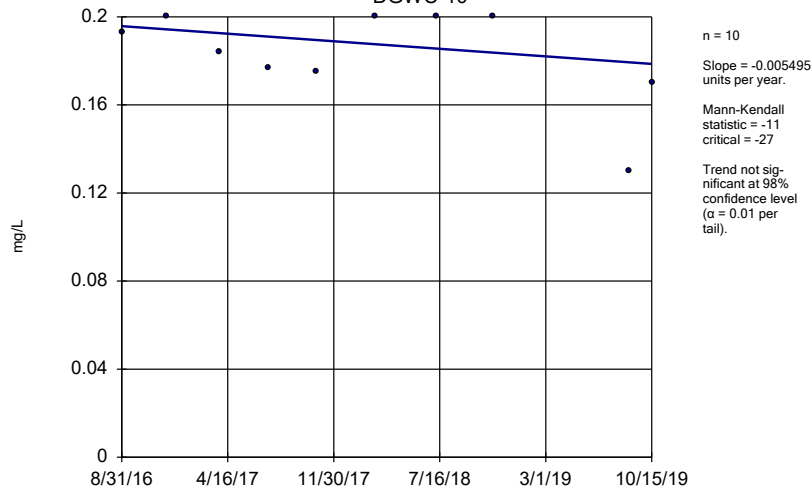
Constituent: Beryllium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-70A (bg)



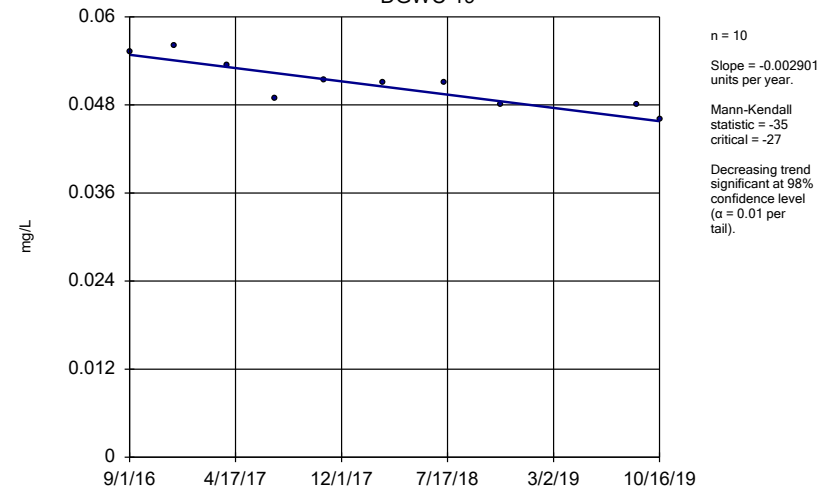
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-10



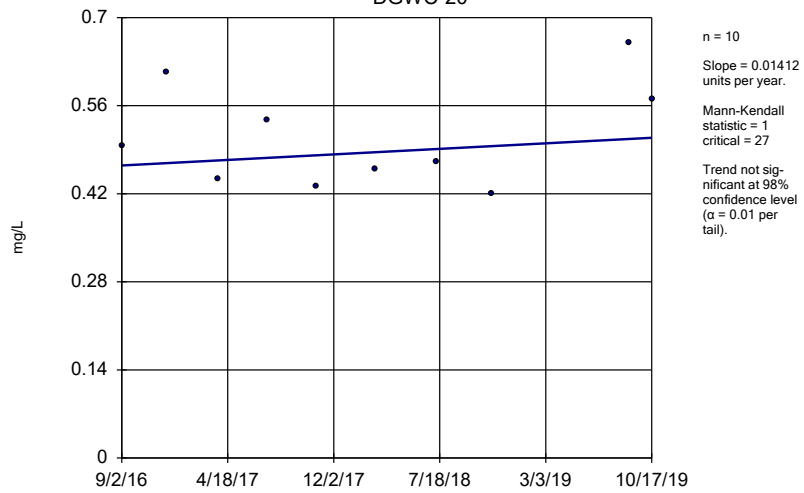
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-19



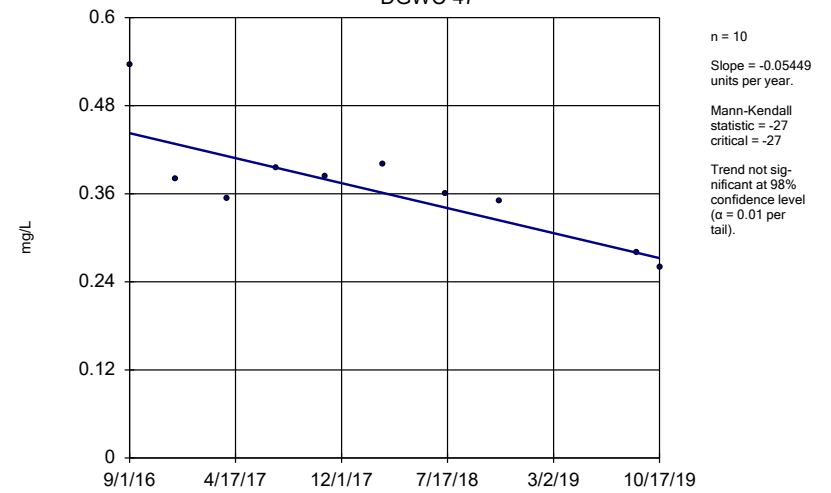
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-20



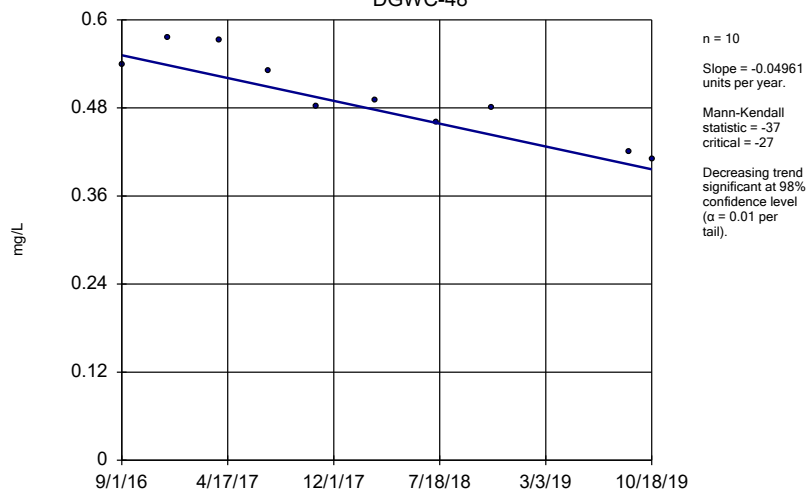
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-47



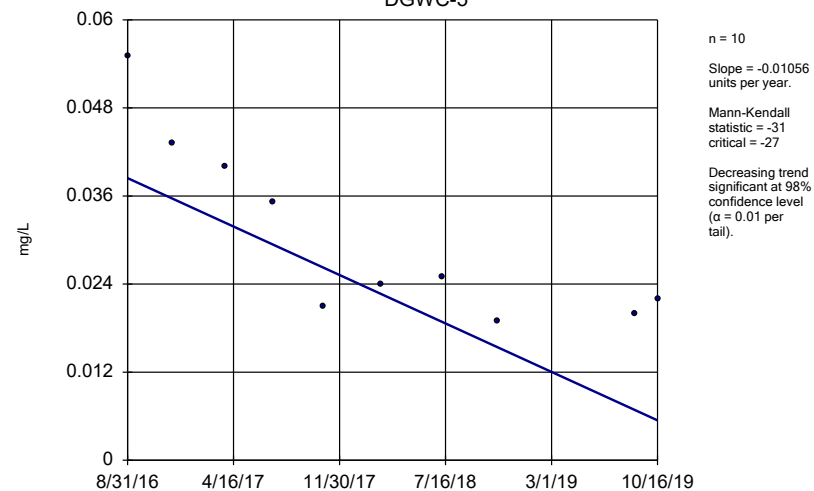
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-48



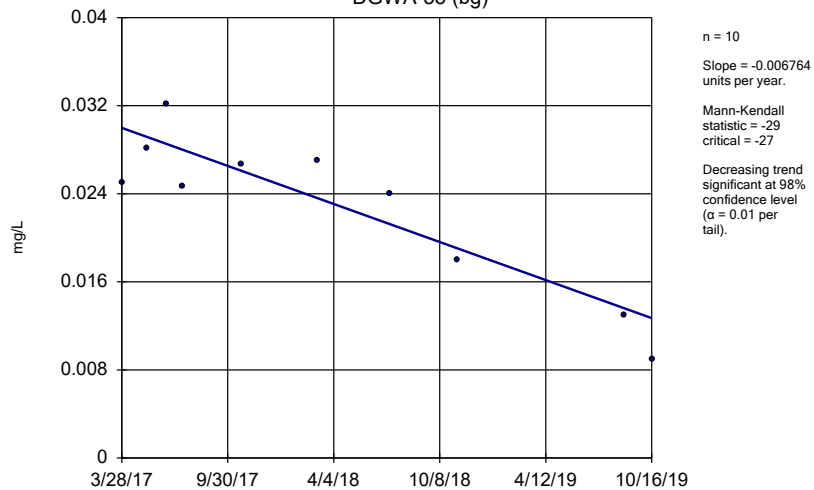
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-5



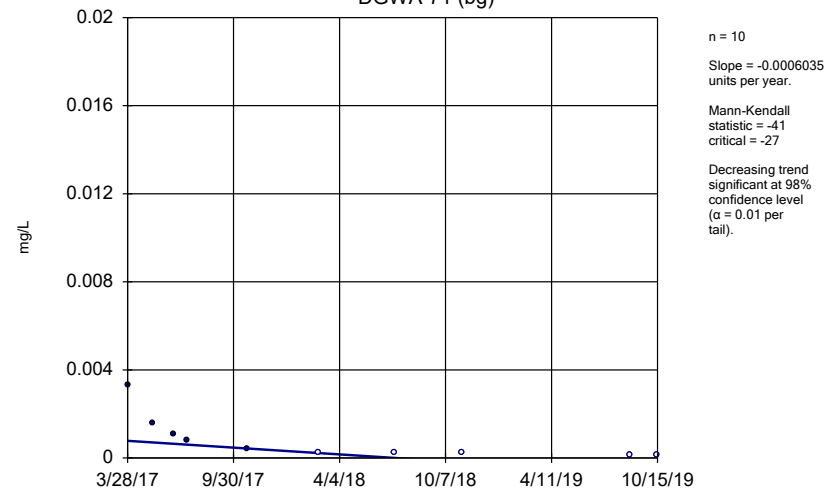
Constituent: Cobalt Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWA-53 (bg)



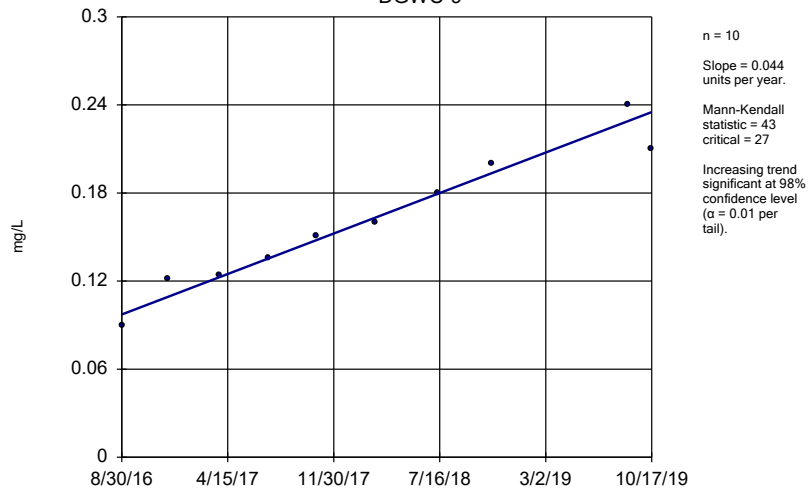
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWA-71 (bg)



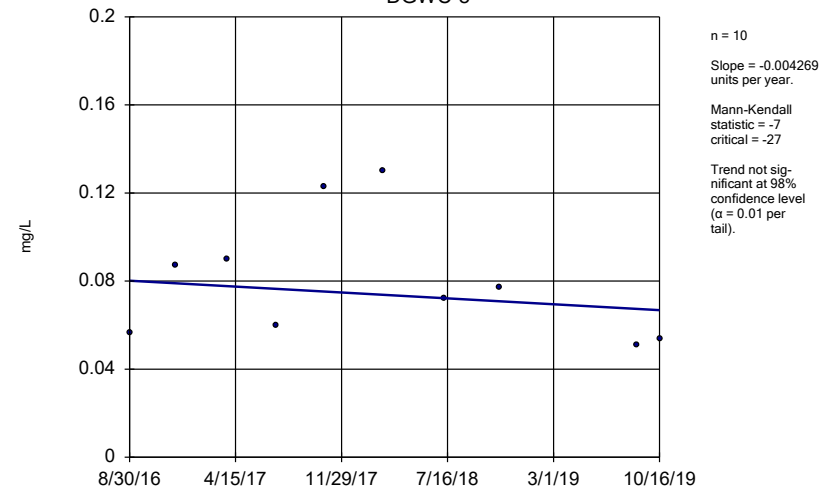
Constituent: Cobalt Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-9



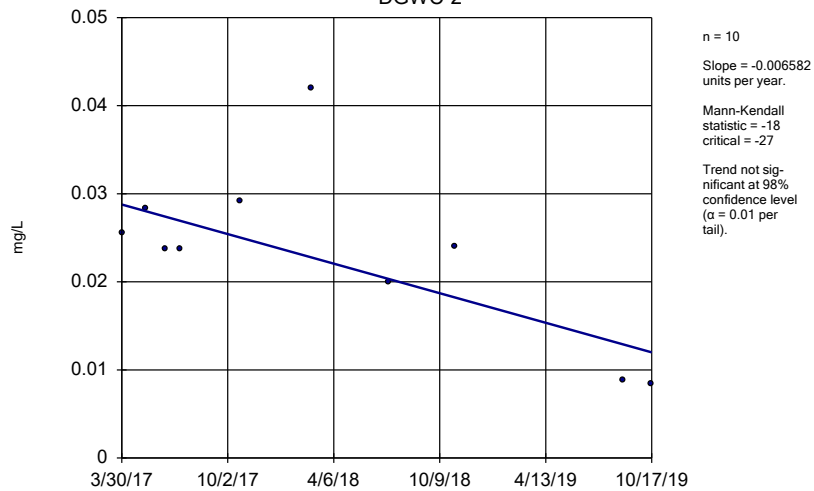
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-8



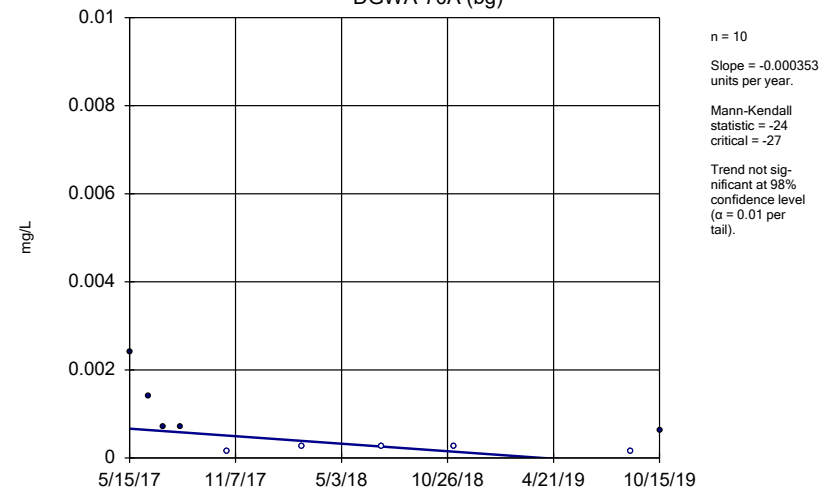
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-2



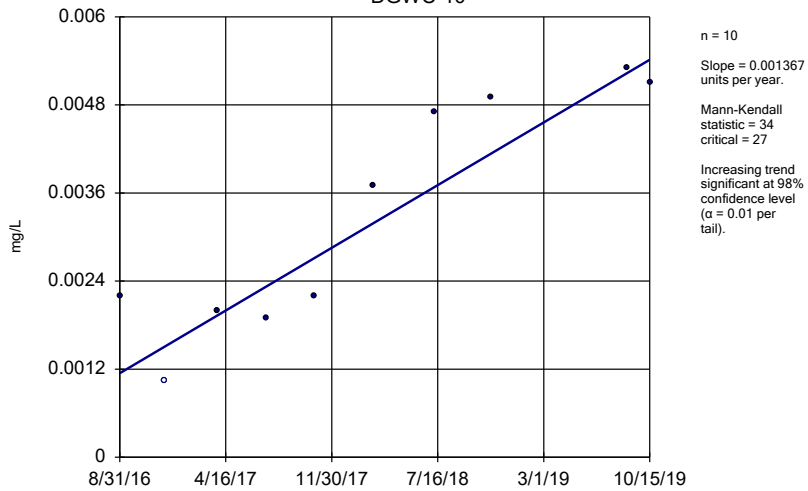
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWA-70A (bg)



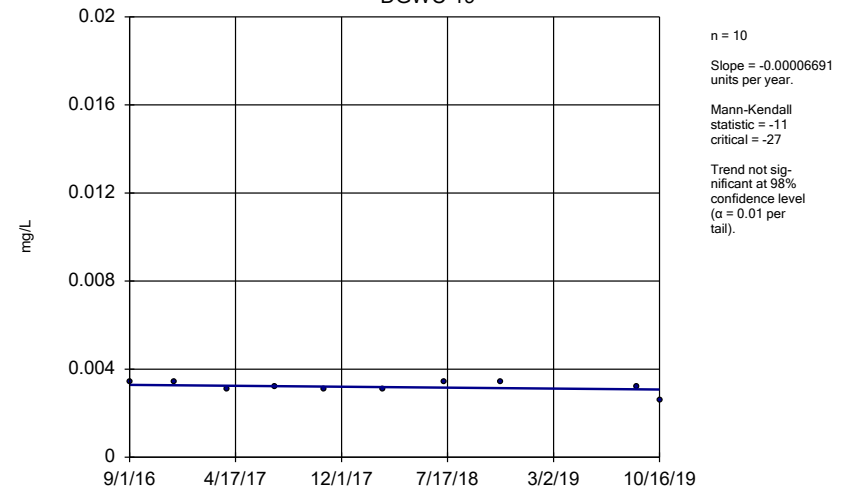
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-10



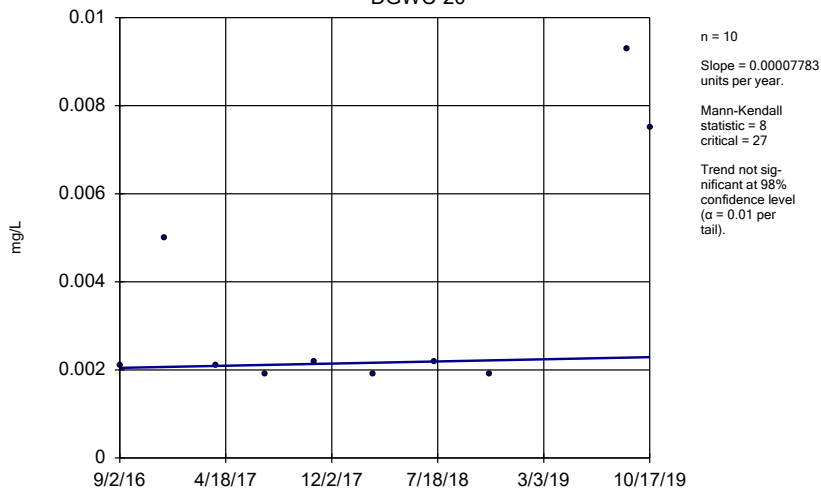
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-19



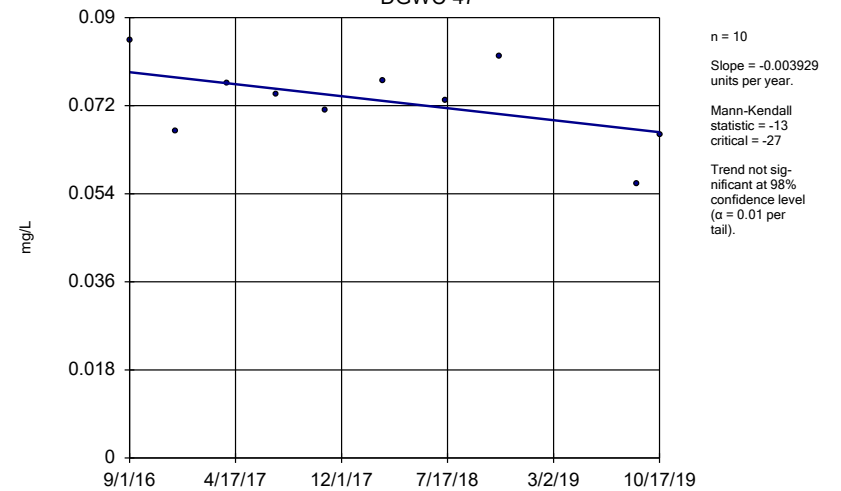
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-20



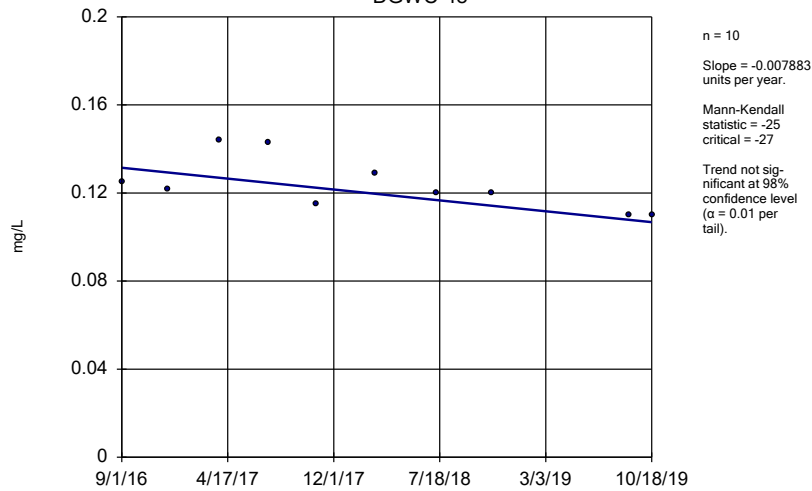
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator DGWC-47



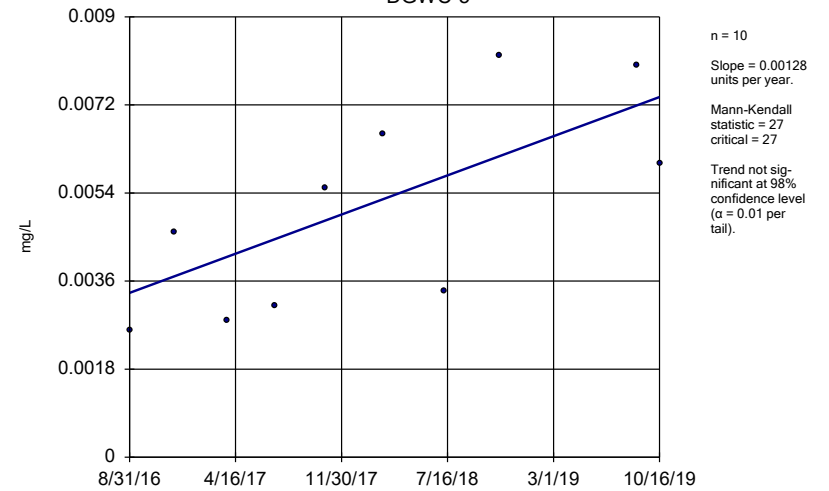
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-48



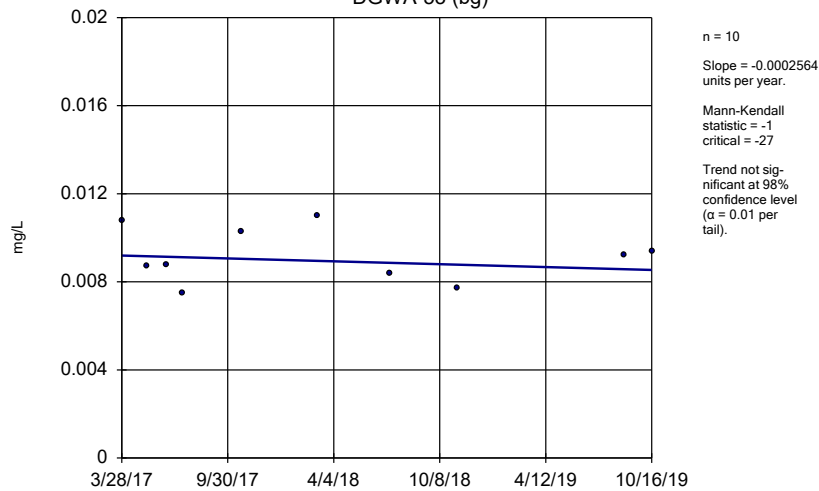
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-5



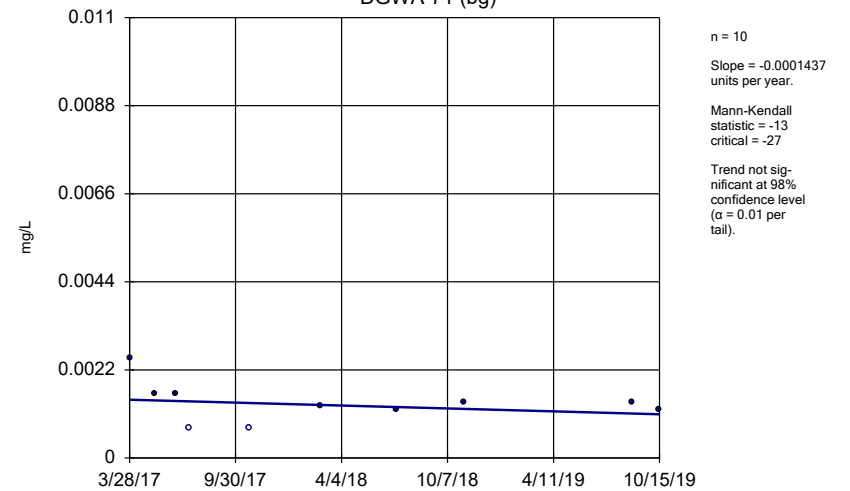
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-53 (bg)



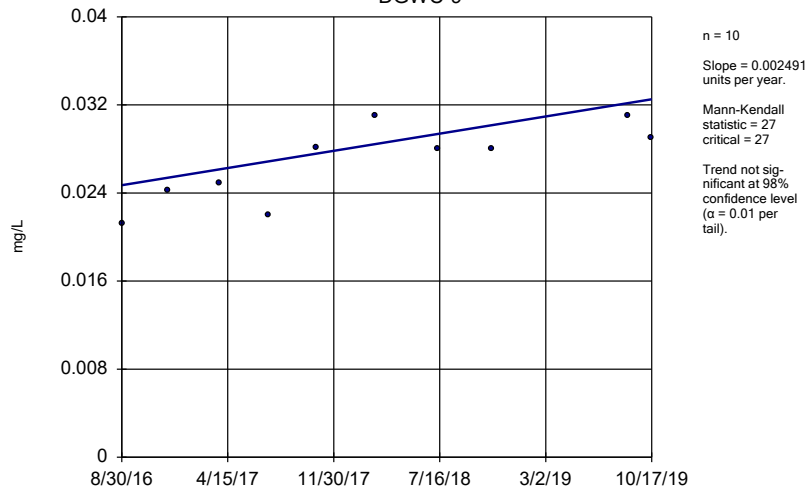
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-71 (bg)



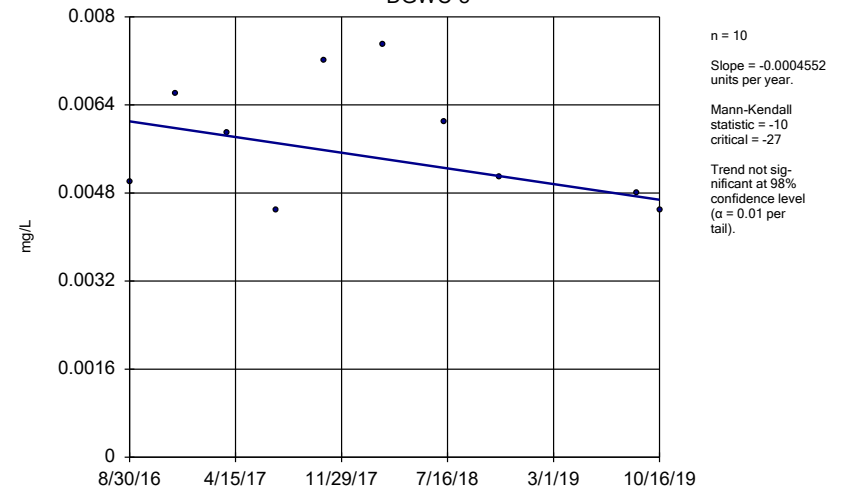
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-9



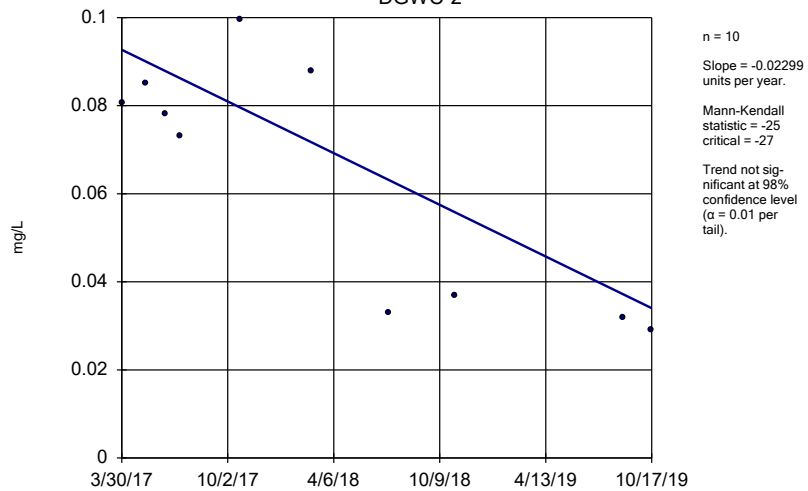
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-8



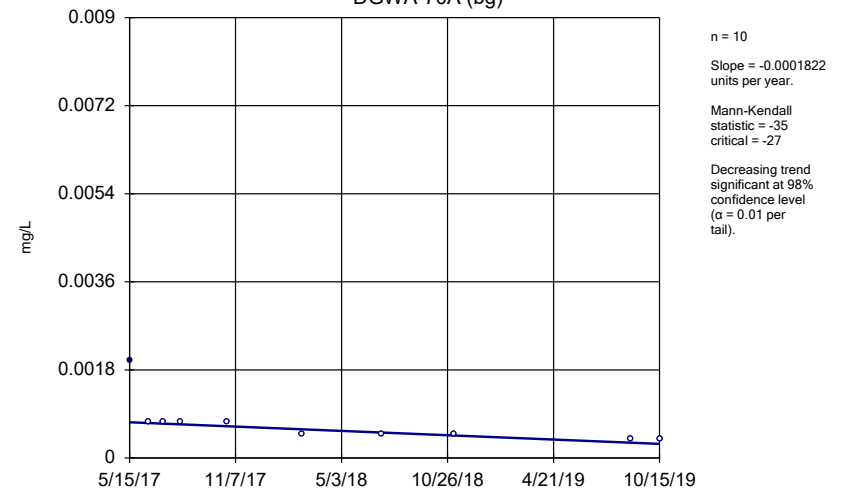
Constituent: Lithium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-2



Constituent: Lithium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-70A (bg)



Constituent: Lithium Analysis Run 2/14/2020 2:54 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

ATTACHMENT B

Federal Statistical Analyses

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	10/15/2019	1.6	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-11	0.13	n/a	10/15/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-12	0.13	n/a	10/15/2019	5.9	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-13	0.13	n/a	10/16/2019	0.65	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-15	0.13	n/a	10/17/2019	1.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-17	0.13	n/a	10/18/2019	0.82	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-19	0.13	n/a	10/16/2019	2.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-20	0.13	n/a	10/17/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-21	0.13	n/a	10/17/2019	7	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-22	0.13	n/a	10/18/2019	4.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-42	0.13	n/a	10/17/2019	0.94	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-47	0.13	n/a	10/17/2019	0.25	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-48	0.13	n/a	10/18/2019	0.74	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-5	0.13	n/a	10/16/2019	4.3	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-4	0.13	n/a	10/15/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-9	0.13	n/a	10/17/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-8	0.13	n/a	10/16/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-2	0.13	n/a	10/17/2019	0.73	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-23	0.13	n/a	10/18/2019	4.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Calcium (mg/L)	DGWC-10	40.3	n/a	10/15/2019	79.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-11	40.3	n/a	10/15/2019	61.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-12	40.3	n/a	10/15/2019	61.4	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-13	40.3	n/a	10/16/2019	43.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-19	40.3	n/a	10/16/2019	85.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-20	40.3	n/a	10/17/2019	86.9	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-21	40.3	n/a	10/17/2019	79.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-22	40.3	n/a	10/18/2019	61.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-42	40.3	n/a	10/17/2019	44.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-48	40.3	n/a	10/18/2019	72.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-5	40.3	n/a	10/16/2019	109	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-4	40.3	n/a	10/15/2019	276	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-9	40.3	n/a	10/17/2019	75.6	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-8	40.3	n/a	10/16/2019	47.3	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-2	40.3	n/a	10/17/2019	47.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-23	40.3	n/a	10/18/2019	67.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Chloride (mg/L)	DGWC-10	4.277	n/a	10/15/2019	9.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.277	n/a	10/15/2019	15.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.277	n/a	10/15/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.277	n/a	10/16/2019	17.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.277	n/a	10/17/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.277	n/a	10/18/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.277	n/a	10/16/2019	33.2	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.277	n/a	10/17/2019	24.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.277	n/a	10/17/2019	20.1	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-22	4.277	n/a	10/18/2019	23.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.277	n/a	10/17/2019	25.8	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.277	n/a	10/17/2019	7	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.277	n/a	10/18/2019	9.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.277	n/a	10/16/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.277	n/a	10/15/2019	20.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	DGWC-9	4.277	n/a	10/17/2019	10	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.277	n/a	10/16/2019	10.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.277	n/a	10/18/2019	14.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	0.5046	n/a	10/15/2019	1.4	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-9	0.5046	n/a	10/17/2019	1.2	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-10	6.664	5.159	10/15/2019	4.96	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-17	6.664	5.159	10/18/2019	5.08	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-19	6.664	5.159	10/16/2019	4.87	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-20	6.664	5.159	10/17/2019	4.64	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-47	6.664	5.159	10/17/2019	4.6	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-48	6.664	5.159	10/18/2019	4.22	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-5	6.664	5.159	10/16/2019	4.78	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-9	6.664	5.159	10/17/2019	4.02	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-10	37.58	n/a	10/15/2019	263	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	37.58	n/a	10/15/2019	273	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	37.58	n/a	10/15/2019	270	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	37.58	n/a	10/16/2019	167	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	37.58	n/a	10/16/2019	42.1	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	37.58	n/a	10/17/2019	146	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	37.58	n/a	10/18/2019	222	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	37.58	n/a	10/16/2019	323	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	37.58	n/a	10/17/2019	426	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	37.58	n/a	10/17/2019	255	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	37.58	n/a	10/18/2019	254	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	37.58	n/a	10/17/2019	321	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	37.58	n/a	10/17/2019	179	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	37.58	n/a	10/18/2019	336	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	37.58	n/a	10/16/2019	493	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	37.58	n/a	10/15/2019	888	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	37.58	n/a	10/17/2019	331	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	37.58	n/a	10/16/2019	235	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	37.58	n/a	10/17/2019	134	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	37.58	n/a	10/18/2019	203	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	331	n/a	10/15/2019	447	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	331	n/a	10/15/2019	461	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	331	n/a	10/15/2019	472	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	331	n/a	10/18/2019	403	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	331	n/a	10/16/2019	500	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	331	n/a	10/17/2019	751	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	331	n/a	10/17/2019	498	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	331	n/a	10/18/2019	480	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	331	n/a	10/17/2019	612	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	331	n/a	10/18/2019	593	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	331	n/a	10/16/2019	702	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	331	n/a	10/15/2019	1520	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	331	n/a	10/17/2019	550	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	331	n/a	10/16/2019	374	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	331	n/a	10/18/2019	448	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	10/15/2019	1.6	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-11	0.13	n/a	10/15/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-12	0.13	n/a	10/15/2019	5.9	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-13	0.13	n/a	10/16/2019	0.65	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-14	0.13	n/a	10/16/2019	0.052	No	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-15	0.13	n/a	10/17/2019	1.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-17	0.13	n/a	10/18/2019	0.82	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-19	0.13	n/a	10/16/2019	2.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-20	0.13	n/a	10/17/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-21	0.13	n/a	10/17/2019	7	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-22	0.13	n/a	10/18/2019	4.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-42	0.13	n/a	10/17/2019	0.94	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-47	0.13	n/a	10/17/2019	0.25	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-48	0.13	n/a	10/18/2019	0.74	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-5	0.13	n/a	10/16/2019	4.3	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-4	0.13	n/a	10/15/2019	5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-9	0.13	n/a	10/17/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-8	0.13	n/a	10/16/2019	1.2	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-2	0.13	n/a	10/17/2019	0.73	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Boron (mg/L)	DGWC-23	0.13	n/a	10/18/2019	4.5	Yes	31	12.9	n/a	0.001666	NP Inter (normality) ...
Calcium (mg/L)	DGWC-10	40.3	n/a	10/15/2019	79.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-11	40.3	n/a	10/15/2019	61.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-12	40.3	n/a	10/15/2019	61.4	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-13	40.3	n/a	10/16/2019	43.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-14	40.3	n/a	10/16/2019	9.4	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-15	40.3	n/a	10/17/2019	37	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-17	40.3	n/a	10/18/2019	12.9	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-19	40.3	n/a	10/16/2019	85.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-20	40.3	n/a	10/17/2019	86.9	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-21	40.3	n/a	10/17/2019	79.8	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-22	40.3	n/a	10/18/2019	61.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-42	40.3	n/a	10/17/2019	44.1	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-47	40.3	n/a	10/17/2019	36.2	No	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-48	40.3	n/a	10/18/2019	72.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-5	40.3	n/a	10/16/2019	109	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-4	40.3	n/a	10/15/2019	276	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-9	40.3	n/a	10/17/2019	75.6	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-8	40.3	n/a	10/16/2019	47.3	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-2	40.3	n/a	10/17/2019	47.2	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Calcium (mg/L)	DGWC-23	40.3	n/a	10/18/2019	67.7	Yes	32	0	n/a	0.001585	NP Inter (normality) ...
Chloride (mg/L)	DGWC-10	4.277	n/a	10/15/2019	9.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.277	n/a	10/15/2019	15.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.277	n/a	10/15/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.277	n/a	10/16/2019	17.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.277	n/a	10/16/2019	3.5	No	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.277	n/a	10/17/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.277	n/a	10/18/2019	22	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.277	n/a	10/16/2019	33.2	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.277	n/a	10/17/2019	24.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.277	n/a	10/17/2019	20.1	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

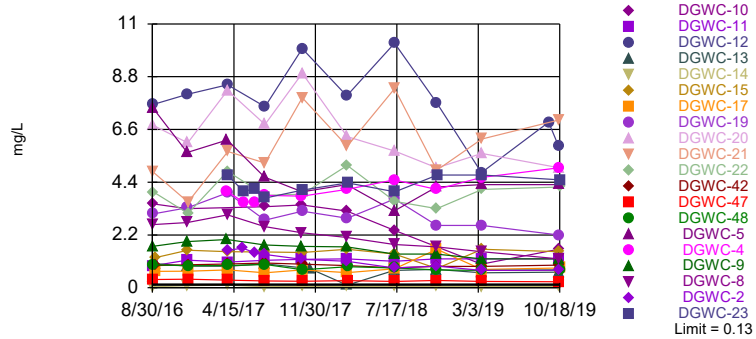
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	DGWC-22	4.277	n/a	10/18/2019	23.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.277	n/a	10/17/2019	25.8	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.277	n/a	10/17/2019	7	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.277	n/a	10/18/2019	9.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.277	n/a	10/16/2019	11.6	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.277	n/a	10/15/2019	20.9	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.277	n/a	10/17/2019	10	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.277	n/a	10/16/2019	10.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.277	n/a	10/17/2019	2.8	No	34	0	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.277	n/a	10/18/2019	14.4	Yes	34	0	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	0.5046	n/a	10/15/2019	1.4	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-11	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-12	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-13	0.5046	n/a	10/16/2019	0.14	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-14	0.5046	n/a	10/16/2019	0.052	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-15	0.5046	n/a	10/17/2019	0.079	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-17	0.5046	n/a	10/18/2019	0.086	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-19	0.5046	n/a	10/16/2019	0.23	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-20	0.5046	n/a	10/17/2019	0.26	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-21	0.5046	n/a	10/17/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-22	0.5046	n/a	10/18/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-42	0.5046	n/a	10/17/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-47	0.5046	n/a	10/17/2019	0.46	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-48	0.5046	n/a	10/18/2019	0.46	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-5	0.5046	n/a	10/16/2019	0.32	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-4	0.5046	n/a	10/15/2019	0.0145ND	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-9	0.5046	n/a	10/17/2019	1.2	Yes	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-8	0.5046	n/a	10/16/2019	0.14	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-2	0.5046	n/a	10/17/2019	0.042	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-23	0.5046	n/a	10/18/2019	0.079	No	35	42.86	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-10	6.664	5.159	10/15/2019	4.96	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-11	6.664	5.159	10/15/2019	5.6	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-12	6.664	5.159	10/15/2019	5.89	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-13	6.664	5.159	10/16/2019	5.69	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-14	6.664	5.159	10/16/2019	5.66	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-15	6.664	5.159	10/17/2019	5.76	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-17	6.664	5.159	10/18/2019	5.08	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-19	6.664	5.159	10/16/2019	4.87	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-20	6.664	5.159	10/17/2019	4.64	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-21	6.664	5.159	10/17/2019	5.57	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-22	6.664	5.159	10/18/2019	5.61	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-42	6.664	5.159	10/17/2019	5.2	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-47	6.664	5.159	10/17/2019	4.6	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-48	6.664	5.159	10/18/2019	4.22	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-5	6.664	5.159	10/16/2019	4.78	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-4	6.664	5.159	10/15/2019	5.98	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-9	6.664	5.159	10/17/2019	4.02	Yes	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-8	6.664	5.159	10/16/2019	5.33	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-2	6.664	5.159	10/17/2019	6.16	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
pH [field] (S.U.)	DGWC-23	6.664	5.159	10/18/2019	5.99	No	35	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 2/13/2020, 6:09 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	DGWC-10	37.58	n/a	10/15/2019	263	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	37.58	n/a	10/15/2019	273	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	37.58	n/a	10/15/2019	270	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	37.58	n/a	10/16/2019	167	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	37.58	n/a	10/16/2019	42.1	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	37.58	n/a	10/17/2019	146	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	37.58	n/a	10/18/2019	222	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	37.58	n/a	10/16/2019	323	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	37.58	n/a	10/17/2019	426	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	37.58	n/a	10/17/2019	255	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-22	37.58	n/a	10/18/2019	254	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	37.58	n/a	10/17/2019	321	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	37.58	n/a	10/17/2019	179	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	37.58	n/a	10/18/2019	336	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	37.58	n/a	10/16/2019	493	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	37.58	n/a	10/15/2019	888	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	37.58	n/a	10/17/2019	331	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	37.58	n/a	10/16/2019	235	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	37.58	n/a	10/17/2019	134	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	37.58	n/a	10/18/2019	203	Yes	34	0	sqrt(x)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	331	n/a	10/15/2019	447	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	331	n/a	10/15/2019	461	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	331	n/a	10/15/2019	472	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-13	331	n/a	10/16/2019	296	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-14	331	n/a	10/16/2019	104	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-15	331	n/a	10/17/2019	319	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	331	n/a	10/18/2019	403	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	331	n/a	10/16/2019	500	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	331	n/a	10/17/2019	751	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	331	n/a	10/17/2019	498	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-22	331	n/a	10/18/2019	480	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	331	n/a	10/17/2019	612	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	331	n/a	10/17/2019	327	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	331	n/a	10/18/2019	593	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	331	n/a	10/16/2019	702	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	331	n/a	10/15/2019	1520	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	331	n/a	10/17/2019	550	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	331	n/a	10/16/2019	374	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-2	331	n/a	10/17/2019	302	No	31	0	x^(1/3)	0.000...	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	331	n/a	10/18/2019	448	Yes	31	0	x^(1/3)	0.000...	Param Inter 1 of 2

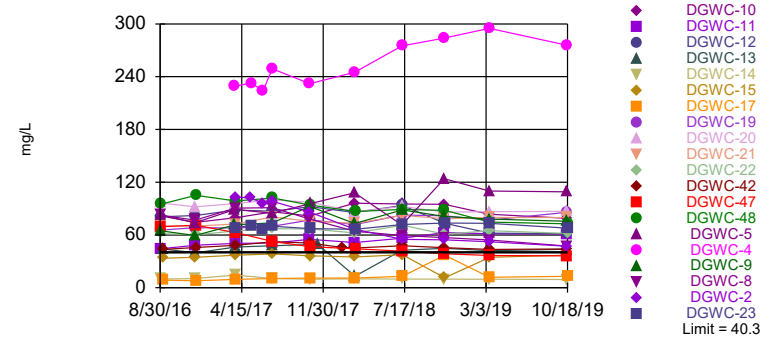
Prediction Limit
Interwell Non-parametric



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 31 background values. 12.9% NDs. Annual per-constituent alpha = 0.06452. Individual comparison alpha = 0.001666 (1 of 2). Comparing 20 points to limit.

Constituent: Boron Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

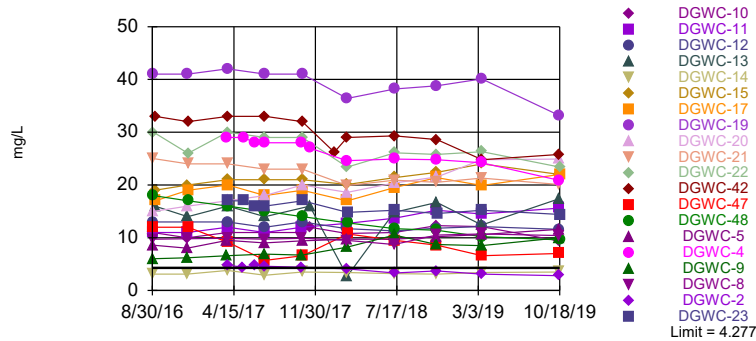
Prediction Limit
Interwell Non-parametric



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 32 background values. Annual per-constituent alpha = 0.06146. Individual comparison alpha = 0.001585 (1 of 2). Comparing 20 points to limit.

Constituent: Calcium Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

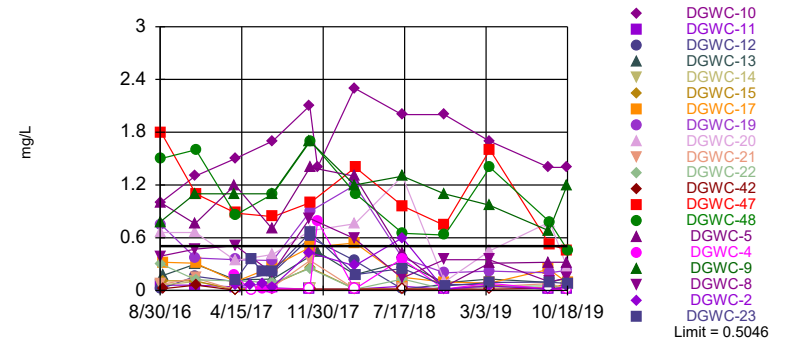
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=0.9725, Std. Dev.=0.21, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9084, critical = 0.908. Kappa = 2.29 (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 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

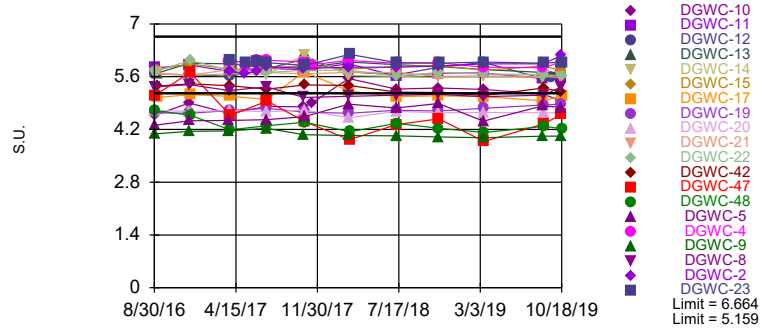
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=3.862, Std. Dev.=1.393, n=35, 42.86% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9384, critical = 0.91. Kappa = 2.282 (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: Fluoride Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

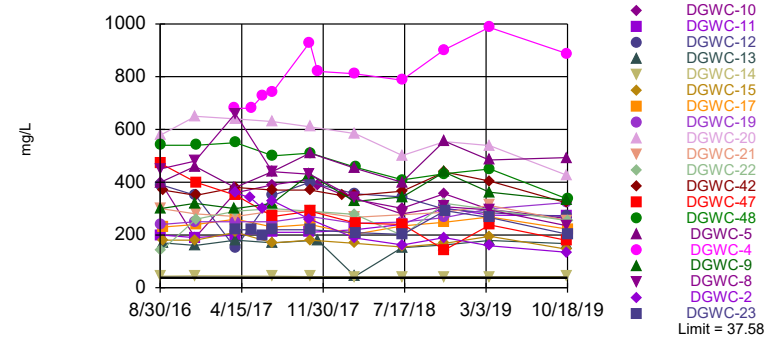
Prediction Limit
Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=1.769, Std. Dev.=0.05611, n=35.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9131, critical = 0.91. Kappa = 2.282 (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 [field] Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

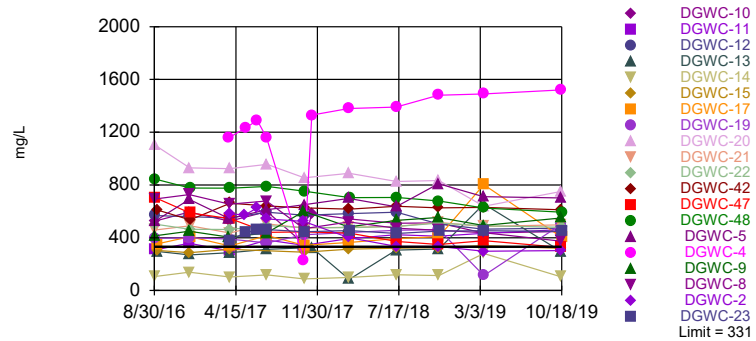
Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=2.61, Std. Dev.=1.537, n=34.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9363, critical = 0.908. Kappa = 2.29 (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 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

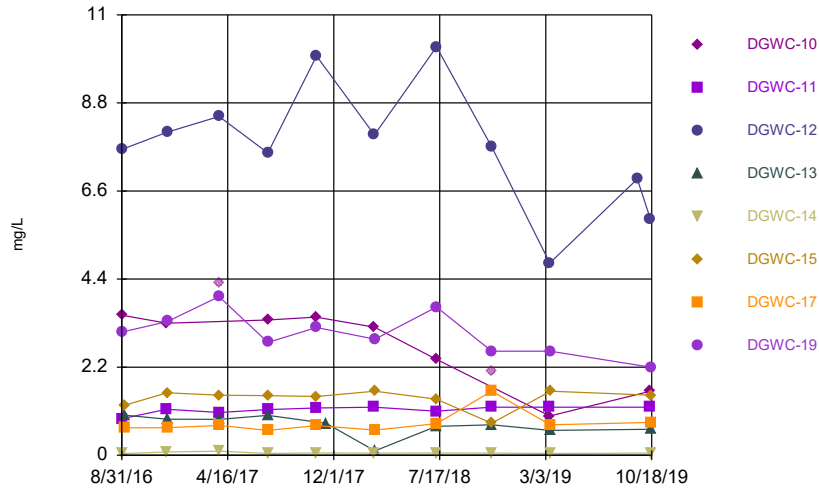
Prediction Limit
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.718, Std. Dev.=0.9514, n=31.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9111, critical = 0.902. Kappa = 2.312 (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.

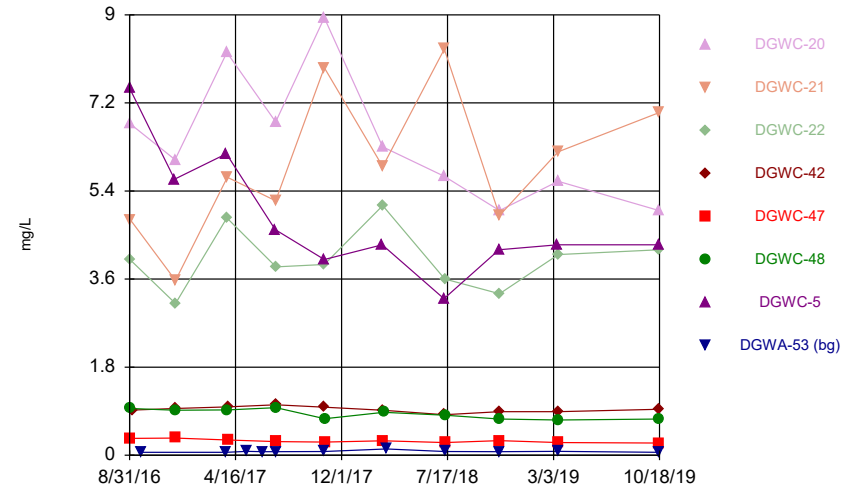
Constituent: TDS Analysis Run 2/13/2020 6:07 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



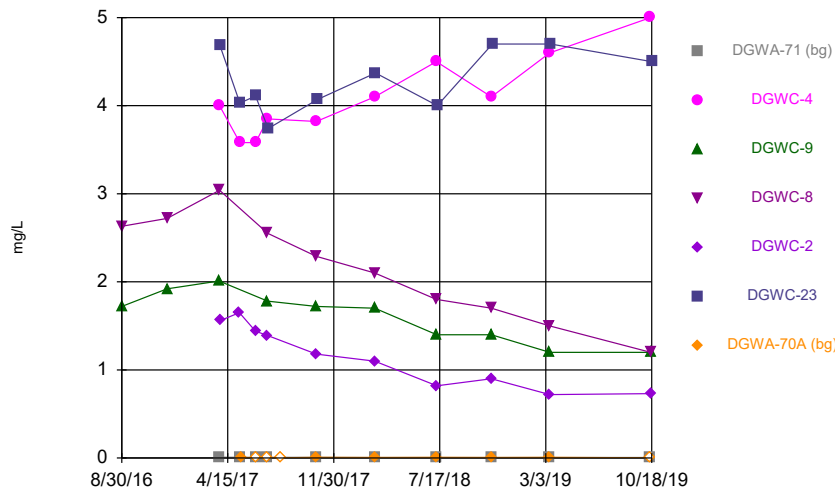
Constituent: Boron Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



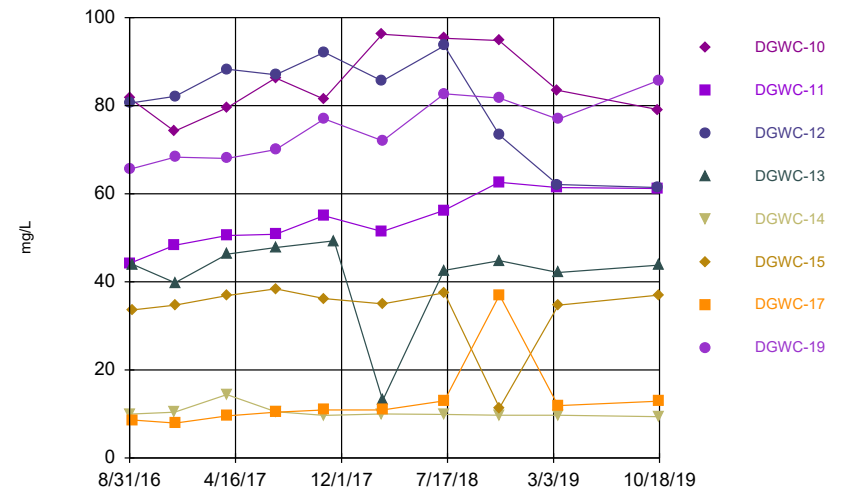
Constituent: Boron Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



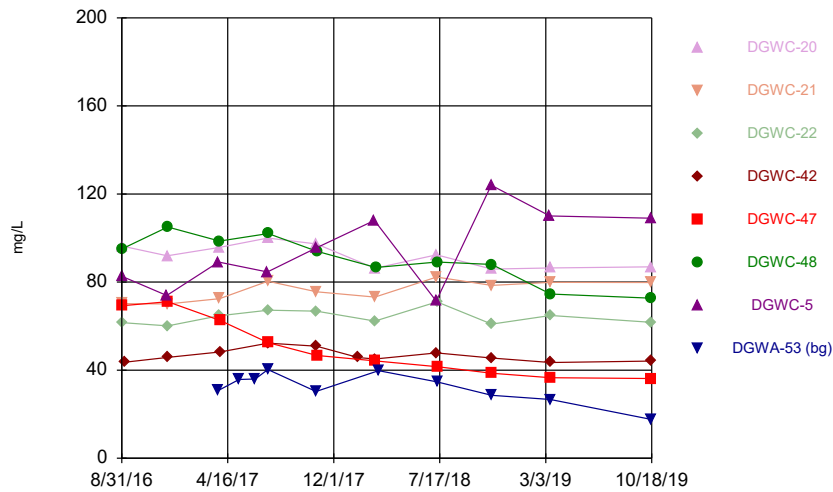
Constituent: Boron Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



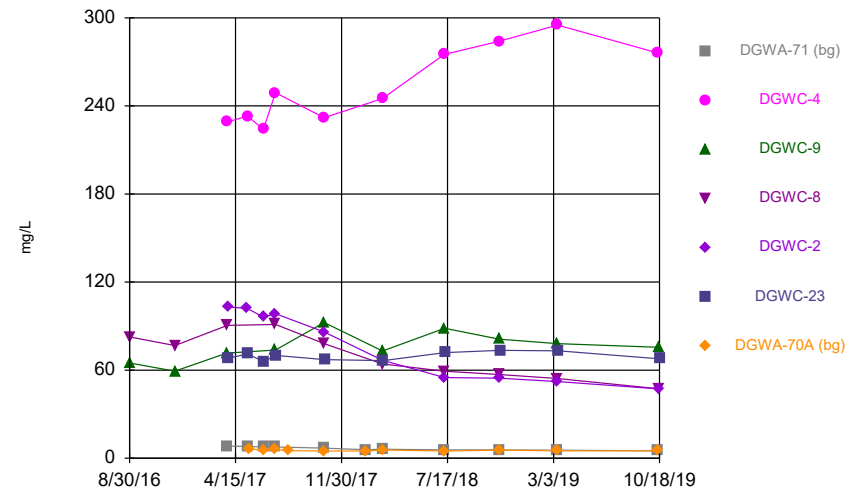
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



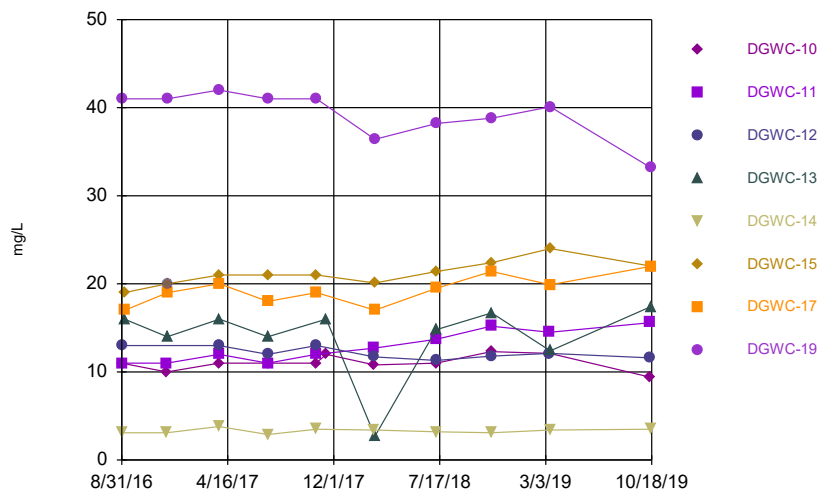
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



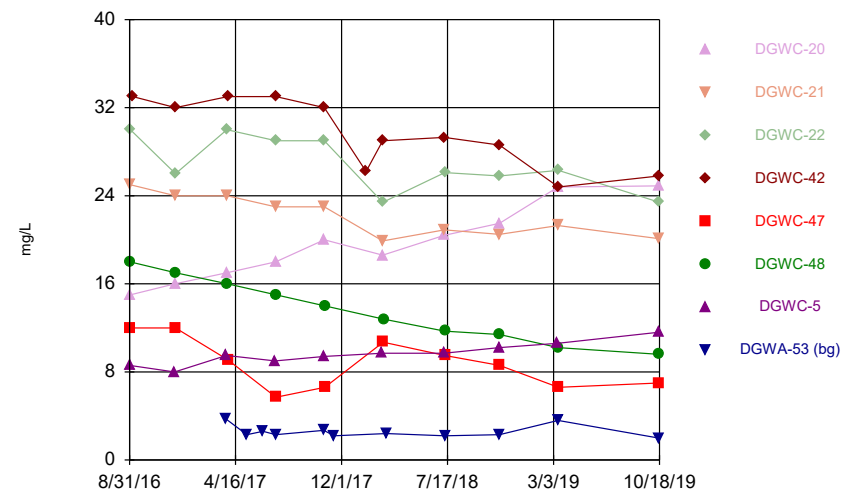
Constituent: Calcium Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



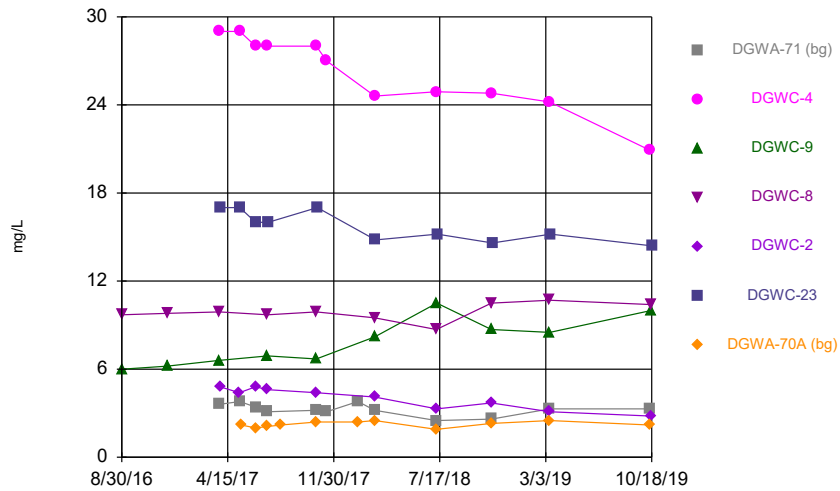
Constituent: Chloride Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



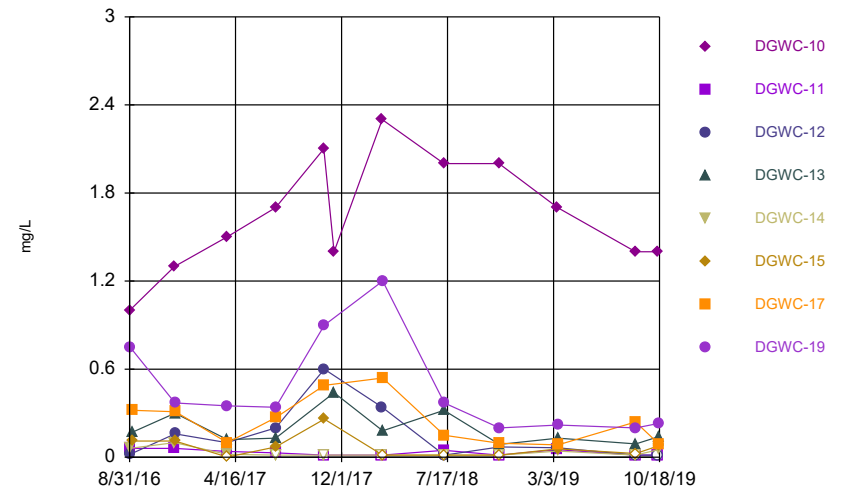
Constituent: Chloride Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



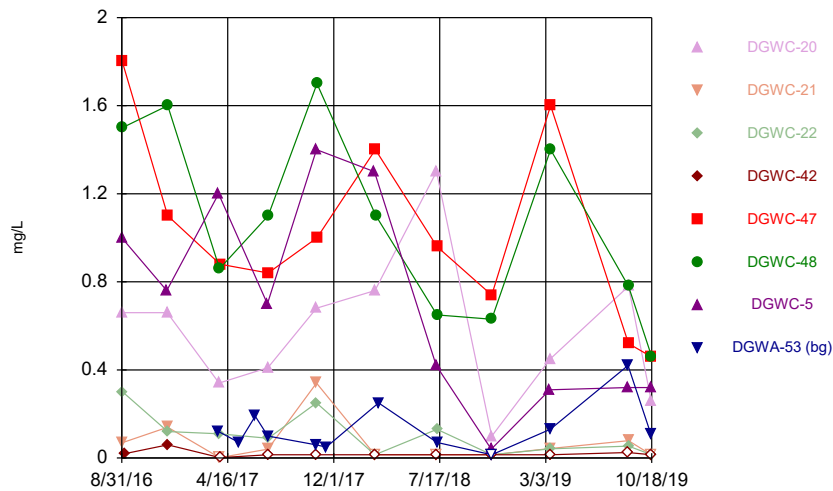
Constituent: Chloride Analysis Run 2/13/2020 6:12 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



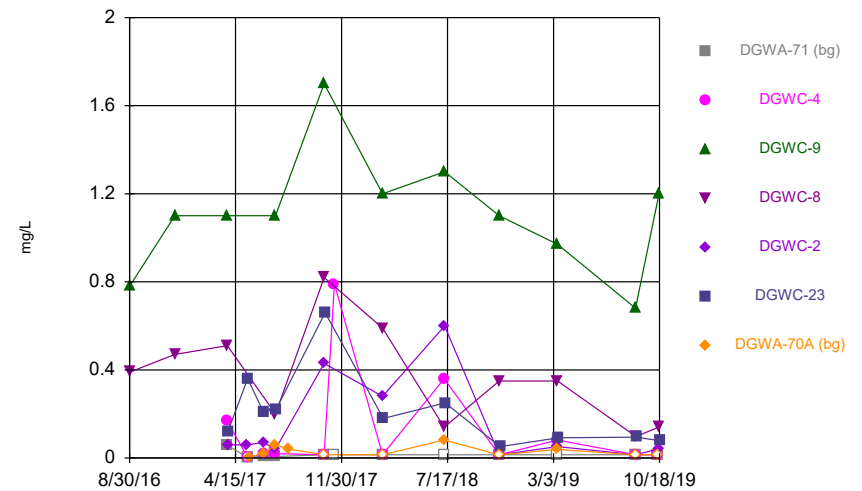
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



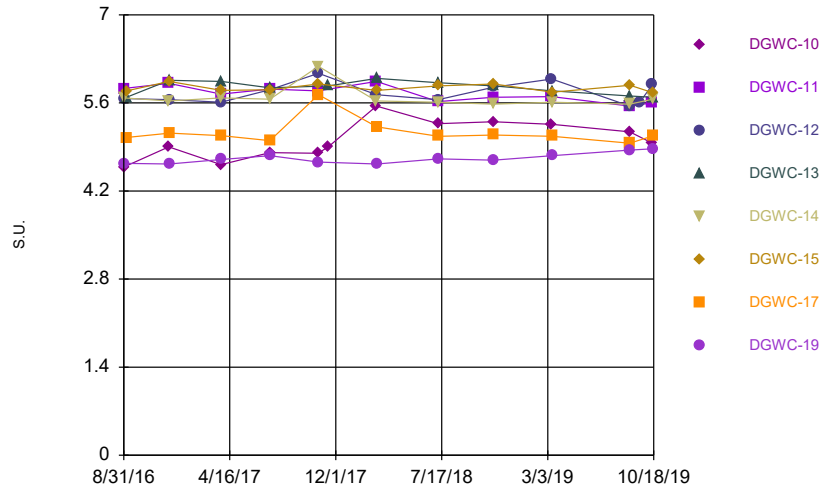
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



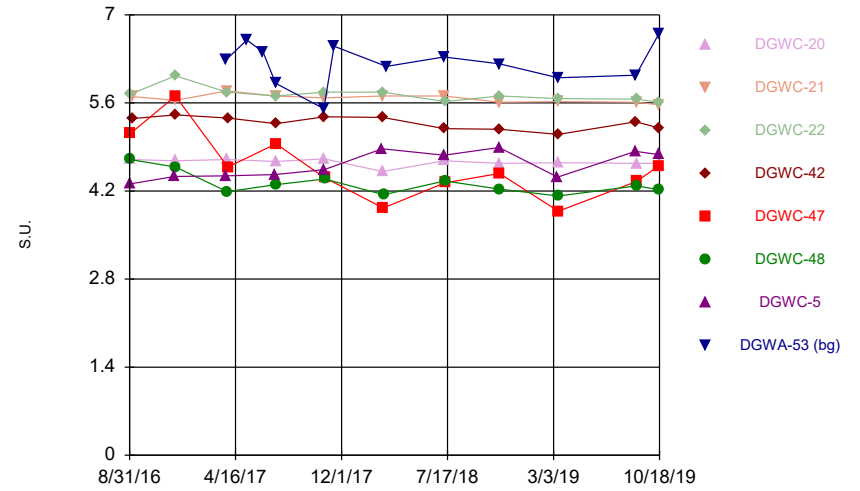
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



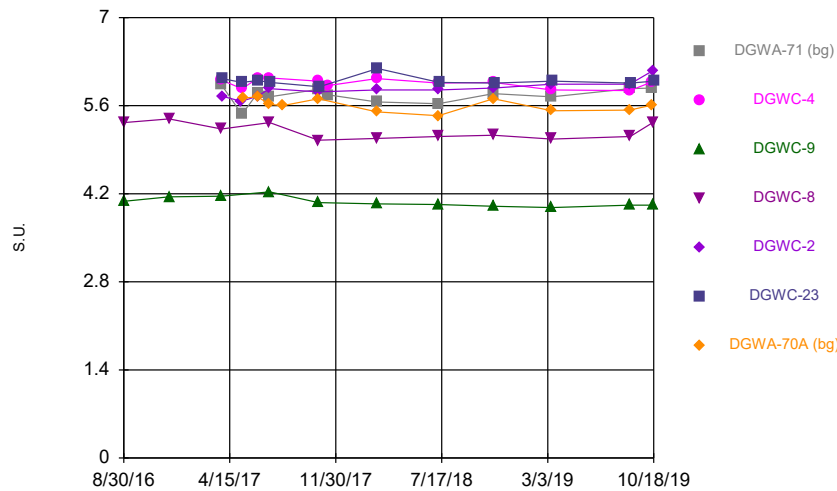
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



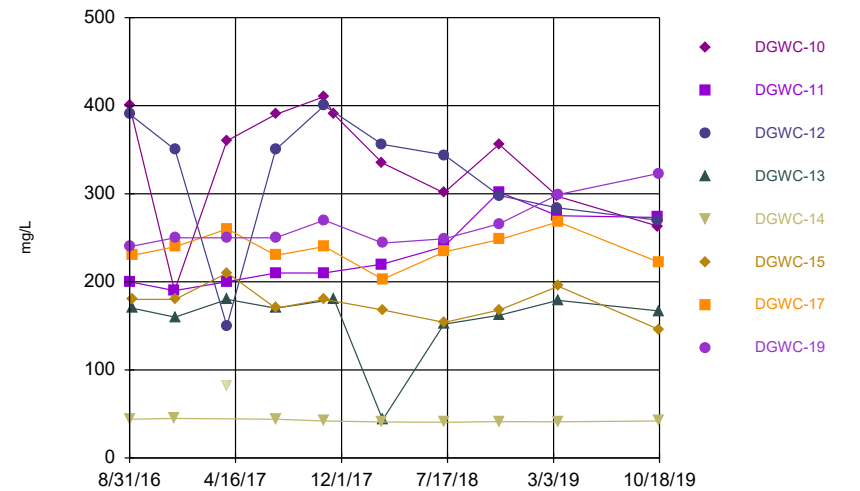
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



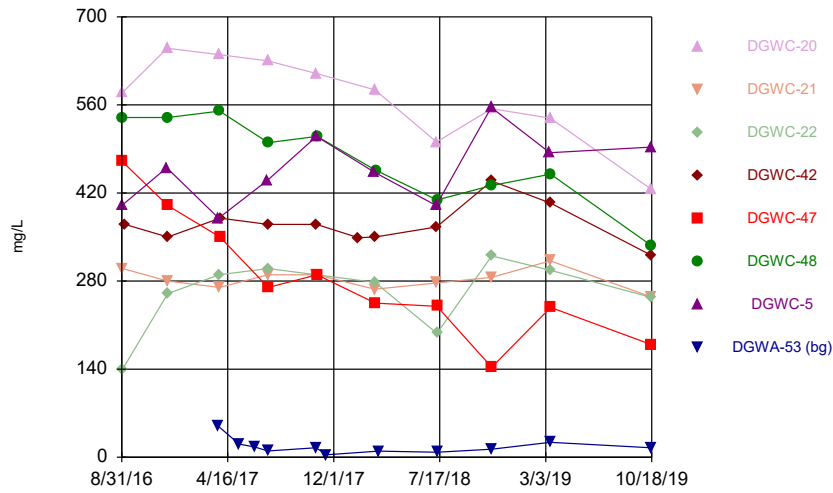
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



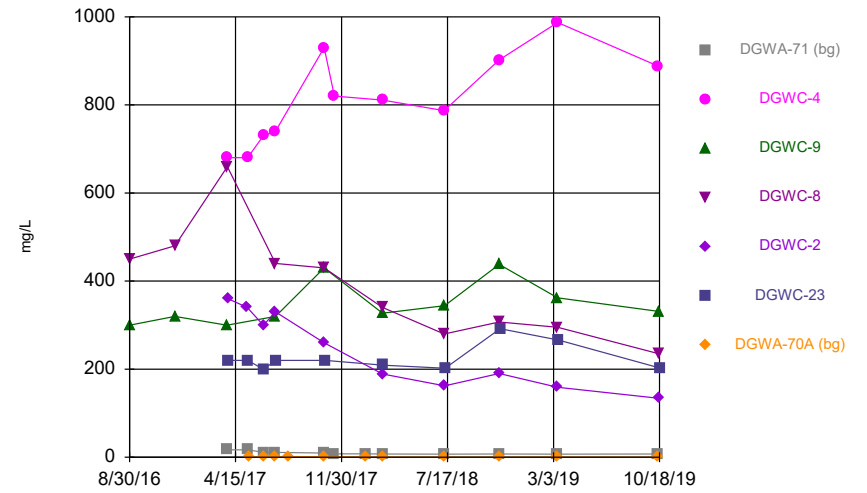
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



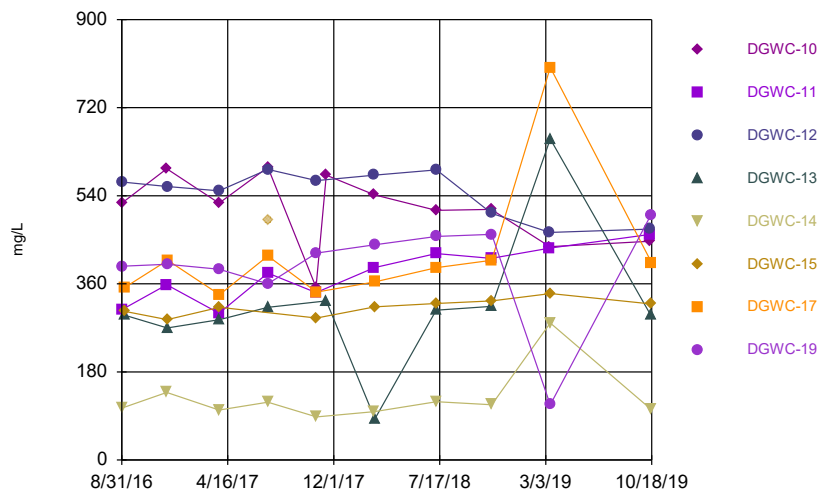
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



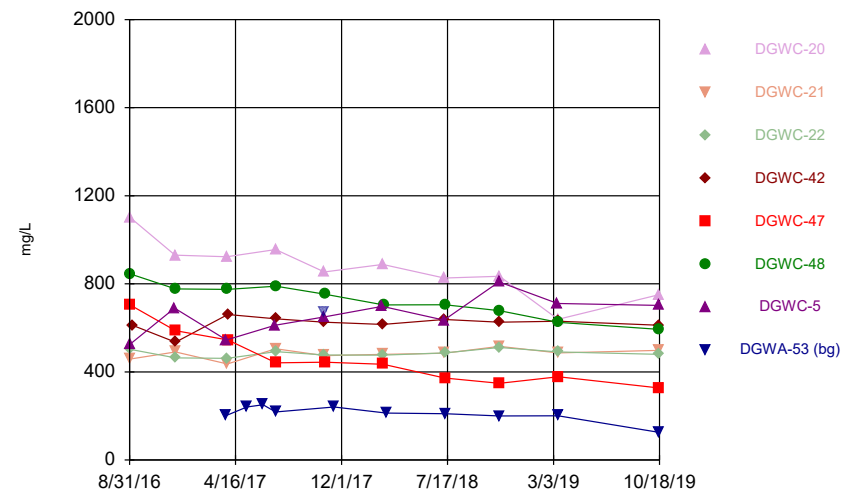
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



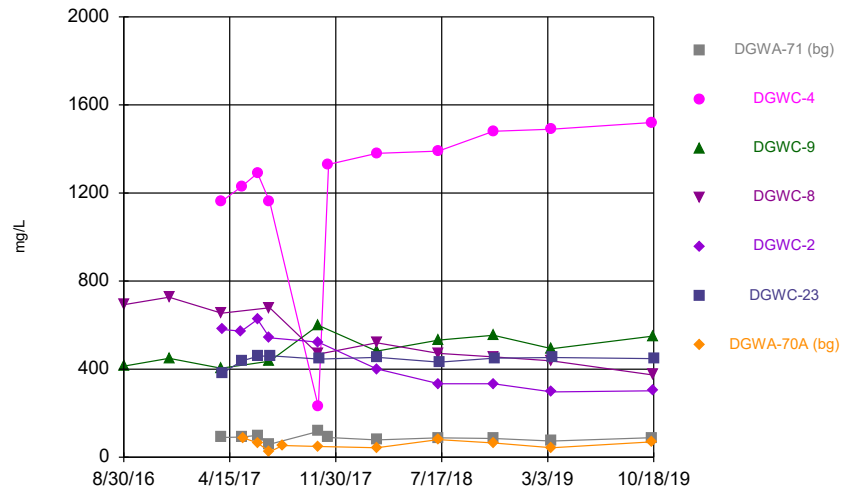
Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: TDS Analysis Run 2/13/2020 6:13 PM View: APP III_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Tolerance Limit

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 12:11 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0007	n/a	n/a	n/a	30	90	n/a	0.2146	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0018	n/a	n/a	n/a	32	78.13	n/a	0.1937	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	30	0	n/a	0.2146	NP Inter(normal...
Beryllium (mg/L)	n/a	0.0015	n/a	n/a	n/a	31	67.74	n/a	0.2039	NP Inter(normal...
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	31	93.55	n/a	0.2039	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0025	n/a	n/a	n/a	29	62.07	n/a	0.2259	NP Inter(Cohens...
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	30	33.33	n/a	0.2146	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	n/a	6.316	n/a	n/a	n/a	30	10	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	35	42.86	n/a	0.1661	NP Inter(Cohens...
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	30	83.33	n/a	0.2146	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	30	36.67	n/a	0.2146	NP Inter(normal...
Mercury (mg/L)	n/a	0.0001	n/a	n/a	n/a	30	76.67	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	30	63.33	n/a	0.2146	NP Inter(normal...
Selenium (mg/L)	n/a	0.00065	n/a	n/a	n/a	30	100	n/a	0.2146	NP Inter(NDs)
Thallium (mg/L)	n/a	0.00007	n/a	n/a	n/a	30	96.67	n/a	0.2146	NP Inter(NDs)

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-9	0.03137	0.01273	0.01	Yes	10	10	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.012	0.0046	0.004	Yes	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01429	0.01029	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009959	0.007961	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.008722	0.005118	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006221	0.004859	0.004	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.2003	0.1669	0.0322	Yes	10	0	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05385	0.04797	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.5836	0.4372	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4369	0.3033	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5477	0.4443	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2025	0.12	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1051	0.0552	0.0322	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.08041	0.06525	0.04	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.1345	0.1131	0.04	Yes	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	DGWC-10	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-11	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-12	0.0004	0.000135	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-13	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-14	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-15	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-17	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-19	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-20	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-21	0.0004	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-22	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-42	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-47	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-48	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-53 (bg)	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-71 (bg)	0.0007	0.000135	0.006	No	10	80	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-4	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-9	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-8	0.0004	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-2	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-23	0.00039	0.000135	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	DGWA-70A ...	0.00039	0.000135	0.006	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.007627	0.002813	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-11	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-12	0.0008	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-13	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.0008	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.0008	0.000175	0.01	No	10	80	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.0009012	0.0003038	0.01	No	10	60	No	0.01	Param.
Arsenic (mg/L)	DGWC-19	0.002191	0.000739	0.01	No	10	10	No	0.01	Param.
Arsenic (mg/L)	DGWC-20	0.01502	0.005955	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-21	0.0008	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-22	0.0008	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.0008	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003114	0.001484	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.001988	0.001093	0.01	No	10	40	No	0.01	Param.
Arsenic (mg/L)	DGWC-5	0.0203	0.000175	0.01	No	10	20	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWA-53 (bg)	0.0009	0.000175	0.01	No	10	60	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWA-71 (bg)	0.0004	0.000175	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-4	0.0005	0.000175	0.01	No	10	70	No	0.011	NP (Cohens/xfrm)
Arsenic (mg/L)	DGWC-9	0.03137	0.01273	0.01	Yes	10	10	No	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.001373	0.0002706	0.01	No	10	60	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.000285	0.000175	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-23	0.000285	0.000175	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWA-70A ...	0.000285	0.000175	0.01	No	11	90.91	No	0.006	NP (NDs)
Barium (mg/L)	DGWC-10	0.03188	0.02466	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.07	0.05664	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.02695	0.02256	2	No	11	0	No	0.01	Param.
Barium (mg/L)	DGWC-13	0.03412	0.02597	2	No	10	0	x^3	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Barium (mg/L)	DGWC-14	0.061	0.055	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	DGWC-15	0.05005	0.04499	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06155	0.04755	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02398	0.02034	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.015	0.0087	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	DGWC-21	0.02738	0.02552	2	No	10	0	x^3	0.01	Param.
Barium (mg/L)	DGWC-22	0.03988	0.03276	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-42	0.02	0.01766	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.02058	0.0154	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01487	0.01275	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01891	0.01602	2	No	9	0	No	0.01	Param.
Barium (mg/L)	DGWA-53 (bg)	0.1707	0.1025	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWA-71 (bg)	0.03664	0.0264	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-4	0.03613	0.03221	2	No	10	0	x^4	0.01	Param.
Barium (mg/L)	DGWC-9	0.01643	0.01461	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04163	0.02845	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02282	0.02084	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWC-23	0.02207	0.01753	2	No	10	0	No	0.01	Param.
Barium (mg/L)	DGWA-70A ...	0.03692	0.02636	2	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.012	0.0046	0.004	Yes	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.0001025	0.00003615	0.004	No	10	50	No	0.01	Param.
Beryllium (mg/L)	DGWC-12	0.00028	0.00016	0.004	No	11	0	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-13	0.00005602	0.00003358	0.004	No	10	70	No	0.01	Param.
Beryllium (mg/L)	DGWC-14	0.000045	0.000025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-15	0.000045	0.000025	0.004	No	10	90	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.0006511	0.0004261	0.004	No	10	10	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-19	0.002012	0.001768	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-20	0.0041	0.0024	0.004	No	10	0	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-21	0.0001887	0.0001173	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-22	0.0002009	0.0001468	0.004	No	10	0	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-42	0.00287	0.00231	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01429	0.01029	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.009959	0.007961	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-5	0.008722	0.005118	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWA-53 (bg)	0.000125	0.000025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	DGWA-71 (bg)	0.0001055	0.00007281	0.004	No	10	40	No	0.01	Param.
Beryllium (mg/L)	DGWC-4	0.0002242	0.0001398	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006221	0.004859	0.004	Yes	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-8	0.003791	0.002049	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWC-2	0.000045	0.000025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-23	0.0004265	0.0003635	0.004	No	10	0	No	0.01	Param.
Beryllium (mg/L)	DGWA-70A ...	0.000095	0.000035	0.004	No	10	60	No	0.011	NP (Cohens/xfrm)
Cadmium (mg/L)	DGWC-10	0.001416	0.0009881	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.000055	0.00003	0.005	No	10	90	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0003866	0.0003025	0.005	No	11	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-13	0.00008	0.000035	0.005	No	10	80	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-14	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.00009	0.000035	0.005	No	10	70	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-17	0.0003121	0.0001953	0.005	No	10	10	x^2	0.01	Param.
Cadmium (mg/L)	DGWC-19	0.0004	0.00031	0.005	No	10	0	No	0.011	NP (normality)

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	DGWC-20	0.00218	0.0018	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.0007197	0.0005051	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-22	0.0007579	0.0004021	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-42	0.001371	0.000377	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002575	0.001165	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005361	0.002172	0.005	No	10	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007696	0.0002804	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWA-53 (bg)	0.00013	0.00003	0.005	No	11	81.82	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWA-71 (bg)	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-4	0.0007335	0.0005845	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.0006541	0.0004859	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002731	0.002129	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-2	0.0004488	0.0001492	0.005	No	10	0	No	0.01	Param.
Cadmium (mg/L)	DGWC-23	0.0002996	0.0001577	0.005	No	10	10	No	0.01	Param.
Cadmium (mg/L)	DGWA-70A ...	0.000055	0.00003	0.005	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-10	0.0008	0.00045	0.1	No	10	50	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-12	0.0008	0.00015	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-13	0.0009	0.000195	0.1	No	10	80	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-14	0.0008	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.0008	0.000195	0.1	No	10	70	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-17	0.00281	0.001951	0.1	No	10	10	x^2	0.01	Param.
Chromium (mg/L)	DGWC-19	0.002835	0.001878	0.1	No	10	10	x^2	0.01	Param.
Chromium (mg/L)	DGWC-20	0.002991	0.001588	0.1	No	10	40	No	0.01	Param.
Chromium (mg/L)	DGWC-21	0.0007233	0.0003277	0.1	No	10	70	No	0.01	Param.
Chromium (mg/L)	DGWC-22	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.0008452	0.0003958	0.1	No	10	60	No	0.01	Param.
Chromium (mg/L)	DGWC-47	0.0008	0.000195	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-48	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-5	0.00225	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWA-53 (bg)	0.0008	0.00015	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	DGWA-71 (bg)	0.0023	0.00025	0.1	No	10	50	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-4	0.0008	0.00015	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.00115	0.00045	0.1	No	10	70	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-8	0.0008	0.000195	0.1	No	10	80	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-2	0.0008	0.00025	0.1	No	10	60	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWC-23	0.0012	0.000195	0.1	No	10	30	No	0.011	NP (Cohens/xfrm)
Chromium (mg/L)	DGWA-70A ...	0.0008	0.0005	0.1	No	9	33.33	No	0.002	NP (normality)
Cobalt (mg/L)	DGWC-10	0.2003	0.1669	0.0322	Yes	10	0	x^3	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.0006	0.00015	0.0322	No	10	70	No	0.011	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-12	0.0058	0.002	0.0322	No	11	0	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-13	0.0004	0.00015	0.0322	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-14	0.00026	0.00015	0.0322	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.0042	0.0015	0.0322	No	10	0	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-17	0.0289	0.01894	0.0322	No	10	0	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05385	0.04797	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.5836	0.4372	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009923	0.008617	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-22	0.01038	0.00866	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-42	0.05652	0.02222	0.0322	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	DGWC-47	0.4369	0.3033	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5477	0.4443	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04136	0.01948	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWA-53 (bg)	0.02921	0.01633	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWA-71 (bg)	0.0016	0.00015	0.0322	No	10	50	No	0.011	NP (Cohens/xfrm)
Cobalt (mg/L)	DGWC-4	0.0018	0.0015	0.0322	No	10	0	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-9	0.2025	0.12	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1051	0.0552	0.0322	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03211	0.01467	0.0322	No	10	0	No	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.00036	0.00015	0.0322	No	10	70	No	0.011	NP (normality)
Cobalt (mg/L)	DGWA-70A ...	0.0014	0.00015	0.0322	No	10	50	No	0.011	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.543	1.02	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.469	0.5924	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.11	0.0726	6.316	No	10	20	No	0.011	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.621	0.9701	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.443	0.5033	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.82	0.5421	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.224	0.5077	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.23	0.4637	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.459	0.6131	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.639	0.9762	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-22	1.481	0.683	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.239	0.5435	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.325	1.681	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.831	1.623	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.046	0.8625	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-53 (bg)	4.988	2.538	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-71 (bg)	1.74	0.1188	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.584	1.027	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.58	0.8654	6.316	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	1.357	0.2779	6.316	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.331	0.7023	6.316	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.479	0.4751	6.316	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWA-70A ...	1.421	0.4001	6.316	No	10	10	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.952	1.348	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.06	0.0145	4	No	11	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.34	0.0145	4	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-13	0.2723	0.1051	4	No	11	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.06	0.0145	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-15	0.11	0.002	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-17	0.3788	0.1094	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.647	0.2278	4	No	11	0	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-20	0.8518	0.3116	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.14	0.002	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-22	0.1847	-0.01093	4	No	11	27.27	No	0.01	Param.
Fluoride (mg/L)	DGWC-42	0.025	0.002	4	No	11	81.82	No	0.006	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.38	0.6744	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.429	0.7131	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.093	0.3201	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWA-53 (bg)	0.2001	0.0525	4	No	12	8.333	sqrt(x)	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	DGWA-71 (bg)	0.015	0.007	4	No	12	75	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-4	0.36	0.002	4	No	12	50	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-9	1.335	0.8891	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-8	0.5534	0.1844	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.0145	4	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	DGWC-23	0.3253	0.08401	4	No	11	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWA-70A ...	0.06	0.005	4	No	11	45.45	No	0.006	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-10	0.0025	0.00014	0.015	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.0025	0.000076	0.015	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.0025	0.0001	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-13	0.0025	0.0002	0.015	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-14	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.0025	0.000059	0.015	No	10	60	No	0.011	NP (normality)
Lead (mg/L)	DGWC-17	0.0025	0.000074	0.015	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-19	0.0025	0.00026	0.015	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-20	0.0025	0.000097	0.015	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-21	0.0025	0.000046	0.015	No	10	40	No	0.011	NP (Cohens/xfrm)
Lead (mg/L)	DGWC-22	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.00052	0.0002	0.015	No	10	10	No	0.011	NP (normality)
Lead (mg/L)	DGWC-47	0.001409	0.0006104	0.015	No	10	10	x^(1/3)	0.01	Param.
Lead (mg/L)	DGWC-48	0.002555	0.001095	0.015	No	10	0	No	0.01	Param.
Lead (mg/L)	DGWC-5	0.0025	0.000051	0.015	No	10	50	No	0.011	NP (normality)
Lead (mg/L)	DGWA-53 (bg)	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWA-71 (bg)	0.0025	0.00008	0.015	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-4	0.0025	0.000049	0.015	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-9	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-8	0.0025	0.000082	0.015	No	10	70	No	0.011	NP (normality)
Lead (mg/L)	DGWC-2	0.0025	0.00006	0.015	No	10	50	No	0.011	NP (normality)
Lead (mg/L)	DGWC-23	0.0025	0.000066	0.015	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	DGWA-70A ...	0.0025	0.00007	0.015	No	10	60	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-10	0.006733	0.00215	0.04	No	10	10	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-11	0.002418	0.002002	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-12	0.015	0.00091	0.04	No	11	63.64	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-13	0.0035	0.0028	0.04	No	10	10	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.003916	0.003244	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-15	0.006445	0.005977	0.04	No	9	0	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.015	0.00089	0.04	No	10	70	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-19	0.003386	0.003013	0.04	No	10	0	x^5	0.01	Param.
Lithium (mg/L)	DGWC-20	0.0075	0.0019	0.04	No	10	0	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-21	0.006232	0.005648	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-22	0.004517	0.003823	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-42	0.012	0.01	0.04	No	10	0	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-47	0.08041	0.06525	0.04	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.1345	0.1131	0.04	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.006959	0.003201	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWA-53 (bg)	0.01026	0.008098	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWA-71 (bg)	0.015	0.0012	0.04	No	10	20	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-4	0.003071	0.002469	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-9	0.02985	0.02363	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-8	0.006708	0.004732	0.04	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

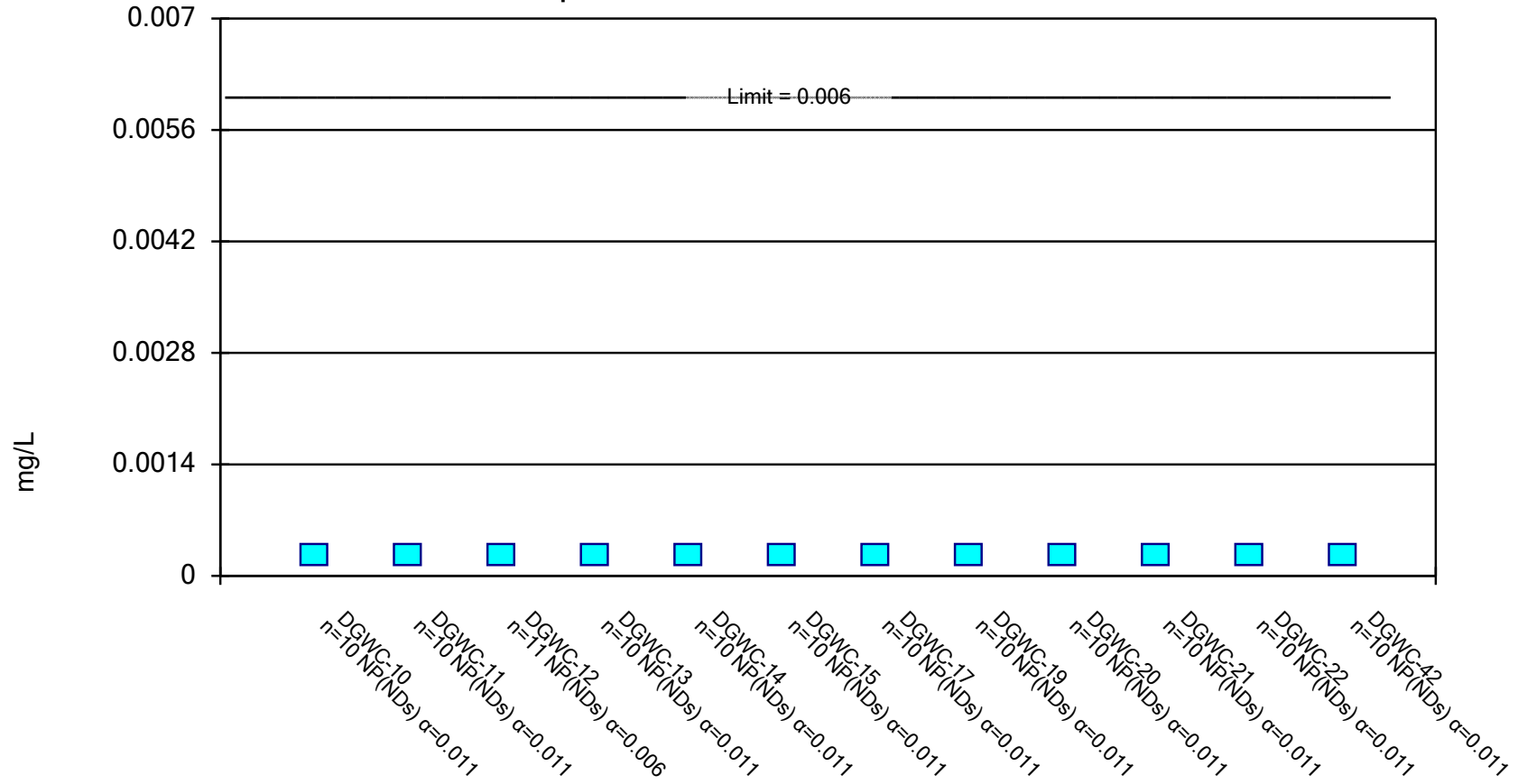
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	DGWC-2	0.08802	0.03906	0.04	No	10	0	No	0.01	Param.
Lithium (mg/L)	DGWC-23	0.01648	0.002632	0.04	No	10	0	ln(x)	0.01	Param.
Lithium (mg/L)	DGWA-70A ...	0.015	0.002	0.04	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-10	0.00009	0.000018	0.002	No	10	50	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-11	0.00008	0.000018	0.002	No	10	50	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-12	0.0001639	0.00006051	0.002	No	11	36.36	No	0.01	Param.
Mercury (mg/L)	DGWC-13	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-14	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-15	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0001853	0.0000654	0.002	No	10	40	No	0.01	Param.
Mercury (mg/L)	DGWC-19	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-20	0.00008	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-21	0.0001941	0.00006137	0.002	No	10	50	No	0.01	Param.
Mercury (mg/L)	DGWC-22	0.00007	0.000018	0.002	No	10	70	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-42	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-47	0.00007	0.000018	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-48	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002494	0.00008937	0.002	No	10	10	ln(x)	0.01	Param.
Mercury (mg/L)	DGWA-53 (bg)	0.00007	0.000018	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	DGWA-71 (bg)	0.00007482	0.00002278	0.002	No	10	60	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.000082	0.000018	0.002	No	10	60	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00042	0.000018	0.002	No	10	50	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-8	0.00012	0.000018	0.002	No	10	30	No	0.011	NP (Cohens/xfrm)
Mercury (mg/L)	DGWC-2	0.000083	0.000018	0.002	No	10	60	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-23	0.0001738	0.00009617	0.002	No	10	20	No	0.01	Param.
Mercury (mg/L)	DGWA-70A ...	0.00007	0.000018	0.002	No	10	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-10	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-11	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-12	0.00095	0.0003	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03148	0.01542	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWC-14	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-15	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-17	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-19	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-20	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-21	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-22	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-42	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-47	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-48	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-5	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWA-53 (bg)	0.03752	0.02716	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWA-71 (bg)	0.00095	0.0003	0.1	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-4	0.007202	0.004858	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWC-9	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-8	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	DGWC-2	0.0018	0.0005	0.1	No	10	60	No	0.011	NP (Cohens/xfrm)
Molybdenum (mg/L)	DGWC-23	0.01196	0.007197	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	DGWA-70A ...	0.00095	0.0003	0.1	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-10	0.05413	0.01519	0.05	No	10	0	No	0.01	Param.

Confidence Interval

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/20/2020, 1:13 PM

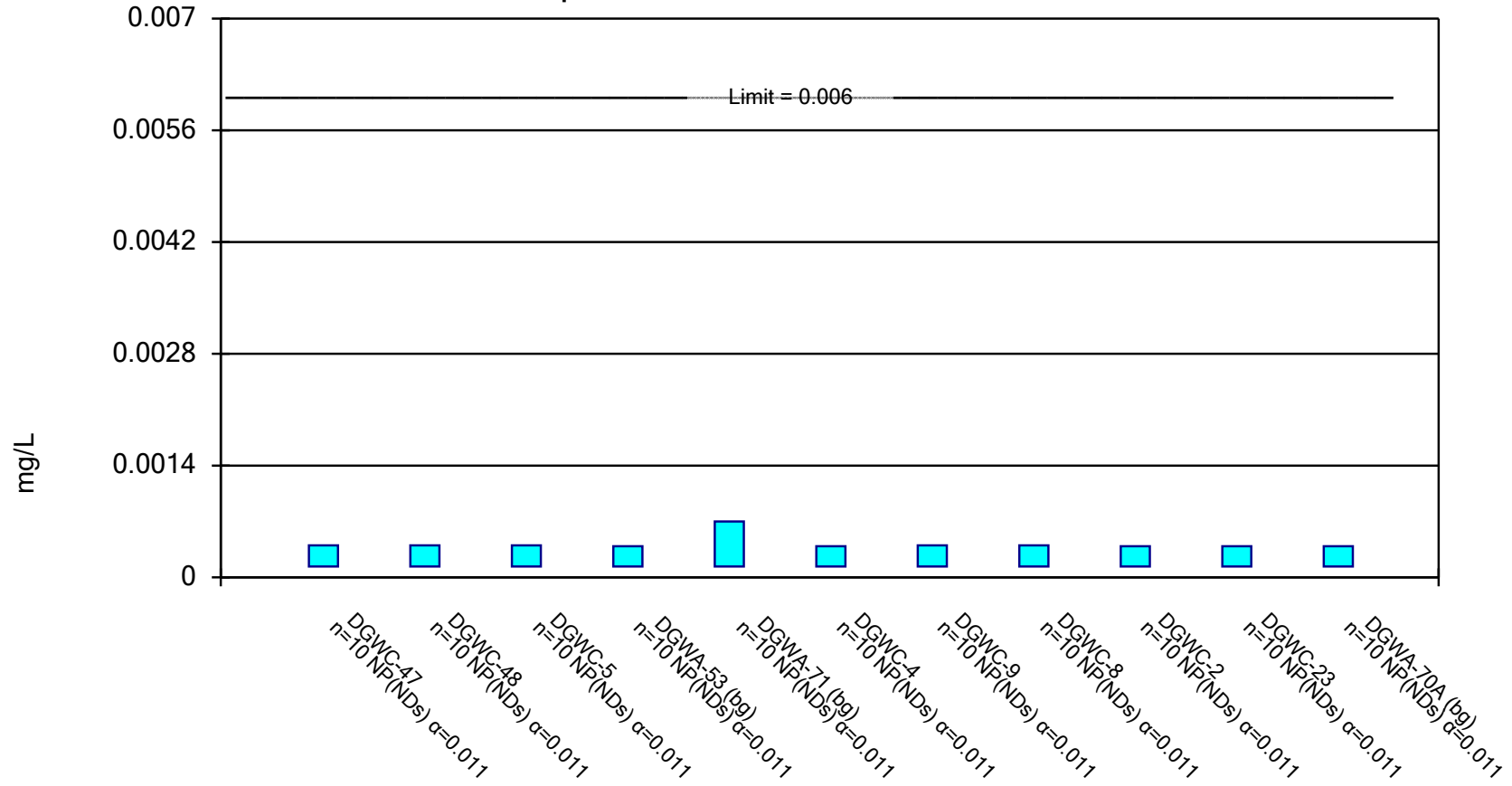
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	DGWC-11	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-12	0.002064	0.001261	0.05	No	11	27.27	No	0.01	Param.
Selenium (mg/L)	DGWC-13	0.003014	0.00115	0.05	No	10	20	No	0.01	Param.
Selenium (mg/L)	DGWC-14	0.001607	0.000643	0.05	No	10	60	No	0.01	Param.
Selenium (mg/L)	DGWC-15	0.0009	0.0005	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-17	0.009014	0.005835	0.05	No	10	10	x^2	0.01	Param.
Selenium (mg/L)	DGWC-19	0.009077	0.003623	0.05	No	10	10	No	0.01	Param.
Selenium (mg/L)	DGWC-20	0.06659	0.02655	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-21	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-22	0.0009	0.0005	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-42	0.0009	0.0005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.01627	0.005846	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.009597	0.004243	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06628	0.004953	0.05	No	10	0	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWA-53 (bg)	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWA-71 (bg)	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-4	0.0009	0.00065	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-9	0.1316	0.04009	0.05	No	10	0	No	0.01	Param.
Selenium (mg/L)	DGWC-8	0.006062	-0.00049	0.05	No	10	30	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.0051	0.0007	0.05	No	10	50	No	0.011	NP (normality)
Selenium (mg/L)	DGWC-23	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	DGWA-70A ...	0.0009	0.00065	0.05	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-10	0.0004781	0.0003437	0.002	No	10	10	x^(1/3)	0.01	Param.
Thallium (mg/L)	DGWC-11	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-12	0.0002481	0.00009108	0.002	No	11	45.45	No	0.01	Param.
Thallium (mg/L)	DGWC-13	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-14	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-15	0.0001	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-17	0.0002175	0.0001632	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-19	0.00053	0.0004	0.002	No	10	0	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-20	0.001019	0.0005311	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-21	0.0001	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-22	0.0001	0.000026	0.002	No	10	60	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-42	0.0001	0.000026	0.002	No	10	60	No	0.011	NP (Cohens/xfrm)
Thallium (mg/L)	DGWC-47	0.0003085	0.0001815	0.002	No	10	10	No	0.01	Param.
Thallium (mg/L)	DGWC-48	0.00009656	0.00005824	0.002	No	10	60	No	0.01	Param.
Thallium (mg/L)	DGWC-5	0.0002	0.000026	0.002	No	10	80	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-53 (bg)	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-71 (bg)	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-4	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-9	0.00103	0.0005218	0.002	No	10	30	No	0.01	Param.
Thallium (mg/L)	DGWC-8	0.0002915	0.0001552	0.002	No	10	20	No	0.01	Param.
Thallium (mg/L)	DGWC-2	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-23	0.00007	0.000025	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	DGWA-70A ...	0.00007	0.000025	0.002	No	10	100	No	0.011	NP (NDs)

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

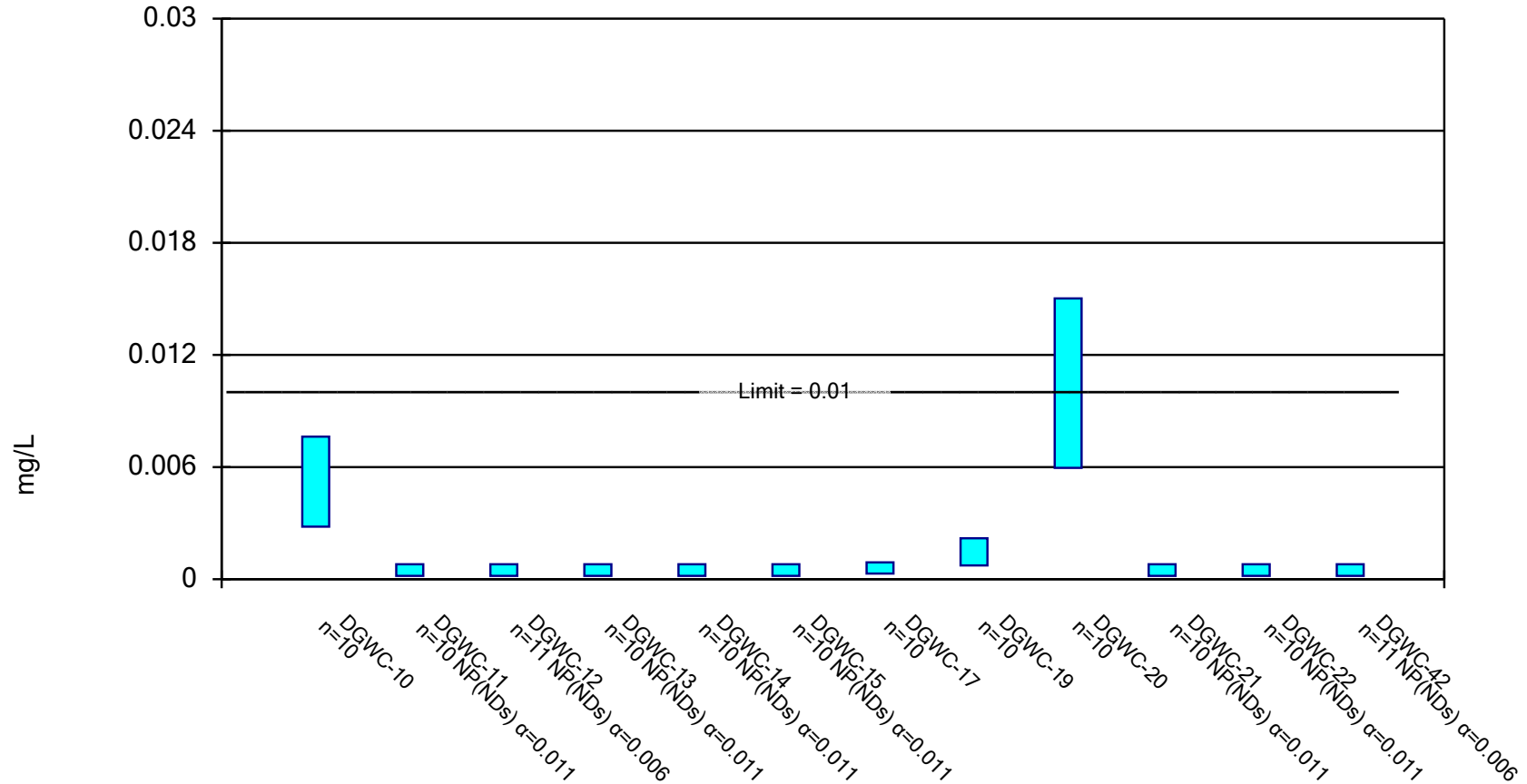
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

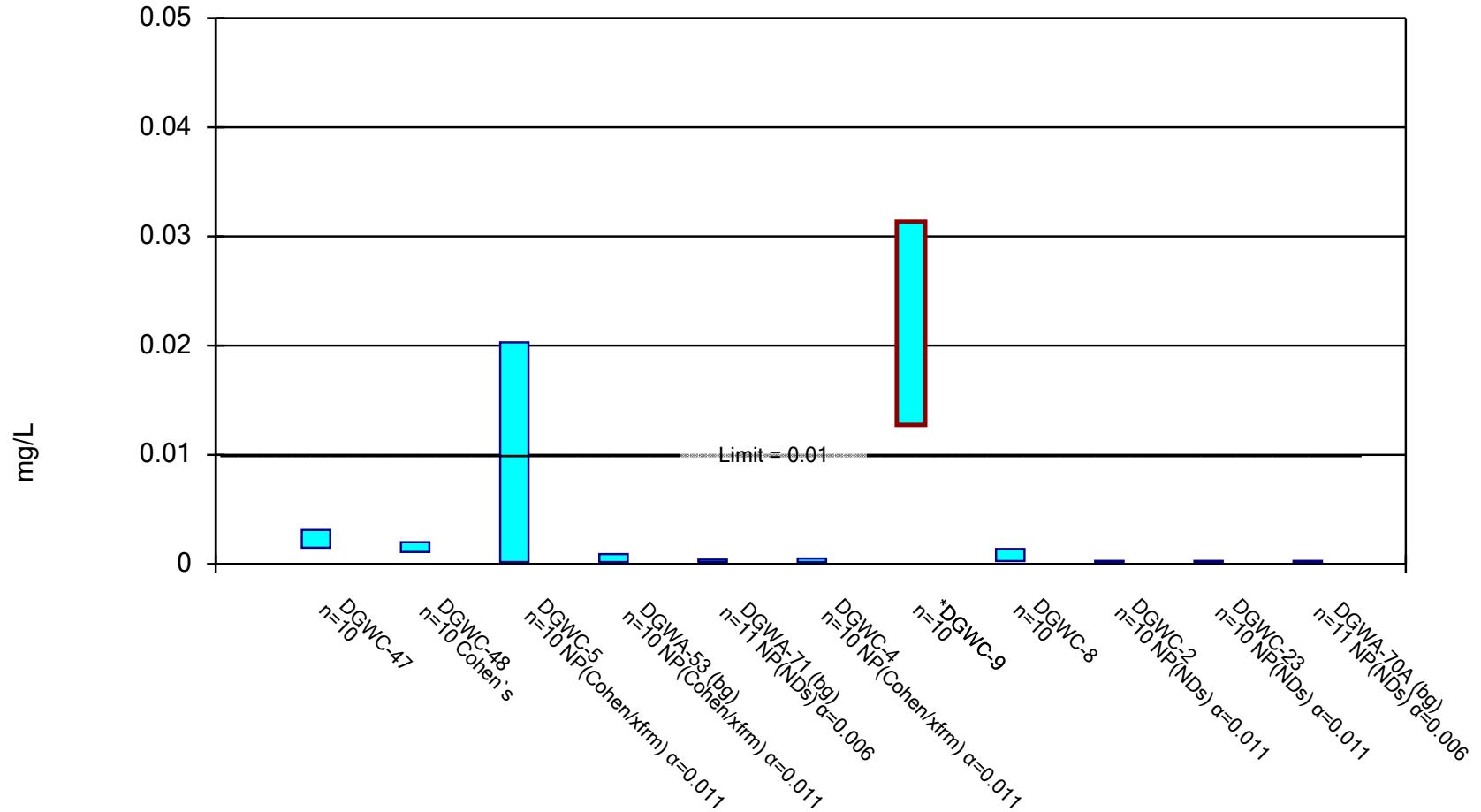


Constituent: Arsenic Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

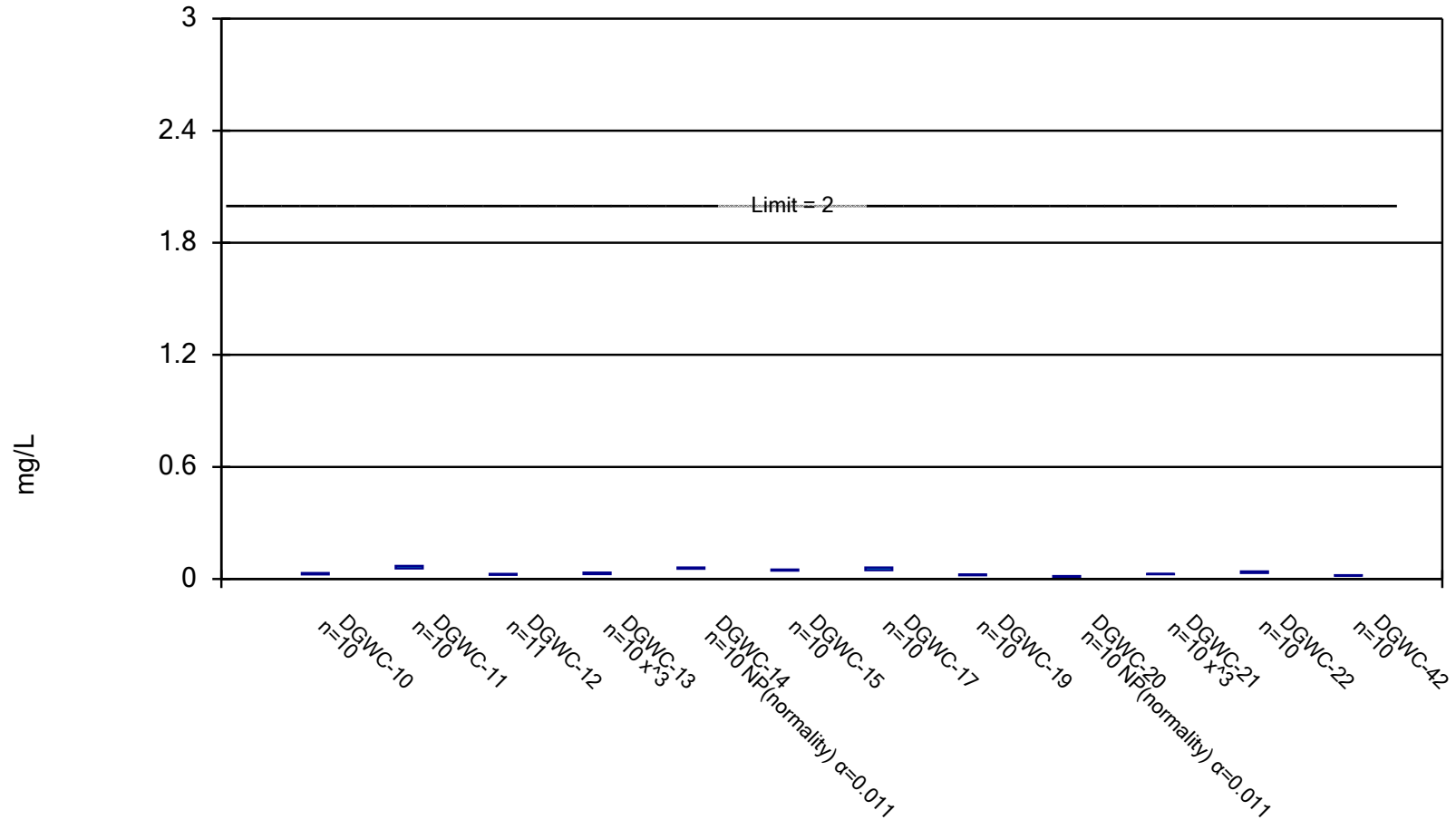


Constituent: Arsenic Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

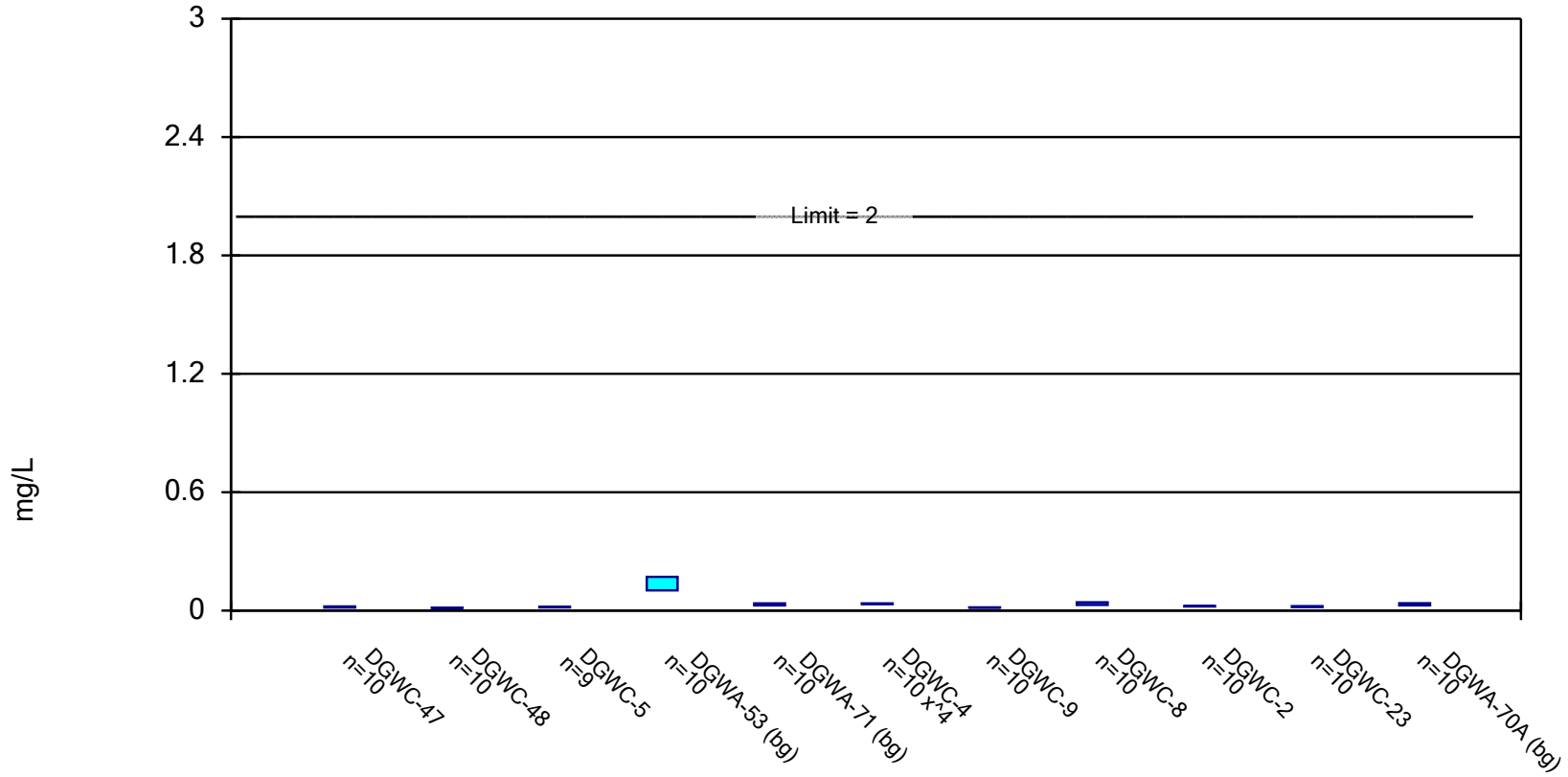
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric Confidence Interval

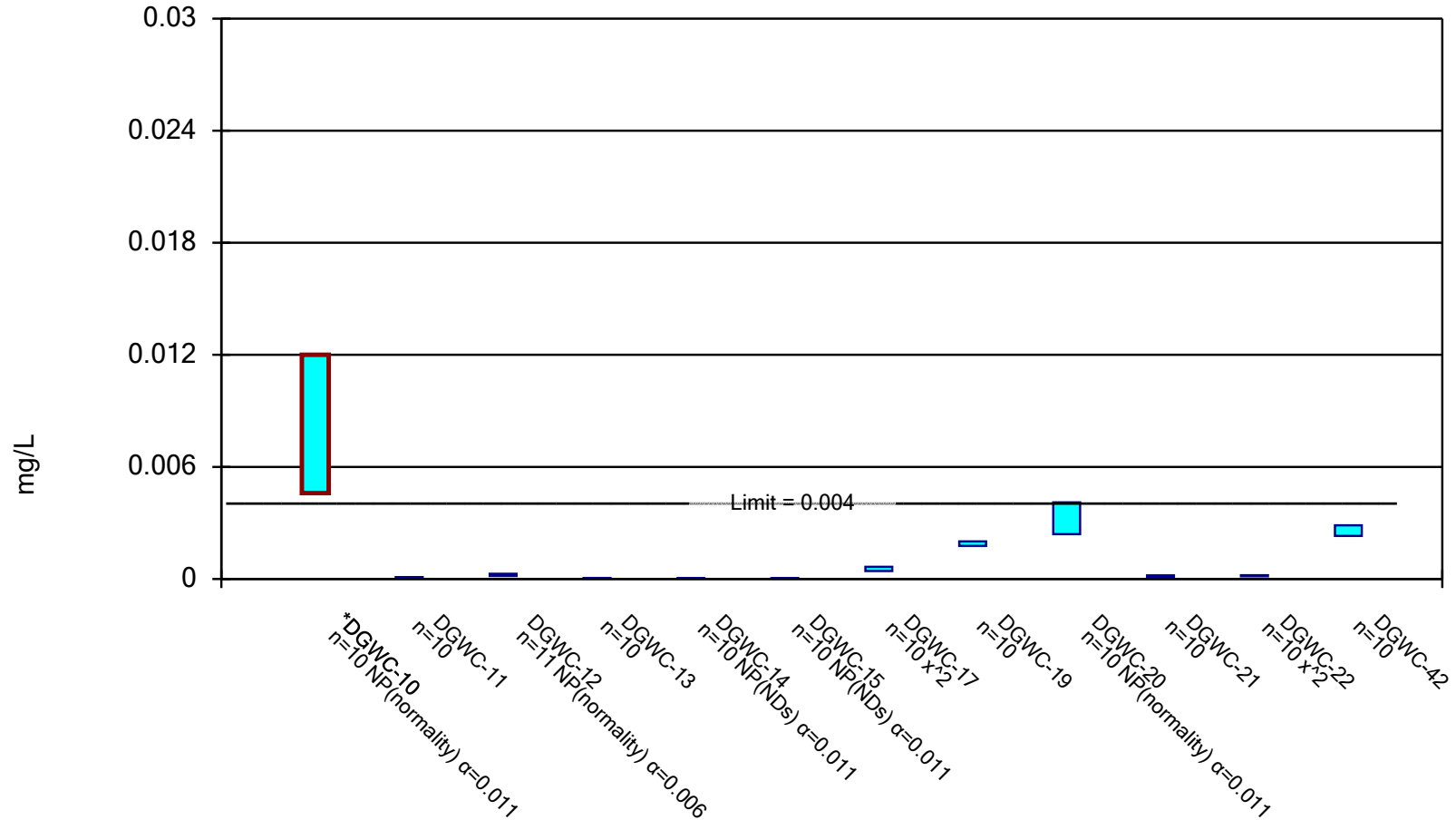
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

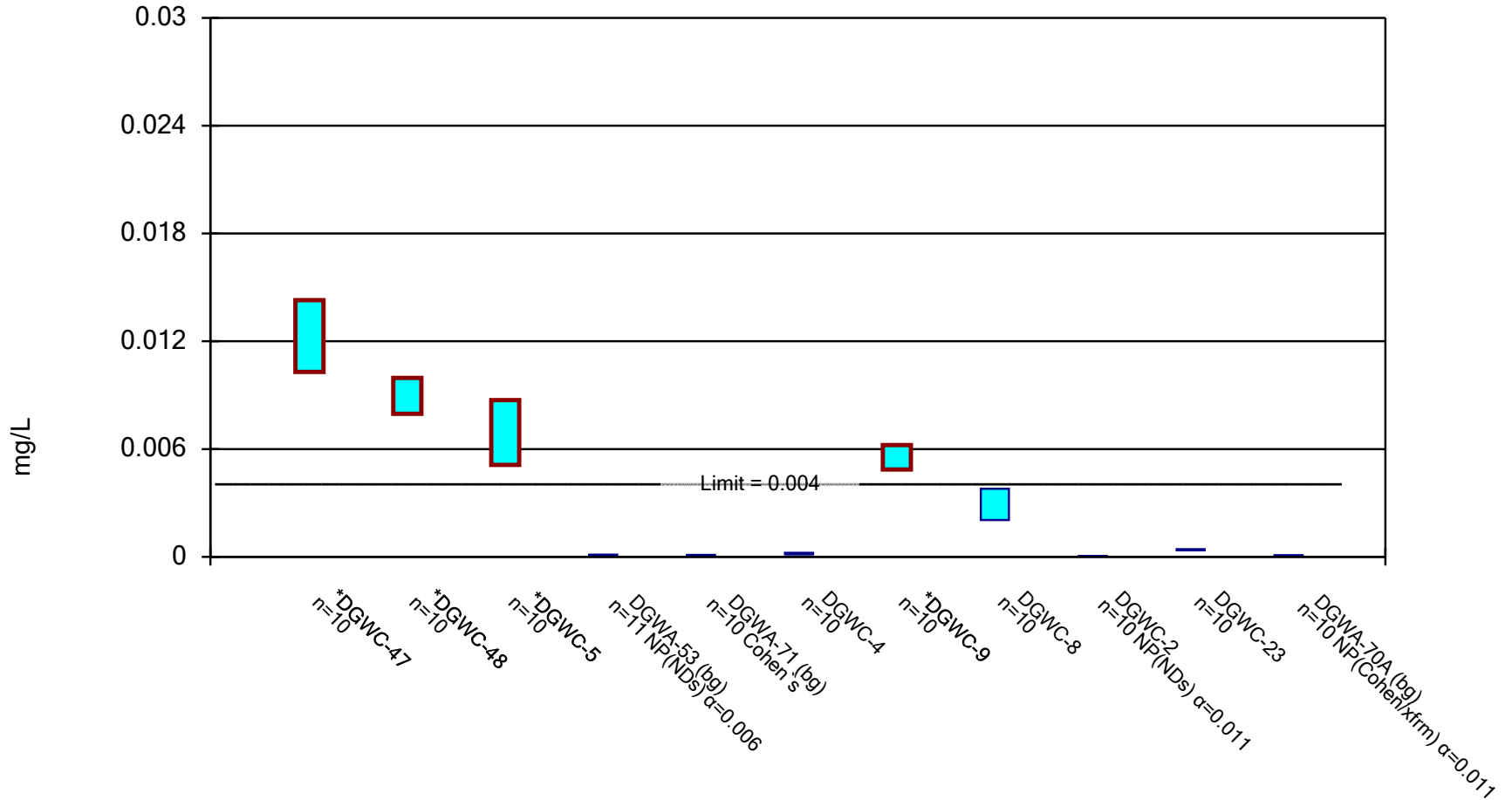
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

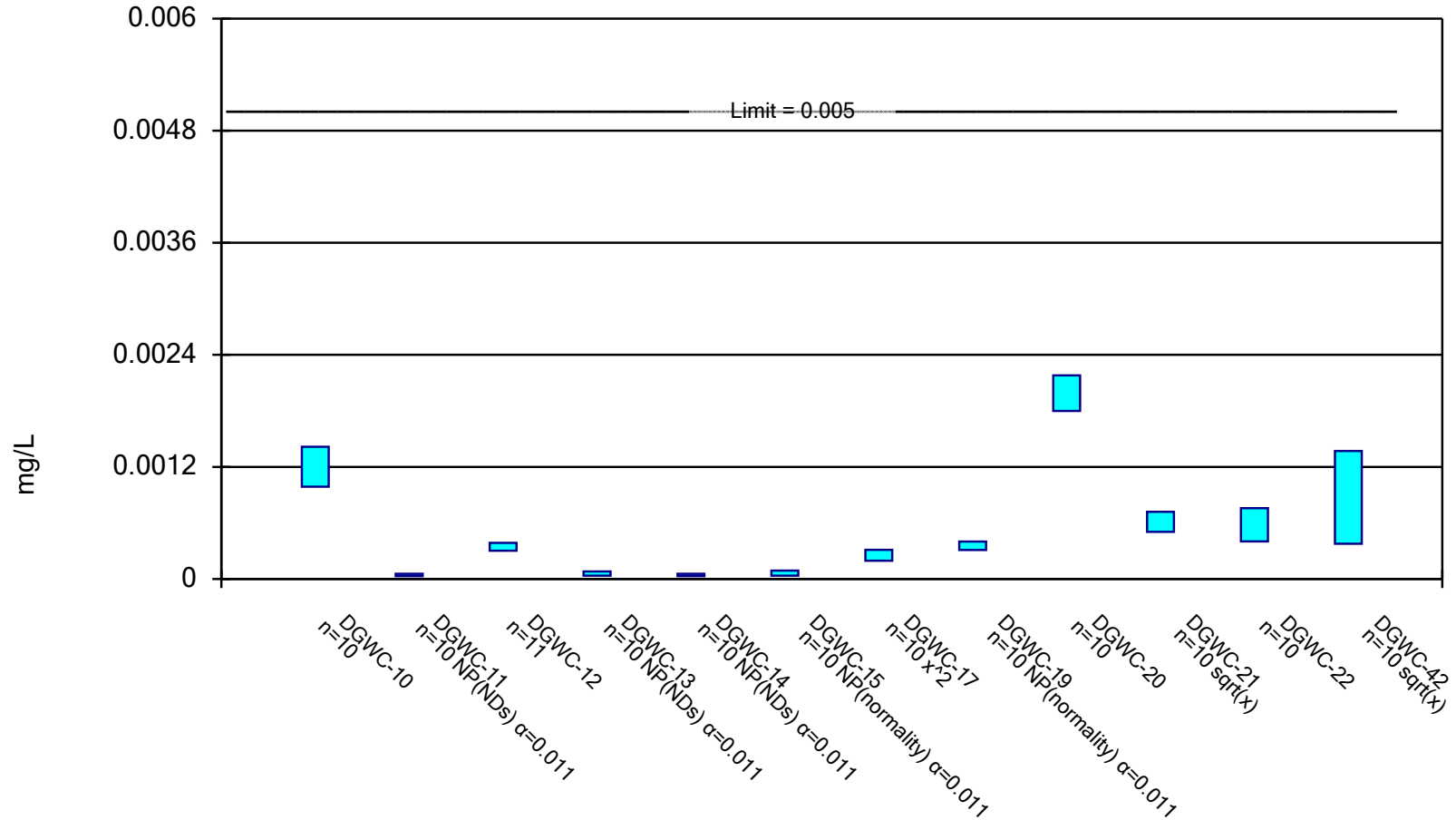
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

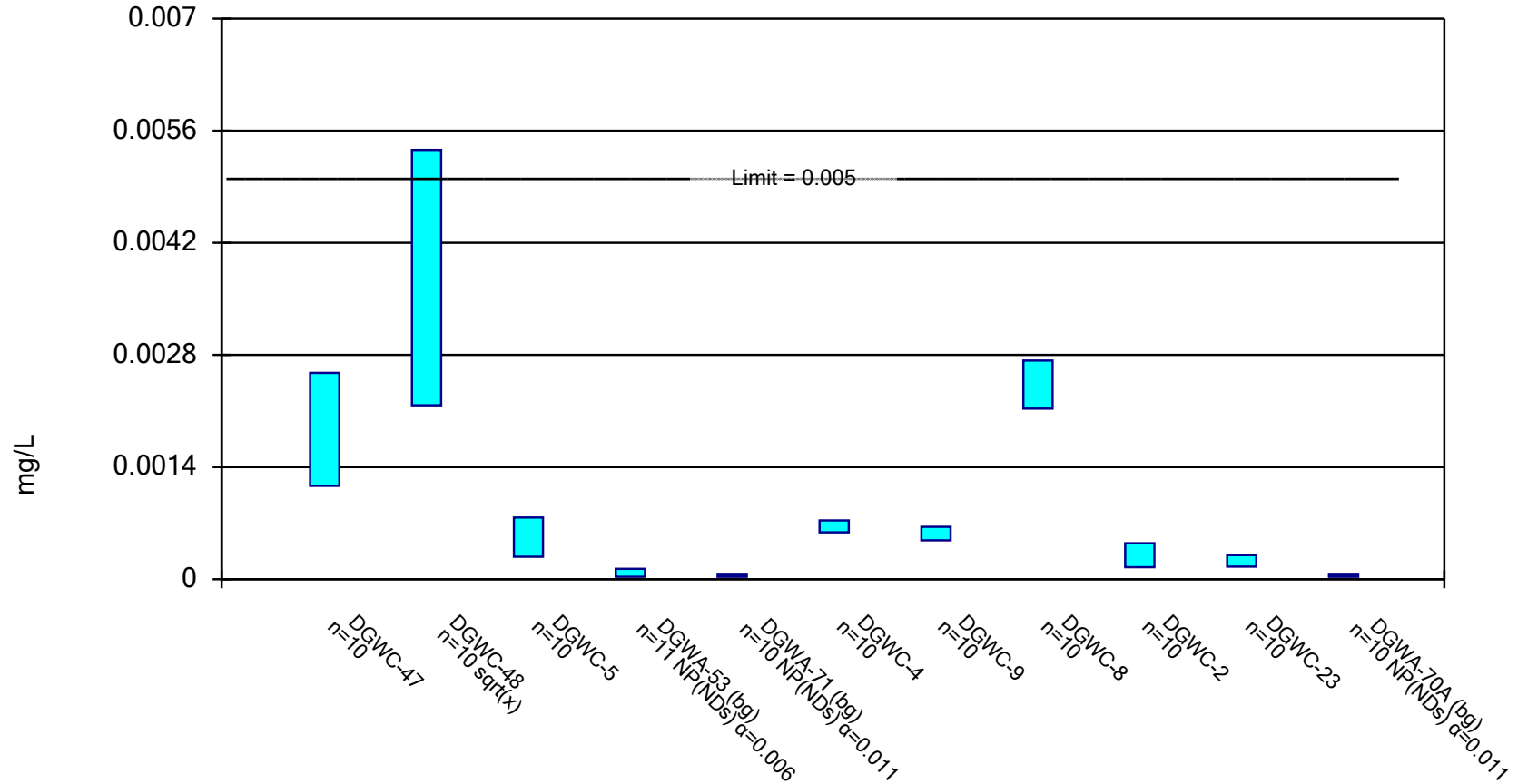
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

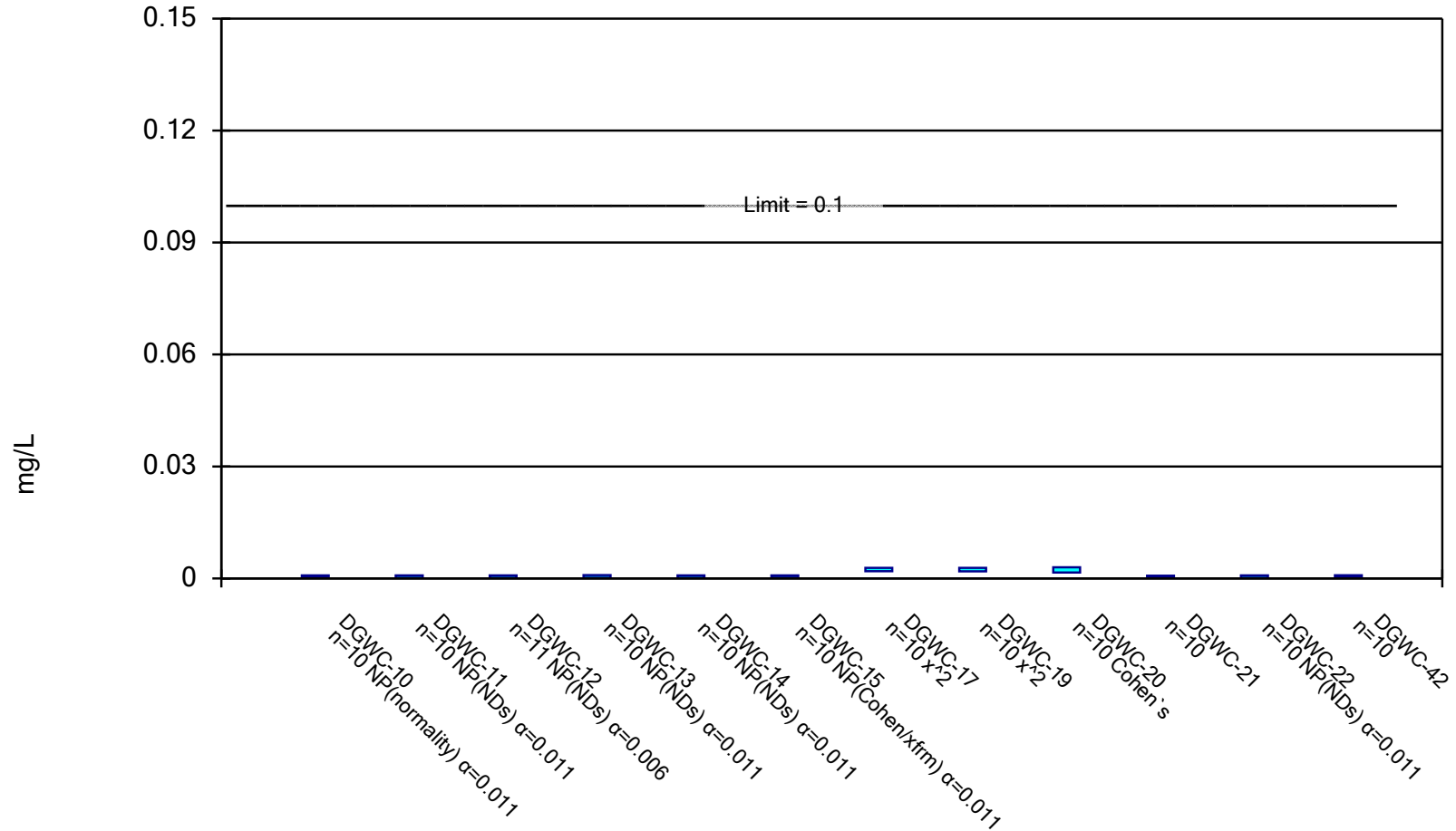


Constituent: Cadmium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

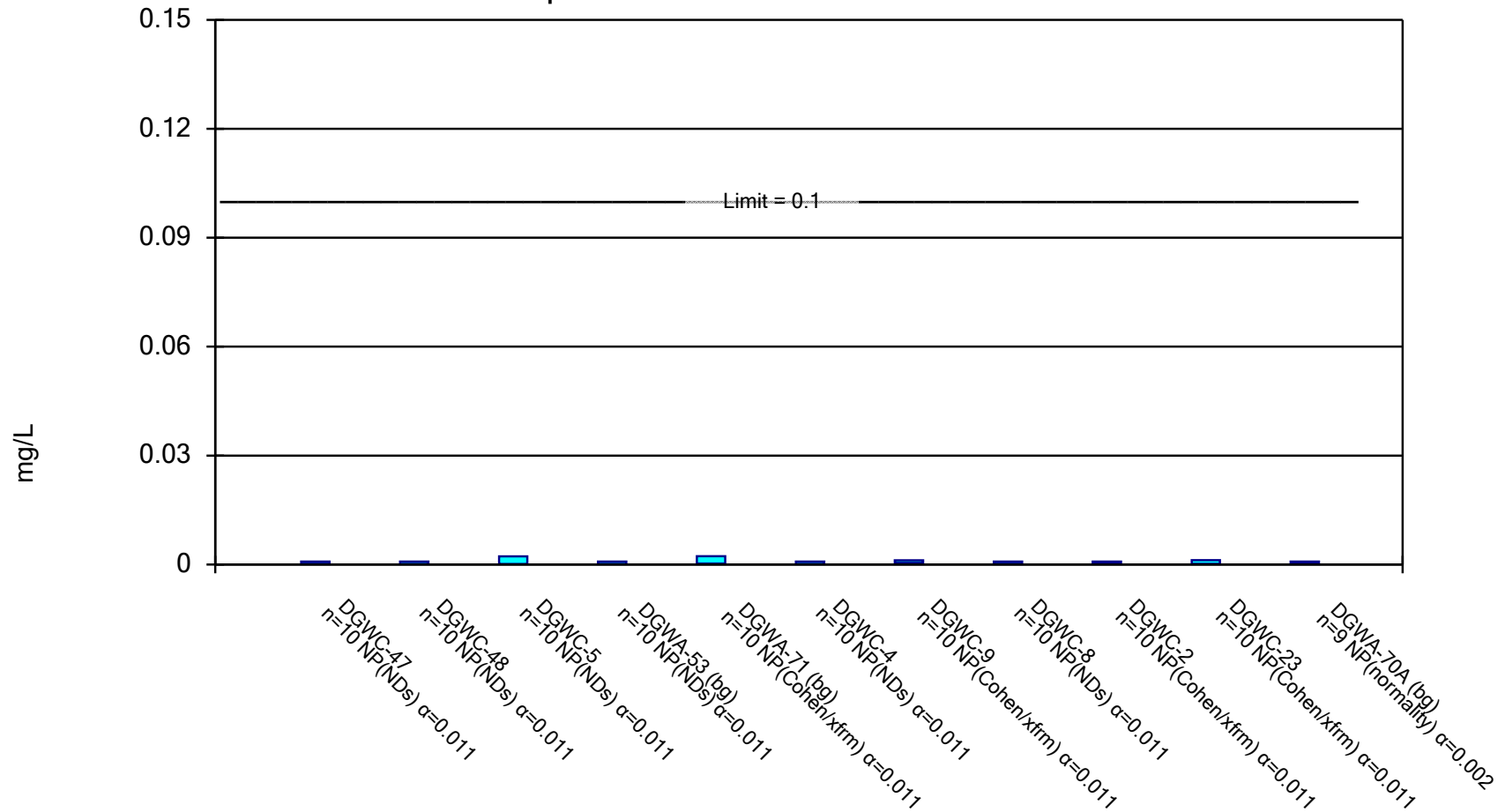
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

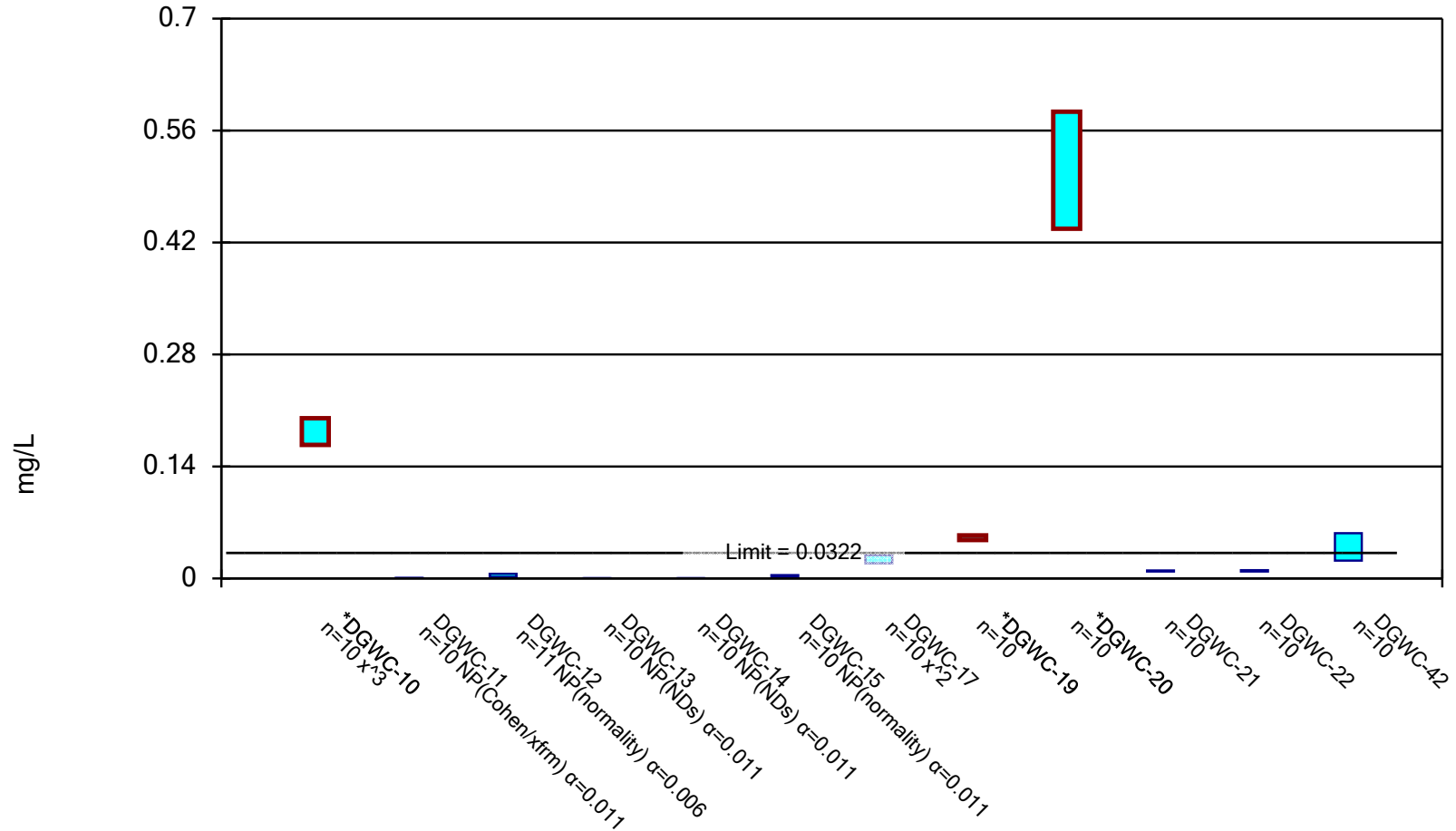
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

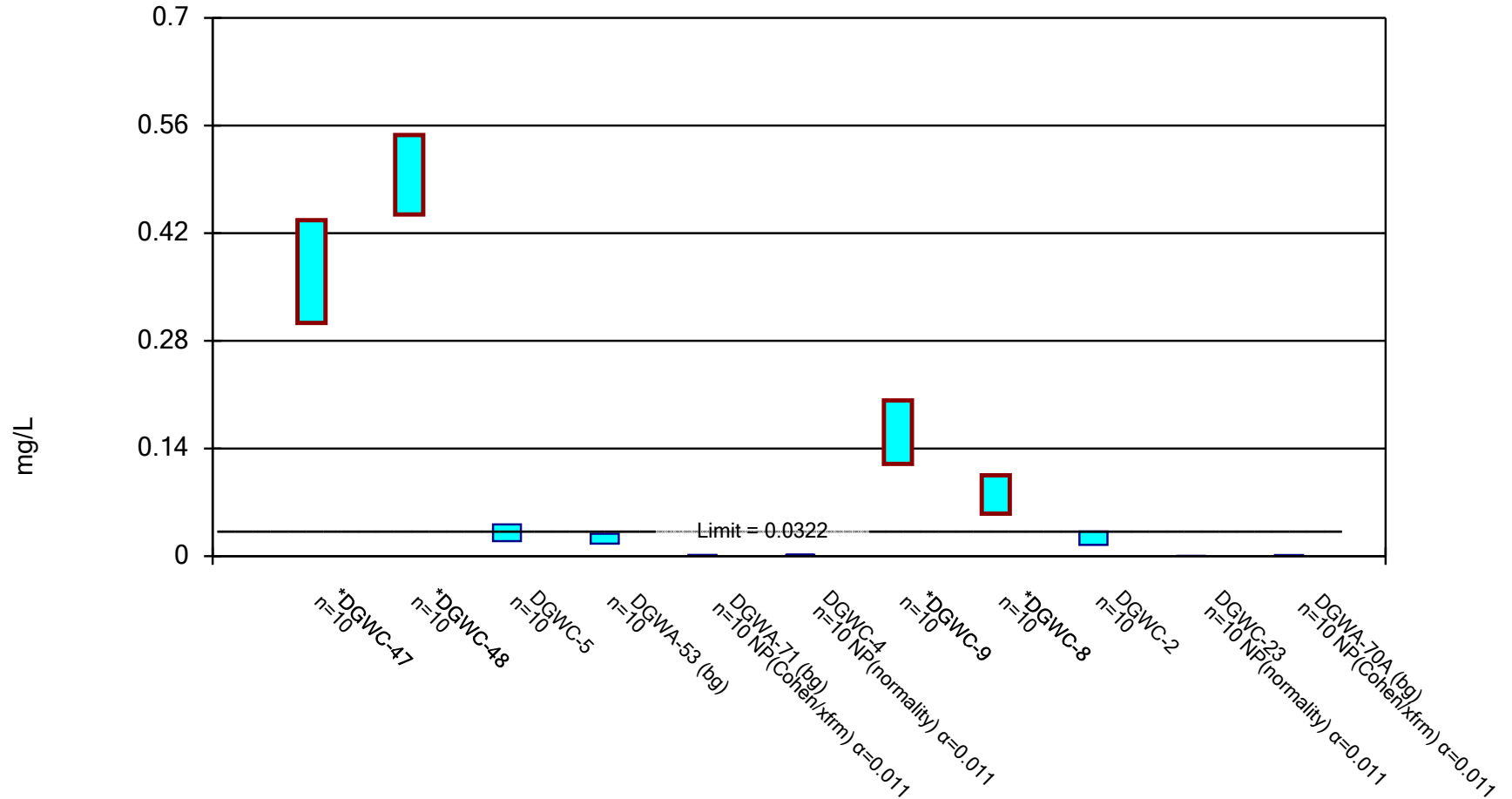


Constituent: Cobalt Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

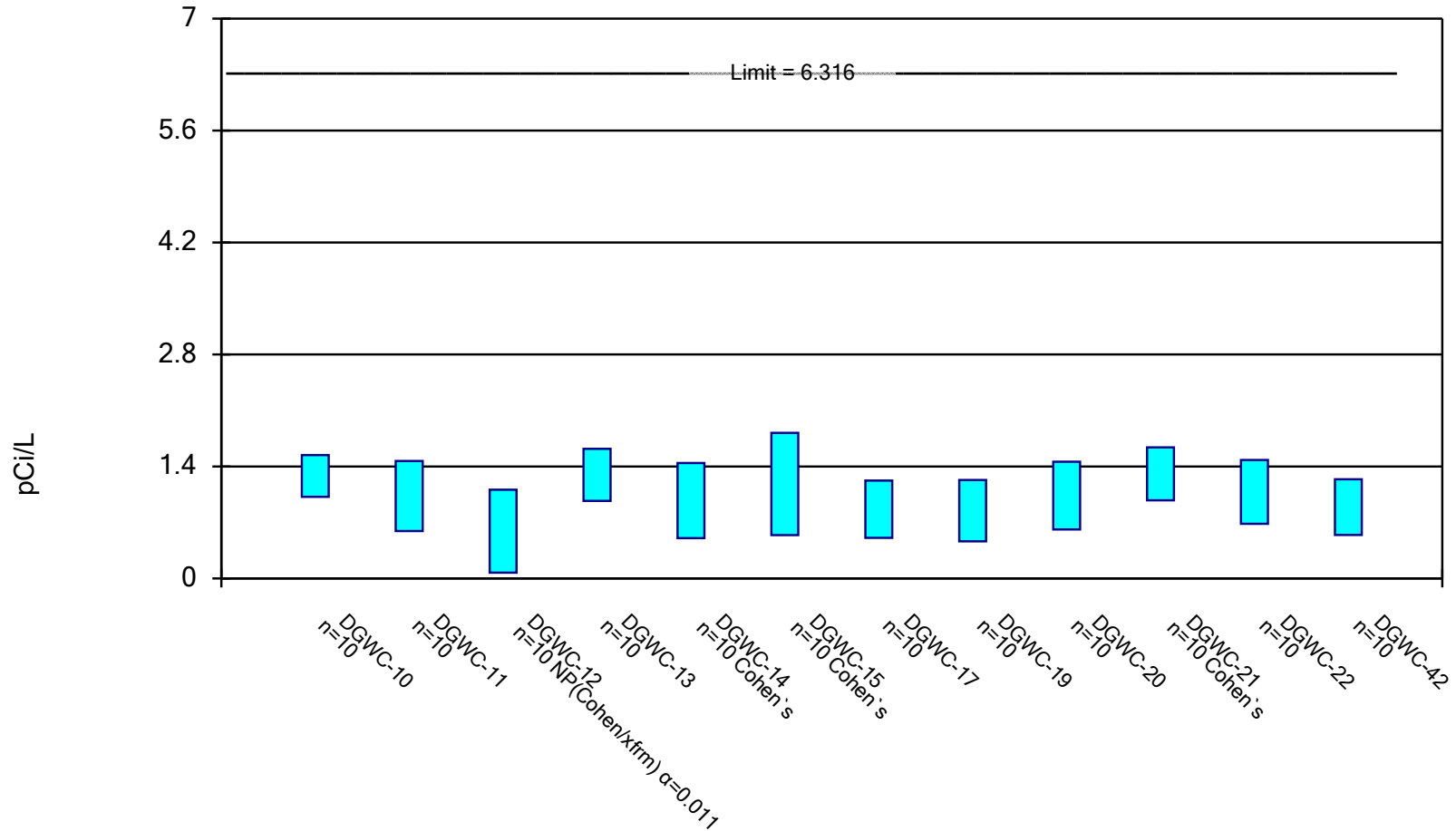


Constituent: Cobalt Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

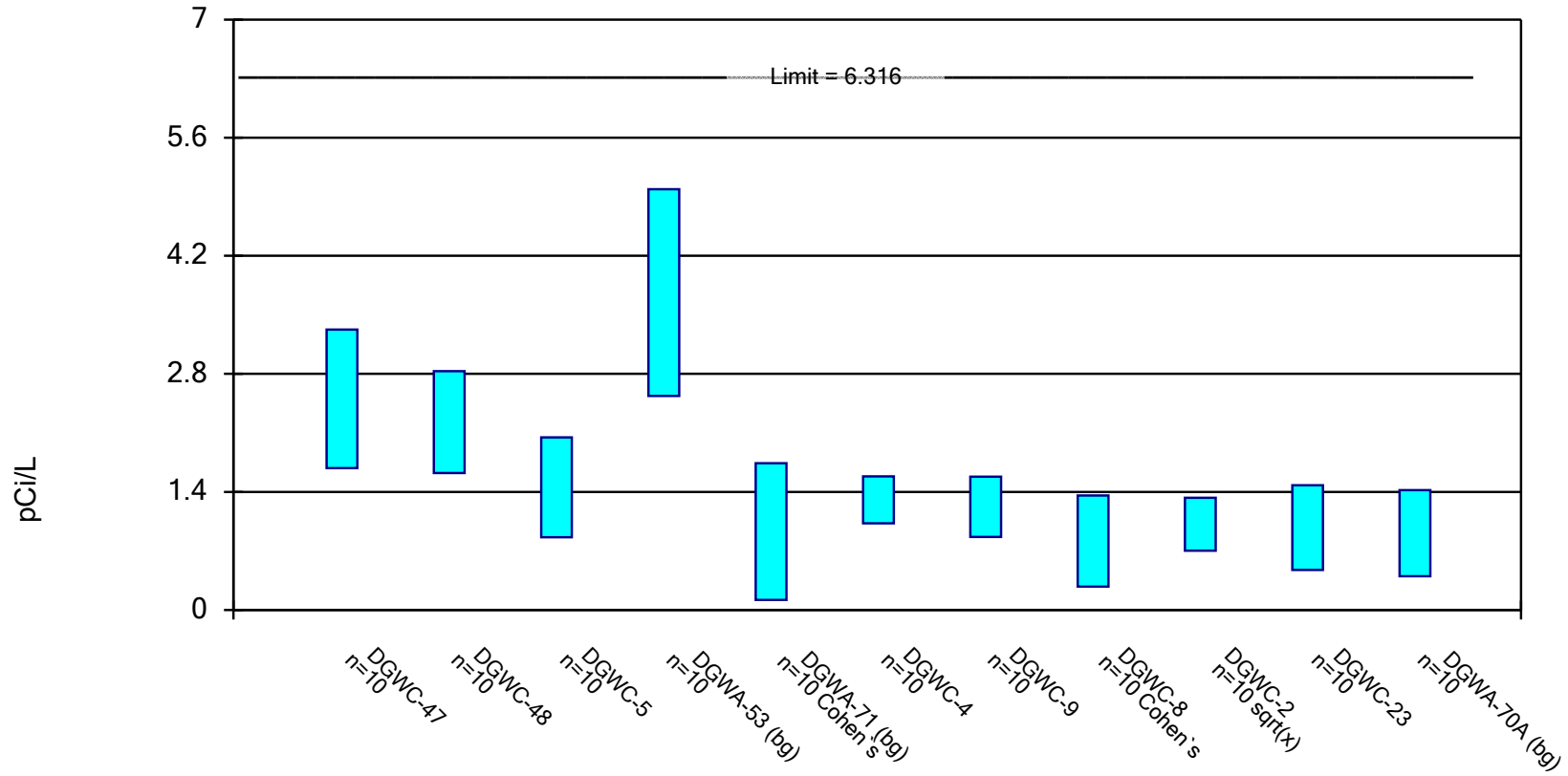
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2020 1:11 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric Confidence Interval

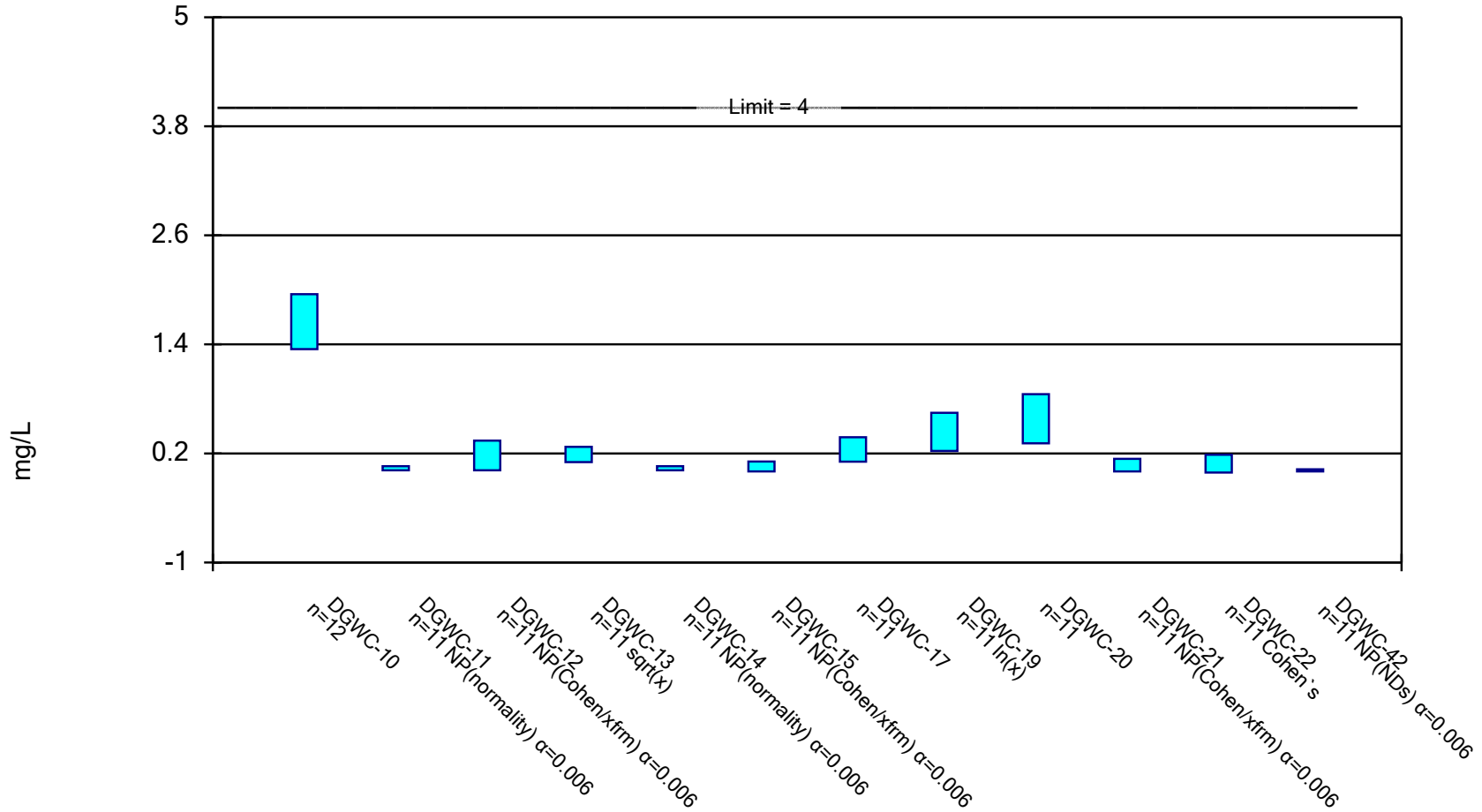
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2020 1:11 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

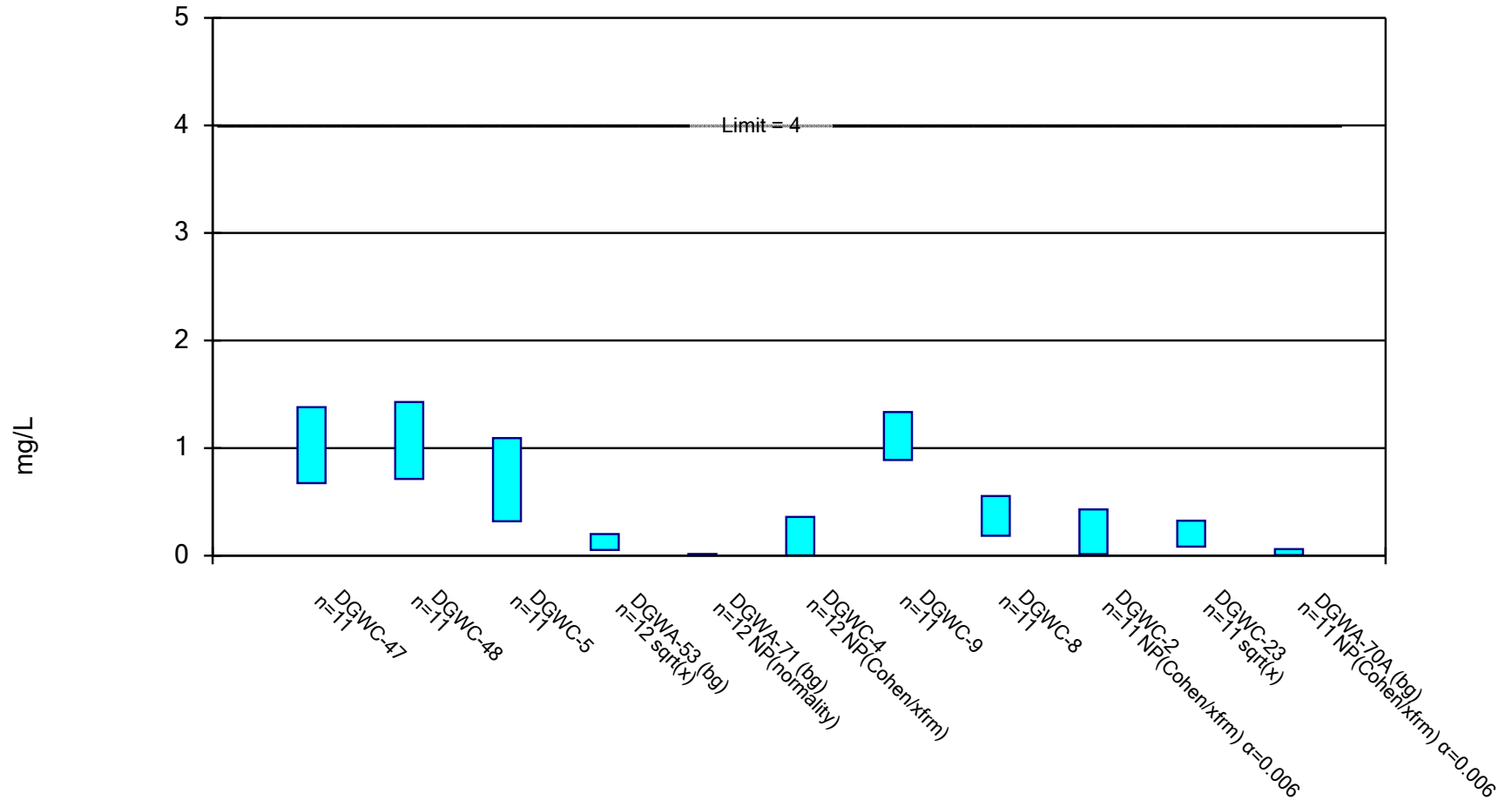
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

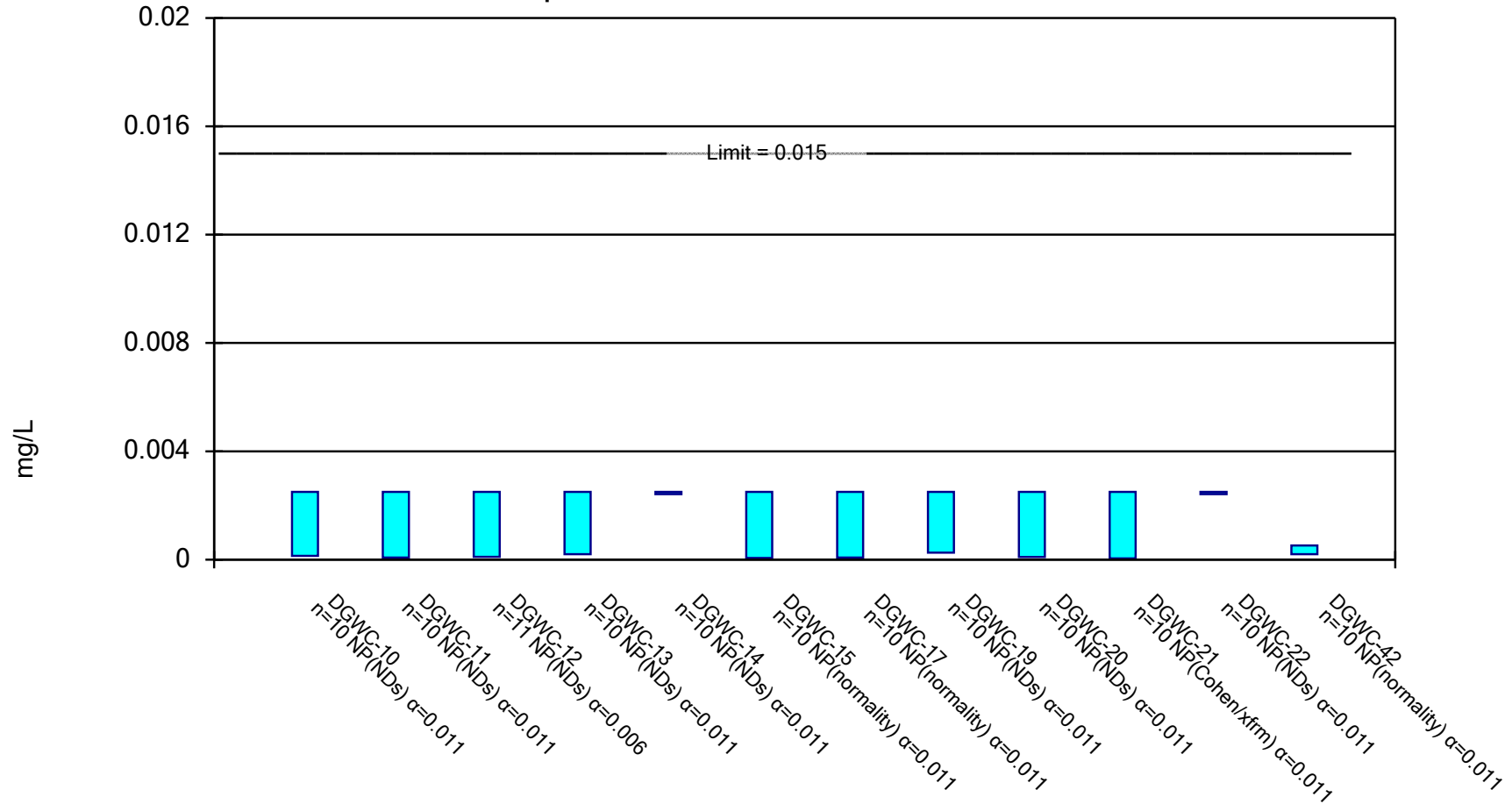
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

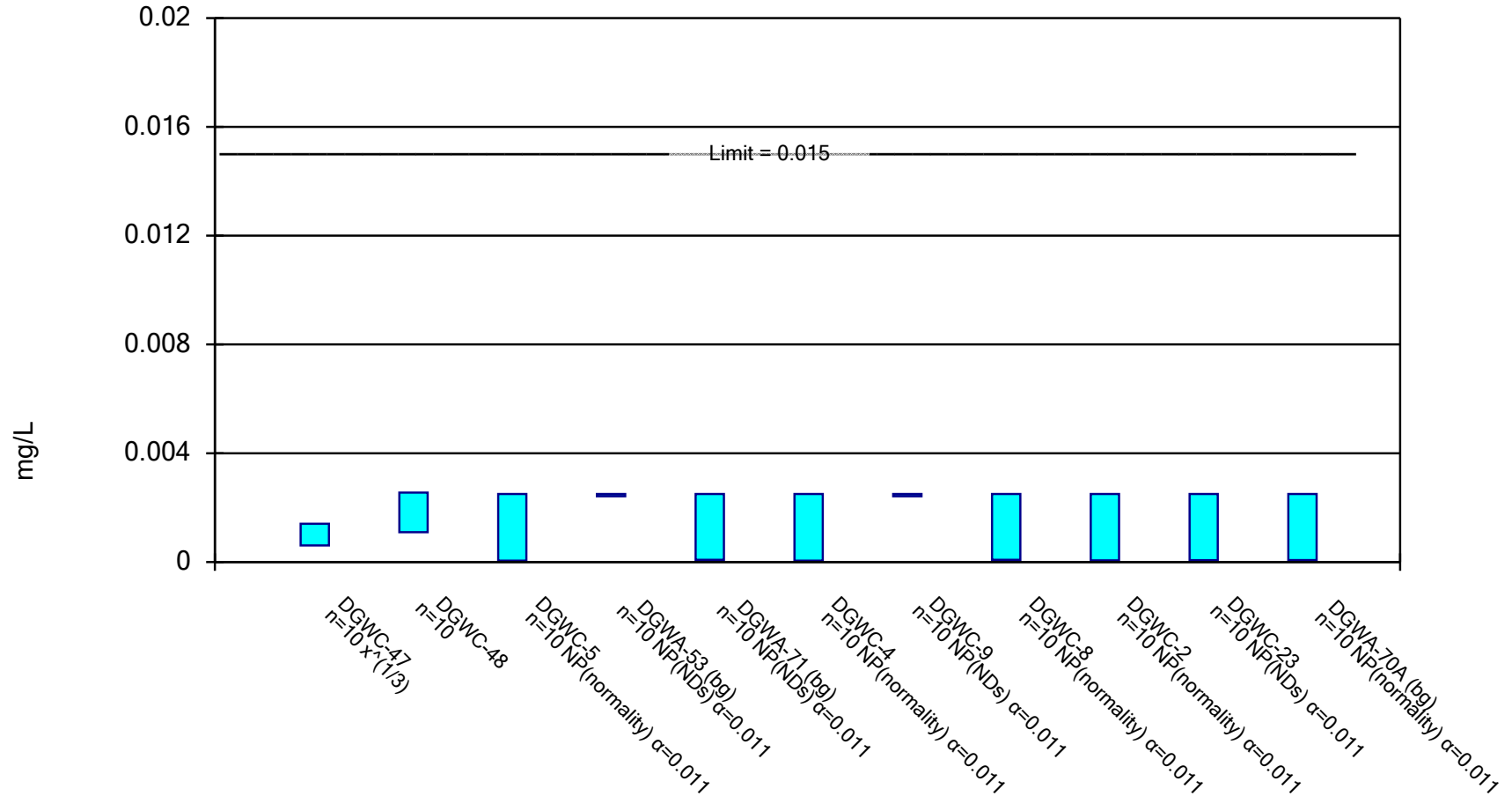
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 3/20/2020 1:11 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

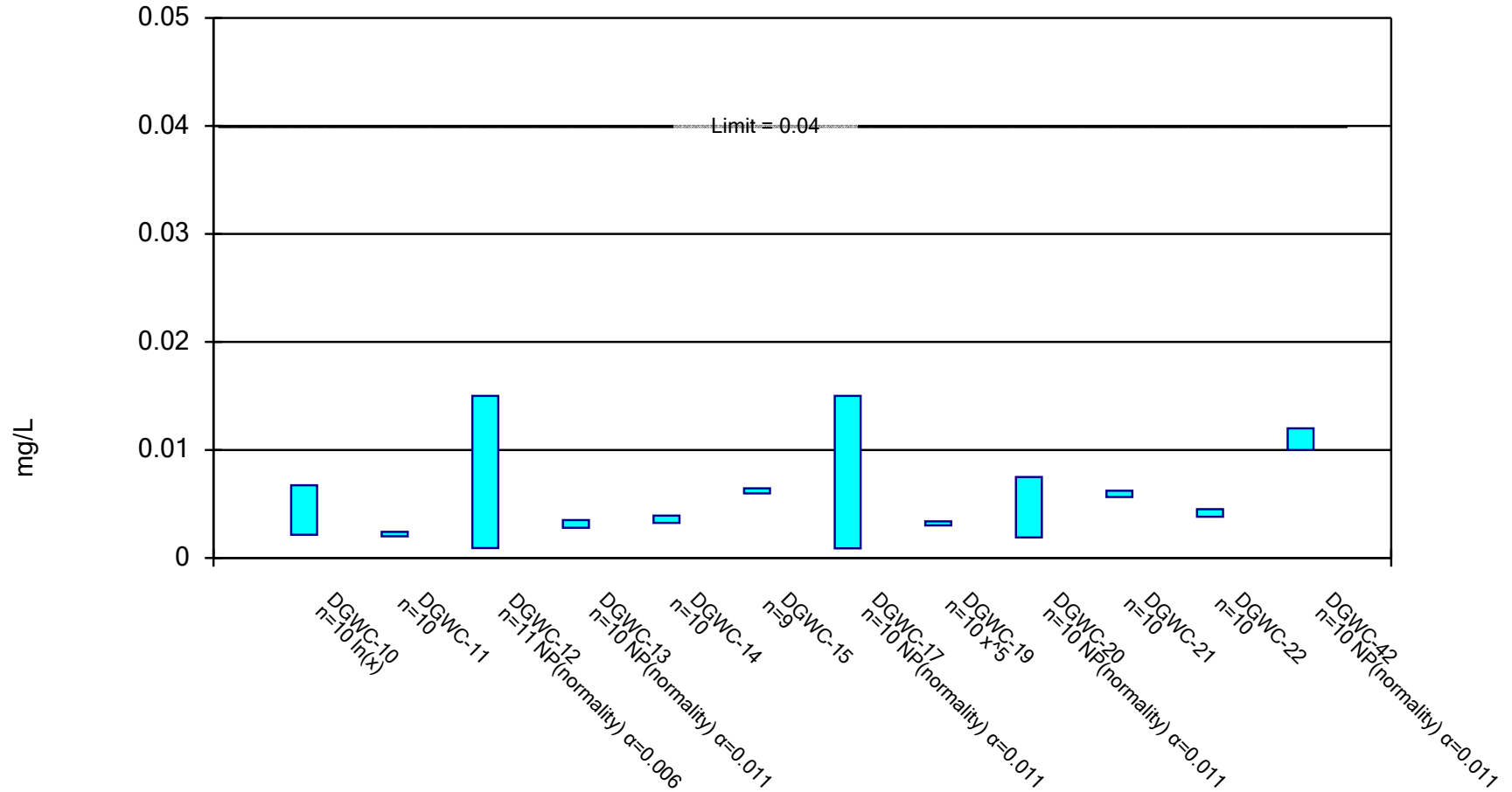


Constituent: Lead Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

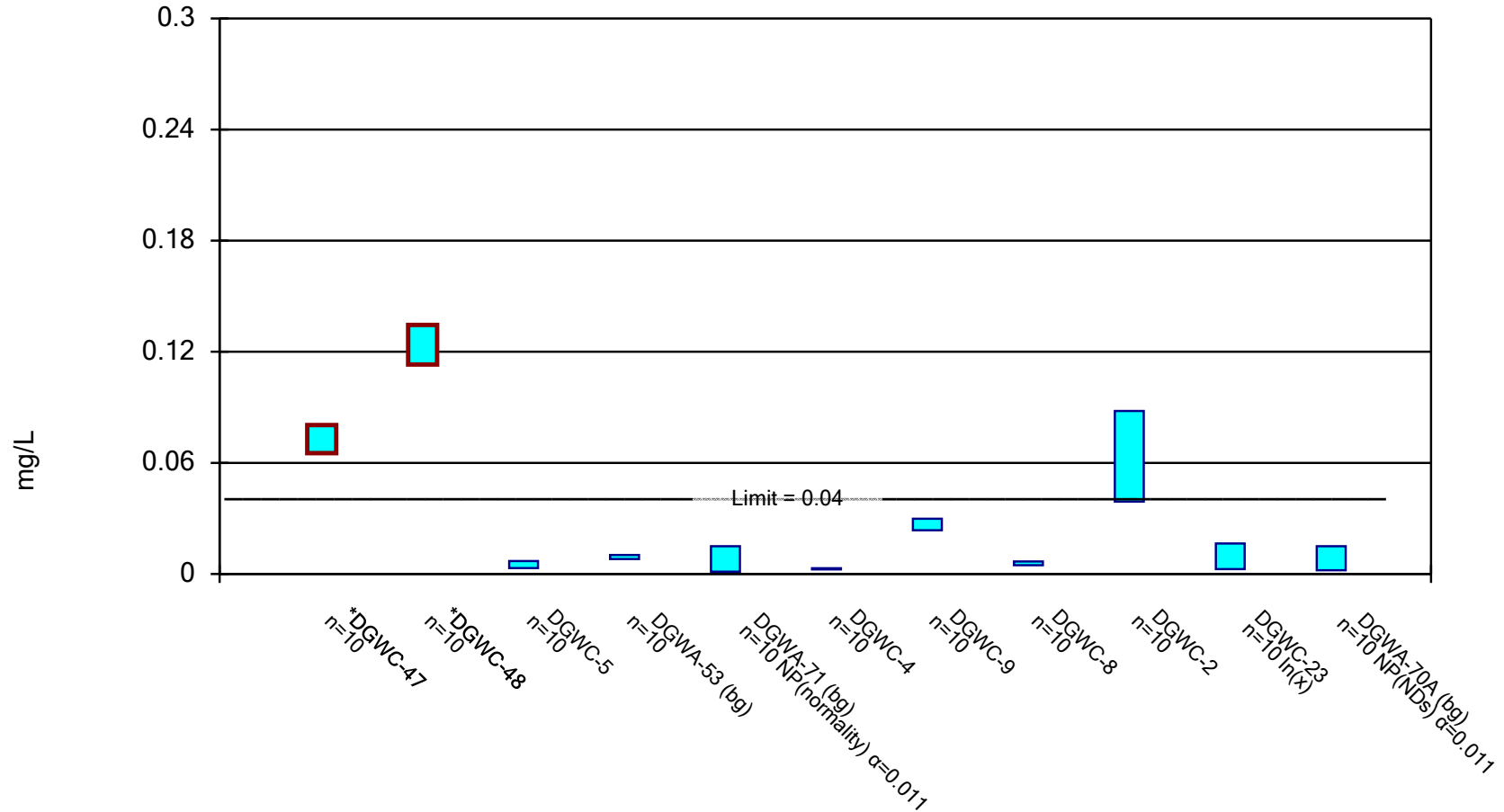


Constituent: Lithium Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

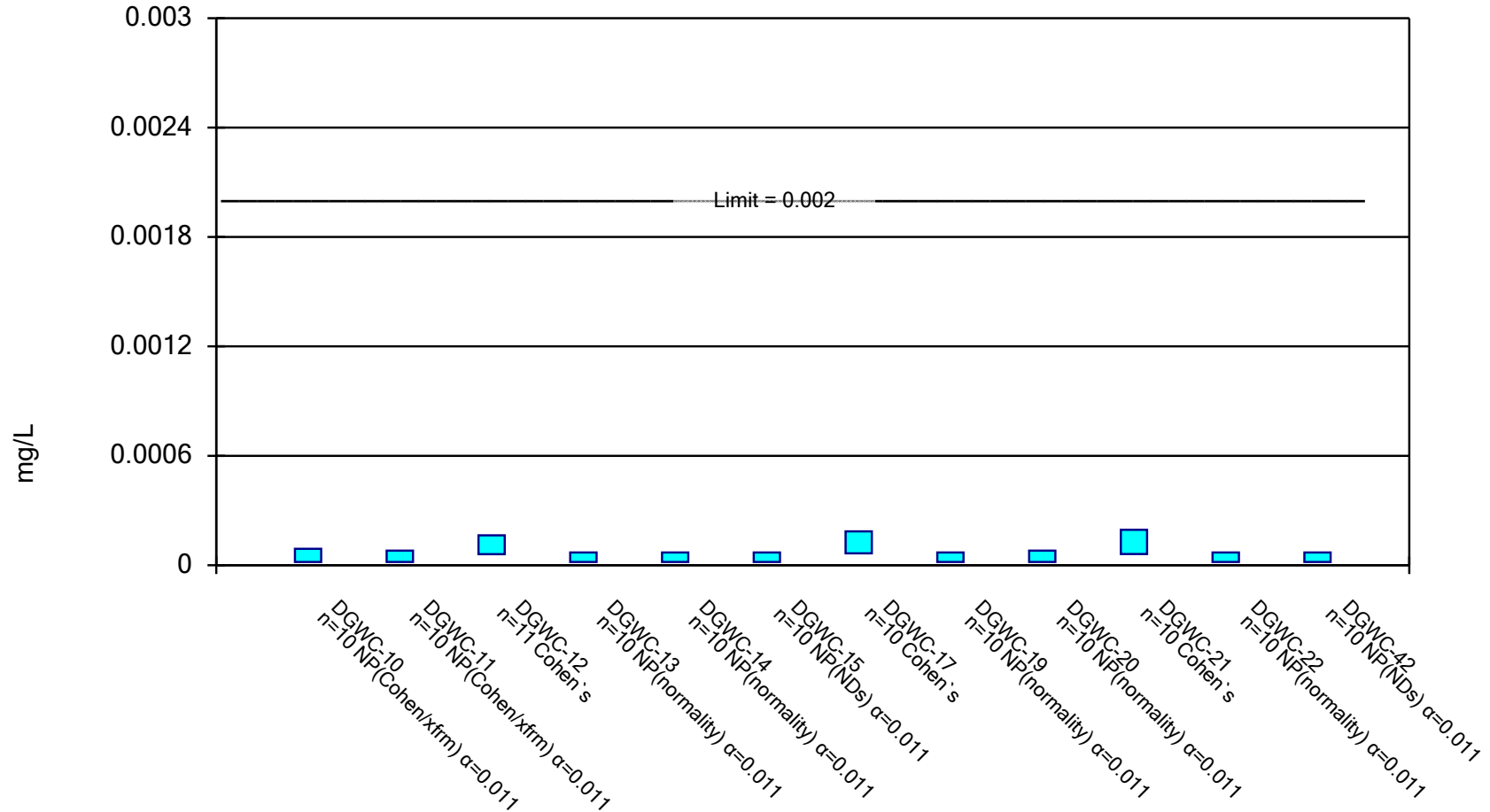
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

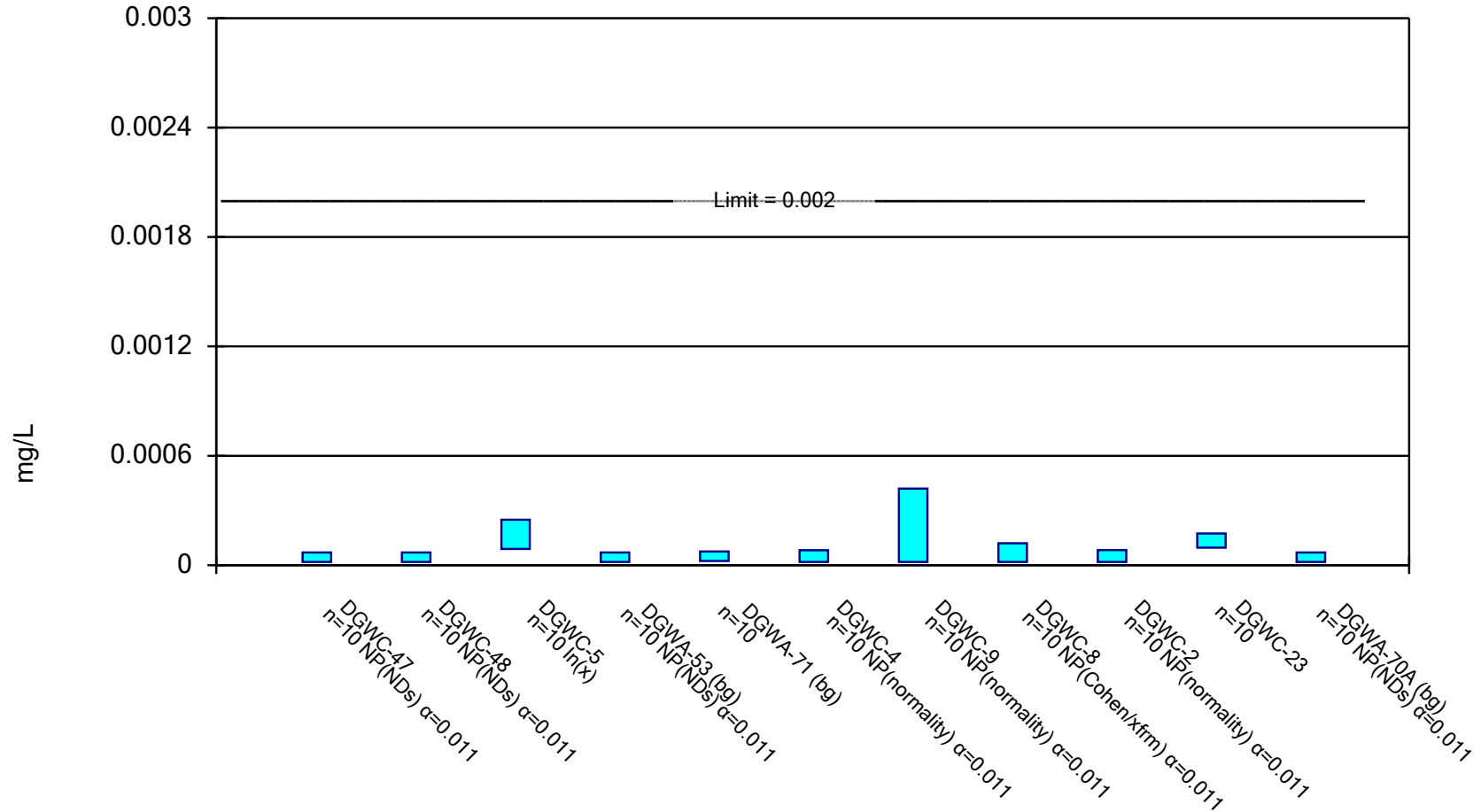
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

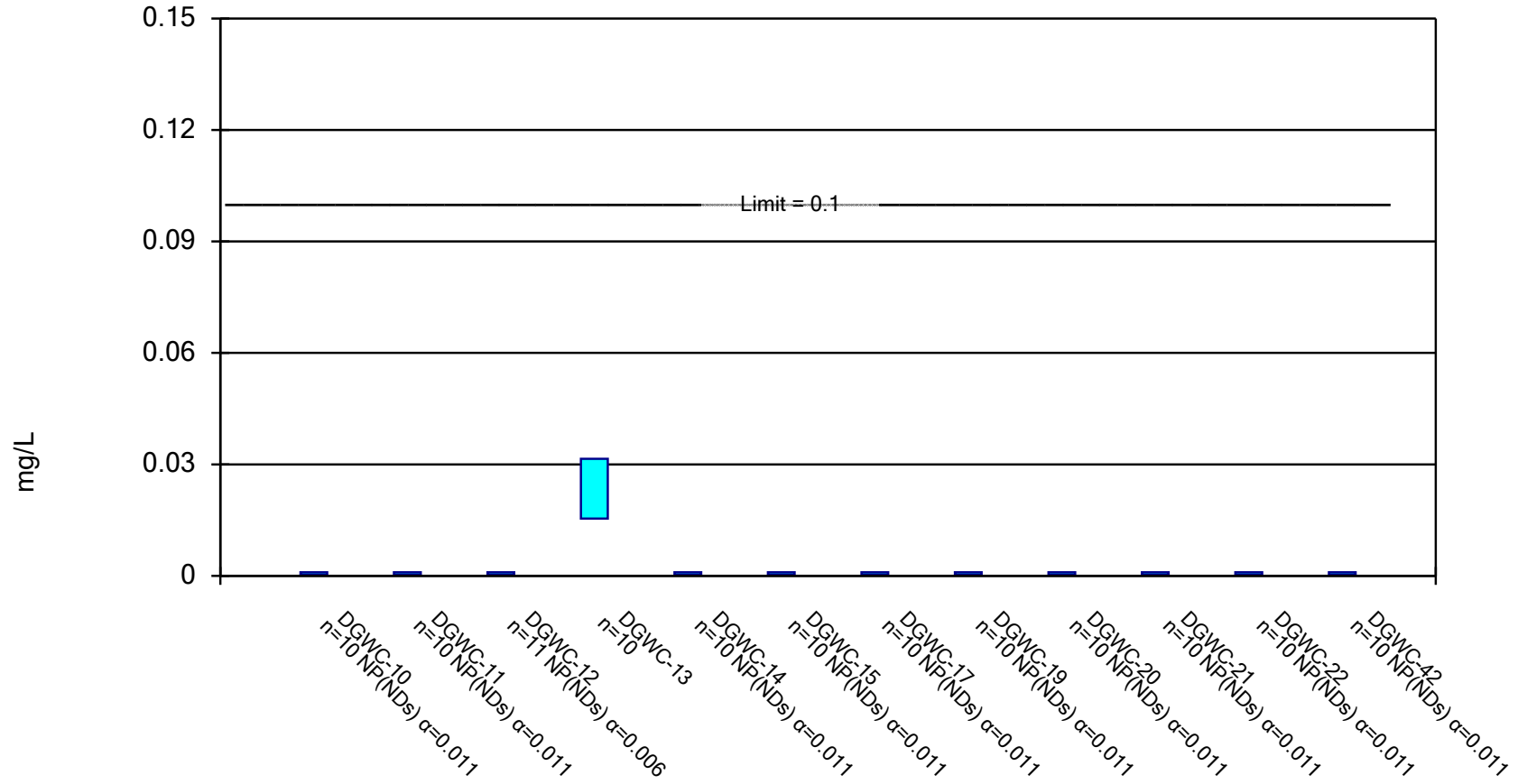
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

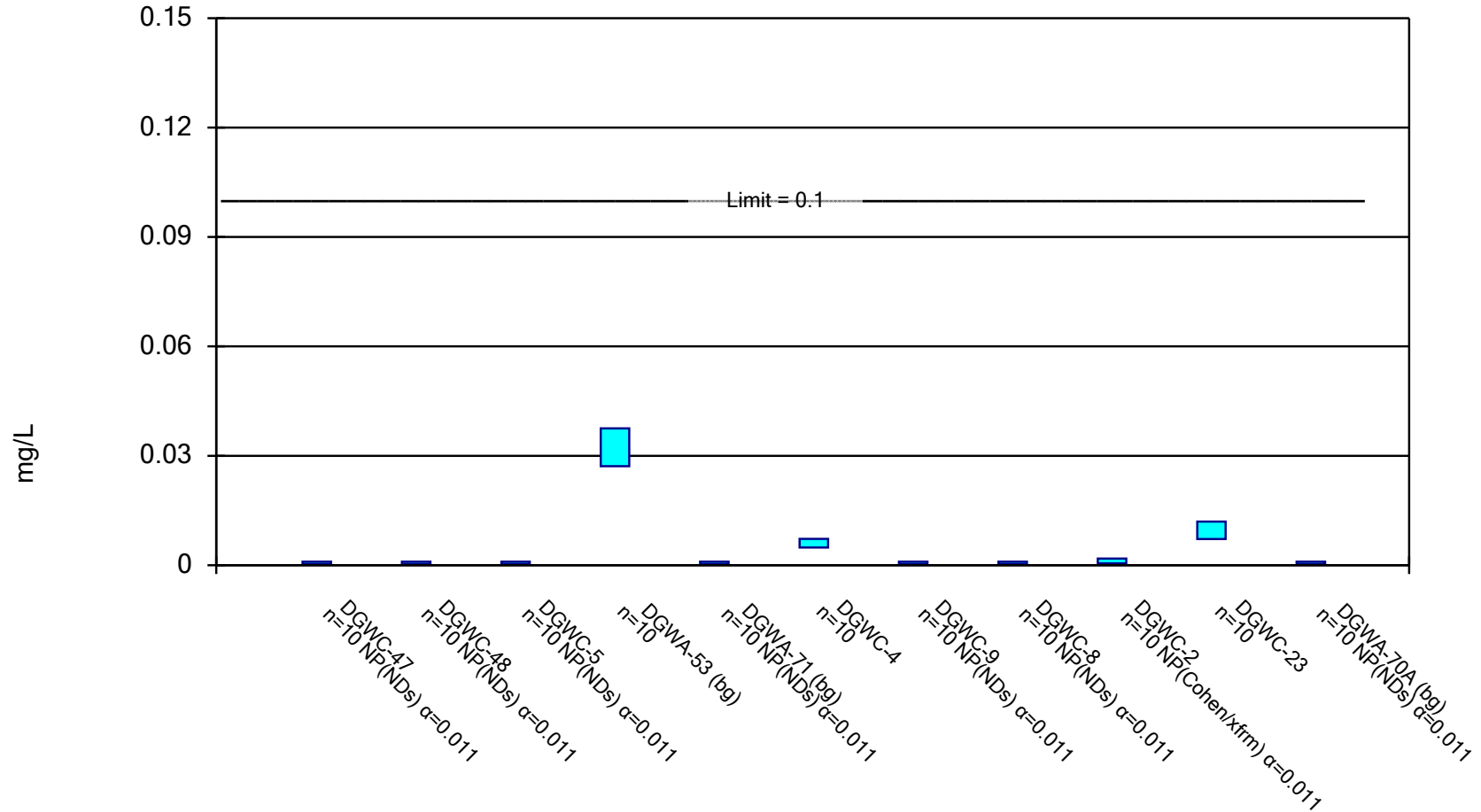
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

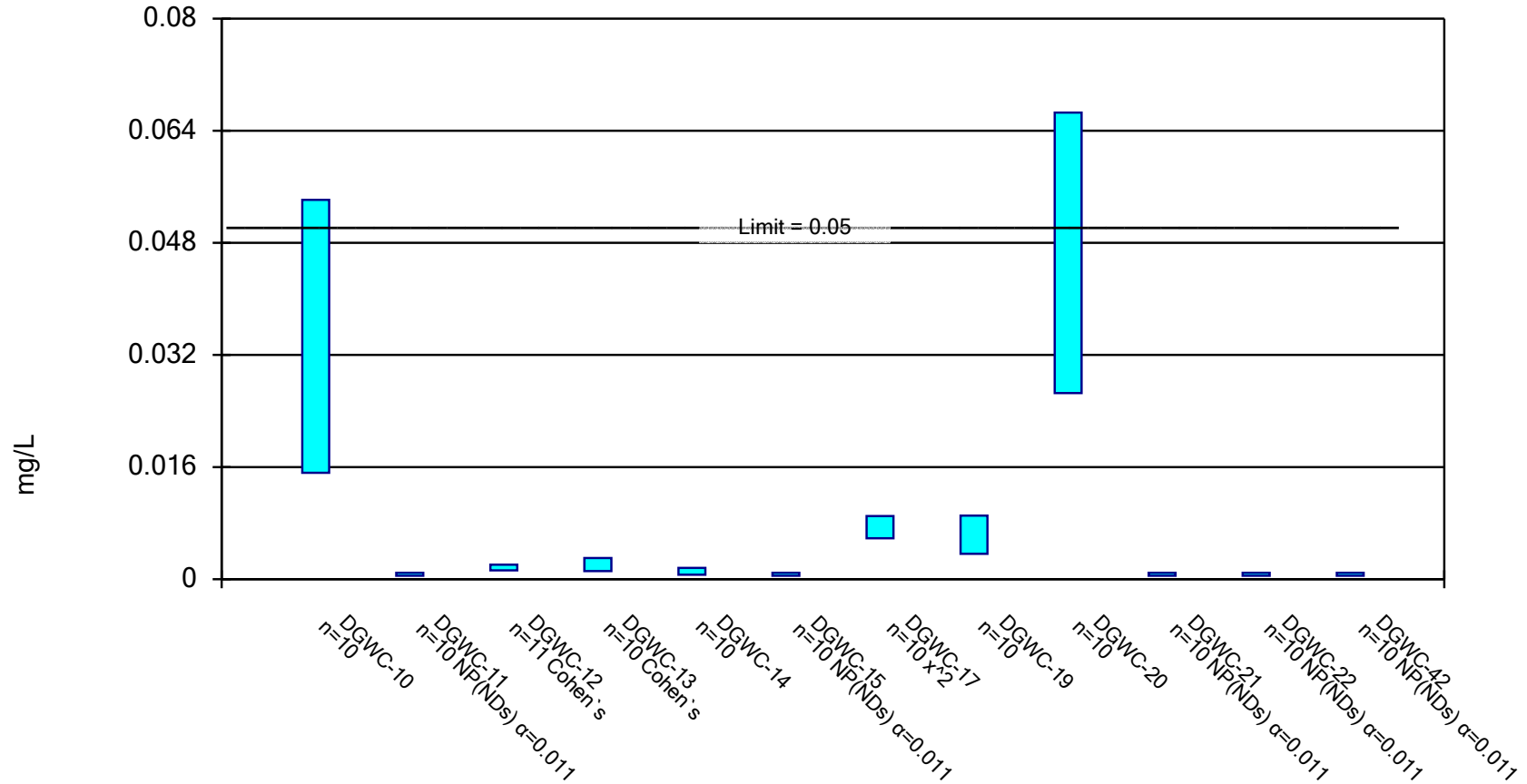
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

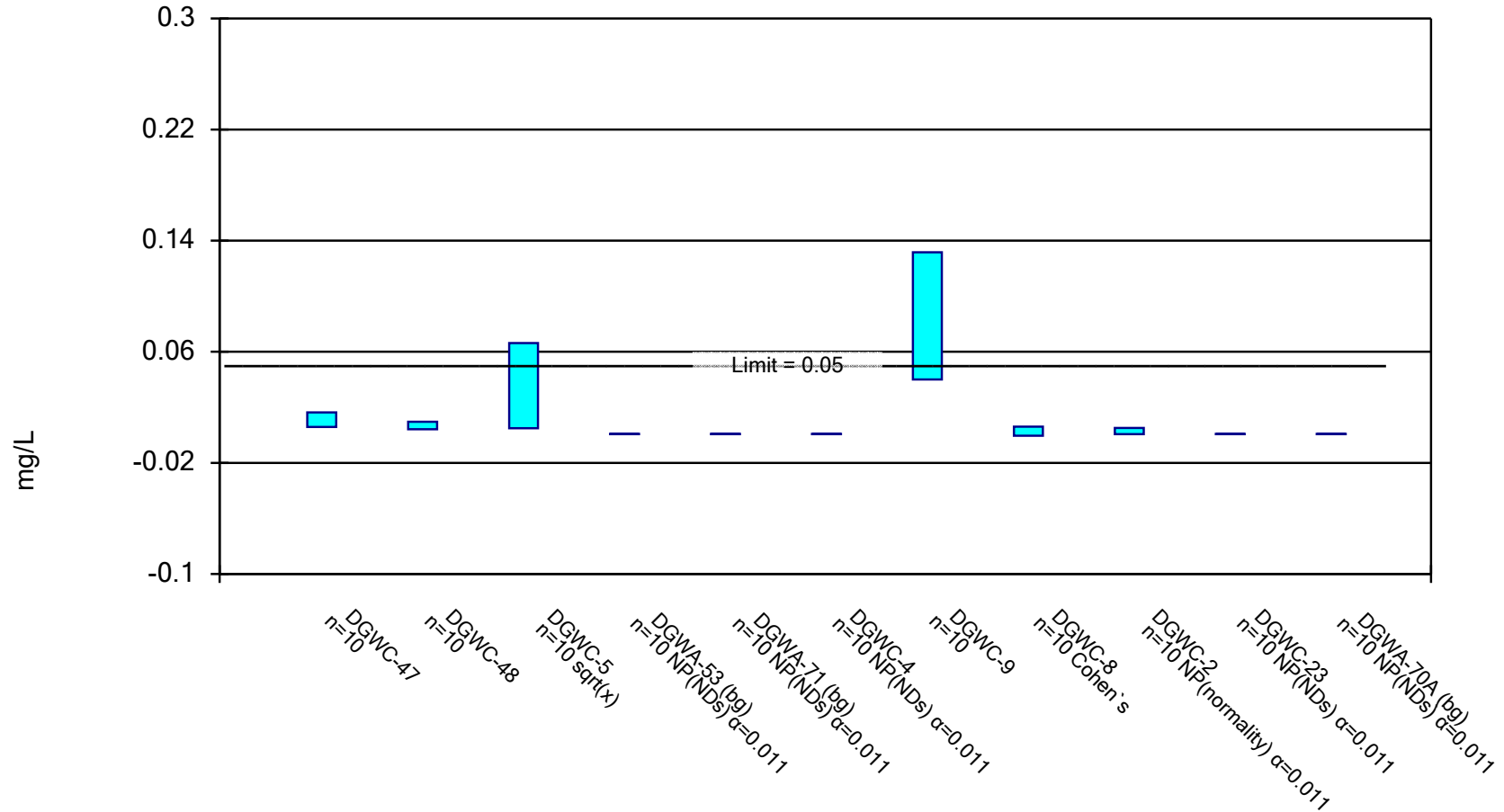


Constituent: Selenium Analysis Run 3/20/2020 1:12 PM View: APP IV_AP234

McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

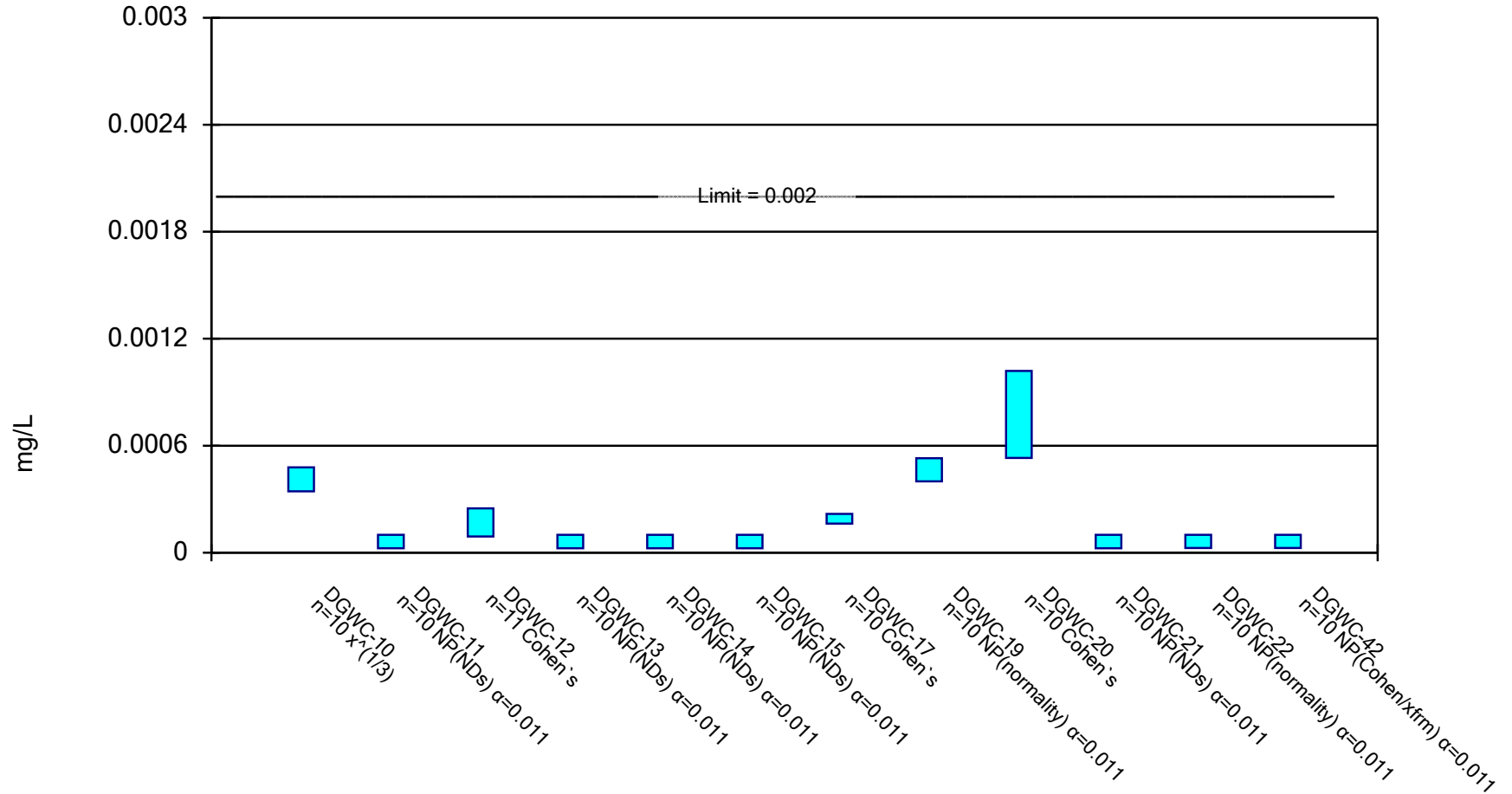


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McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

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

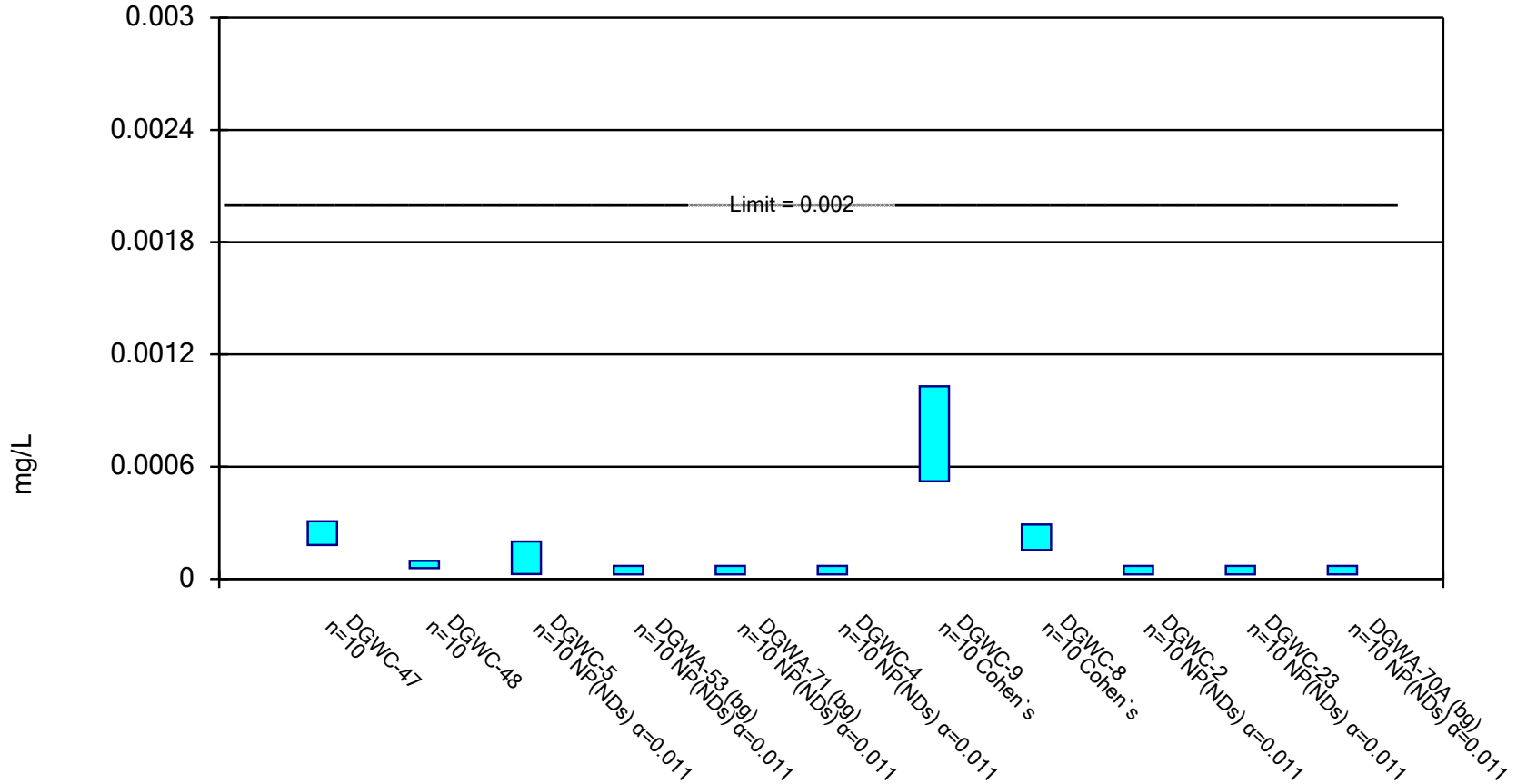


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McDonough Client: Golder Associates Data: McDonough Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

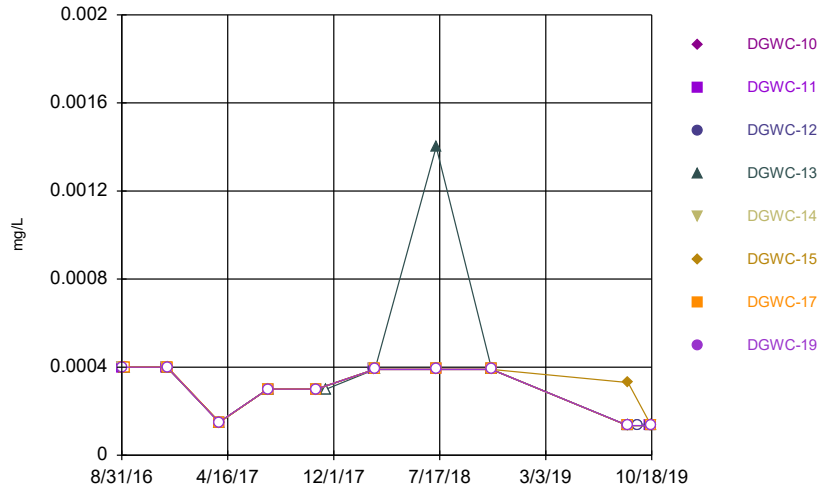
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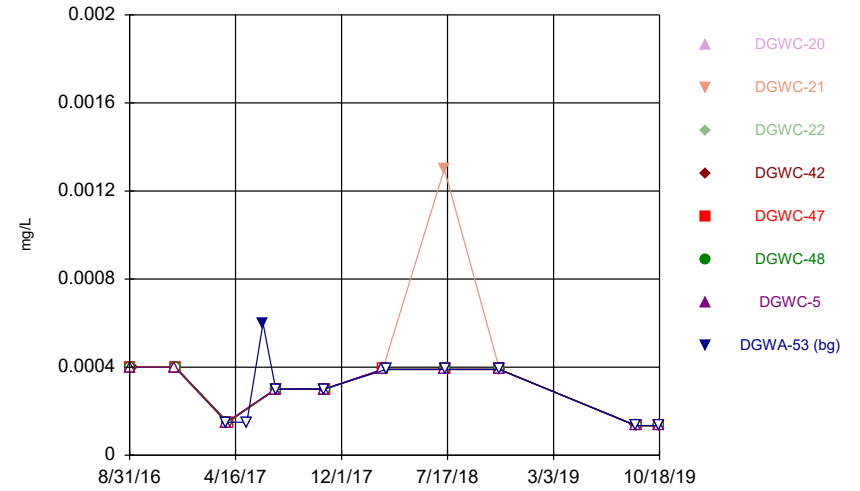
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



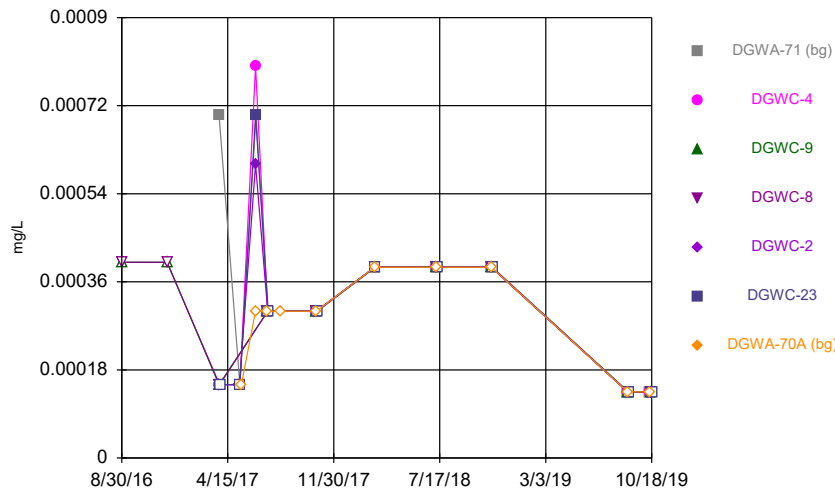
Constituent: Antimony Analysis Run 2/13/2020 6:47 PM View: APP_IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



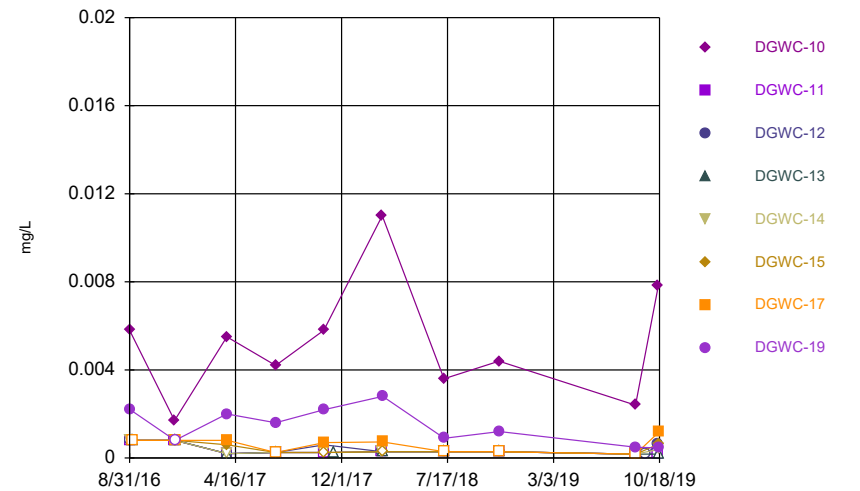
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



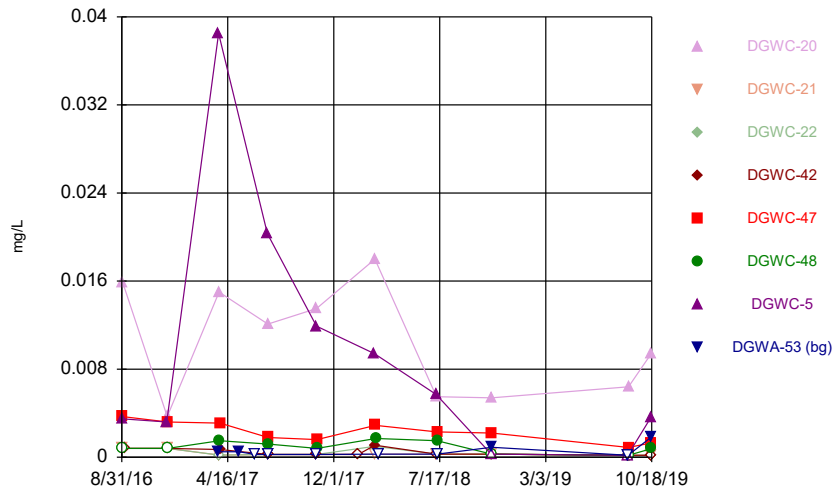
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Time Series



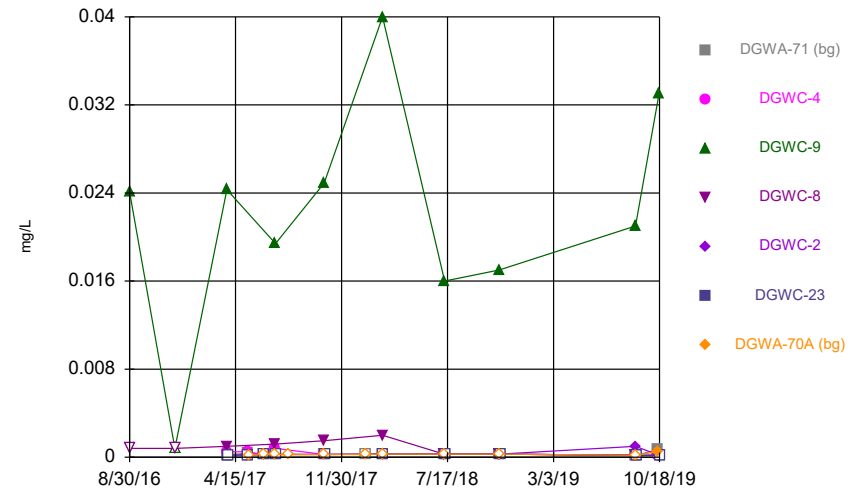
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



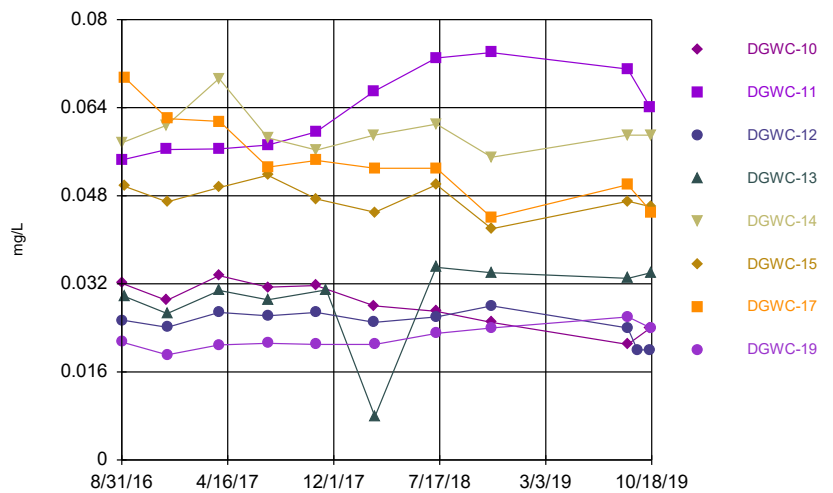
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



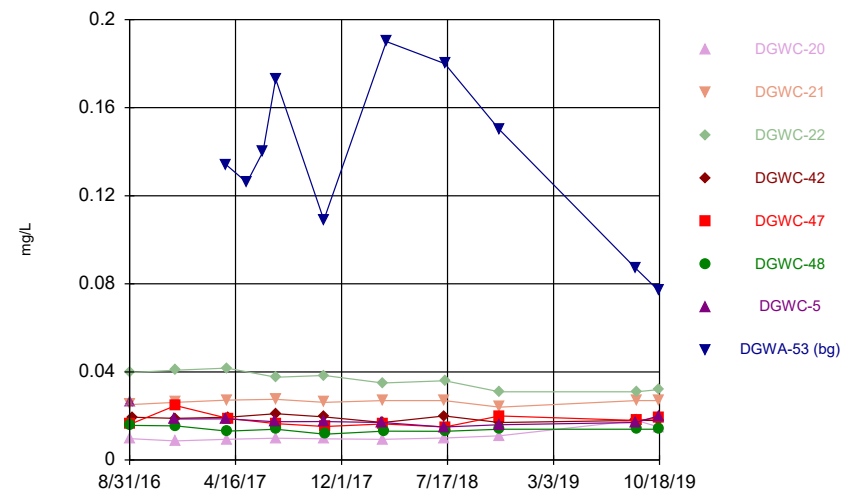
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



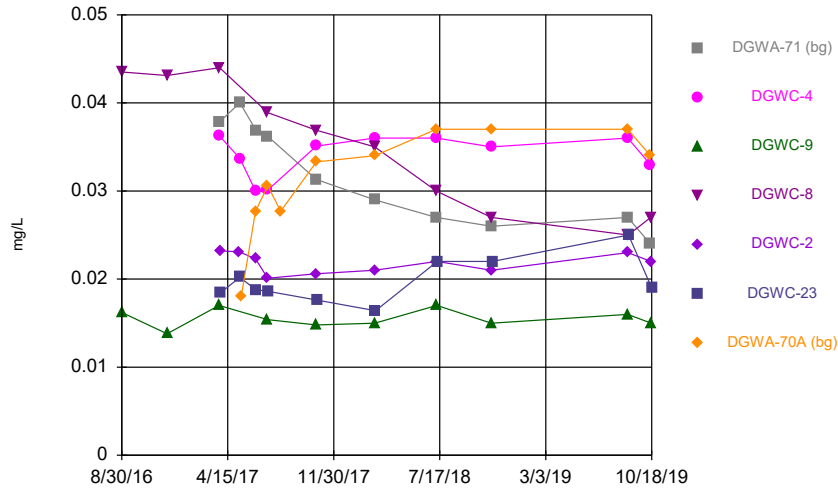
Constituent: Barium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



Constituent: Barium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

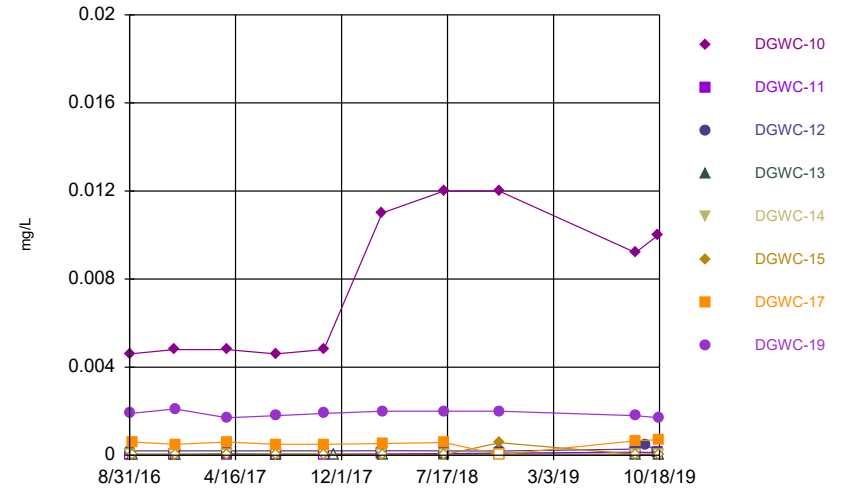
Time Series



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McDonough Client: Golder Associates Data: McDonough Ash Pond

Hollow symbols indicate censored values.

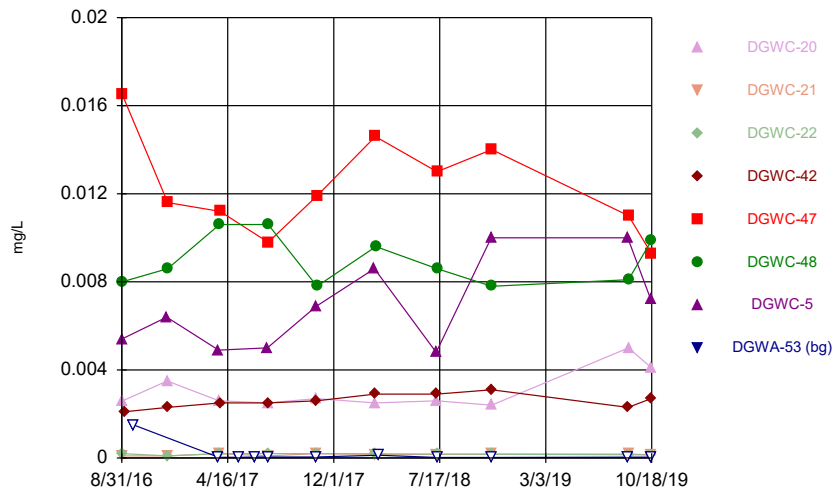
Time Series



Constituent: Beryllium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Hollow symbols indicate censored values.

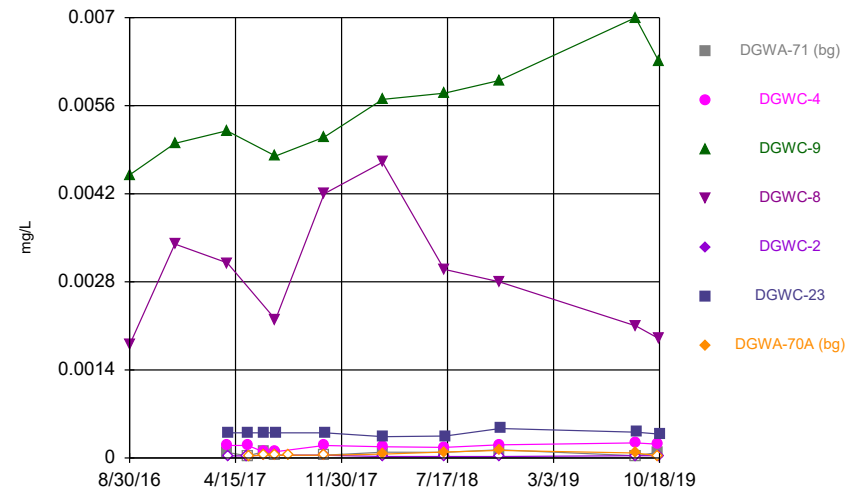
Time Series



Constituent: Beryllium Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

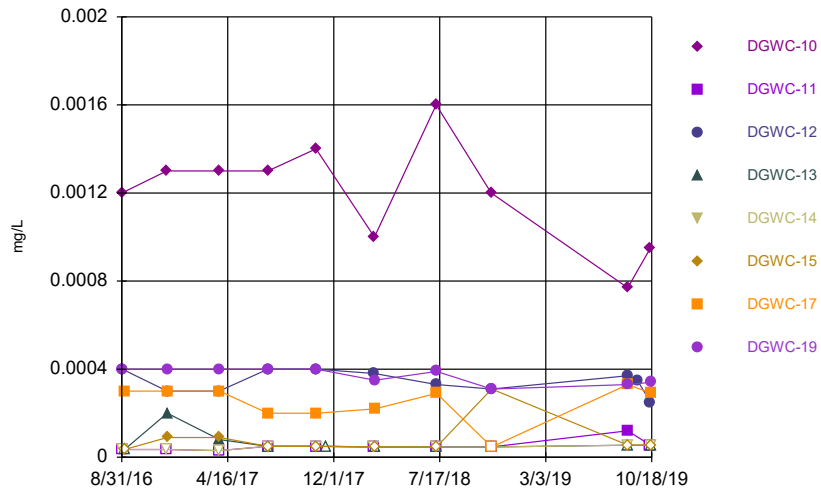
Hollow symbols indicate censored values.

Time Series



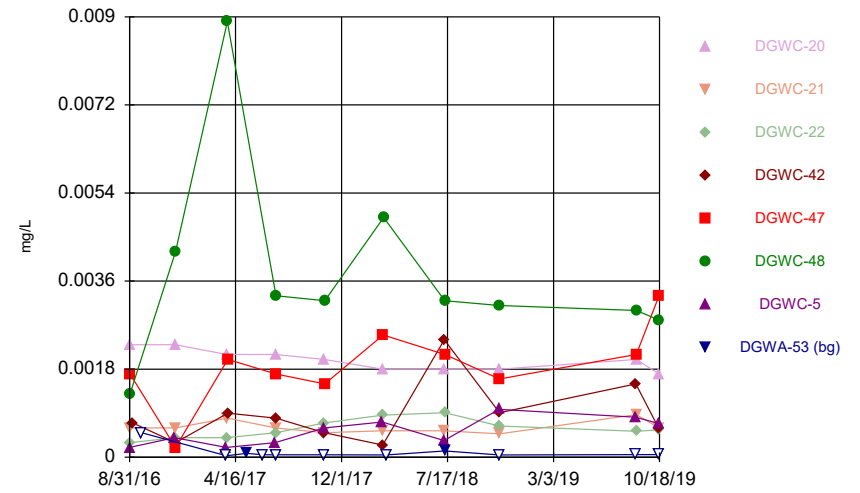
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



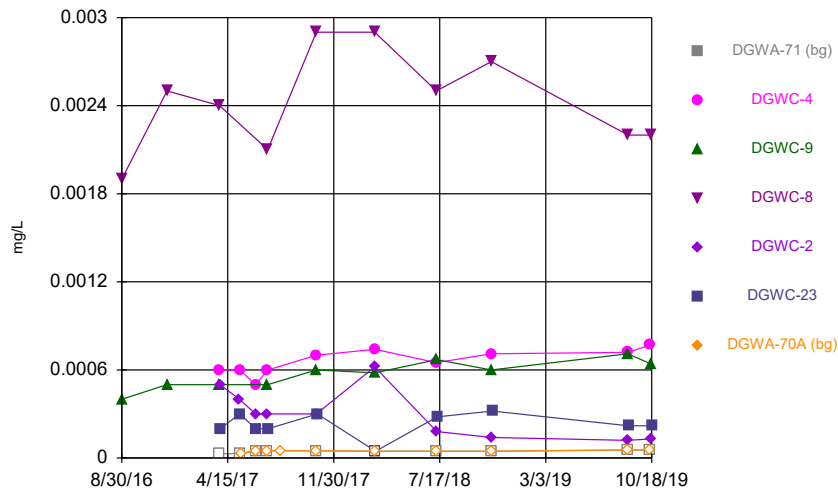
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



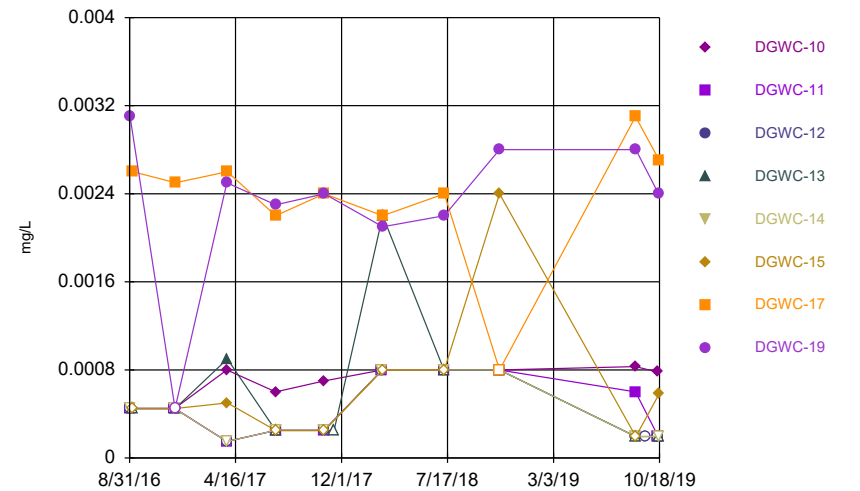
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



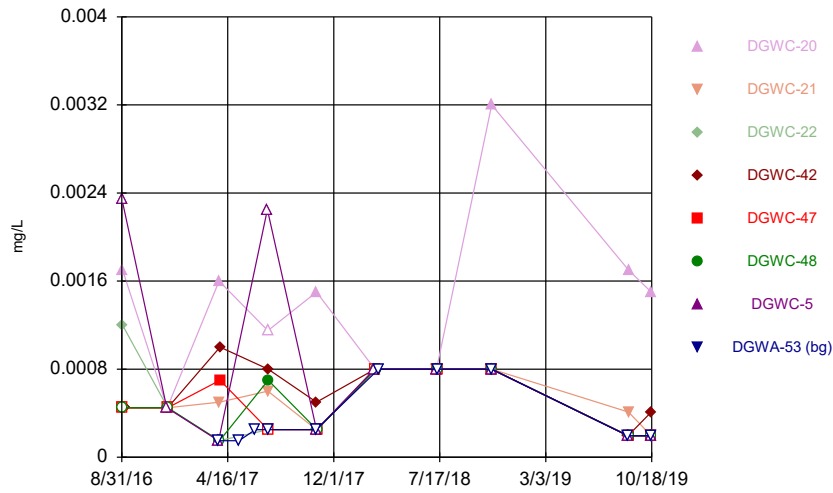
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



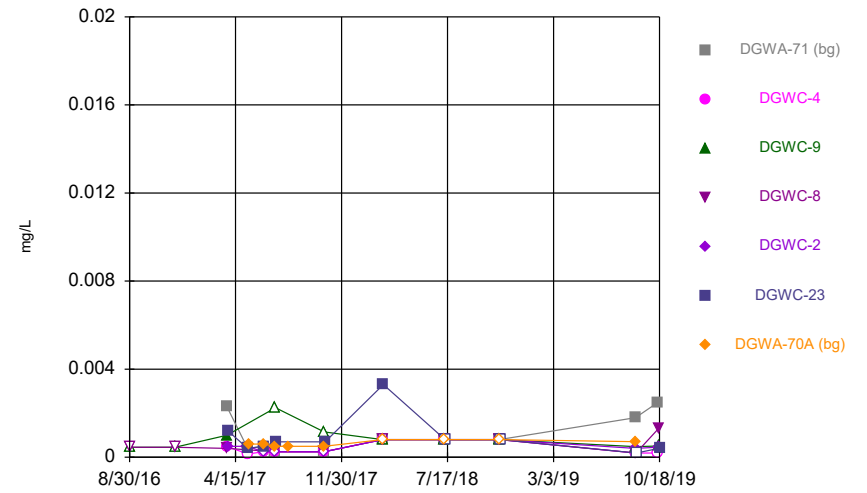
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



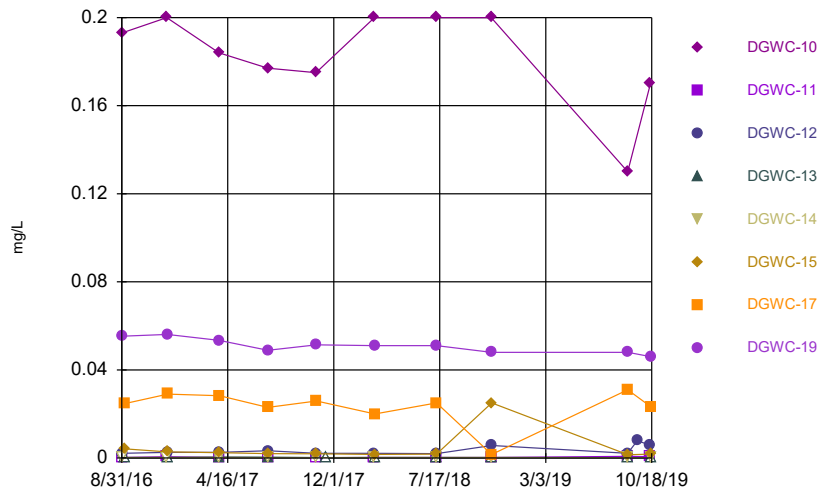
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



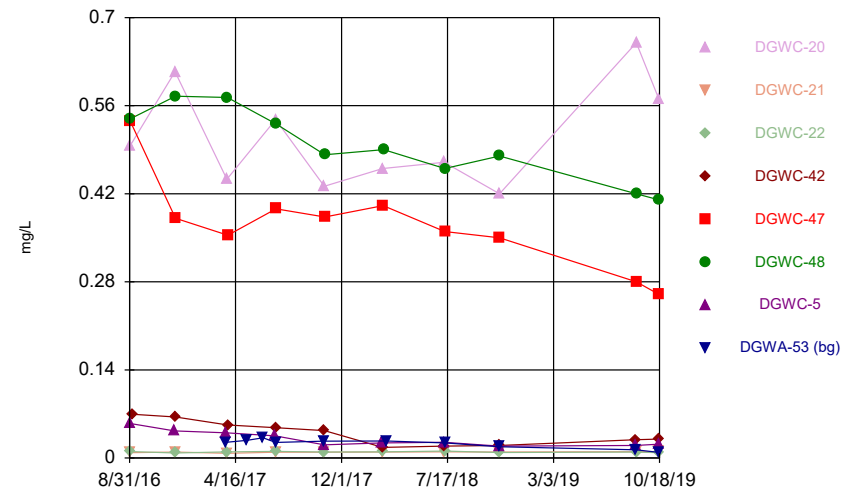
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



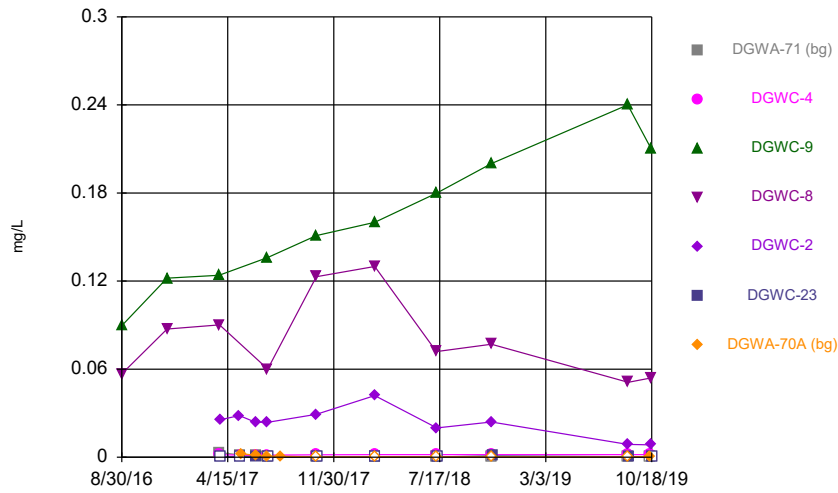
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



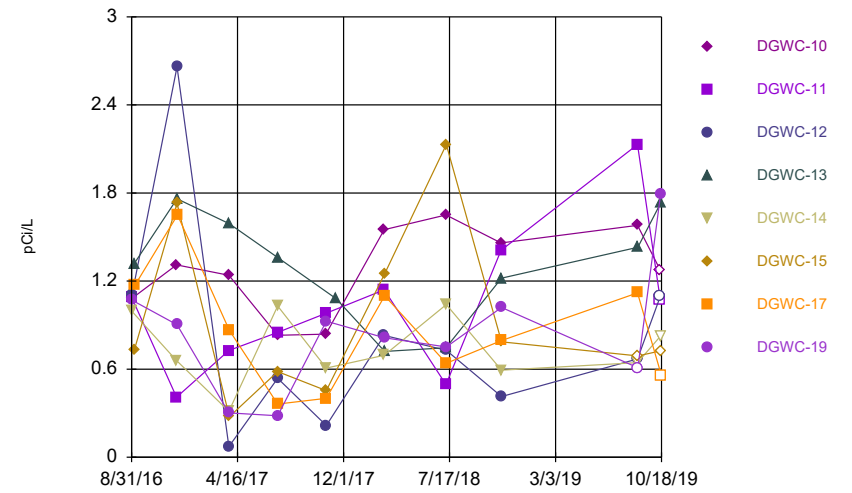
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



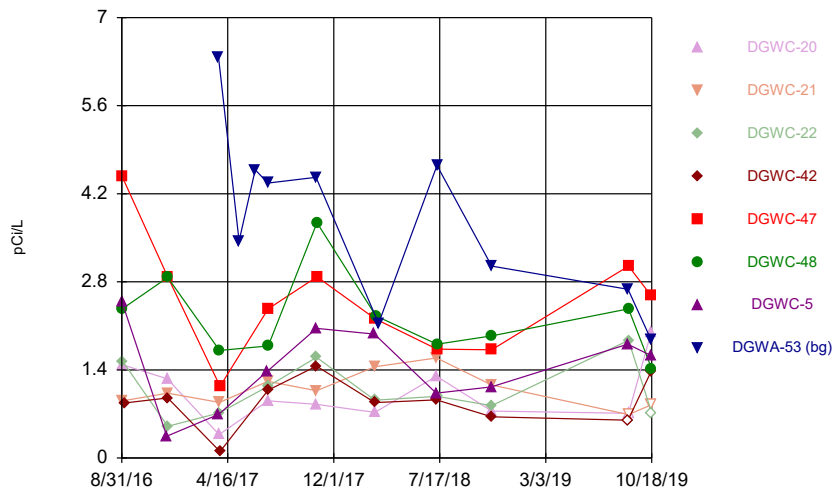
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



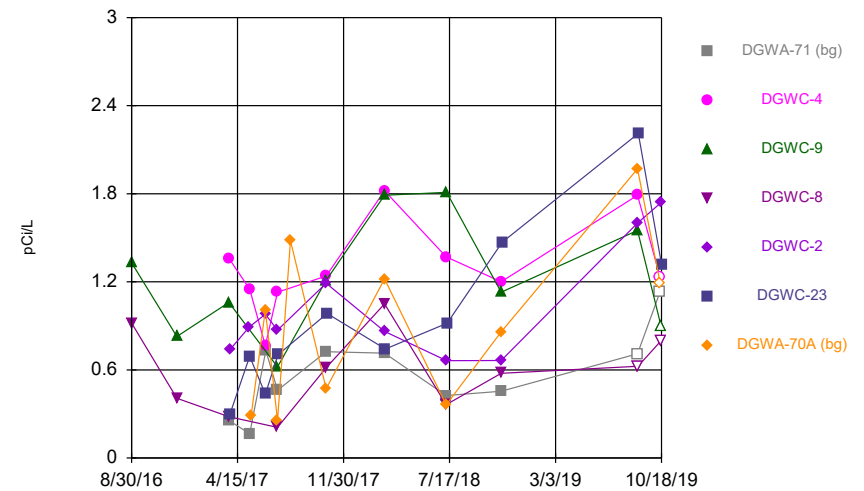
Constituent: Combined Radium 226 + 228 Analysis Run 2/13/2020 6:48 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



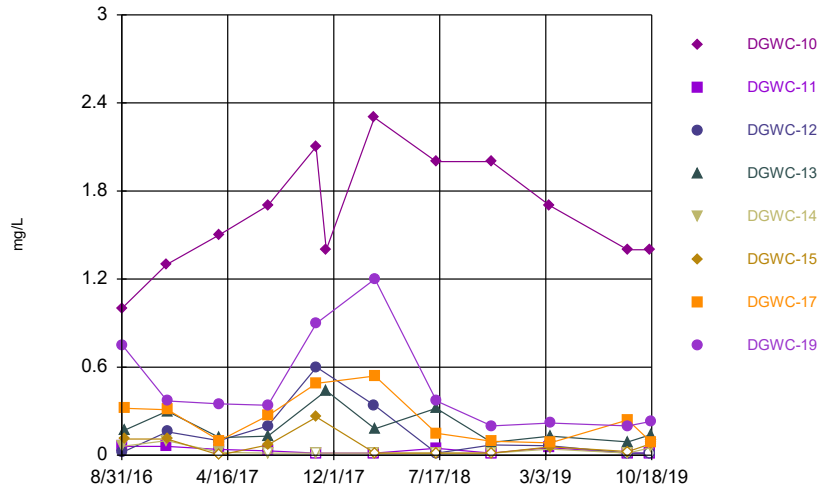
Constituent: Combined Radium 226 + 228 Analysis Run 2/13/2020 6:48 PM View: APP IV_AP2
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



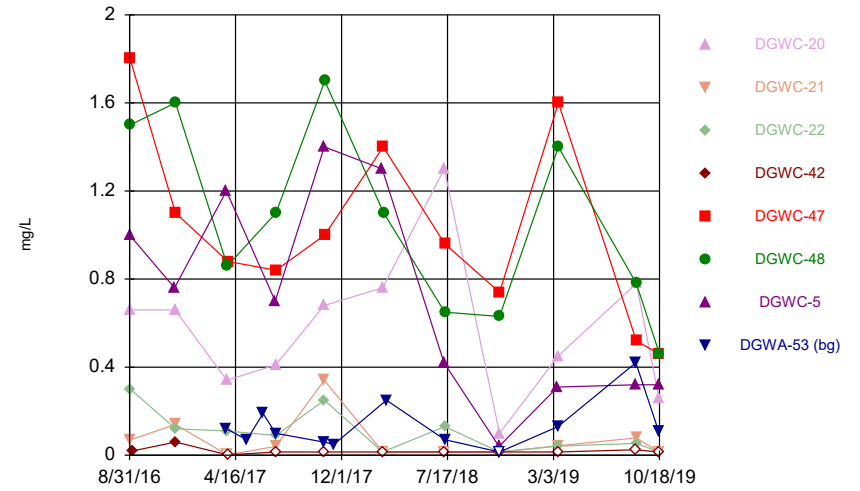
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



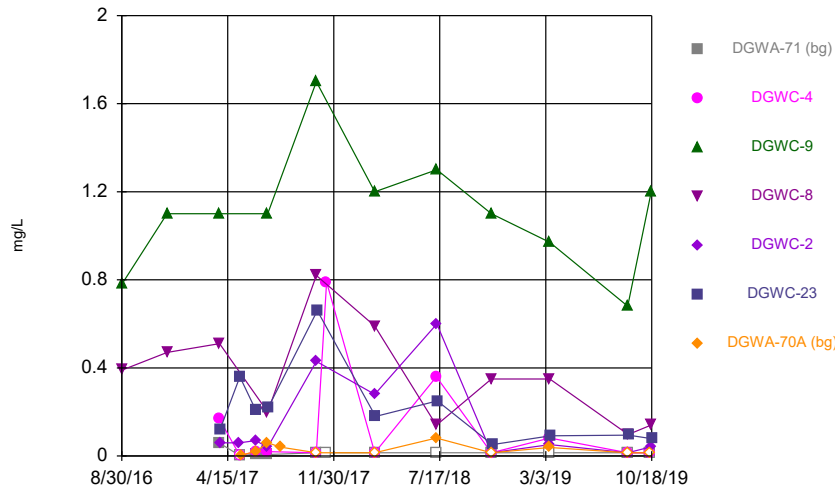
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



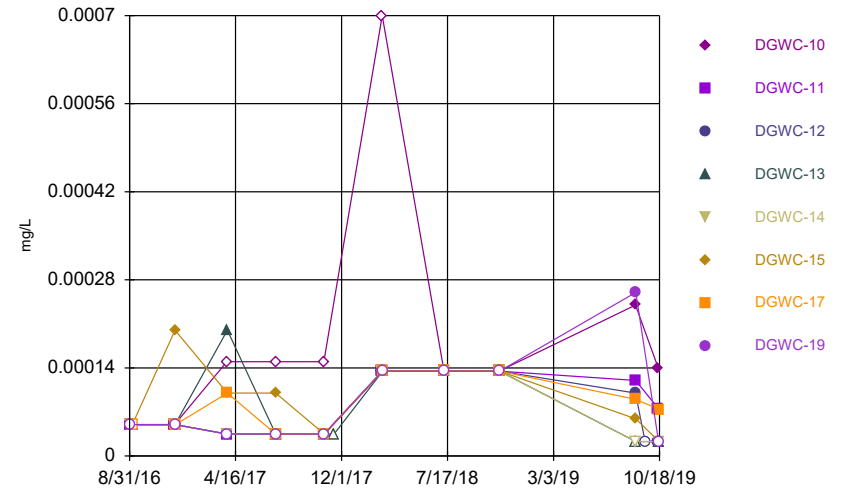
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



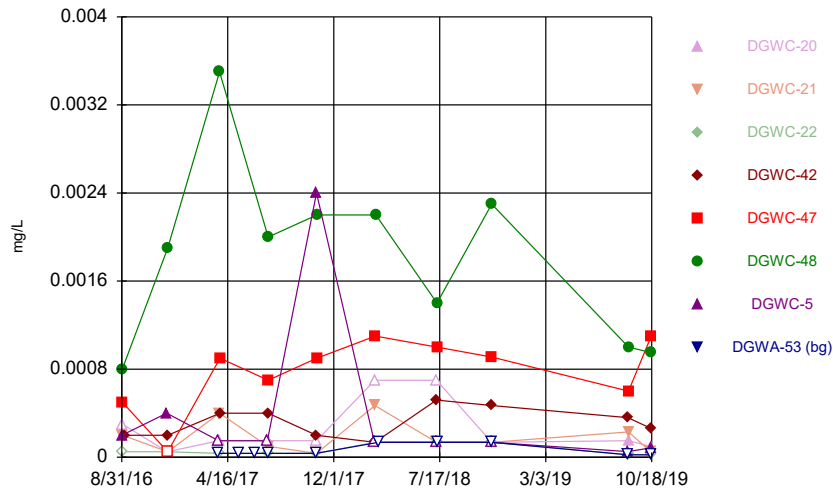
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



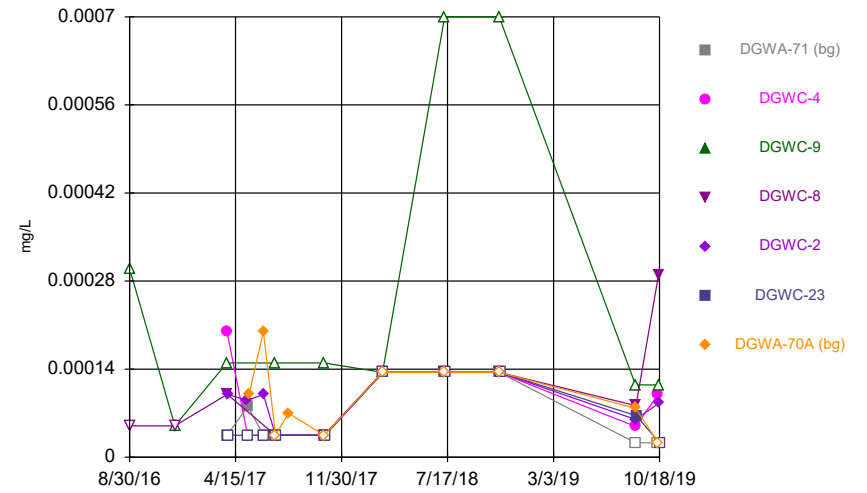
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



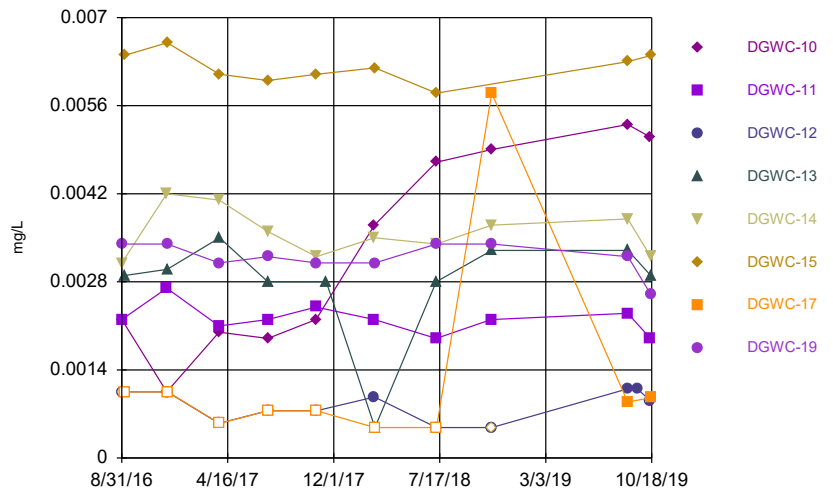
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



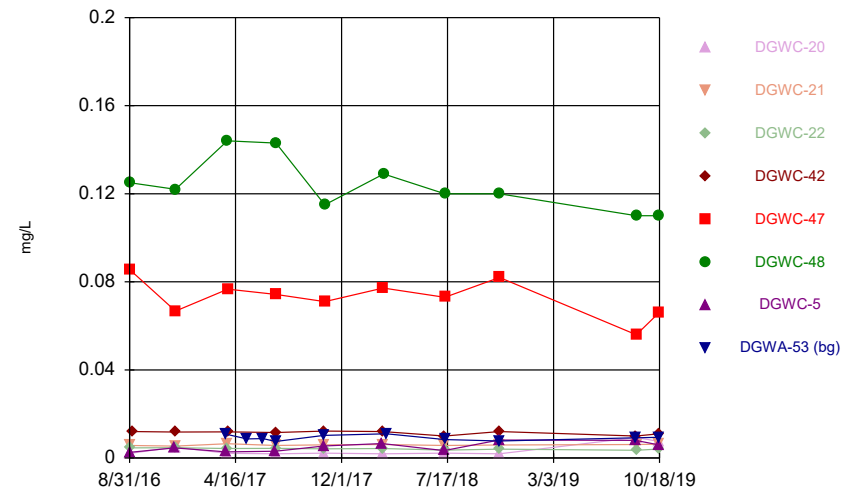
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



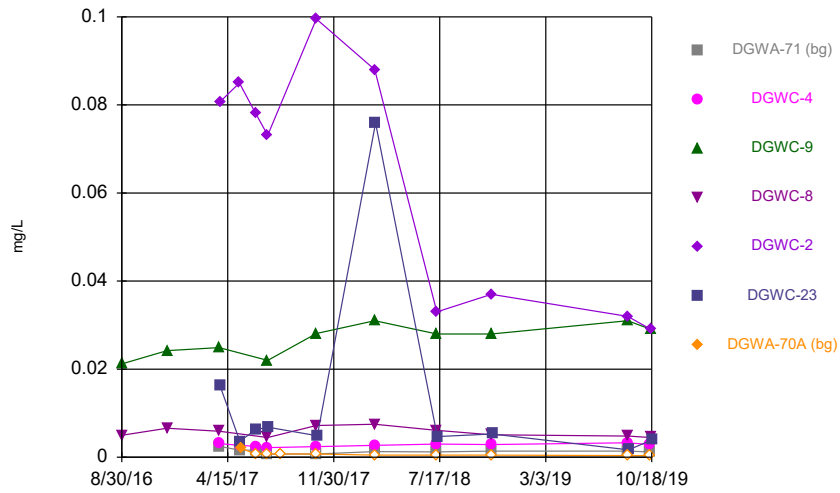
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



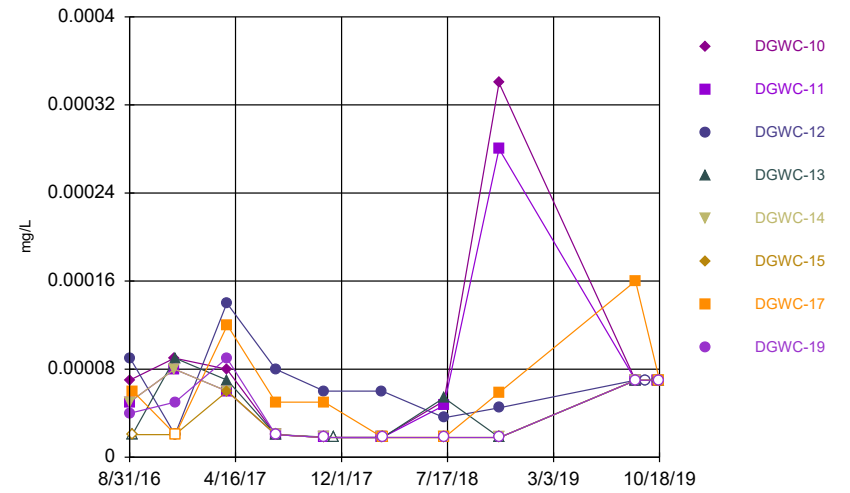
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



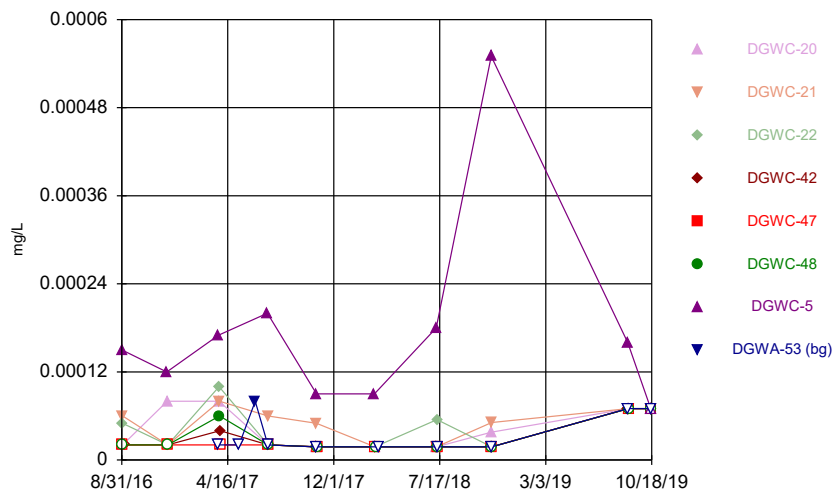
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



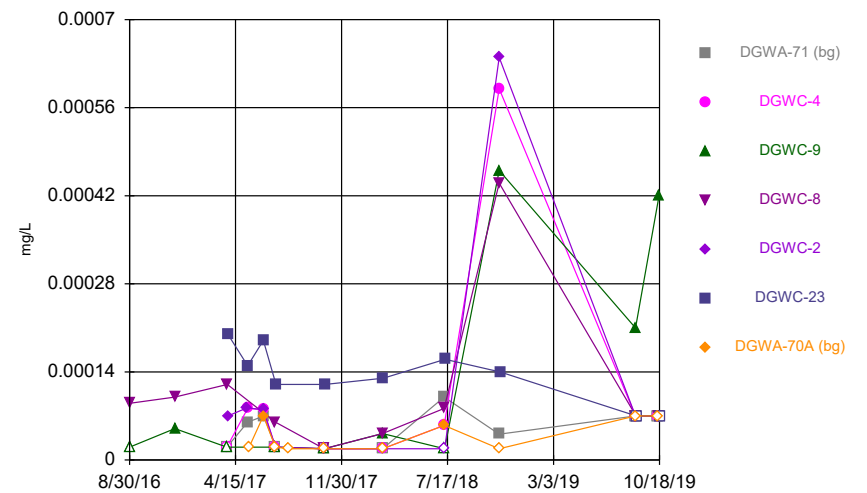
Constituent: Mercury Analysis Run 2/13/2020 6:48 PM View: APP IV_AP234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



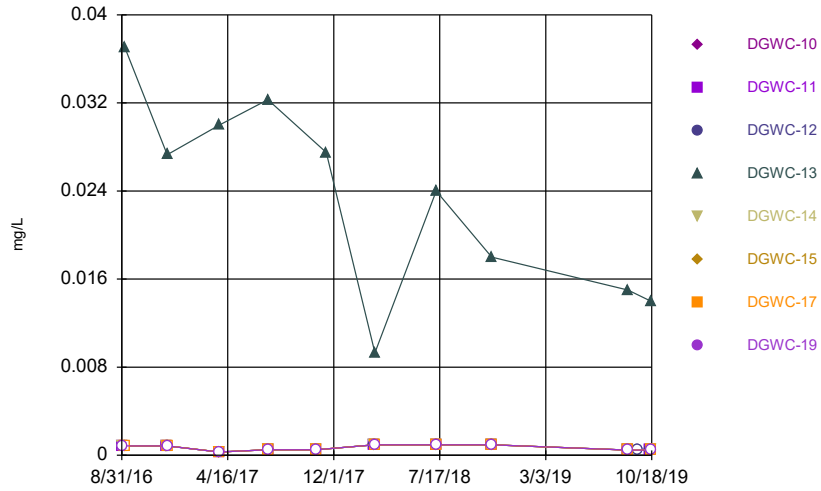
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



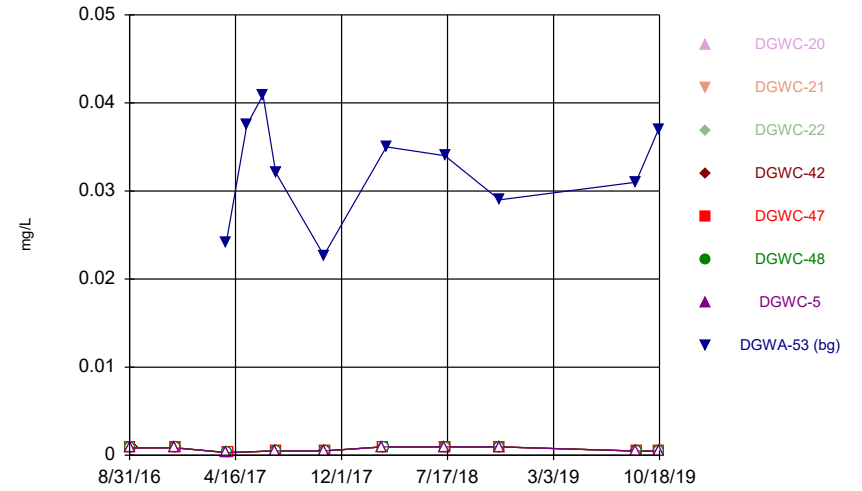
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



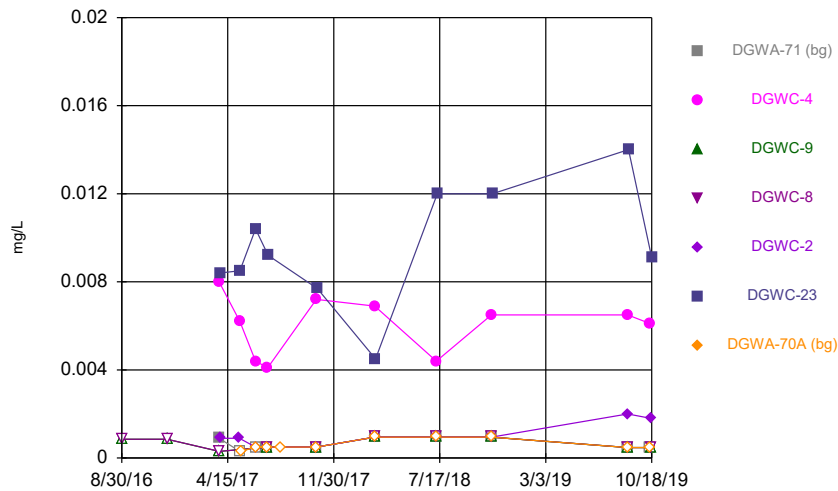
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



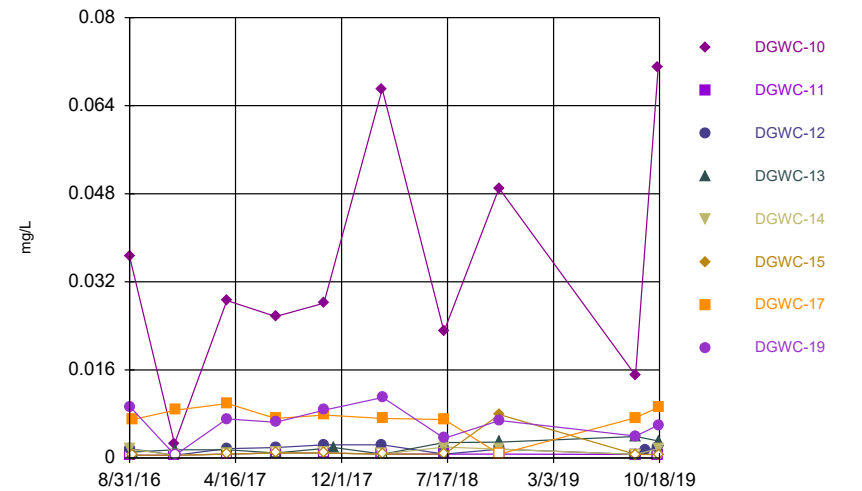
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



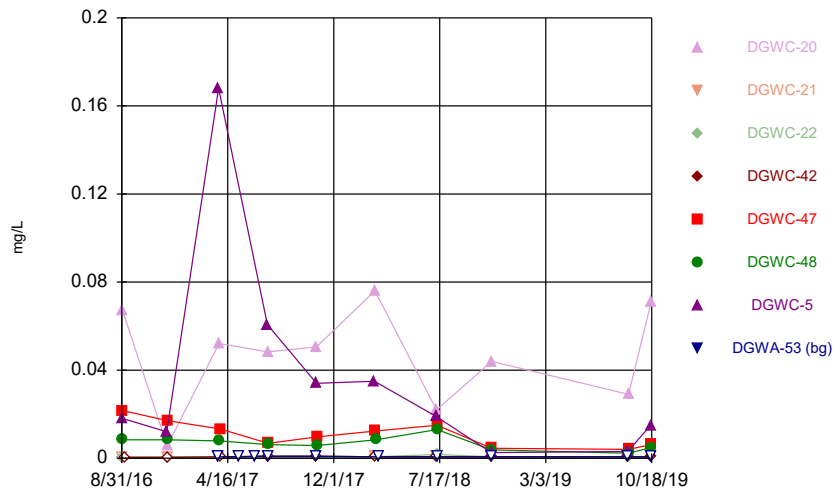
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



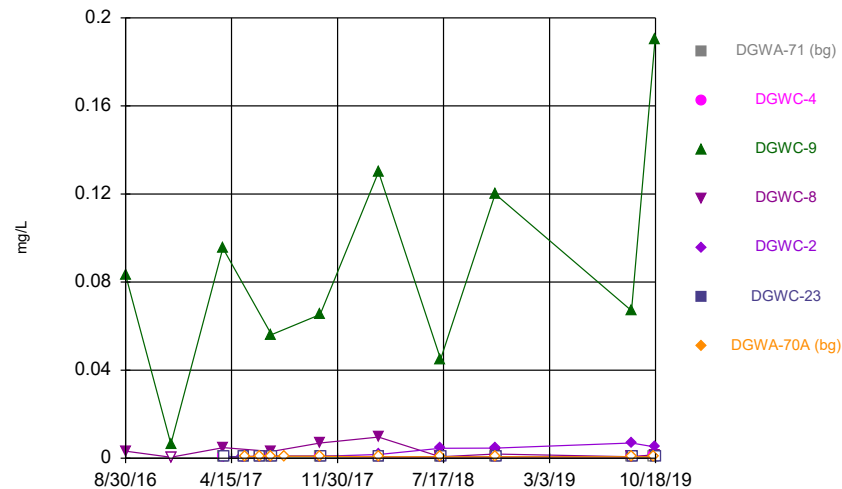
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Time Series



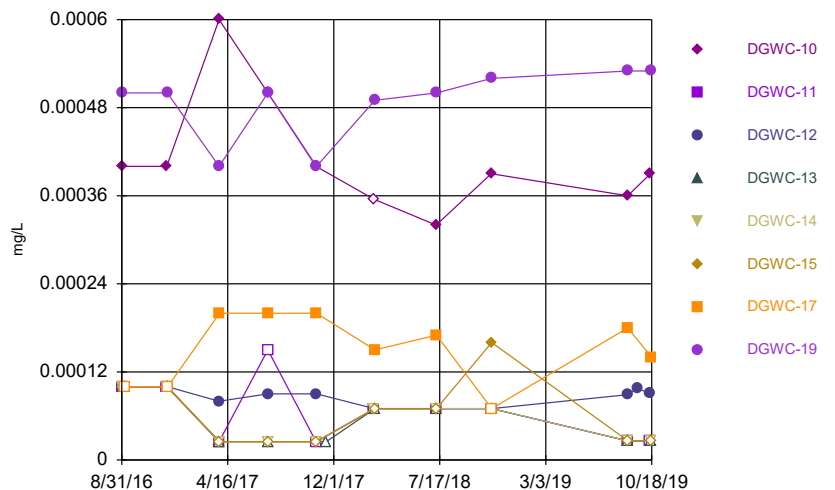
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



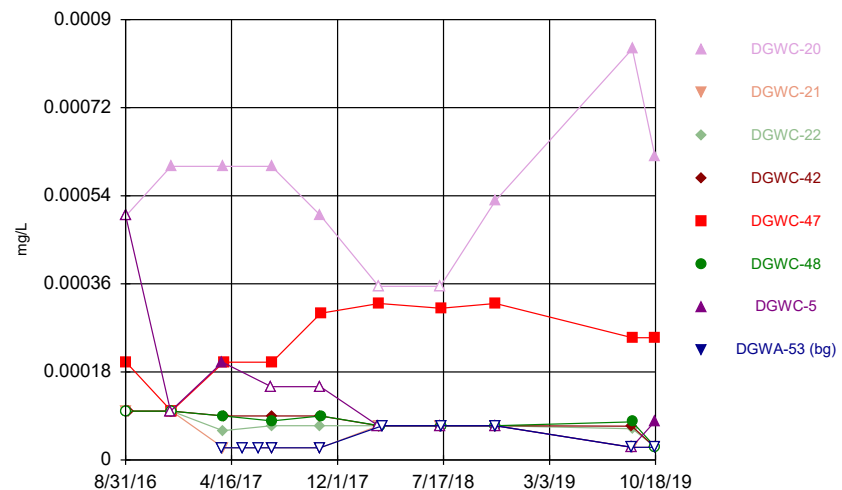
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



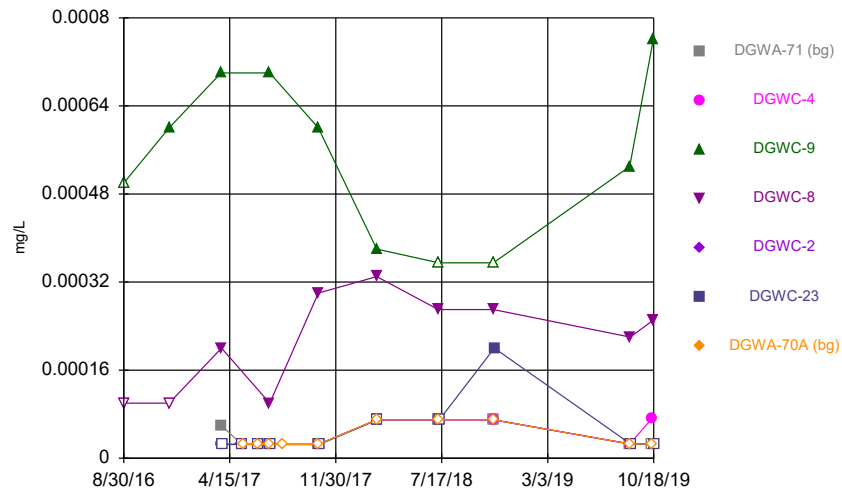
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



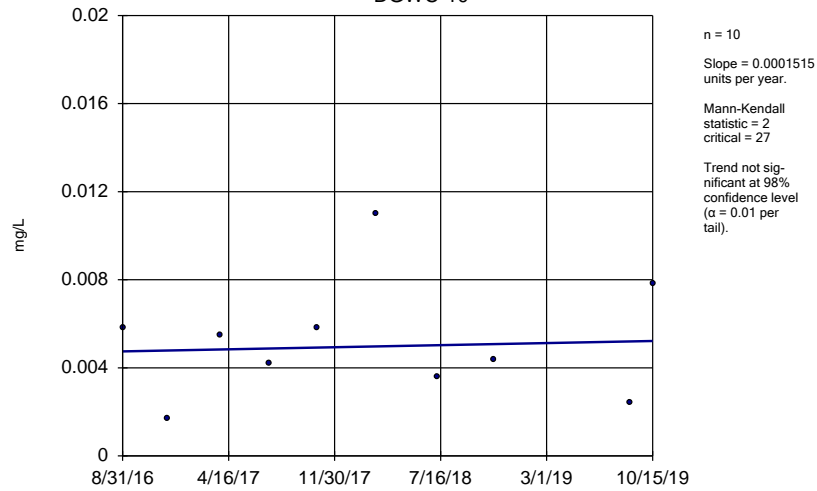
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Time Series



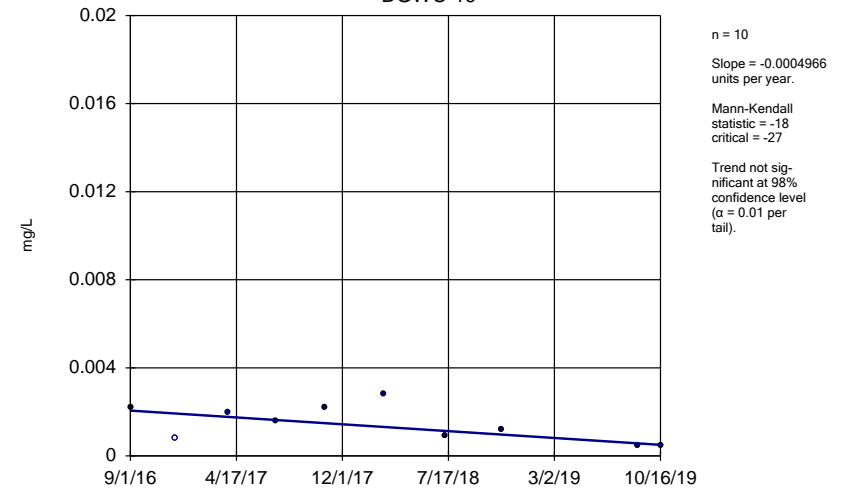
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-10



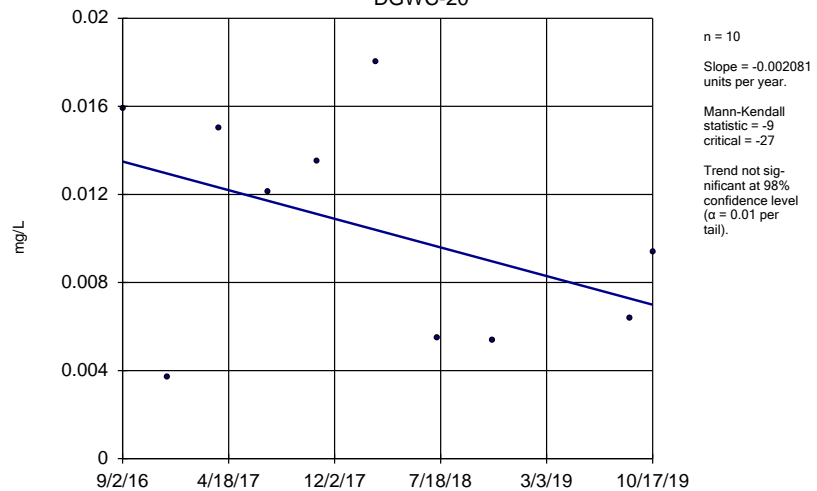
Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-19



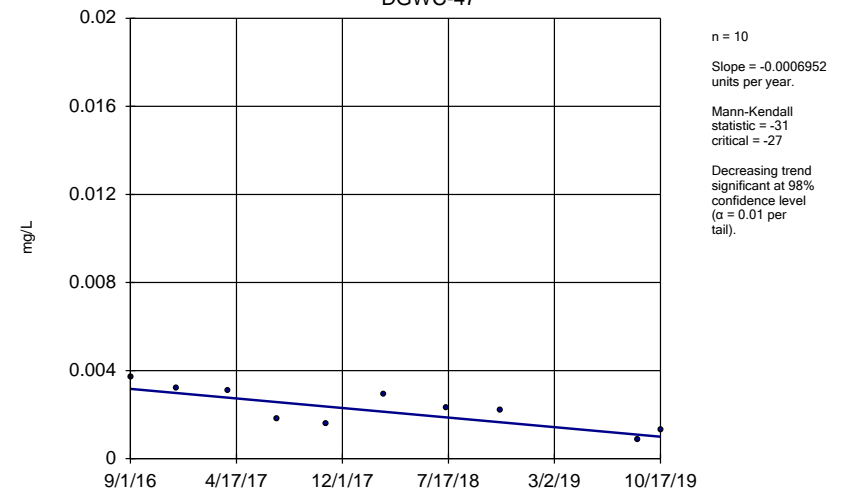
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-20



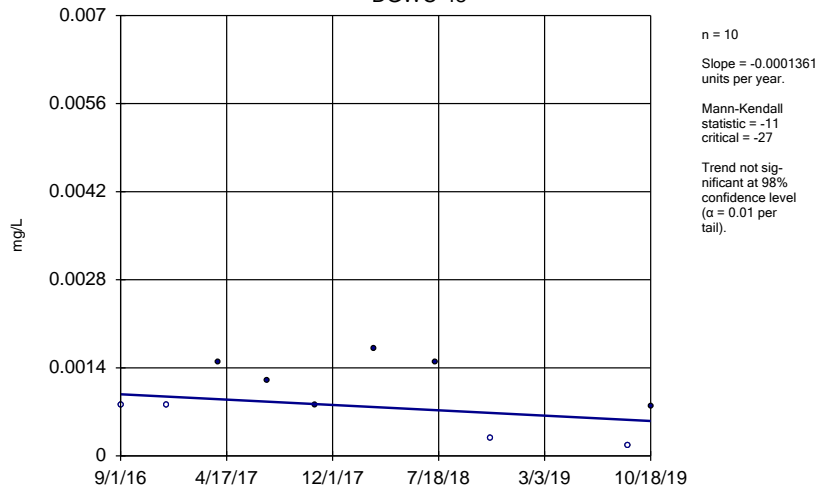
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-47



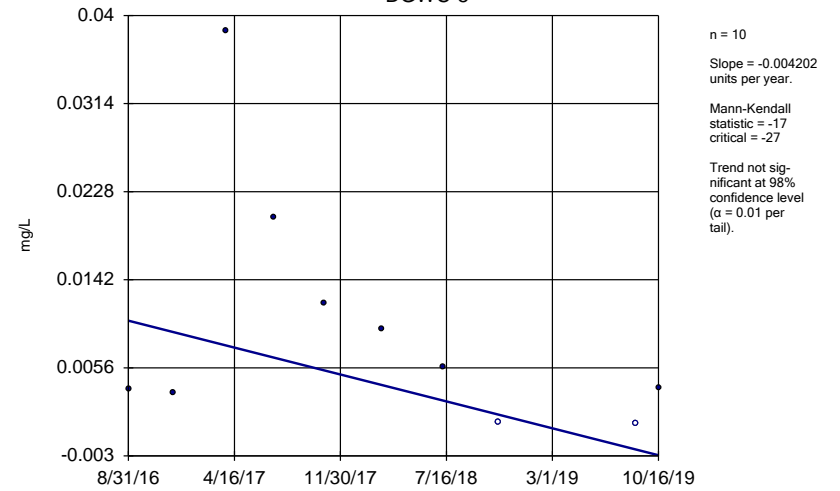
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-48



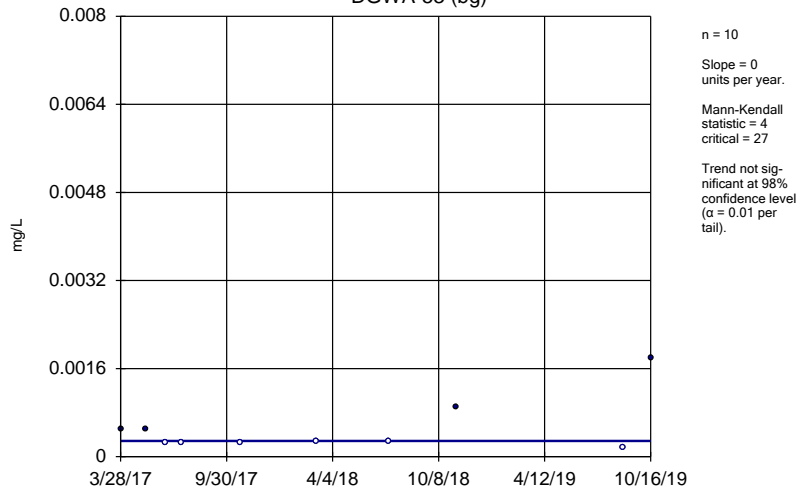
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-5



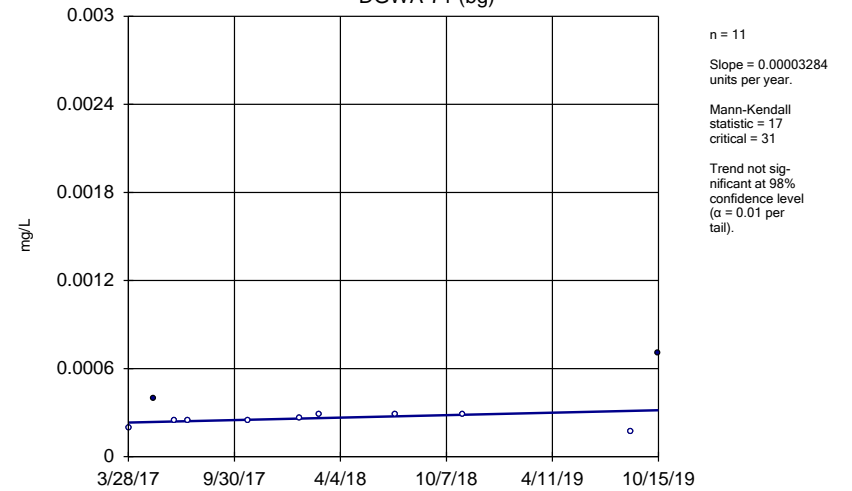
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McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-53 (bg)

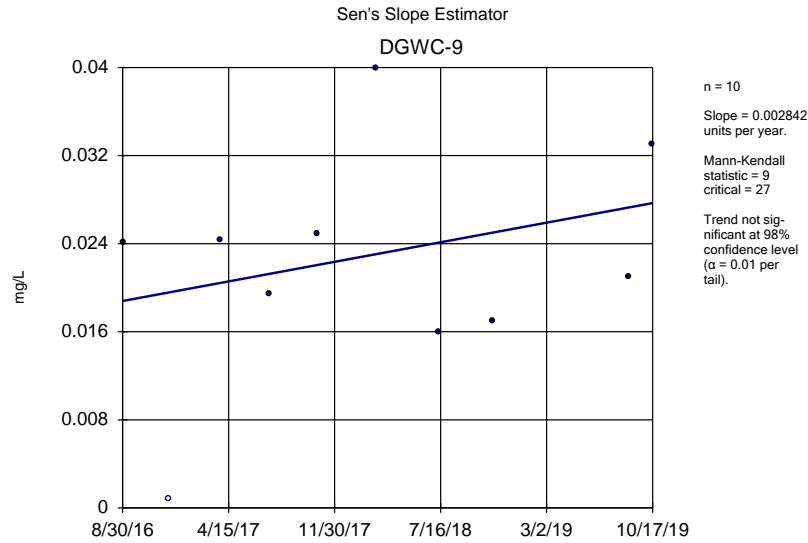


Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

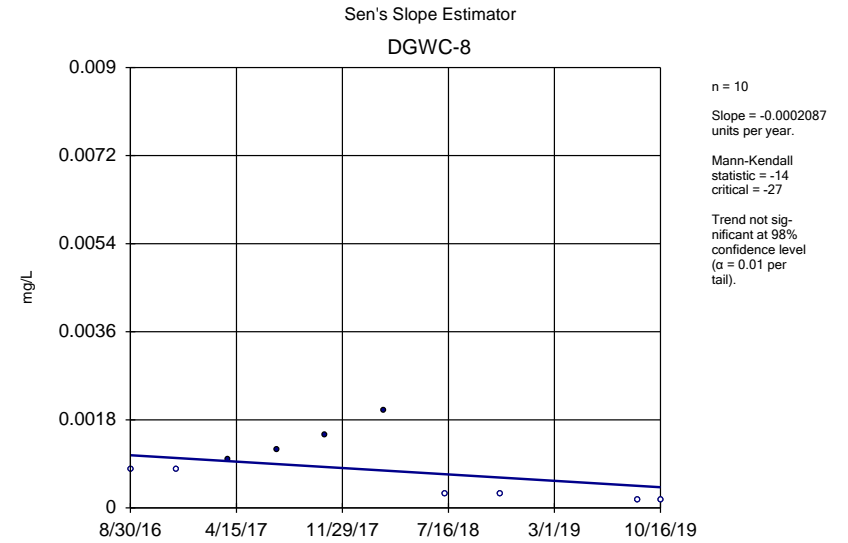
Sen's Slope Estimator
DGWA-71 (bg)



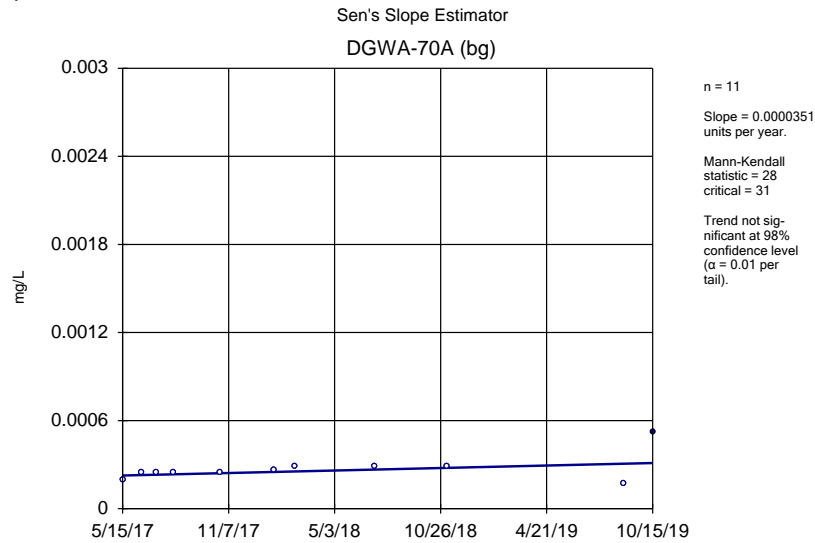
Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



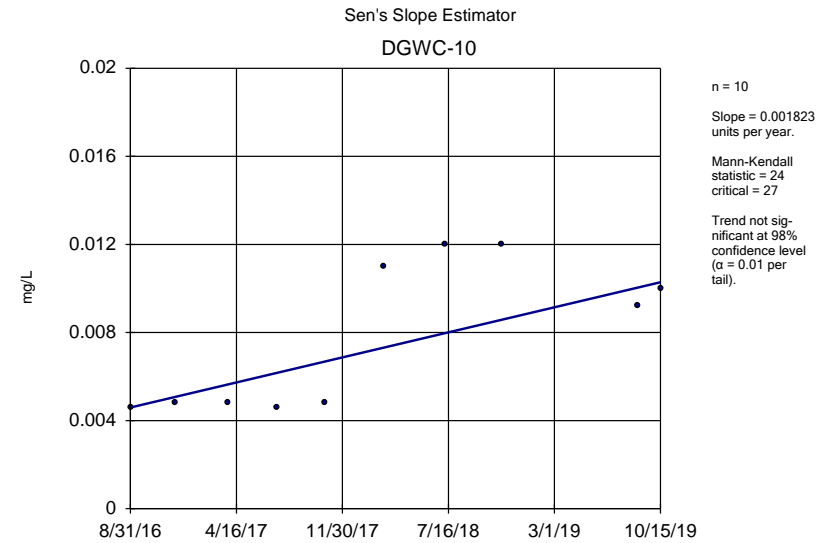
Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

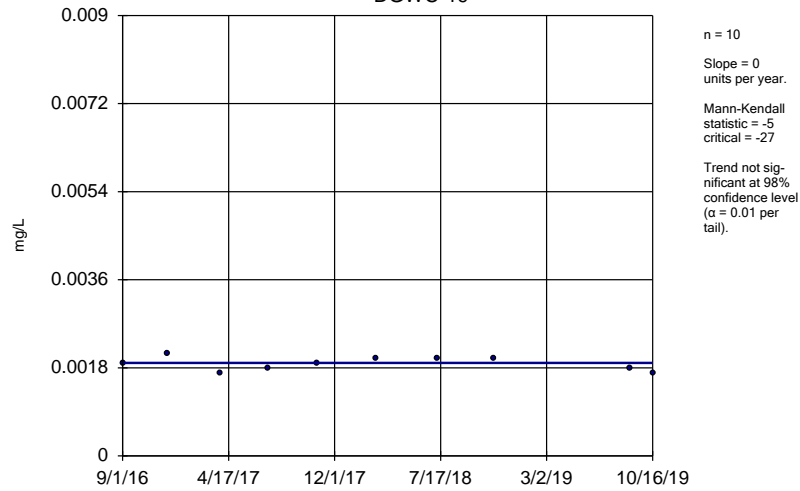


Constituent: Arsenic Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



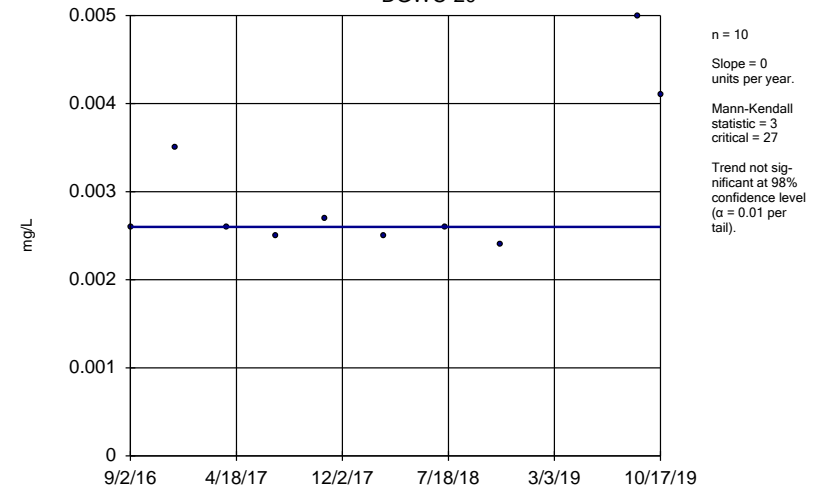
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-19



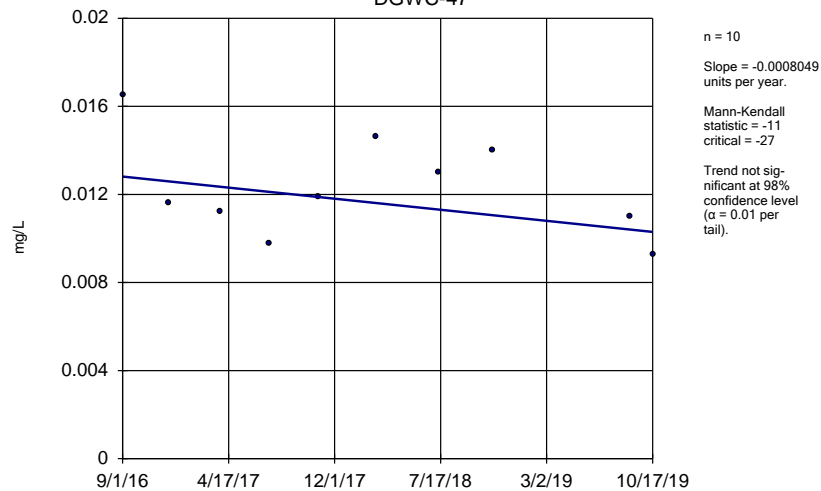
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-20



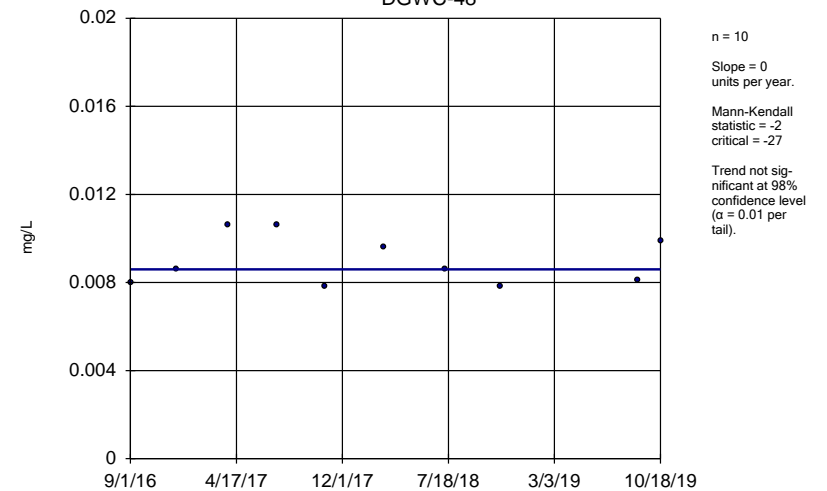
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-47



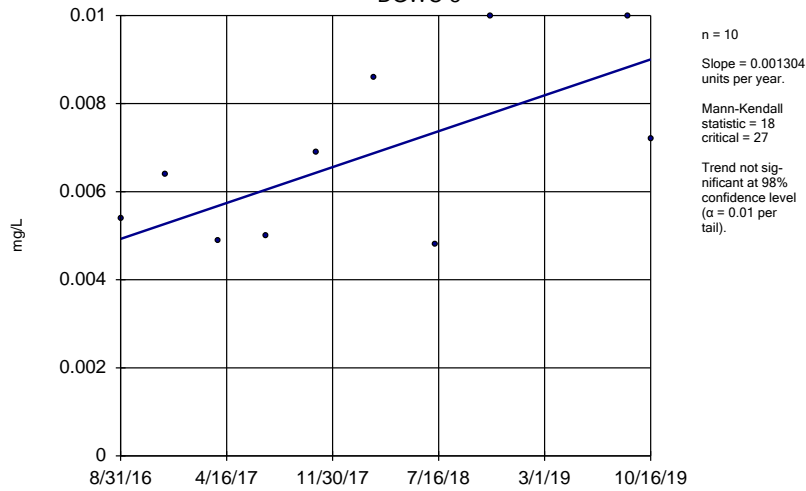
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-48



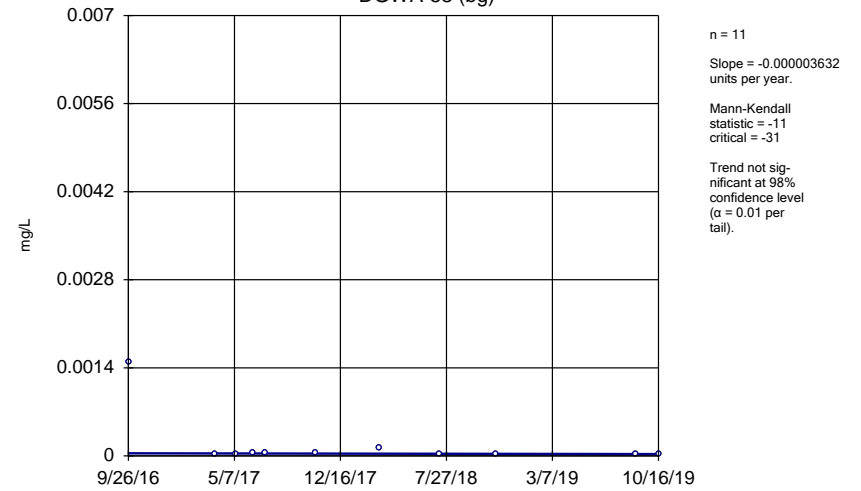
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-5



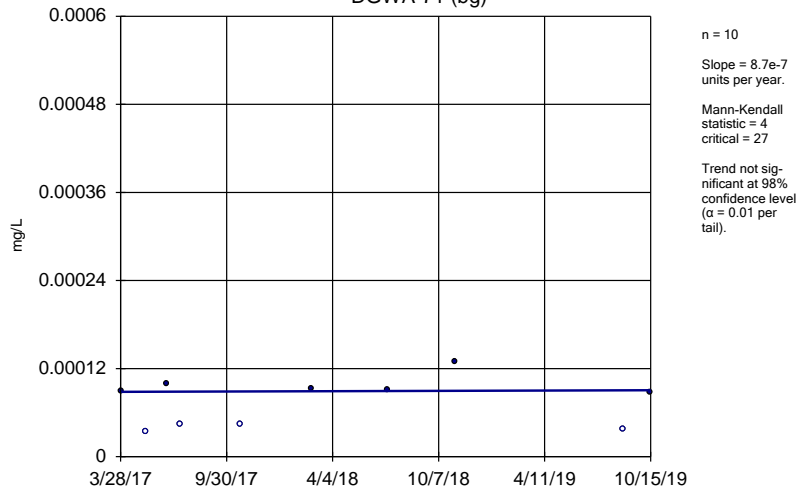
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-53 (bg)



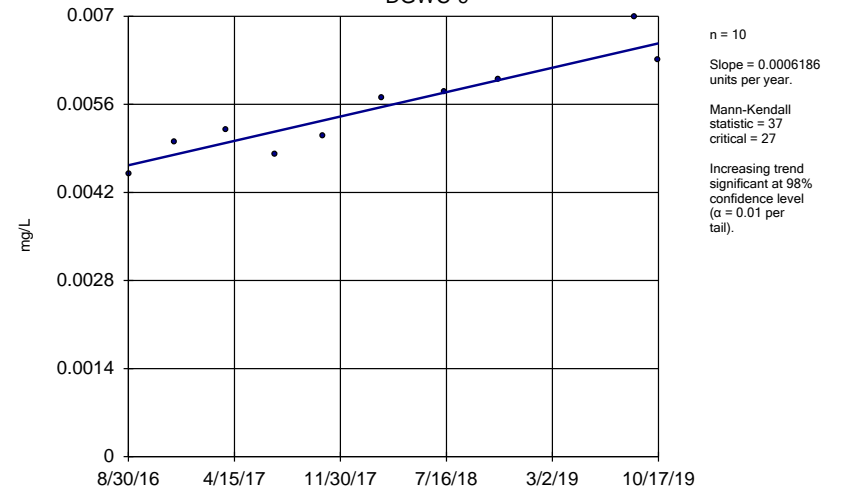
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-71 (bg)



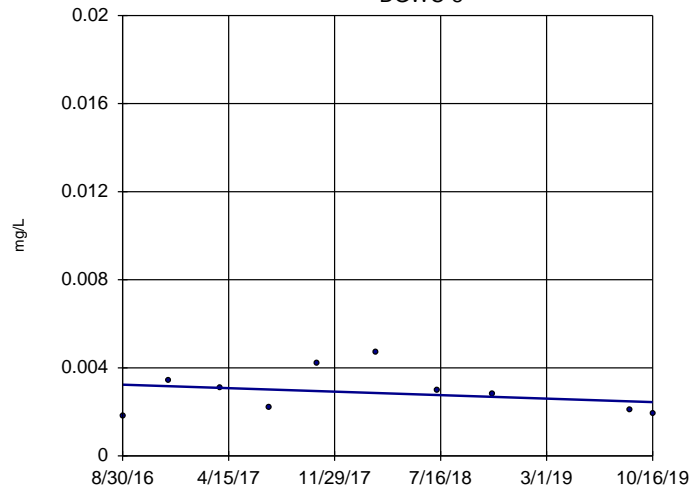
Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-9



Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

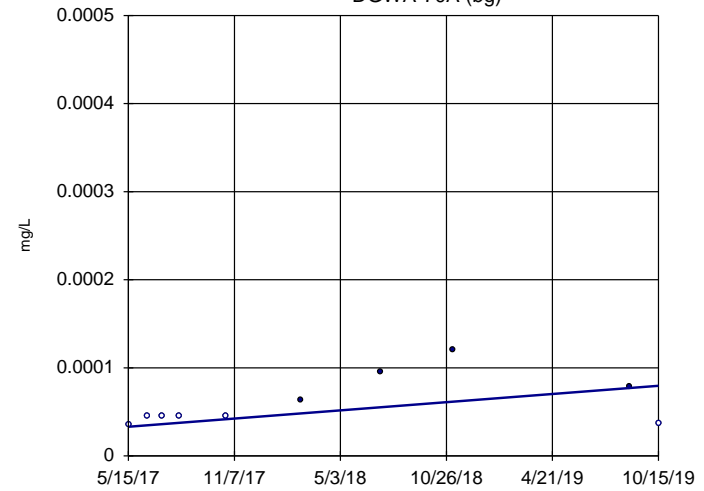
Sen's Slope Estimator DGWC-8



n = 10
 Slope = -0.0002513
 units per year.
 Mann-Kendall
 statistic = -9
 critical = -27
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

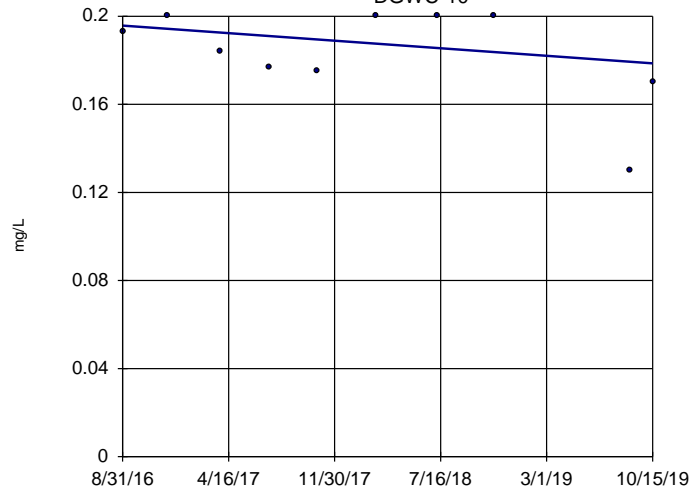
Sen's Slope Estimator DGWA-70A (bg)



n = 10
 Slope = 0.00001926
 units per year.
 Mann-Kendall
 statistic = 19
 critical = 27
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Beryllium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

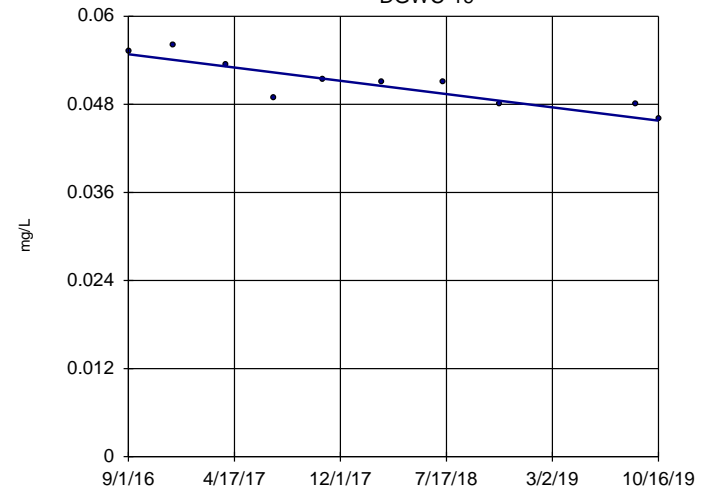
Sen's Slope Estimator DGWC-10



n = 10
 Slope = -0.005495
 units per year.
 Mann-Kendall
 statistic = -11
 critical = -27
 Trend not sig-
 nificant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

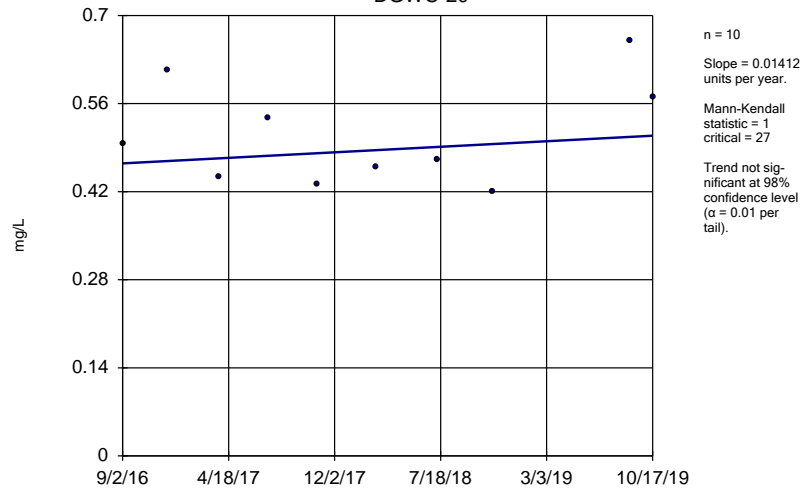
Sen's Slope Estimator DGWC-19



n = 10
 Slope = -0.002901
 units per year.
 Mann-Kendall
 statistic = -35
 critical = -27
 Decreasing trend
 significant at 98%
 confidence level
 ($\alpha = 0.01$ per
 tail).

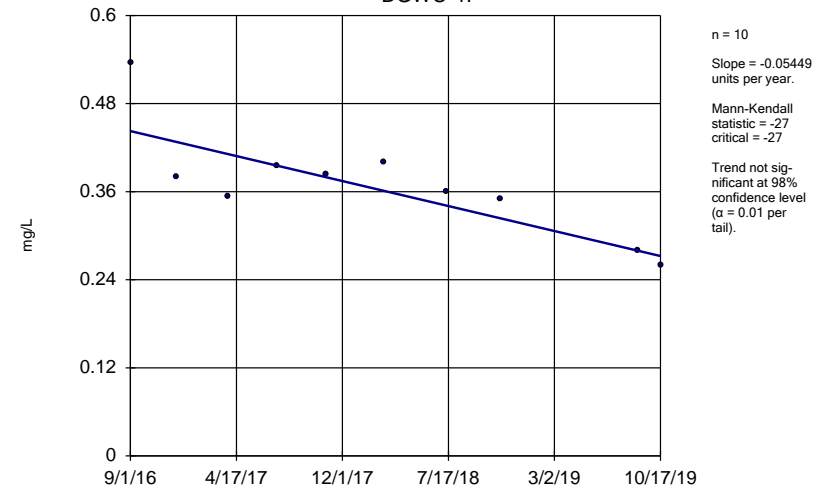
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-20



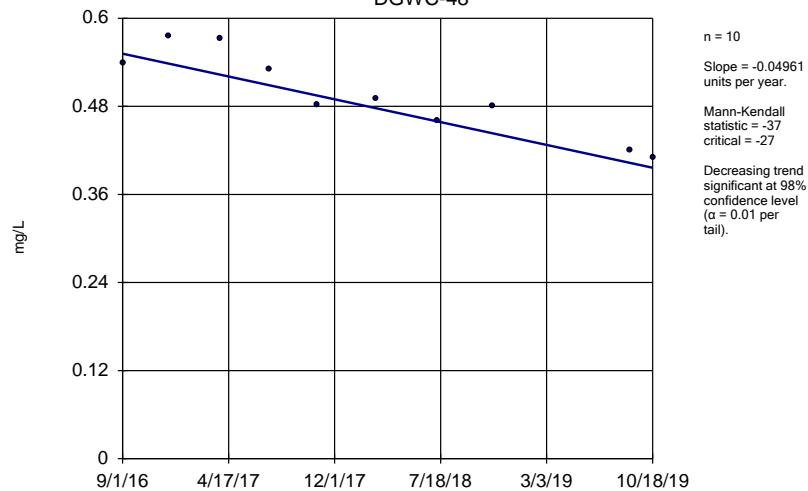
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-47



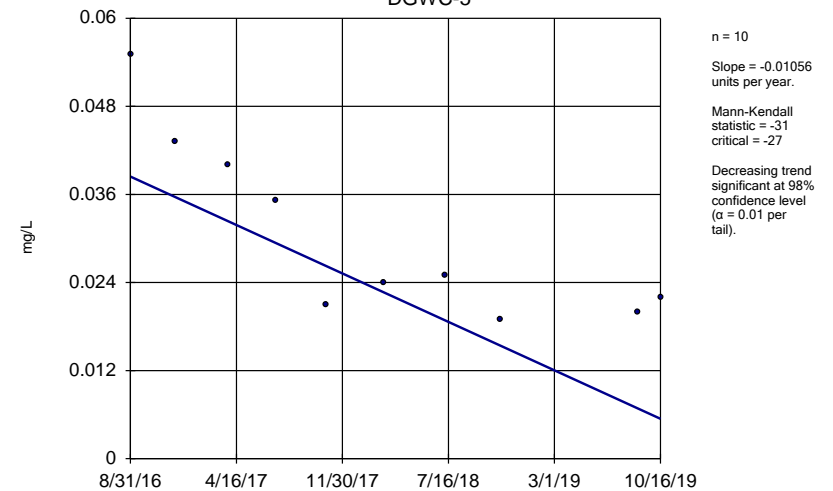
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWC-48

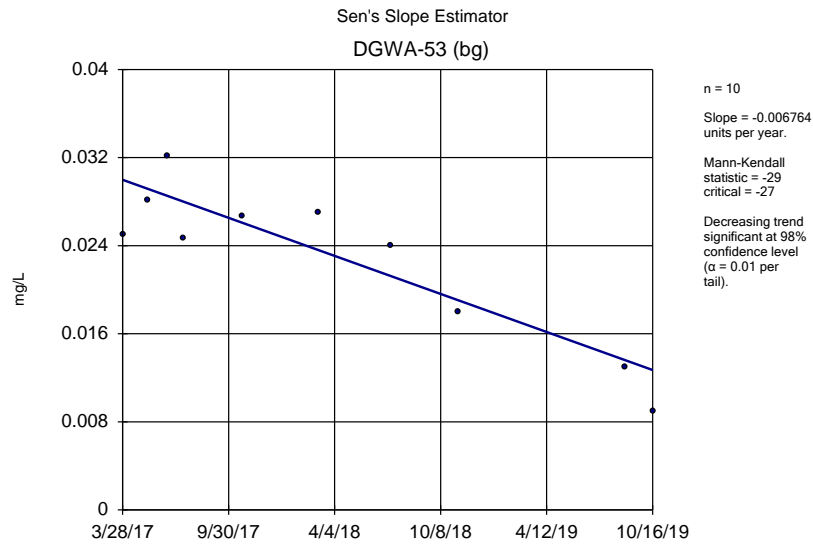


Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

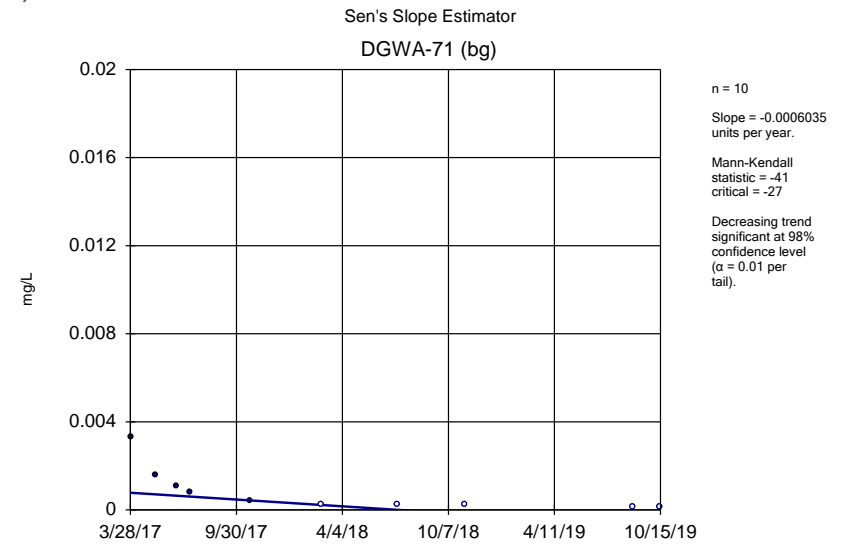
Sen's Slope Estimator
DGWC-5



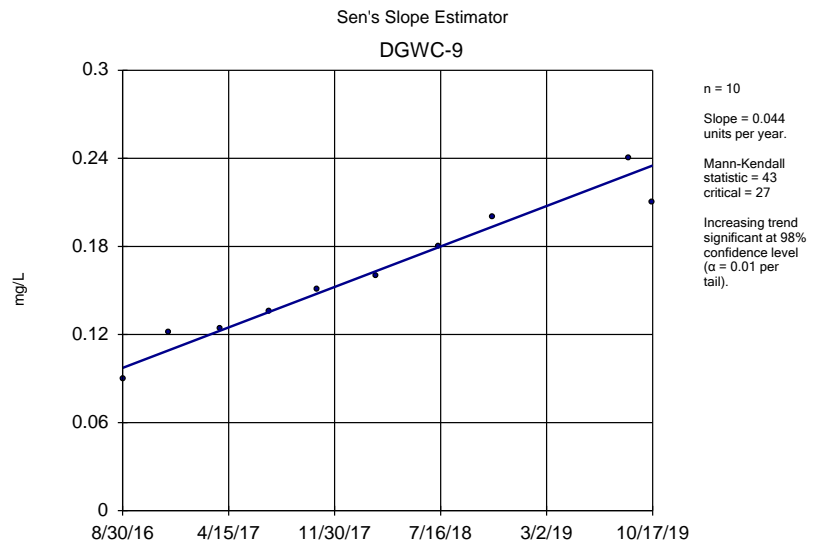
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



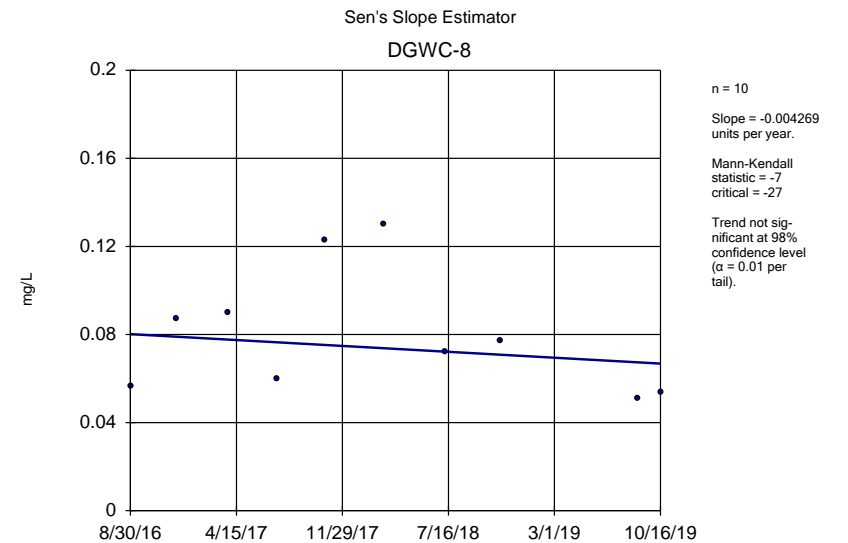
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

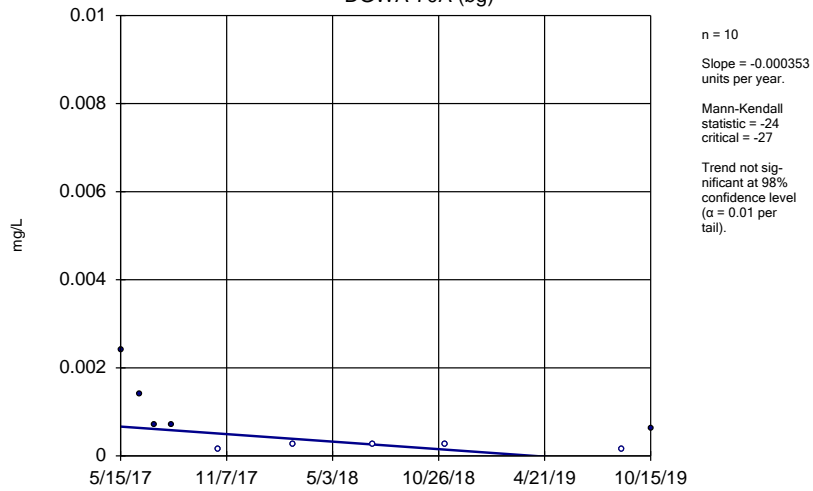


Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



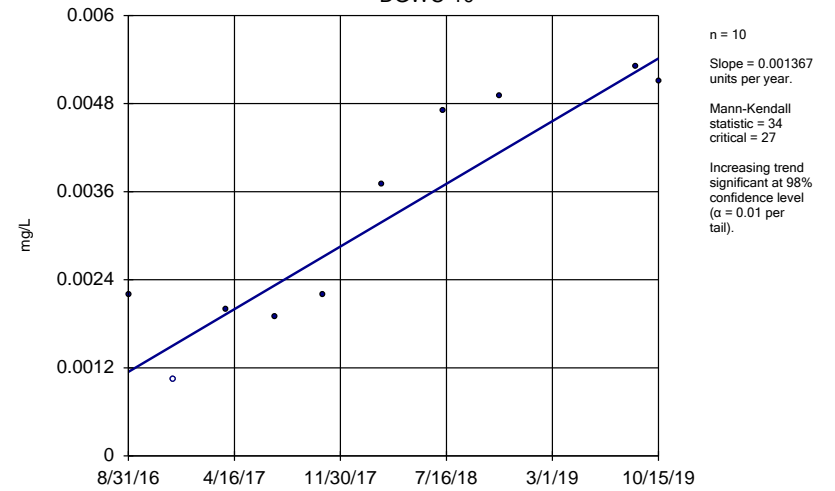
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
 DGWA-70A (bg)



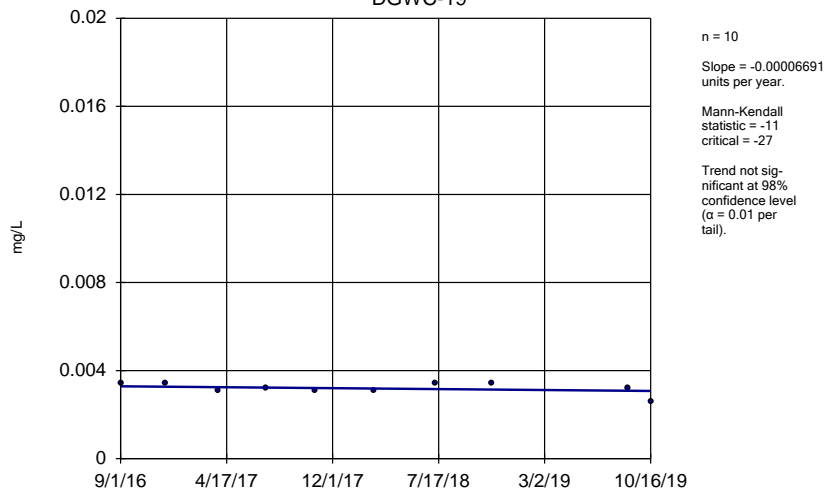
Constituent: Cobalt Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
 DGWC-10



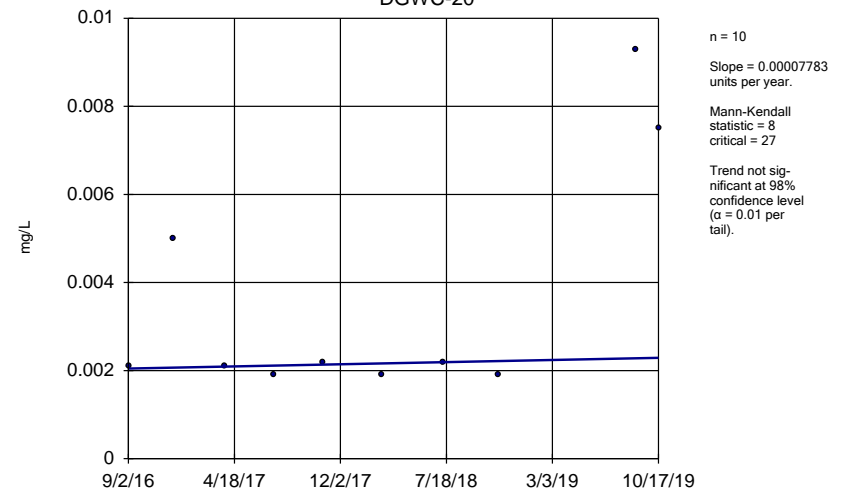
Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
 DGWC-19

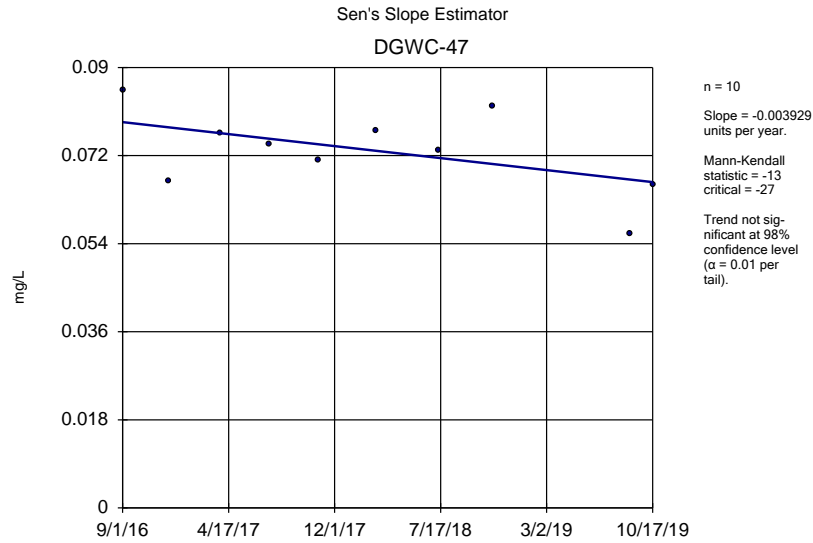


Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond

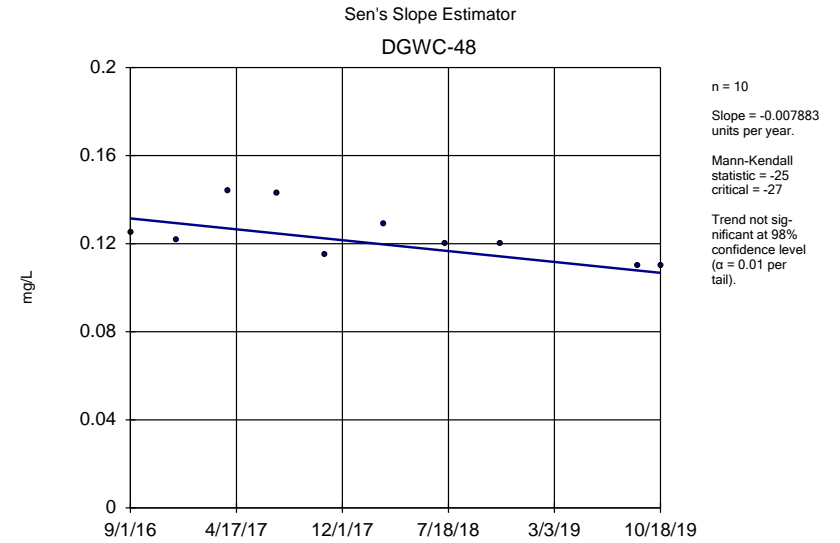
Sen's Slope Estimator
 DGWC-20



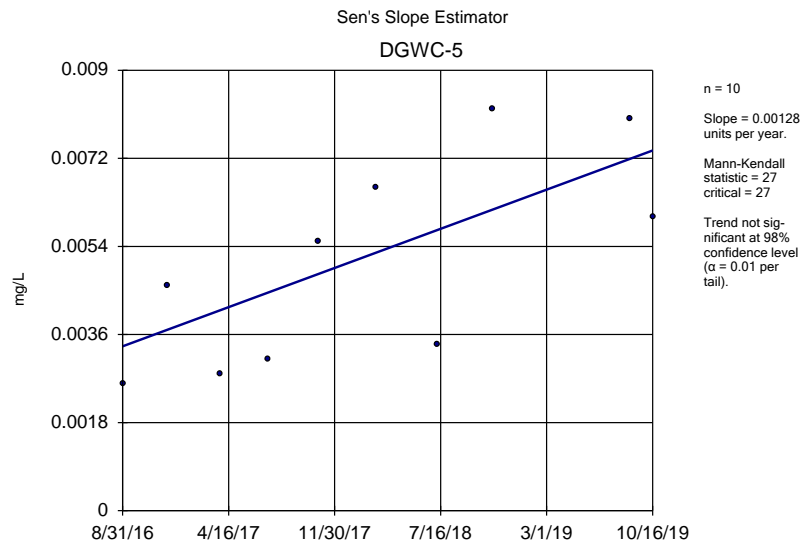
Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
 McDonough Client: Golder Associates Data: McDonough Ash Pond



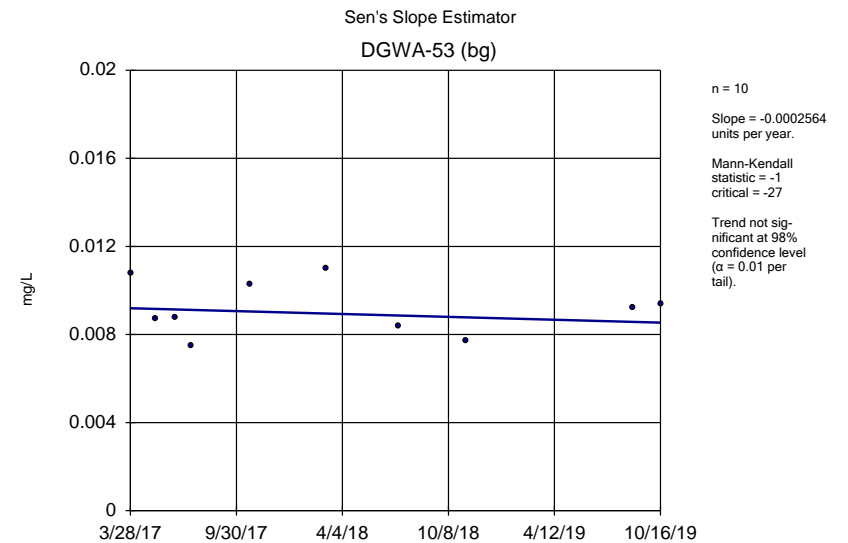
Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

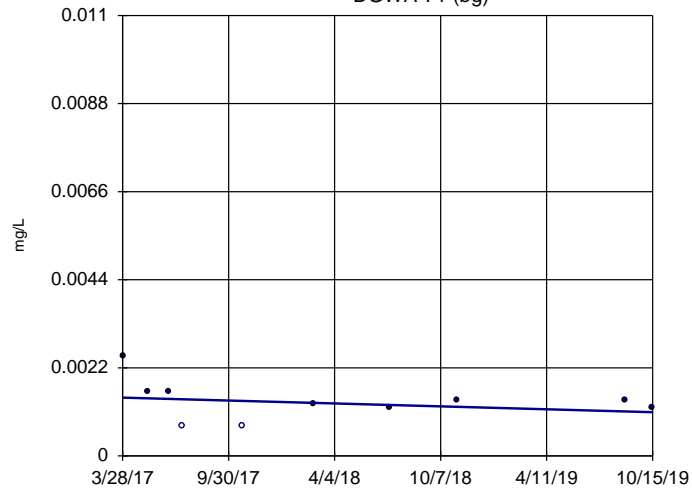


Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond



Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

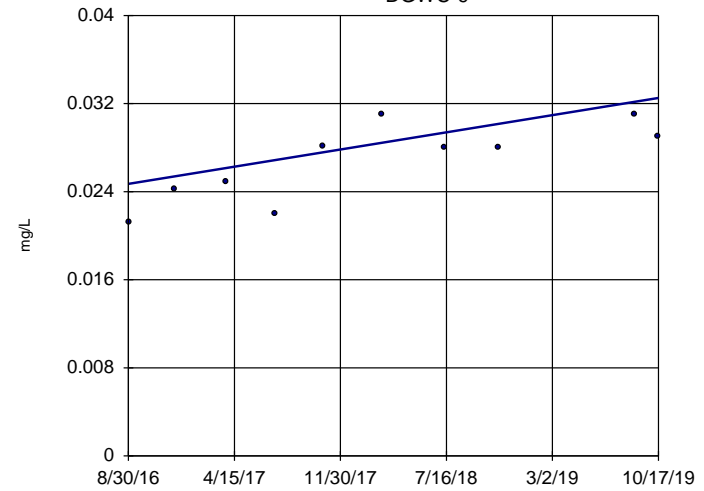
Sen's Slope Estimator
DGWA-71 (bg)



n = 10
Slope = -0.0001437
units per year.
Mann-Kendall
statistic = -13
critical = -27
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

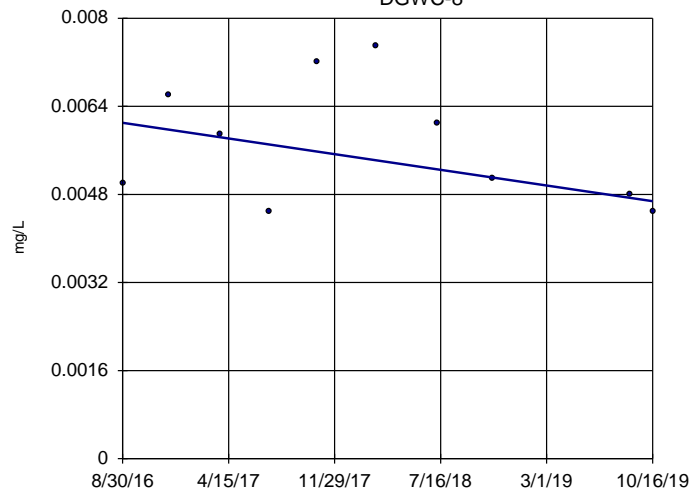
Sen's Slope Estimator
DGWC-9



n = 10
Slope = 0.002491
units per year.
Mann-Kendall
statistic = 27
critical = 27
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

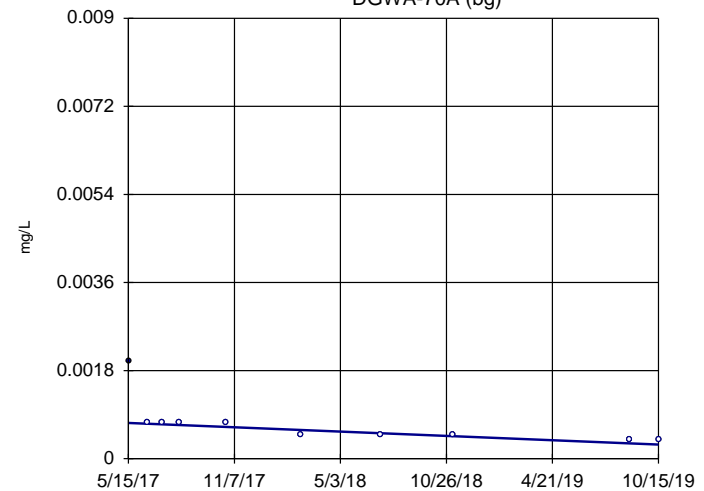
Sen's Slope Estimator
DGWC-8



n = 10
Slope = -0.0004552
units per year.
Mann-Kendall
statistic = -10
critical = -27
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Sen's Slope Estimator
DGWA-70A (bg)



n = 10
Slope = -0.0001822
units per year.
Mann-Kendall
statistic = -35
critical = -27
Decreasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Lithium Analysis Run 3/19/2020 3:45 PM View: TrendGraph_App234
McDonough Client: Golder Associates Data: McDonough Ash Pond

Trend Test

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/19/2020, 3:46 PM

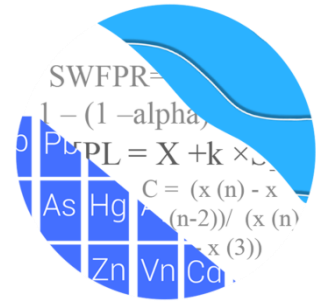
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	DGWC-10	0.000...	2	27	No	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-19	-0.00...	-18	-27	No	10	10	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-20	-0.00...	-9	-27	No	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-47	-0.00...	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-48	-0.00...	-11	-27	No	10	40	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-5	-0.00...	-17	-27	No	10	20	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-53 (bg)	0	4	27	No	10	60	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-71 (bg)	0.000...	17	31	No	11	81.82	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-9	0.002842	9	27	No	10	10	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWC-8	-0.00...	-14	-27	No	10	60	n/a	n/a	0.02	NP
Arsenic (mg/L)	DGWA-70A ...	0.000...	28	31	No	11	90.91	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-10	0.001823	24	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-19	0	-5	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-20	0	3	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-47	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-48	0	-2	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-5	0.001304	18	27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-53 (bg)	-0.00...	-11	-31	No	11	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-71 (bg)	8.7e-7	4	27	No	10	40	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-9	0.000...	37	27	Yes	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-8	-0.00...	-9	-27	No	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWA-70A ...	0.000...	19	27	No	10	60	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-10	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-19	-0.00...	-35	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-20	0.01412	1	27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-47	-0.05449	-27	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-48	-0.04961	-37	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-5	-0.01056	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.00...	-29	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-71 (bg)	-0.00...	-41	-27	Yes	10	50	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-9	0.044	43	27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-8	-0.00...	-7	-27	No	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-70A ...	-0.00...	-24	-27	No	10	50	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-10	0.001367	34	27	Yes	10	10	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-19	-0.00...	-11	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-20	0.000...	8	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-47	-0.00...	-13	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-48	-0.00...	-25	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-5	0.00128	27	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-53 (bg)	-0.00...	-1	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-71 (bg)	-0.00...	-13	-27	No	10	20	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-9	0.002491	27	27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-8	-0.00...	-10	-27	No	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-70A ...	-0.00...	-35	-27	Yes	10	90	n/a	n/a	0.02	NP

Trend Test

McDonough Client: Golder Associates Data: McDonough Ash Pond Printed 3/19/2020, 3:46 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>
Arsenic (mg/L)	DGWC-47	-0.00...	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	DGWC-9	0.000...	37	27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-19	-0.00...	-35	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-48	-0.04961	-37	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-5	-0.01056	-31	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-53 (bg)	-0.00...	-29	-27	Yes	10	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWA-71 (bg)	-0.00...	-41	-27	Yes	10	50	n/a	n/a	0.02	NP
Cobalt (mg/L)	DGWC-9	0.044	43	27	Yes	10	0	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWC-10	0.001367	34	27	Yes	10	10	n/a	n/a	0.02	NP
Lithium (mg/L)	DGWA-70A ...	-0.00...	-35	-27	Yes	10	90	n/a	n/a	0.02	NP

GROUNDWATER STATS CONSULTING



July 27, 2020

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)
March 2020 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the March 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-23, DGWC-42, DGWC-47, DGWC-48

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of 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 are provided to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods – Appendix III Parameters:

Based on the earlier evaluation described above, the following methods were selected:

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

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are 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 the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will

rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

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 handful of these values were flagged in the database as all other values are similar to remaining measurements within a given well or neighboring wells. The outliers identified for lithium are nondetects and were not flagged in the database.

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. When the reporting limit was higher than the Regional Screening Levels discussed below, nondetects were substituted with one half the reporting limit.

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 – March 2020

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2020 (Figure D). 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 and DGWC-11
- Calcium: DGWC-4, DGWC-5, DGWC-11, and DGWC-19
- Chloride: DGWC-5, DGWC-11, DGWC-15, and DGWC-20
- pH: DGWC-19
- TDS: DGWC-4, DGWC-5, and DGWC-11

Decreasing trends

- Boron: DGWC-2, DGWC-8, DGWC-9, DGWC-13, and DGWC-47
- Calcium: DGWC-2, DGWC-8, and DGWC-48
- Chloride: DGWC-4, DGWC-21, DGWC-23, DGWC-42, and DGWC-48
- Sulfate: DGWC-2, DGWC-8, DGWC-20, DGWC-47, DGWC-48, DGWA-70 (upgradient), and DGWA-71 (upgradient)
- TDS: DGWC-8, DGWC-20, DGWC-47, and DGWC-48

A summary of the trend test results follows this letter.

Statistical Analysis of Appendix IV Parameters – March 2020

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 level 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 March 2020 sample event for the federal and state rules (Figures G and H, respectively). 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 I and J, 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. 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-2, DGWC-47, and DGWC-48.

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,

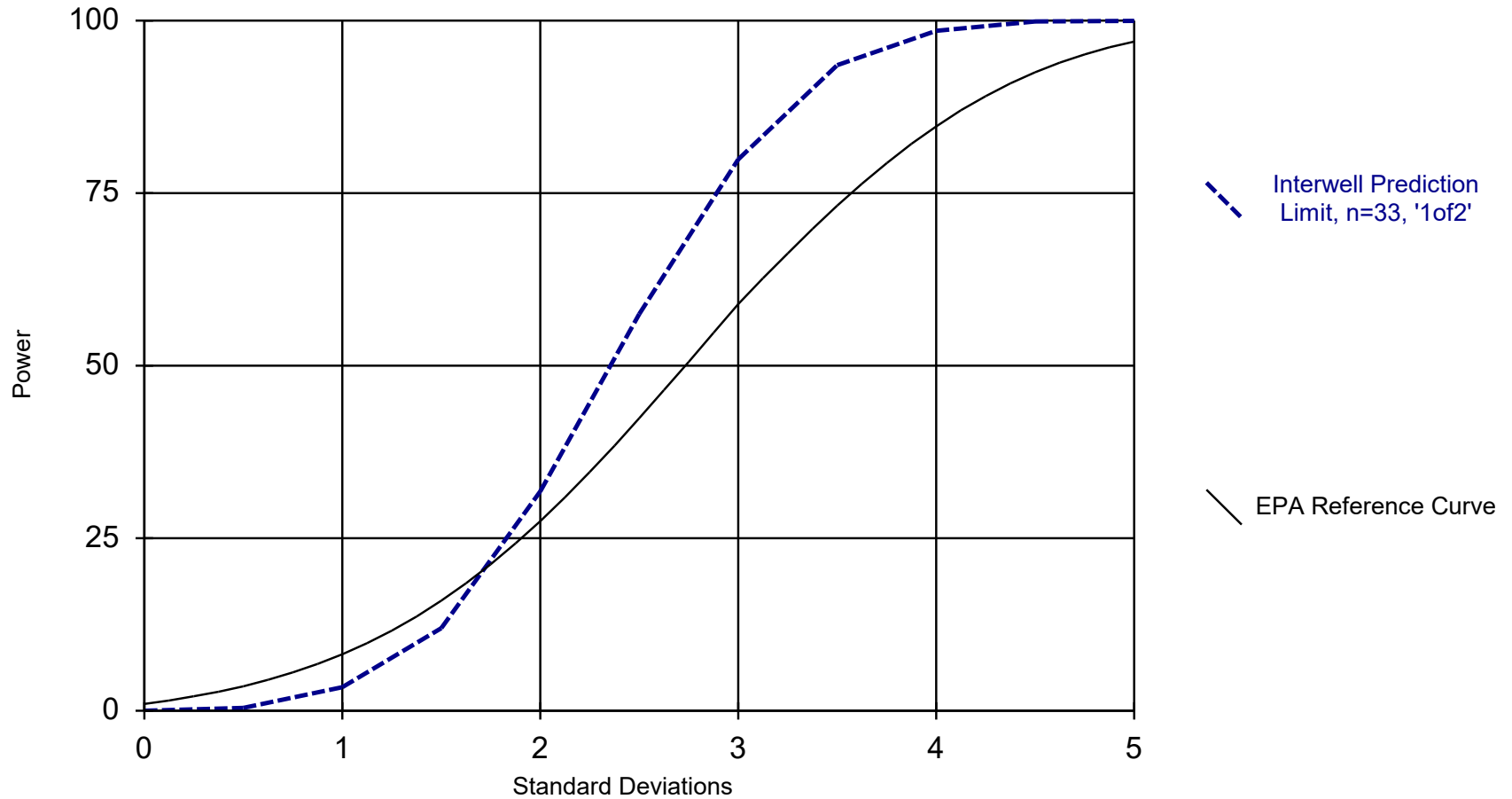


Andrew T. Collins
Groundwater Analyst



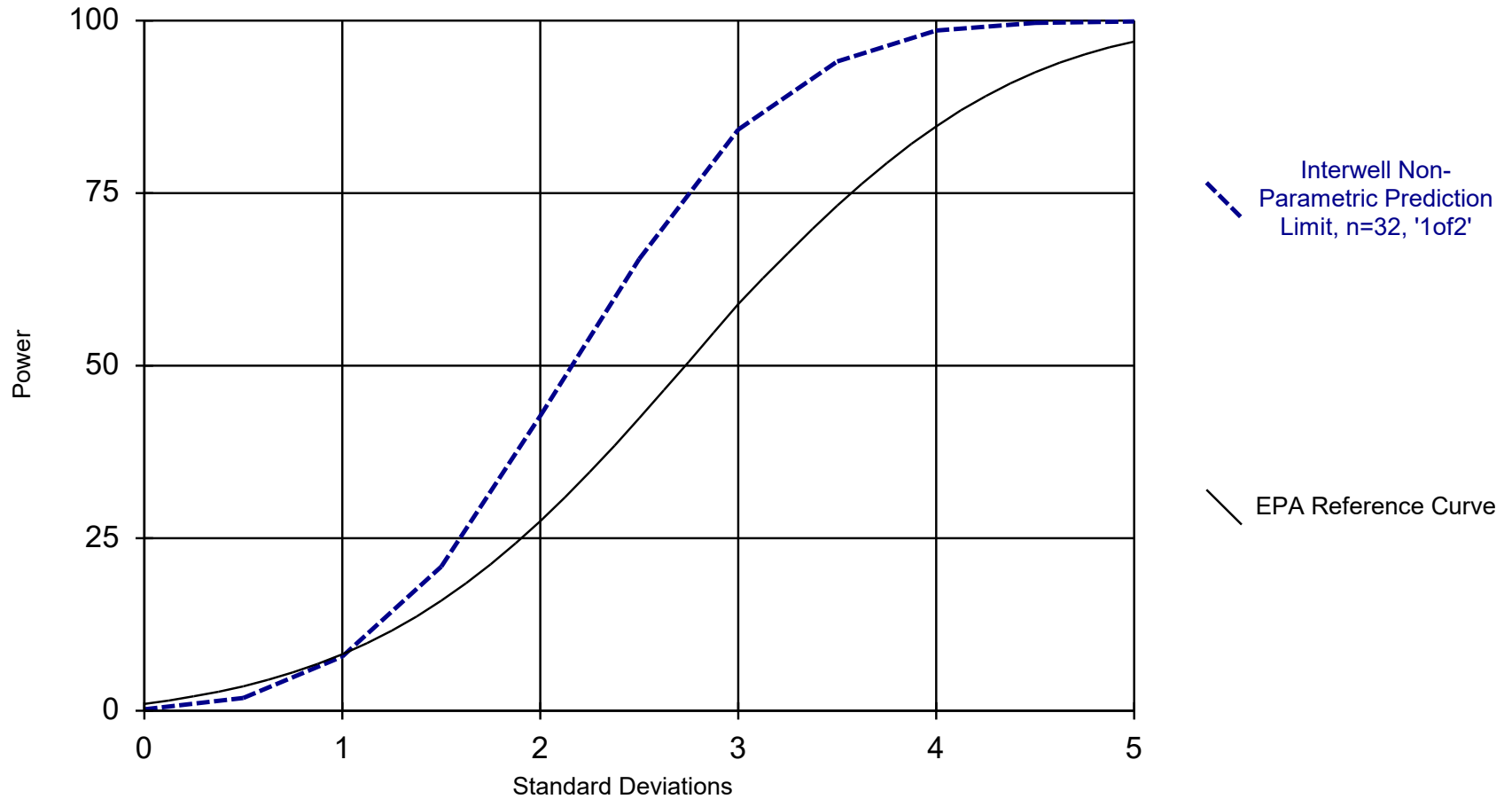
Kristina L. Rayner
Groundwater Statistician

Interwell Parametric Power Curve



Kappa = 2.283, based on 19 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Interwell Non-Parametric Power Curve



This report reflects annual total based on two evaluations per year.

Analysis Run 7/2/2020 1:56 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

100% Non-Detects

Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Antimony (mg/L)

DGWC-10, DGWC-11, DGWC-13, DGWC-14, DGWC-17, DGWC-19, DGWC-20, DGWC-42, DGWC-47, DGWC-48, DGWC-8, DGWC-9

Arsenic (mg/L)

DGWC-11, DGWC-13, DGWC-21, DGWC-23

Beryllium (mg/L)

DGWC-14, DGWC-15, DGWC-2

Cadmium (mg/L)

DGWC-14

Chromium (mg/L)

DGWC-12, DGWC-14

Cobalt (mg/L)

DGWC-14

Lead (mg/L)

DGWC-14

Mercury (mg/L)

DGWC-47

Molybdenum (mg/L)

DGWC-10, DGWC-11, DGWC-12, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9

Selenium (mg/L)

DGWC-11, DGWC-15, DGWC-21, DGWC-23, DGWC-42

Thallium (mg/L)

DGWC-11, DGWC-13, DGWC-14, DGWC-15, DGWC-2, DGWC-21, DGWC-23

Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 12:58 PM

	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)					

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	3/2/2020	1.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	3/2/2020	3.3	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	3/3/2020	0.61	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	3/3/2020	0.15	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	3/3/2020	1.7	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	3/4/2020	0.85	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	3/3/2020	3.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	3/3/2020	0.68	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	3/4/2020	3.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	3/3/2020	6.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	3/4/2020	4.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	3/2/2020	5.9	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	3/4/2020	1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	3/4/2020	0.24	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	3/4/2020	0.77	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	3/2/2020	5.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	3/3/2020	1.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40.3	n/a	3/3/2020	63.6	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40.3	n/a	3/2/2020	65.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40.3	n/a	3/2/2020	46.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40.3	n/a	3/3/2020	49.3	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40.3	n/a	3/3/2020	86.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40.3	n/a	3/3/2020	48.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40.3	n/a	3/4/2020	103	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40.3	n/a	3/3/2020	87.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40.3	n/a	3/4/2020	69.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40.3	n/a	3/2/2020	320	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40.3	n/a	3/4/2020	48.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40.3	n/a	3/4/2020	79.7	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40.3	n/a	3/2/2020	116	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40.3	n/a	3/3/2020	46	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40.3	n/a	3/3/2020	59.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.192	n/a	3/3/2020	8.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.192	n/a	3/2/2020	15	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.192	n/a	3/2/2020	8.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.192	n/a	3/3/2020	9.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.192	n/a	3/3/2020	22.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.192	n/a	3/4/2020	19.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.192	n/a	3/3/2020	30.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.192	n/a	3/4/2020	27.8	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.192	n/a	3/3/2020	19.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.192	n/a	3/4/2020	13.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.192	n/a	3/2/2020	18.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.192	n/a	3/4/2020	23.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.192	n/a	3/4/2020	4.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.192	n/a	3/4/2020	9.1	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.192	n/a	3/2/2020	10.5	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.192	n/a	3/3/2020	9.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.192	n/a	3/3/2020	6.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	1.2	n/a	3/3/2020	1.5	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	1.2	n/a	3/4/2020	1.5	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	1.2	n/a	3/3/2020	1.4	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.69	5.44	3/3/2020	4.77	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
pH (SU)	DGWC-17	6.69	5.44	3/4/2020	5.07	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-19	6.69	5.44	3/3/2020	4.89	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-20	6.69	5.44	3/4/2020	4.22	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-42	6.69	5.44	3/4/2020	5.18	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-47	6.69	5.44	3/4/2020	3.86	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-48	6.69	5.44	3/4/2020	4.27	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-5	6.69	5.44	3/2/2020	4.8	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-8	6.69	5.44	3/3/2020	5.12	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-9	6.69	5.44	3/3/2020	4.07	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-10	36.77	n/a	3/3/2020	213	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36.77	n/a	3/2/2020	264	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36.77	n/a	3/2/2020	181	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36.77	n/a	3/3/2020	157	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36.77	n/a	3/3/2020	45.5	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36.77	n/a	3/3/2020	148	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36.77	n/a	3/4/2020	222	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36.77	n/a	3/3/2020	292	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36.77	n/a	3/3/2020	118	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36.77	n/a	3/4/2020	434	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36.77	n/a	3/3/2020	269	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36.77	n/a	3/4/2020	204	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36.77	n/a	3/2/2020	840	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36.77	n/a	3/4/2020	329	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36.77	n/a	3/4/2020	176	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36.77	n/a	3/4/2020	368	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36.77	n/a	3/2/2020	455	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36.77	n/a	3/3/2020	195	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36.77	n/a	3/3/2020	247	Yes	34	2.668	1.493	5.882	None	None	sqrt(x)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-10	327.9	n/a	3/3/2020	382	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-11	327.9	n/a	3/2/2020	458	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-12	327.9	n/a	3/2/2020	338	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-17	327.9	n/a	3/4/2020	414	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-19	327.9	n/a	3/3/2020	526	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-20	327.9	n/a	3/4/2020	761	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-21	327.9	n/a	3/3/2020	490	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-23	327.9	n/a	3/4/2020	408	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-4	327.9	n/a	3/2/2020	1540	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-42	327.9	n/a	3/4/2020	721	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-47	327.9	n/a	3/4/2020	334	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-48	327.9	n/a	3/4/2020	630	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-5	327.9	n/a	3/2/2020	759	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-8	327.9	n/a	3/3/2020	369	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-9	327.9	n/a	3/3/2020	444	Yes	33	4.67	0.9751	0	None	None	x^(1/3)	0.000396 Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	3/2/2020	1.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	3/2/2020	3.3	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	3/3/2020	0.61	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	3/3/2020	0.15	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	3/3/2020	1.7	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	3/4/2020	0.85	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	3/3/2020	3.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	3/3/2020	0.68	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	3/4/2020	3.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	3/3/2020	6.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	3/4/2020	4.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	3/2/2020	5.9	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	3/4/2020	1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	3/4/2020	0.24	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	3/4/2020	0.77	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	3/2/2020	5.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	3/3/2020	1.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40.3	n/a	3/3/2020	63.6	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40.3	n/a	3/2/2020	65.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40.3	n/a	3/2/2020	46.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40.3	n/a	3/3/2020	49.3	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-14	40.3	n/a	3/3/2020	14	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-15	40.3	n/a	3/3/2020	37.8	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-17	40.3	n/a	3/4/2020	15.8	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40.3	n/a	3/3/2020	86.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40.3	n/a	3/3/2020	48.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40.3	n/a	3/4/2020	103	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40.3	n/a	3/3/2020	87.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40.3	n/a	3/4/2020	69.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40.3	n/a	3/2/2020	320	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40.3	n/a	3/4/2020	48.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-47	40.3	n/a	3/4/2020	36	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40.3	n/a	3/4/2020	79.7	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40.3	n/a	3/2/2020	116	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40.3	n/a	3/3/2020	46	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40.3	n/a	3/3/2020	59.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.192	n/a	3/3/2020	8.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.192	n/a	3/2/2020	15	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.192	n/a	3/2/2020	8.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.192	n/a	3/3/2020	9.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.192	n/a	3/3/2020	4.1	No	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.192	n/a	3/3/2020	22.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.192	n/a	3/4/2020	19.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.192	n/a	3/3/2020	30.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.192	n/a	3/3/2020	2.3	No	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.192	n/a	3/4/2020	27.8	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.192	n/a	3/3/2020	19.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.192	n/a	3/4/2020	13.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.192	n/a	3/2/2020	18.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.192	n/a	3/4/2020	23.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.192	n/a	3/4/2020	4.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.192	n/a	3/4/2020	9.1	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.192	n/a	3/2/2020	10.5	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	DGWC-8	4.192	n/a	3/3/2020	9.6	Yes	34	1.633	0.182	0	None		sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.192	n/a	3/3/2020	6.6	Yes	34	1.633	0.182	0	None		sqrt(x)	0.000396	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	1.2	n/a	3/3/2020	1.5	Yes	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-11	1.2	n/a	3/2/2020	0.064J	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-12	1.2	n/a	3/2/2020	0.071J	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-13	1.2	n/a	3/3/2020	0.078J	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-14	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-15	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-17	1.2	n/a	3/4/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-19	1.2	n/a	3/3/2020	0.056J	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-2	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	1.2	n/a	3/4/2020	1.5	Yes	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-21	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-23	1.2	n/a	3/4/2020	0.075J	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-4	1.2	n/a	3/2/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-42	1.2	n/a	3/4/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-47	1.2	n/a	3/4/2020	0.74	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-48	1.2	n/a	3/4/2020	0.7	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-5	1.2	n/a	3/2/2020	0.33	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-8	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	1.2	n/a	3/3/2020	1.4	Yes	37	n/a	n/a	45.95	n/a		n/a	0.001235	NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.69	5.44	3/3/2020	4.77	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-11	6.69	5.44	3/2/2020	5.62	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-12	6.69	5.44	3/2/2020	6.13	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-13	6.69	5.44	3/3/2020	5.71	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-14	6.69	5.44	3/3/2020	5.73	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-15	6.69	5.44	3/3/2020	5.79	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-17	6.69	5.44	3/4/2020	5.07	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-19	6.69	5.44	3/3/2020	4.89	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-2	6.69	5.44	3/3/2020	5.94	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-20	6.69	5.44	3/4/2020	4.22	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-21	6.69	5.44	3/3/2020	5.65	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-23	6.69	5.44	3/4/2020	5.68	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-4	6.69	5.44	3/2/2020	5.88	No	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-42	6.69	5.44	3/4/2020	5.18	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-47	6.69	5.44	3/4/2020	3.86	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-48	6.69	5.44	3/4/2020	4.27	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-5	6.69	5.44	3/2/2020	4.8	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-8	6.69	5.44	3/3/2020	5.12	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-9	6.69	5.44	3/3/2020	4.07	Yes	38	n/a	n/a	0	n/a		n/a	0.002356	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-10	36.77	n/a	3/3/2020	213	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36.77	n/a	3/2/2020	264	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36.77	n/a	3/2/2020	181	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36.77	n/a	3/3/2020	157	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36.77	n/a	3/3/2020	45.5	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36.77	n/a	3/3/2020	148	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36.77	n/a	3/4/2020	222	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36.77	n/a	3/3/2020	292	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36.77	n/a	3/3/2020	118	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36.77	n/a	3/4/2020	434	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36.77	n/a	3/3/2020	269	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36.77	n/a	3/4/2020	204	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36.77	n/a	3/2/2020	840	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36.77	n/a	3/4/2020	329	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36.77	n/a	3/4/2020	176	Yes	34	2.668	1.493	5.882	None		sqrt(x)	0.000396	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bq	NBq Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Sulfate (mg/L)	DGWC-48	36.77	n/a	3/4/2020	368	Yes 34	2.668	1.493	5.882	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36.77	n/a	3/2/2020	455	Yes 34	2.668	1.493	5.882	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36.77	n/a	3/3/2020	195	Yes 34	2.668	1.493	5.882	None	sqrt(x)	0.000396 Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36.77	n/a	3/3/2020	247	Yes 34	2.668	1.493	5.882	None	sqrt(x)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-10	327.9	n/a	3/3/2020	382	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-11	327.9	n/a	3/2/2020	458	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-12	327.9	n/a	3/2/2020	338	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-13	327.9	n/a	3/3/2020	263	No 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-14	327.9	n/a	3/3/2020	123	No 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-15	327.9	n/a	3/3/2020	323	No 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-17	327.9	n/a	3/4/2020	414	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-19	327.9	n/a	3/3/2020	526	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-2	327.9	n/a	3/3/2020	277	No 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-20	327.9	n/a	3/4/2020	761	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-21	327.9	n/a	3/3/2020	490	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-23	327.9	n/a	3/4/2020	408	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-4	327.9	n/a	3/2/2020	1540	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-42	327.9	n/a	3/4/2020	721	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-47	327.9	n/a	3/4/2020	334	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-48	327.9	n/a	3/4/2020	630	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-5	327.9	n/a	3/2/2020	759	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-8	327.9	n/a	3/3/2020	369	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2
TDS (mg/L)	DGWC-9	327.9	n/a	3/3/2020	444	Yes 33	4.67	0.9751	0	None	x^(1/3)	0.000396 Param Inter 1 of 2

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWC-11	0.06655	36	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.11117	-31	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3862	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5766	34	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02715	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5305	-36	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2569	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	5.679	37	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.05	43	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-22.57	-51	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	29.82	31	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.995	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-5	11.3	33	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-8	-11.22	-33	-30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.413	33	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.9639	40	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.476	53	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.468	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-1	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.147	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.826	-43	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.877	-55	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.8224	35	30	Yes	10	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.0709	43	38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3895	-35	-34	Yes	11	18.18	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.658	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-84.58	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-53.77	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-77.34	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-56.39	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-86.9	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	41.71	35	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-78.21	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	136.2	42	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-47	-85.78	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-68.09	-45	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	59.33	31	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-102	-39	-30	Yes	10	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWA-53 (bg)	0.002168	6	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-70A (bg)	0	-4	-34	No	11	45.45	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	-0.0009787	-11	-30	No	10	10	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-10	-0.6016	-18	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-11	0.06655	36	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-12	-0.8174	-28	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.1117	-31	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-14	0.001798	5	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-15	0.04323	12	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-17	0.04785	31	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-19	-0.274	-20	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3862	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-20	-0.869	-34	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-21	0.6052	25	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-23	0.2174	22	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5766	34	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-42	-0.01135	-6	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02715	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-48	-0.06307	-32	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-5	-0.4685	-14	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5305	-36	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2569	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-53 (bg)	-4.822	-29	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-70A (bg)	-0.06282	-10	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-1.211	-27	-30	No	10	10	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-10	-0.1742	-3	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	5.679	37	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-12	-9.311	-21	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-13	1.016	6	30	No	10	10	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.05	43	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-22.57	-51	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-20	-2.103	-7	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-21	3.84	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-23	0.8456	11	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	29.82	31	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-42	-0.3908	-5	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.995	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-5	11.3	33	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-8	-11.22	-33	-30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-9	2.637	11	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-53 (bg)	-0.2044	-28	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-70A (bg)	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-71 (bg)	-0.2047	-22	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-10	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.413	33	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-12	-0.7019	-26	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-13	0	-3	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.9639	40	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-17	0.7833	25	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-19	-2.124	-33	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.476	53	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.468	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-1	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.147	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.826	-43	-34	Yes	11	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	DGWC-47	-1.698	-27	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.877	-55	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.8224	35	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-8	0.196	9	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-9	1.043	30	34	No	11	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-53 (bg)	0.01591	12	43	No	13	15.38	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-70A (bg)	0.01478	17	38	No	12	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-71 (bg)	0	20	38	No	12	75	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-10	0.05261	11	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-20	0.04208	11	38	No	12	8.333	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-9	0.0416	11	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-53 (bg)	0.0155	1	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-70A (bg)	-0.05316	-23	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-71 (bg)	0.01074	6	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-10	0.1276	21	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-17	-0.006459	-13	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.0709	43	38	Yes	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-20	-0.02556	-31	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-42	-0.06213	-33	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-47	-0.3562	-32	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-48	-0.06522	-26	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-5	0.1365	34	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-8	-0.04359	-14	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-9	-0.03363	-31	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-2.447	-20	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3895	-35	-34	Yes	11	18.18	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.658	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-10	-43.53	-24	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-11	23.37	29	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-12	-39.62	-28	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-13	-0.9648	-9	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-14	-0.6078	-6	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-15	-9.882	-27	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-17	-2.292	-4	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-19	17.46	30	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-84.58	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-53.77	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-21	-4.859	-14	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-23	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-4	115	32	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-42	-5.637	-9	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-77.34	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-56.39	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-5	24.5	17	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-86.9	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-9	11.06	15	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-53 (bg)	-23.86	-32	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-70A (bg)	1.273	3	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-71 (bg)	-5.967	-20	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-10	-46.35	-24	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	41.71	35	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-12	-34.15	-23	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-17	23.84	22	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-19	36.69	29	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-78.21	-41	-34	Yes	11	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 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-21	10.25	21	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-23	-2.122	-3	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	136.2	42	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-42	7.554	10	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-47	-85.78	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-68.09	-45	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	59.33	31	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-102	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-9	34.16	19	34	No	11	0	n/a	n/a	0.01	NP

Tolerance Limit Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/23/2020, 2:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	32	n/a	n/a	78.13	n/a	n/a	0.1937	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	32	n/a	n/a	0	n/a	n/a	0.1937	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	32	n/a	n/a	81.25	n/a	n/a	0.1937	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	32	n/a	n/a	90.63	n/a	n/a	0.1937	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	31	n/a	n/a	54.84	n/a	n/a	0.2039	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	n/a	32	n/a	n/a	28.13	n/a	n/a	0.1937	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	6.04	n/a	n/a	n/a	n/a	34	1.175	0.5892	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	1.2	n/a	n/a	n/a	n/a	37	n/a	n/a	45.95	n/a	n/a	0.1499	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	32	n/a	n/a	78.13	n/a	n/a	0.1937	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	32	n/a	n/a	40.63	n/a	n/a	0.1937	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	n/a	32	n/a	n/a	62.5	n/a	n/a	0.1937	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)

PLANT MCDONOUGH ASH PONDS 2, 3, 4 GWPS TABLE - FEDERAL				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)		0.006	0.0322	0.0322
Combined Radium, Total (pCi/L)	5		6.04	6.04
Fluoride, Total (mg/L)	4		1.2	4
Lead, Total (mg/L)		0.015	0.005	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)		0.1	0.0409	0.1
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

PLANT MCDONOUGH ASH PONDS 2, 3, 4 GWPS TABLE - STATE				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)		0.006	0.0322	0.0322
Combined Radium, Total (pCi/L)	5		6.04	6.04
Fluoride, Total (mg/L)	4		1.2	4
Lead, Total (mg/L)		0.015	0.005	0.005
Lithium, Total (mg/L)		0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)		0.1	0.0409	0.0409
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

Federal Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes 11	0.02184	0.009422	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes 10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes 11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes 11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes 10	0.00742	0.002055	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes 11	0.005473	0.0007577	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes 10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes 11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes 11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes 11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes 11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes 10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes 11	0.1651	0.04537	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.04	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.04	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 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	12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.003	0.006	No	11	0.002757	0.000805	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.003	0.006	No	11	0.002782	0.0007236	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.003	0.006	No	11	0.002845	0.0005126	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.003	0.006	No	11	0.002791	0.0006935	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No	10	0.002538	0.0009754	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.003	0.006	No	10	0.002732	0.0008475	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.0075	0.00274	0.01	No	10	0.00512	0.002667	10	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No	12	0.004269	0.001707	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.005	0.01	No	11	0.004581	0.00139	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No	11	0.004204	0.001772	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No	11	0.003166	0.002116	54.55	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-19	0.002128	0.0007566	0.01	No	11	0.002514	0.001756	27.27	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No	11	0.004408	0.001359	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01827	0.006019	0.01	No	11	0.01215	0.007352	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No	10	0.00368	0.002127	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No	11	0.004255	0.001661	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003499	0.001408	0.01	No	11	0.002454	0.001255	9.091	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No	11	0.002554	0.001968	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	DGWC-5	0.01441	0.003221	0.01	No	10	0.01056	0.01116	20	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No	10	0.003166	0.001954	50	None	No	0.011	NP (normality)
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes	11	0.02184	0.009422	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-10	0.03177	0.02417	2	No	10	0.02797	0.00426	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06959	0.05669	2	No	10	0.06314	0.007232	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.028	0.02	2	No	12	0.02607	0.005059	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-13	0.03414	0.02591	2	No	10	0.02881	0.008761	10	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06323	0.0567	2	No	11	0.05996	0.00392	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05008	0.04551	2	No	11	0.04779	0.002742	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06031	0.04682	2	No	11	0.05356	0.008098	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02488	0.02055	2	No	11	0.02272	0.002597	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02272	0.02092	2	No	11	0.02182	0.001079	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01444	0.007979	2	No	11	0.01121	0.003876	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No	11	0.02649	0.001052	0	None	No	0.006	NP (normality)
Barium (mg/L)	DGWC-23	0.0243	0.01743	2	No	11	0.02091	0.0044	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.03624	0.03214	2	No	10	0.03416	0.002434	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-42	0.0199	0.01709	2	No	11	0.01849	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.0202	0.0156	2	No	11	0.0179	0.002766	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01477	0.01289	2	No	11	0.01383	0.001128	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01894	0.0167	2	No	9	0.01782	0.001163	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04154	0.02766	2	No	10	0.0346	0.007783	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01637	0.01472	2	No	11	0.01555	0.0009923	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes	10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.003	0.00014	0.004	No	10	0.002142	0.001382	70	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-12	0.003	0.00016	0.004	No	12	0.0006837	0.001086	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.003	0.004	No	10	0.002707	0.0009265	90	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.003	0.0005	0.004	No	11	0.001025	0.000979	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No	11	0.002091	0.00047	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-20	0.005	0.0026	0.004	No	11	0.003682	0.001897	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No	11	0.0006709	0.001152	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-23	0.003	0.00038	0.004	No	11	0.0009009	0.001044	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No	10	0.000751	0.001186	20	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002896	0.002358	0.004	No	11	0.002627	0.0003228	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes	11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes	11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes	10	0.00742	0.002055	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-8	0.003747	0.001893	0.004	No	10	0.00282	0.001039	10	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes	11	0.005473	0.0007577	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-10	0.00132	0.0009536	0.005	No	10	0.001137	0.0002055	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.0025	0.005	No	10	0.002262	0.0007526	90	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0025	0.0003	0.005	No	12	0.0007583	0.0008361	25	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No	10	0.002028	0.0009955	80	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00009	0.005	No	11	0.001709	0.001125	72.73	None	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWC-17	0.0025	0.0002	0.005	No	11	0.0006809	0.0009003	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00034	0.005	No	11	0.00063	0.0006479	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-2	0.0003034	0.0001292	0.005	No	11	0.0005336	0.0006986	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-20	0.002273	0.001818	0.005	No	11	0.002045	0.0002734	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No	11	0.00084	0.0005713	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No	11	0.0005145	0.0006979	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0006	0.005	No	10	0.000887	0.0005858	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-42	0.001264	0.0004132	0.005	No	11	0.00105	0.0007672	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002481	0.001228	0.005	No	11	0.001855	0.0007515	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005143	0.002317	0.005	No	11	0.003773	0.001917	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007357	0.0002751	0.005	No	10	0.00076	0.0006753	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002703	0.002057	0.005	No	10	0.00238	0.0003615	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No	11	0.0007827	0.0005909	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No	10	0.004463	0.004766	40	None	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No	10	0.00812	0.003963	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.0009	0.1	No	10	0.008156	0.003888	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No	11	0.007413	0.004431	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-17	0.01	0.0024	0.1	No	11	0.004	0.002988	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No	11	0.004591	0.003484	27.27	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No	11	0.006533	0.004811	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No	11	0.005564	0.004273	45.45	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No	11	0.006545	0.004794	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No	11	0.004065	0.00471	36.36	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.01	0.1	No	10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No	11	0.005739	0.004898	54.55	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-47	0.01	0.01	0.1	No	11	0.009155	0.002804	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No	11	0.008282	0.003823	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.01	0.1	No	10	0.009045	0.00302	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No	10	0.007231	0.004464	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No	11	0.007063	0.004304	63.64	None	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes	10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.005	0.0006	0.0322	No	10	0.003274	0.002229	60	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-12	0.01	0.002	0.0322	No	12	0.006208	0.007635	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.005	0.0005	0.0322	No	10	0.00409	0.001919	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.005	0.0018	0.0322	No	11	0.004564	0.006868	9.091	None	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02856	0.01924	0.0322	No	11	0.0239	0.00559	9.091	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes	11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03065	0.01321	0.0322	No	11	0.02193	0.01046	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes	11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009515	0.007575	0.0322	No	11	0.008973	0.001517	18.18	Kaplan-Meier	x^5	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.0322	No	11	0.00419	0.002869	72.73	Kaplan-Meier	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-4	0.005	0.0015	0.0322	No	10	0.00287	0.002716	20	None	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-42	0.05354	0.02054	0.0322	No	11	0.03704	0.0198	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes	11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes	11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04156	0.01988	0.0322	No	10	0.03072	0.01215	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes	10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes	11	0.1651	0.04537	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.56	0.9967	6.04	No	11	1.278	0.3378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.423	0.6052	6.04	No	11	1.014	0.4904	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.244	0.2554	6.04	No	11	0.7783	0.7164	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.568	0.9755	6.04	No	11	1.272	0.3553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.141	0.6018	6.04	No	11	0.8713	0.3234	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.423	0.4453	6.04	No	11	0.934	0.5864	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.184	0.5405	6.04	No	11	0.8624	0.3863	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.167	0.4521	6.04	No	11	0.8094	0.4287	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.342	0.7359	6.04	No	11	1.039	0.3637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.514	0.725	6.04	No	11	1.12	0.4735	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.295	0.6846	6.04	No	11	0.9898	0.3663	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.472	0.5579	6.04	No	11	1.015	0.5483	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.798	1.098	6.04	No	11	1.448	0.4198	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.203	0.6	6.04	No	11	0.9016	0.362	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.185	1.671	6.04	No	11	2.428	0.9081	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.726	1.561	6.04	No	11	2.144	0.6988	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.093	0.9654	6.04	No	11	1.529	0.6765	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8565	0.3644	6.04	No	11	0.6105	0.2953	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.555	0.8815	6.04	No	11	1.218	0.404	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.899	1.318	4	No	12	1.608	0.3704	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.3	0.04	4	No	11	0.1642	0.1304	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.287	0.04078	4	No	12	0.2297	0.1618	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-13	0.2689	0.1031	4	No	11	0.189	0.1114	9.091	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.3	0.042	4	No	12	0.1978	0.1275	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-15	0.3	0.07	4	No	12	0.2072	0.1092	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3585	0.1249	4	No	12	0.2658	0.1476	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.656	0.1909	4	No	12	0.4405	0.3344	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.042	4	No	12	0.2112	0.185	25	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9776	0.3724	4	No	12	0.675	0.3856	8.333	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.34	0.043	4	No	12	0.2093	0.1221	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.3232	0.1017	4	No	12	0.2201	0.1665	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.79	0.02	4	No	12	0.2652	0.2015	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-42	0.3	0.06	4	No	12	0.2567	0.1016	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.327	0.6799	4	No	12	1.003	0.4122	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.372	0.708	4	No	12	1.04	0.4232	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.3	0.31	4	No	11	0.7218	0.4389	9.091	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-8	0.5583	0.2086	4	No	11	0.3835	0.2099	9.091	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.346	0.9255	4	No	12	1.136	0.268	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00014	0.015	No	10	0.003549	0.002337	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.005	0.00012	0.015	No	10	0.003535	0.00236	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.005	0.0001	0.015	No	12	0.004592	0.001415	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.005	0.015	No	10	0.00452	0.001518	90	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.0001	0.015	No	11	0.003224	0.002465	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-17	0.005	0.00009	0.015	No	11	0.003218	0.002473	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-19	0.005	0.00026	0.015	No	11	0.004121	0.001956	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-2	0.005	0.000086	0.015	No	11	0.002767	0.002566	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-20	0.005	0.00015	0.015	No	11	0.003721	0.002196	72.73	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.015	No	11	0.002375	0.002515	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.005	0.015	No	11	0.004551	0.001488	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.015	No	10	0.003535	0.002359	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.005	0.0002	0.015	No	11	0.001149	0.001908	18.18	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-47	0.005	0.0006	0.015	No	11	0.001962	0.001959	27.27	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-48	0.002249	0.001021	0.015	No	11	0.002268	0.001551	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-5	0.005	0.000051	0.015	No	10	0.002319	0.002409	40	None	No	0.011	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.015	No	10	0.00307	0.002492	60	None	No	0.011	NP (NDs)

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-9	0.005	0.005	0.015	No 11	0.004561	0.001456	90.91	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-10	0.03	0.002	0.04	No 10	0.00873	0.01129	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-11	0.0027	0.0021	0.04	No 10	0.00503	0.008776	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-12	0.03	0.00097	0.04	No 12	0.02034	0.01427	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-13	0.03	0.0028	0.04	No 10	0.00847	0.01135	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.04	No 11	0.006373	0.007956	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-15	0.006402	0.005958	0.04	No 10	0.00618	0.0002486	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.03	0.00096	0.04	No 11	0.02209	0.01355	72.73	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-19	0.0034	0.0031	0.04	No 11	0.005627	0.008087	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.04	No 11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-20	0.019	0.0019	0.04	No 11	0.007564	0.009084	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.04	No 11	0.008182	0.007245	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-23	0.01827	0.002972	0.04	No 11	0.01436	0.02198	9.091	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.04	No 10	0.00553	0.008607	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-42	0.0122	0.01	0.04	No 11	0.01289	0.00577	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.04	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.04	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.01093	0.003076	0.04	No 10	0.00771	0.008077	10	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.04	No 10	0.00812	0.007765	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-9	0.02991	0.02416	0.04	No 11	0.02704	0.003451	9.091	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0002	0.00008	0.002	No 10	0.000164	0.00005816	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-11	0.0002	0.00006	0.002	No 10	0.000159	0.00006641	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-12	0.0002	0.00006	0.002	No 12	0.0001388	0.00006829	50	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0002	0.00009	0.002	No 10	0.000176	0.00005082	80	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0002	0.00006	0.002	No 11	0.0001627	0.0000642	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0002	0.00005	0.002	No 11	0.0001491	0.0000664	54.55	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-19	0.0002	0.00005	0.002	No 11	0.0001618	0.00006646	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-2	0.0002	0.00008	0.002	No 11	0.0002066	0.0001543	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-20	0.0002	0.00008	0.002	No 11	0.0001782	0.00004854	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0002	0.00006	0.002	No 11	0.00015	0.00006971	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0001976	0.0001282	0.002	No 11	0.0001818	0.00004119	36.36	Kaplan-Meier	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.0002	0.000082	0.002	No 10	0.0002152	0.0001407	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-42	0.0002	0.0002	0.002	No 11	0.0001855	0.00004824	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002398	0.00009728	0.002	No 10	0.000193	0.0001323	20	Kaplan-Meier	ln(x)	0.01	Param.
Mercury (mg/L)	DGWC-8	0.0002	0.00006	0.002	No 10	0.0001412	0.0000654	50	None	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00021	0.00005	0.002	No 11	0.0001929	0.00009768	63.64	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03102	0.01468	0.1	No 10	0.02285	0.009162	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.01	0.0009	0.1	No 11	0.006164	0.004425	54.55	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-23	0.01158	0.006695	0.1	No 11	0.009136	0.00293	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.008044	0.005016	0.1	No 10	0.00653	0.001697	10	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05397	0.01489	0.05	No 10	0.03443	0.0219	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No 12	0.005917	0.004271	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.004026	0.001244	0.05	No 10	0.00492	0.003808	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No 11	0.006973	0.004202	63.64	Kaplan-Meier	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.007	0.05	No 11	0.008327	0.001271	18.18	None	No	0.006	NP (normality)
Selenium (mg/L)	DGWC-19	0.00882	0.005026	0.05	No 11	0.007564	0.00253	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0047	0.05	No 11	0.008291	0.002446	63.64	None	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-20	0.06747	0.03002	0.05	No 11	0.04875	0.02247	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-4	0.01	0.01	0.05	No 10	0.00914	0.00272	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.0156	0.006688	0.05	No 11	0.01115	0.005349	9.091	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.008794	0.004308	0.05	No 11	0.007555	0.002904	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06842	0.007083	0.05	No 10	0.03878	0.04839	10	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.005058	0.001985	0.05	No 10	0.00614	0.003641	40	Kaplan-Meier	sqrt(x)	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	DGWC-9	0.124	0.04046	0.05	No 11	0.08224	0.05013	0	None	No	0.01	Param.
Thallium (mg/L)	DGWC-10	0.001	0.00039	0.002	No 10	0.000547	0.0002486	20	None	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No 12	0.0004723	0.000466	41.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No 11	0.0004027	0.0003841	27.27	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.0004	0.002	No 11	0.0005409	0.0001623	9.091	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-20	0.001	0.0006	0.002	No 11	0.0009145	0.000501	36.36	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.001	0.002	No 10	0.0009073	0.0002931	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No 11	0.0006672	0.0004618	63.64	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-47	0.001	0.0002	0.002	No 11	0.0003855	0.0003071	18.18	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No 11	0.0005824	0.0004799	54.55	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No 10	0.000734	0.0004298	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-8	0.0003036	0.0001596	0.002	No 10	0.000463	0.0003755	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	DGWC-9	0.0006509	0.0004341	0.002	No 11	0.0007009	0.0002219	27.27	Kaplan-Meier	No	0.01	Param.

State Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes 11	0.02184	0.009422	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes 10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes 11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes 11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes 10	0.00742	0.002055	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes 11	0.005473	0.0007577	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes 10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes 11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes 11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes 11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes 11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes 10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes 11	0.1651	0.04537	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.03	Yes 11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.03	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.03	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 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	12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.003	0.006	No	11	0.002757	0.000805	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.003	0.006	No	11	0.002782	0.0007236	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.003	0.006	No	11	0.002845	0.0005126	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.003	0.006	No	11	0.002791	0.0006935	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No	10	0.002538	0.0009754	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.003	0.006	No	10	0.002732	0.0008475	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.0075	0.00274	0.01	No	10	0.00512	0.002667	10	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No	12	0.004269	0.001707	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.005	0.01	No	11	0.004581	0.00139	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No	11	0.004204	0.001772	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No	11	0.003166	0.002116	54.55	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-19	0.002128	0.0007566	0.01	No	11	0.002514	0.001756	27.27	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No	11	0.004408	0.001359	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01827	0.006019	0.01	No	11	0.01215	0.007352	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No	10	0.00368	0.002127	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No	11	0.004255	0.001661	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003499	0.001408	0.01	No	11	0.002454	0.001255	9.091	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No	11	0.002554	0.001968	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	DGWC-5	0.01441	0.003221	0.01	No	10	0.01056	0.01116	20	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No	10	0.003166	0.001954	50	None	No	0.011	NP (normality)
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes	11	0.02184	0.009422	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-10	0.03177	0.02417	2	No	10	0.02797	0.00426	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06959	0.05669	2	No	10	0.06314	0.007232	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.028	0.02	2	No	12	0.02607	0.005059	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-13	0.03414	0.02591	2	No	10	0.02881	0.008761	10	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06323	0.0567	2	No	11	0.05996	0.00392	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05008	0.04551	2	No	11	0.04779	0.002742	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06031	0.04682	2	No	11	0.05356	0.008098	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02488	0.02055	2	No	11	0.02272	0.002597	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02272	0.02092	2	No	11	0.02182	0.001079	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01444	0.007979	2	No	11	0.01121	0.003876	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No	11	0.02649	0.001052	0	None	No	0.006	NP (normality)
Barium (mg/L)	DGWC-23	0.0243	0.01743	2	No	11	0.02091	0.0044	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.03624	0.03214	2	No	10	0.03416	0.002434	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-42	0.0199	0.01709	2	No	11	0.01849	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.0202	0.0156	2	No	11	0.0179	0.002766	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01477	0.01289	2	No	11	0.01383	0.001128	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01894	0.0167	2	No	9	0.01782	0.001163	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04154	0.02766	2	No	10	0.0346	0.007783	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01637	0.01472	2	No	11	0.01555	0.0009923	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes	10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.003	0.00014	0.004	No	10	0.002142	0.001382	70	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-12	0.003	0.00016	0.004	No	12	0.0006837	0.001086	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.003	0.004	No	10	0.002707	0.0009265	90	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.003	0.0005	0.004	No	11	0.001025	0.000979	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No	11	0.002091	0.00047	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-20	0.005	0.0026	0.004	No	11	0.003682	0.001897	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No	11	0.0006709	0.001152	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-23	0.003	0.00038	0.004	No	11	0.0009009	0.001044	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No	10	0.000751	0.001186	20	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002896	0.002358	0.004	No	11	0.002627	0.0003228	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes	11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes	11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes	10	0.00742	0.002055	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-8	0.003747	0.001893	0.004	No	10	0.00282	0.001039	10	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes	11	0.005473	0.0007577	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-10	0.00132	0.0009536	0.005	No	10	0.001137	0.0002055	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.0025	0.005	No	10	0.002262	0.0007526	90	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0025	0.0003	0.005	No	12	0.0007583	0.0008361	25	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No	10	0.002028	0.0009955	80	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00009	0.005	No	11	0.001709	0.001125	72.73	None	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWC-17	0.0025	0.0002	0.005	No	11	0.0006809	0.0009003	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00034	0.005	No	11	0.00063	0.0006479	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-2	0.0003034	0.0001292	0.005	No	11	0.0005336	0.0006986	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-20	0.002273	0.001818	0.005	No	11	0.002045	0.0002734	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No	11	0.00084	0.0005713	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No	11	0.0005145	0.0006979	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0006	0.005	No	10	0.000887	0.0005858	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-42	0.001264	0.0004132	0.005	No	11	0.00105	0.0007672	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002481	0.001228	0.005	No	11	0.001855	0.0007515	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005143	0.002317	0.005	No	11	0.003773	0.001917	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007357	0.0002751	0.005	No	10	0.00076	0.0006753	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002703	0.002057	0.005	No	10	0.00238	0.0003615	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No	11	0.0007827	0.0005909	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No	10	0.004463	0.004766	40	None	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No	10	0.00812	0.003963	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.0009	0.1	No	10	0.008156	0.003888	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No	11	0.007413	0.004431	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-17	0.01	0.0024	0.1	No	11	0.004	0.002988	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No	11	0.004591	0.003484	27.27	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No	11	0.006533	0.004811	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No	11	0.005564	0.004273	45.45	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No	11	0.006545	0.004794	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No	11	0.004065	0.00471	36.36	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.01	0.1	No	10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No	11	0.005739	0.004898	54.55	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-47	0.01	0.01	0.1	No	11	0.009155	0.002804	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No	11	0.008282	0.003823	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.01	0.1	No	10	0.009045	0.00302	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No	10	0.007231	0.004464	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No	11	0.007063	0.004304	63.64	None	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes	10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.005	0.0006	0.0322	No	10	0.003274	0.002229	60	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-12	0.01	0.002	0.0322	No	12	0.006208	0.007635	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.005	0.0005	0.0322	No	10	0.00409	0.001919	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.005	0.0018	0.0322	No	11	0.004564	0.006868	9.091	None	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02856	0.01924	0.0322	No	11	0.0239	0.00559	9.091	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes	11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03065	0.01321	0.0322	No	11	0.02193	0.01046	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes	11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009515	0.007575	0.0322	No	11	0.008973	0.001517	18.18	Kaplan-Meier	x^5	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.0322	No	11	0.00419	0.002869	72.73	Kaplan-Meier	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-4	0.005	0.0015	0.0322	No	10	0.00287	0.002716	20	None	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-42	0.05354	0.02054	0.0322	No	11	0.03704	0.0198	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes	11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes	11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04156	0.01988	0.0322	No	10	0.03072	0.01215	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes	10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes	11	0.1651	0.04537	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.56	0.9967	6.04	No	11	1.278	0.3378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.423	0.6052	6.04	No	11	1.014	0.4904	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.244	0.2554	6.04	No	11	0.7783	0.7164	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.568	0.9755	6.04	No	11	1.272	0.3553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.141	0.6018	6.04	No	11	0.8713	0.3234	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.423	0.4453	6.04	No	11	0.934	0.5864	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.184	0.5405	6.04	No	11	0.8624	0.3863	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.167	0.4521	6.04	No	11	0.8094	0.4287	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.342	0.7359	6.04	No	11	1.039	0.3637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.514	0.725	6.04	No	11	1.12	0.4735	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.295	0.6846	6.04	No	11	0.9898	0.3663	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.472	0.5579	6.04	No	11	1.015	0.5483	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.798	1.098	6.04	No	11	1.448	0.4198	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.203	0.6	6.04	No	11	0.9016	0.362	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.185	1.671	6.04	No	11	2.428	0.9081	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.726	1.561	6.04	No	11	2.144	0.6988	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.093	0.9654	6.04	No	11	1.529	0.6765	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8565	0.3644	6.04	No	11	0.6105	0.2953	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.555	0.8815	6.04	No	11	1.218	0.404	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.899	1.318	4	No	12	1.608	0.3704	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.3	0.04	4	No	11	0.1642	0.1304	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.287	0.04078	4	No	12	0.2297	0.1618	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-13	0.2689	0.1031	4	No	11	0.189	0.1114	9.091	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.3	0.042	4	No	12	0.1978	0.1275	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-15	0.3	0.07	4	No	12	0.2072	0.1092	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3585	0.1249	4	No	12	0.2658	0.1476	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.656	0.1909	4	No	12	0.4405	0.3344	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.042	4	No	12	0.2112	0.185	25	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9776	0.3724	4	No	12	0.675	0.3856	8.333	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.34	0.043	4	No	12	0.2093	0.1221	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.3232	0.1017	4	No	12	0.2201	0.1665	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.79	0.02	4	No	12	0.2652	0.2015	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-42	0.3	0.06	4	No	12	0.2567	0.1016	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.327	0.6799	4	No	12	1.003	0.4122	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.372	0.708	4	No	12	1.04	0.4232	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.3	0.31	4	No	11	0.7218	0.4389	9.091	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-8	0.5583	0.2086	4	No	11	0.3835	0.2099	9.091	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.346	0.9255	4	No	12	1.136	0.268	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00014	0.005	No	10	0.003549	0.002337	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.005	0.00012	0.005	No	10	0.003535	0.00236	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.005	0.0001	0.005	No	12	0.004592	0.001415	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.005	0.005	No	10	0.00452	0.001518	90	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.0001	0.005	No	11	0.003224	0.002465	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-17	0.005	0.00009	0.005	No	11	0.003218	0.002473	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-19	0.005	0.00026	0.005	No	11	0.004121	0.001956	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-2	0.005	0.000086	0.005	No	11	0.002767	0.002566	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-20	0.005	0.00015	0.005	No	11	0.003721	0.002196	72.73	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.005	No	11	0.002375	0.002515	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.005	0.005	No	11	0.004551	0.001488	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.005	No	10	0.003535	0.002359	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.005	0.0002	0.005	No	11	0.001149	0.001908	18.18	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-47	0.005	0.0006	0.005	No	11	0.001962	0.001959	27.27	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-48	0.002249	0.001021	0.005	No	11	0.002268	0.001551	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-5	0.005	0.000051	0.005	No	10	0.002319	0.002409	40	None	No	0.011	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.005	No	10	0.00307	0.002492	60	None	No	0.011	NP (NDs)

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-9	0.005	0.005	0.005	No 11	0.004561	0.001456	90.91	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-10	0.03	0.002	0.03	No 10	0.00873	0.01129	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-11	0.0027	0.0021	0.03	No 10	0.00503	0.008776	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-12	0.03	0.00097	0.03	No 12	0.02034	0.01427	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-13	0.03	0.0028	0.03	No 10	0.00847	0.01135	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.03	No 11	0.006373	0.007956	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-15	0.006402	0.005958	0.03	No 10	0.00618	0.0002486	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.03	0.00096	0.03	No 11	0.02209	0.01355	72.73	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-19	0.0034	0.0031	0.03	No 11	0.005627	0.008087	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.03	Yes 11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-20	0.019	0.0019	0.03	No 11	0.007564	0.009084	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.03	No 11	0.008182	0.007245	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-23	0.01827	0.002972	0.03	No 11	0.01436	0.02198	9.091	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.03	No 10	0.00553	0.008607	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-42	0.0122	0.01	0.03	No 11	0.01289	0.00577	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.03	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.03	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.01093	0.003076	0.03	No 10	0.00771	0.008077	10	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.03	No 10	0.00812	0.007765	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-9	0.02991	0.02416	0.03	No 11	0.02704	0.003451	9.091	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0002	0.00008	0.002	No 10	0.000164	0.00005816	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-11	0.0002	0.00006	0.002	No 10	0.000159	0.00006641	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-12	0.0002	0.00006	0.002	No 12	0.0001388	0.00006829	50	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0002	0.00009	0.002	No 10	0.000176	0.00005082	80	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0002	0.00006	0.002	No 11	0.0001627	0.0000642	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0002	0.00005	0.002	No 11	0.0001491	0.0000664	54.55	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-19	0.0002	0.00005	0.002	No 11	0.0001618	0.00006646	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-2	0.0002	0.00008	0.002	No 11	0.0002066	0.0001543	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-20	0.0002	0.00008	0.002	No 11	0.0001782	0.00004854	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0002	0.00006	0.002	No 11	0.00015	0.00006971	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0001976	0.0001282	0.002	No 11	0.0001818	0.00004119	36.36	Kaplan-Meier	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.0002	0.000082	0.002	No 10	0.0002152	0.0001407	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-42	0.0002	0.0002	0.002	No 11	0.0001855	0.00004824	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002398	0.00009728	0.002	No 10	0.000193	0.0001323	20	Kaplan-Meier	ln(x)	0.01	Param.
Mercury (mg/L)	DGWC-8	0.0002	0.00006	0.002	No 10	0.0001412	0.0000654	50	None	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00021	0.00005	0.002	No 11	0.0001929	0.00009768	63.64	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03102	0.01468	0.0409	No 10	0.02285	0.009162	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.01	0.0009	0.0409	No 11	0.006164	0.004425	54.55	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-23	0.01158	0.006695	0.0409	No 11	0.009136	0.00293	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.008044	0.005016	0.0409	No 10	0.00653	0.001697	10	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05397	0.01489	0.05	No 10	0.03443	0.0219	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No 12	0.005917	0.004271	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.004026	0.001244	0.05	No 10	0.00492	0.003808	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No 11	0.006973	0.004202	63.64	Kaplan-Meier	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.007	0.05	No 11	0.008327	0.001271	18.18	None	No	0.006	NP (normality)
Selenium (mg/L)	DGWC-19	0.00882	0.005026	0.05	No 11	0.007564	0.00253	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0047	0.05	No 11	0.008291	0.002446	63.64	None	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-20	0.06747	0.03002	0.05	No 11	0.04875	0.02247	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-4	0.01	0.01	0.05	No 10	0.00914	0.00272	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.0156	0.006688	0.05	No 11	0.01115	0.005349	9.091	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.008794	0.004308	0.05	No 11	0.007555	0.002904	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06842	0.007083	0.05	No 10	0.03878	0.04839	10	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.005058	0.001985	0.05	No 10	0.00614	0.003641	40	Kaplan-Meier	sqrt(x)	0.01	Param.

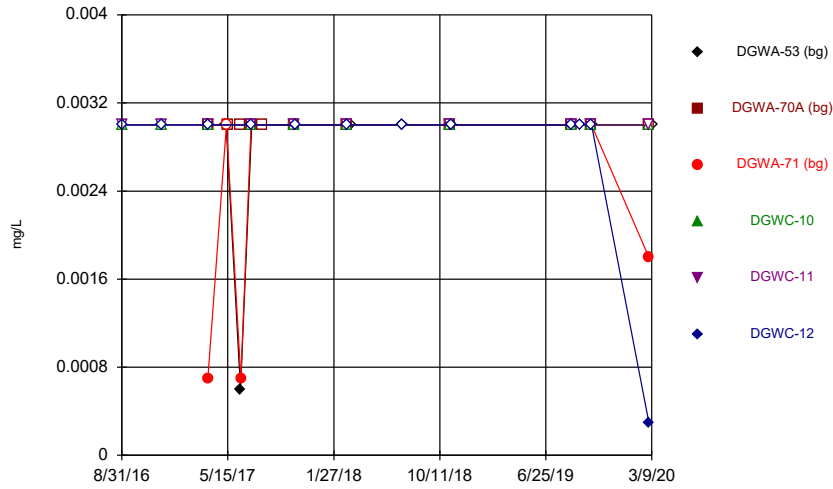
State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	DGWC-9	0.124	0.04046	0.05	No 11	0.08224	0.05013	0	None	No	0.01	Param.
Thallium (mg/L)	DGWC-10	0.001	0.00039	0.002	No 10	0.000547	0.0002486	20	None	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No 12	0.0004723	0.000466	41.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No 11	0.0004027	0.0003841	27.27	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.0004	0.002	No 11	0.0005409	0.0001623	9.091	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-20	0.001	0.0006	0.002	No 11	0.0009145	0.000501	36.36	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.001	0.002	No 10	0.0009073	0.0002931	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No 11	0.0006672	0.0004618	63.64	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-47	0.001	0.0002	0.002	No 11	0.0003855	0.0003071	18.18	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No 11	0.0005824	0.0004799	54.55	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No 10	0.000734	0.0004298	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-8	0.0003036	0.0001596	0.002	No 10	0.000463	0.0003755	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	DGWC-9	0.0006509	0.0004341	0.002	No 11	0.0007009	0.0002219	27.27	Kaplan-Meier	No	0.01	Param.

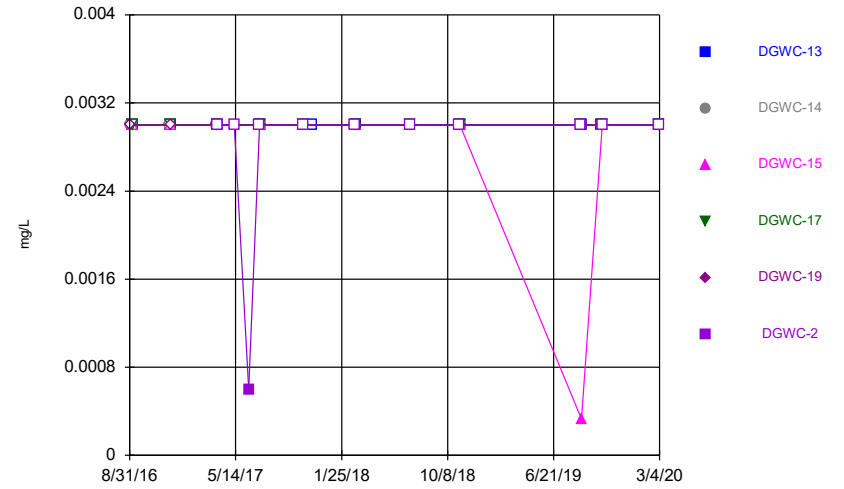
FIGURE A.

Time Series



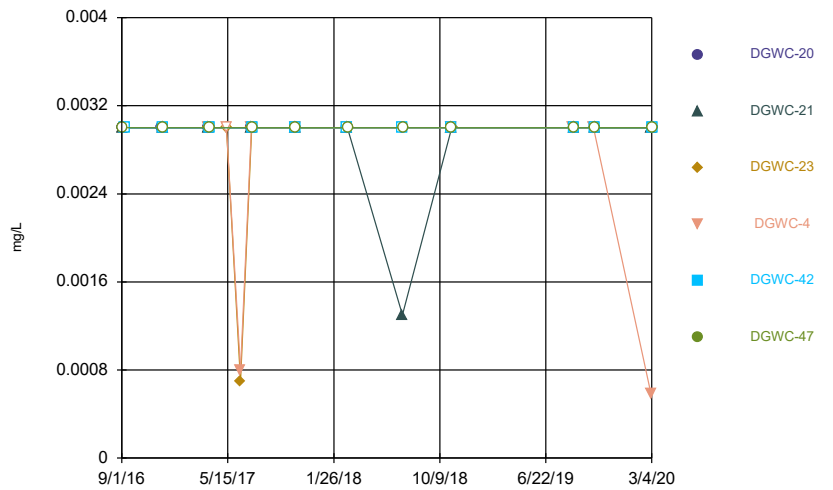
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



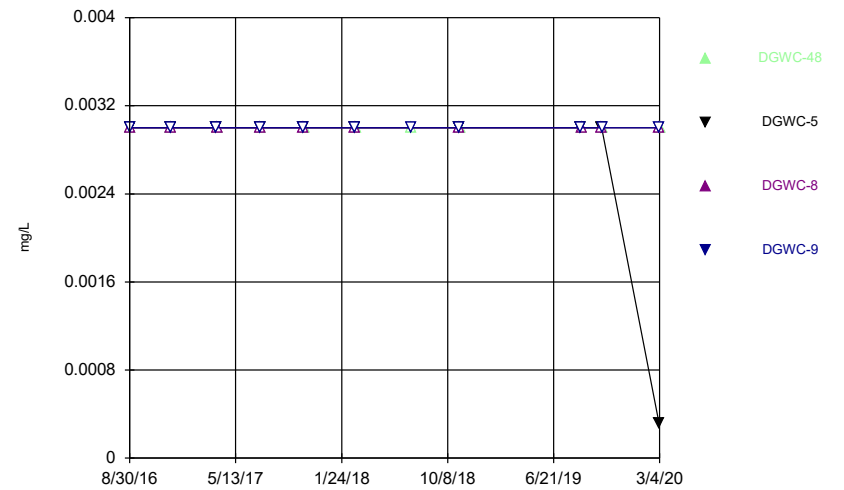
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



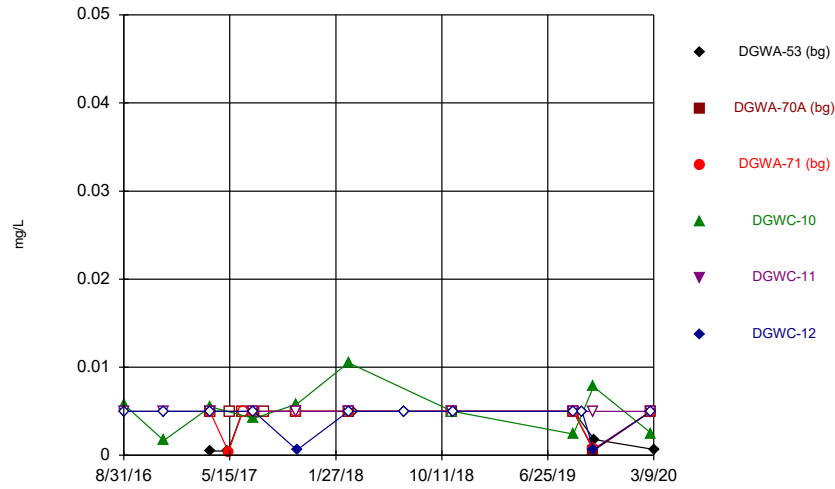
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



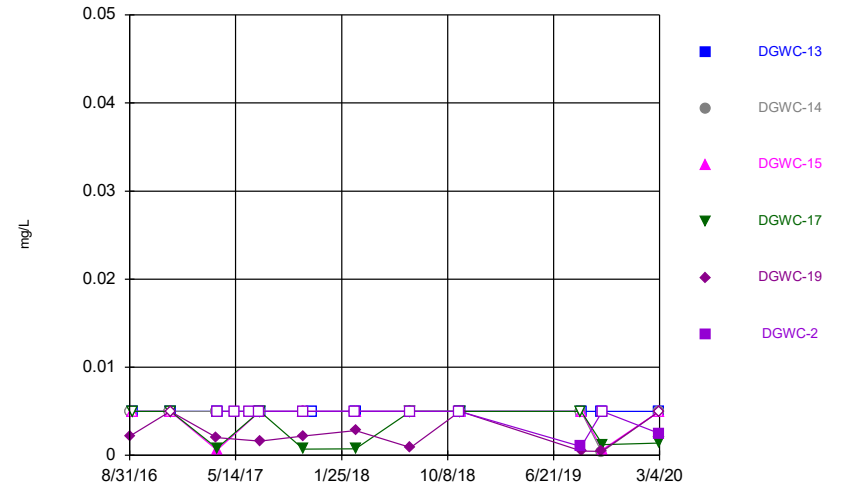
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



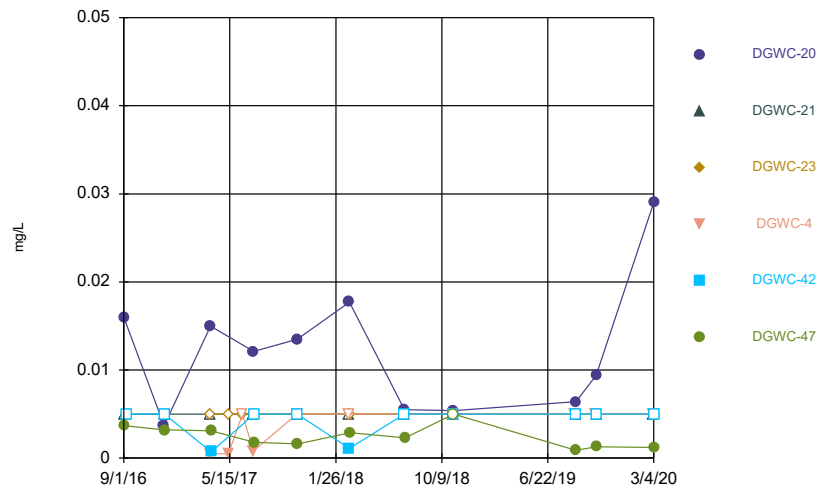
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



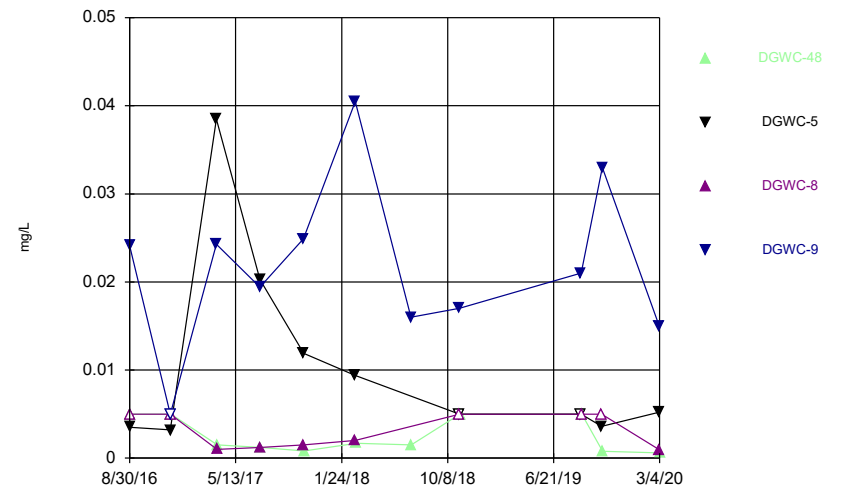
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



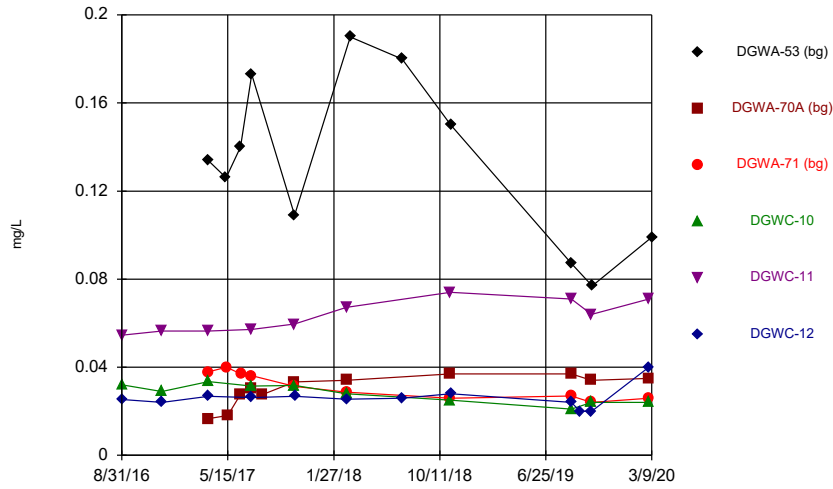
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Time Series



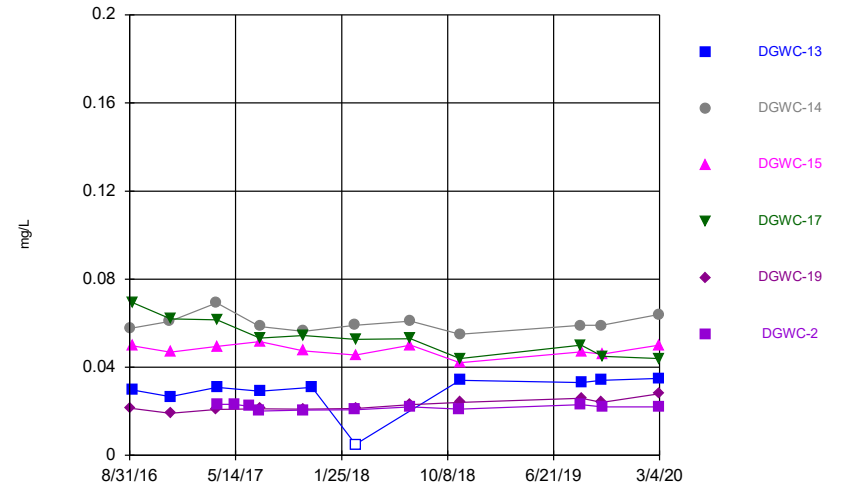
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



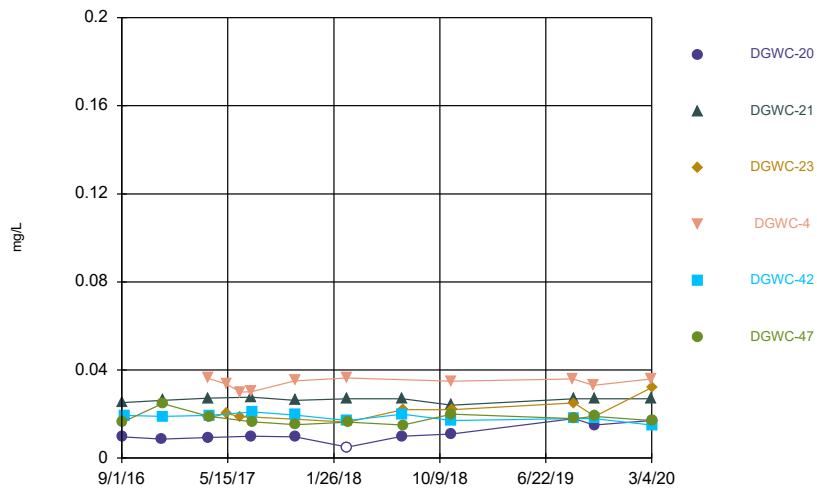
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



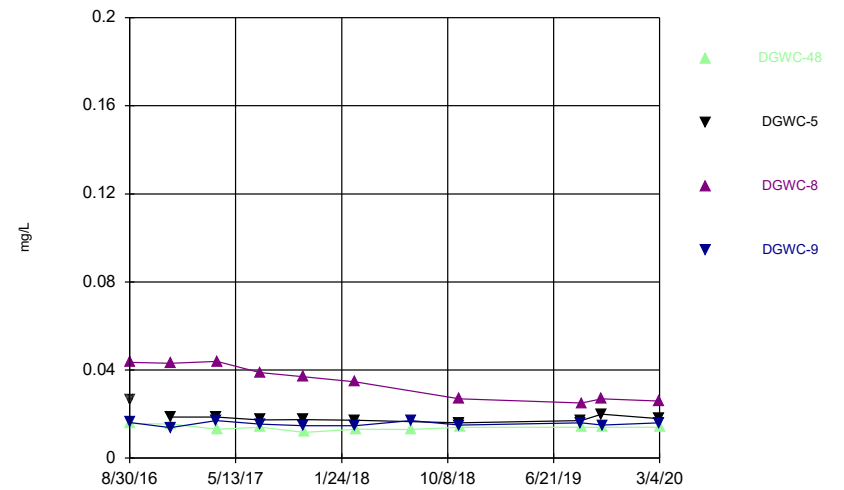
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Time Series



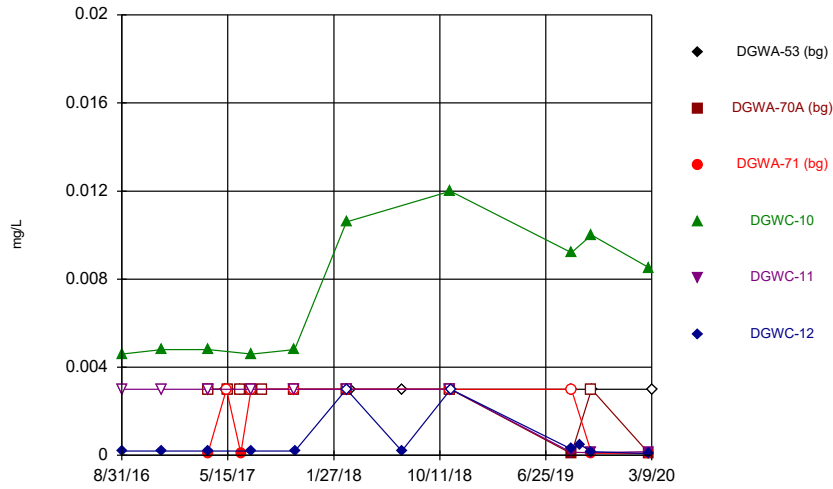
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Time Series



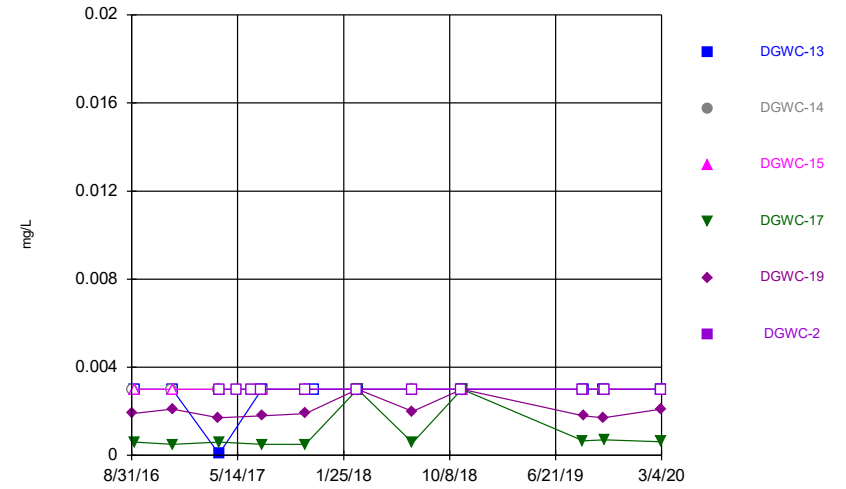
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



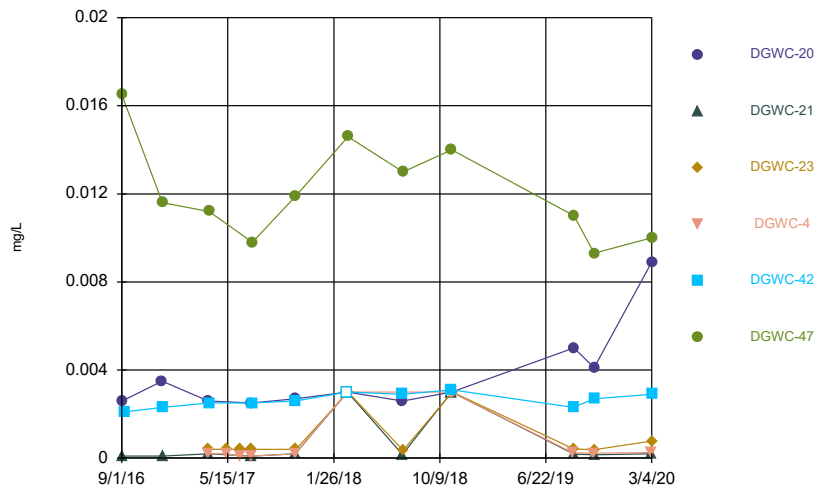
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



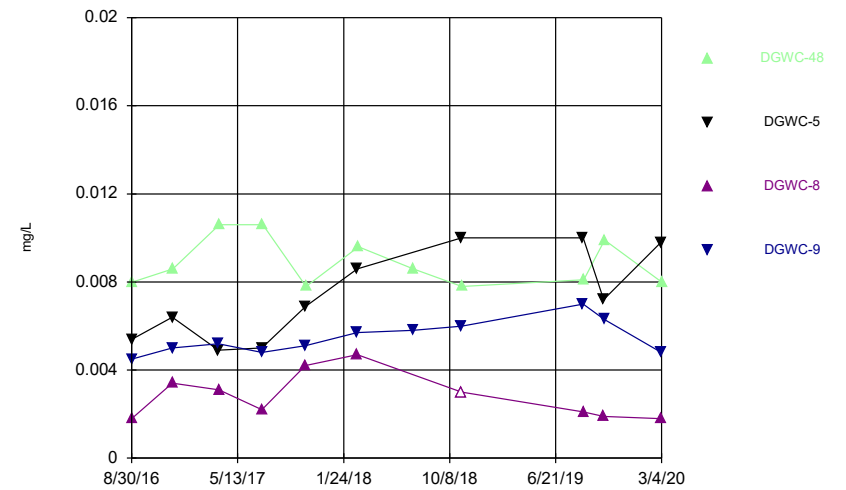
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Time Series



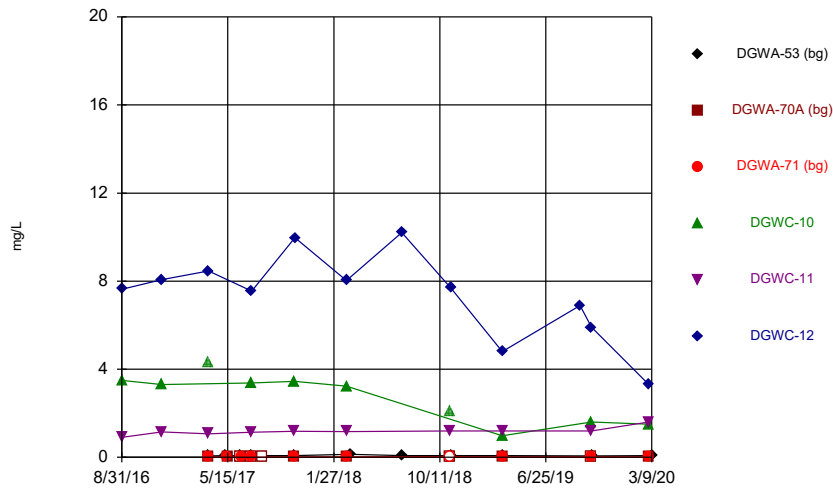
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Time Series



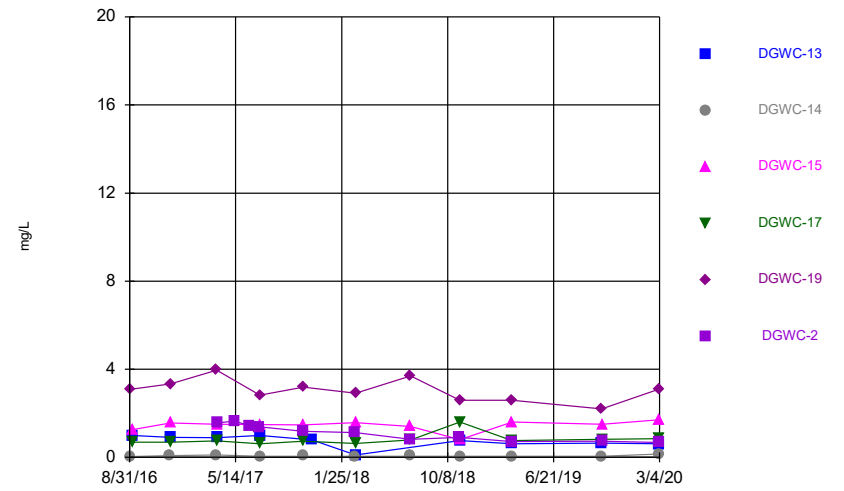
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Time Series



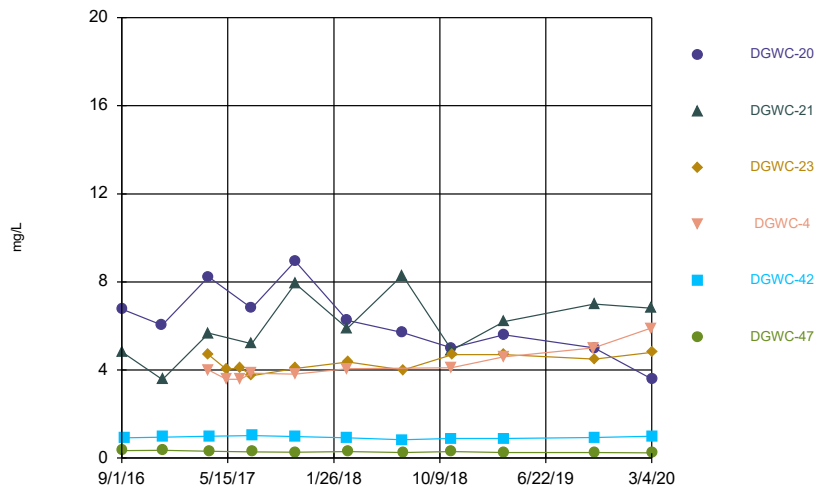
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Time Series



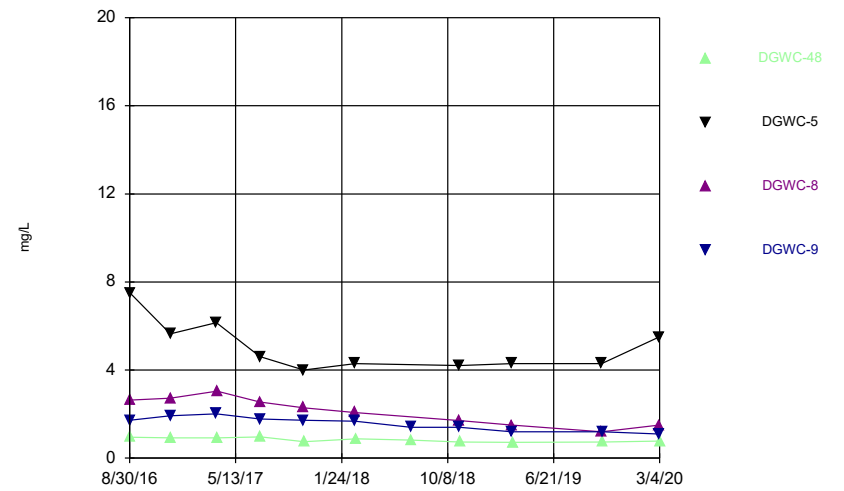
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



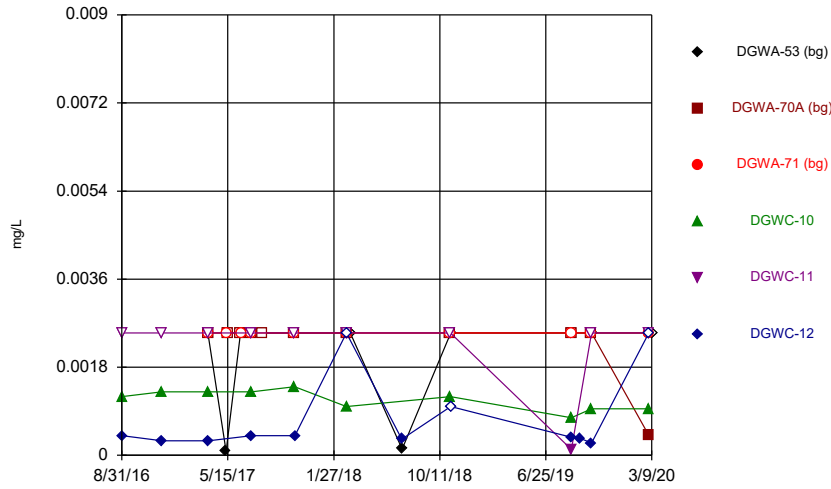
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Time Series



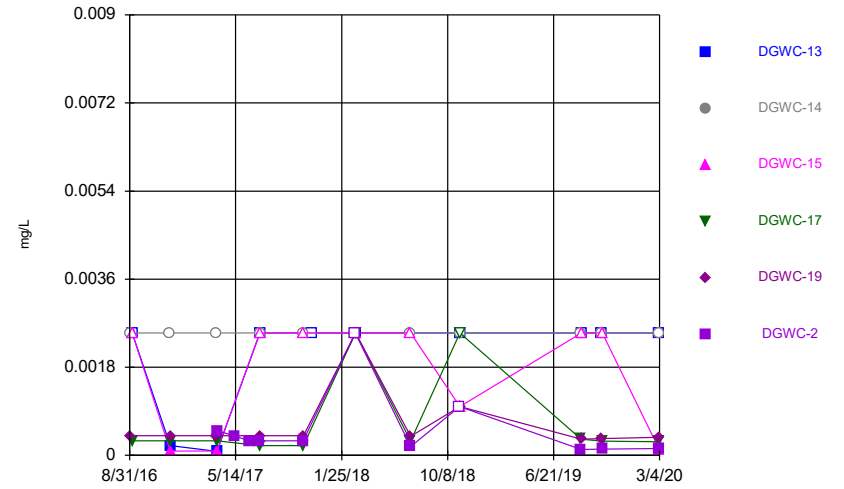
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Time Series



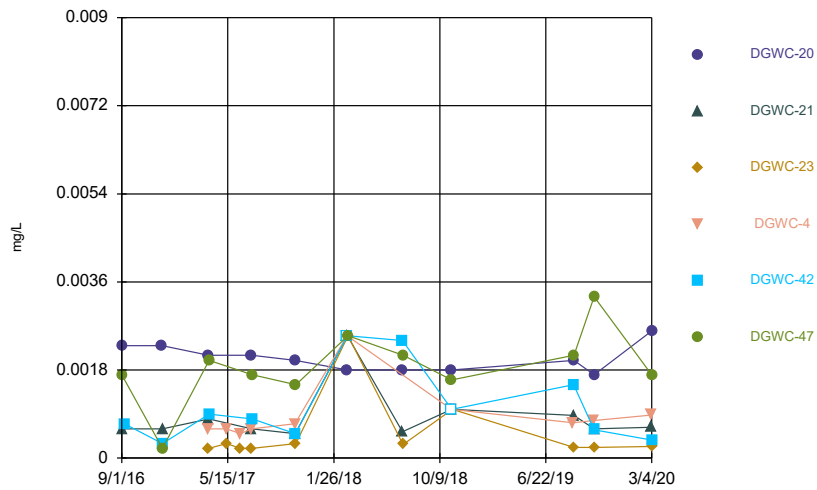
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



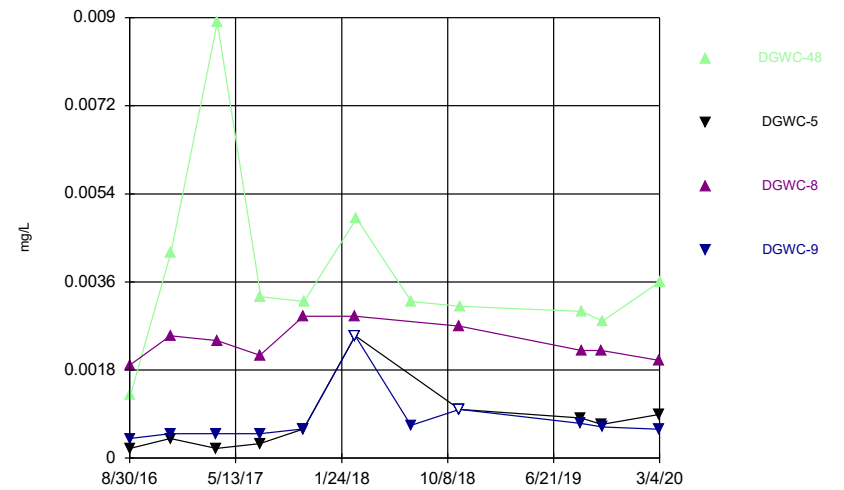
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Time Series



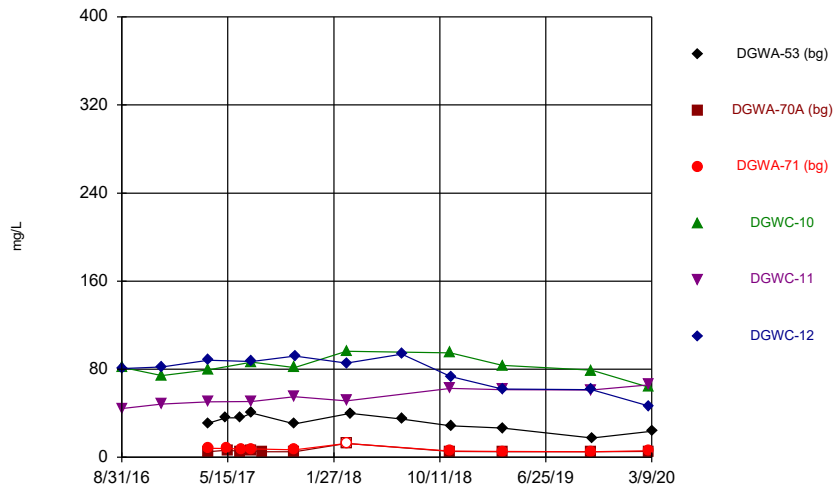
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



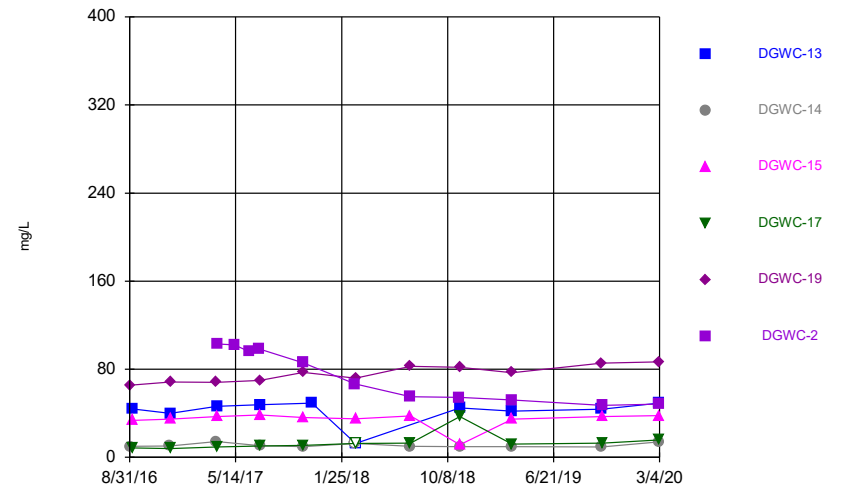
Constituent: Cadmium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



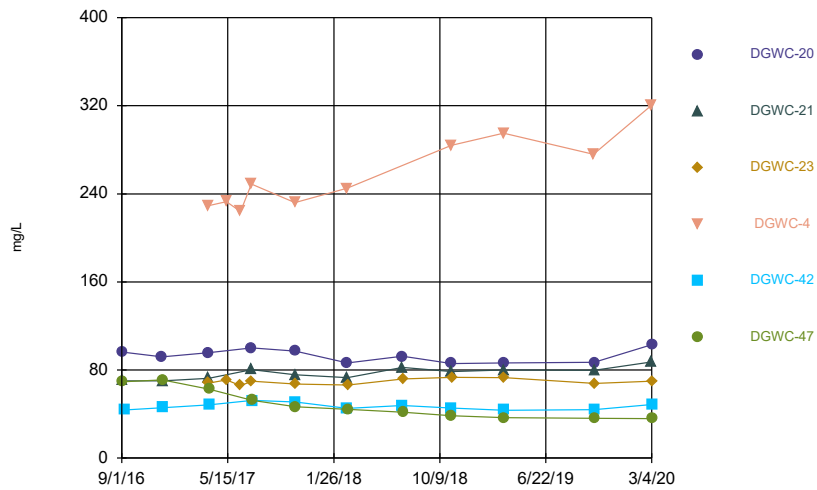
Constituent: Calcium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



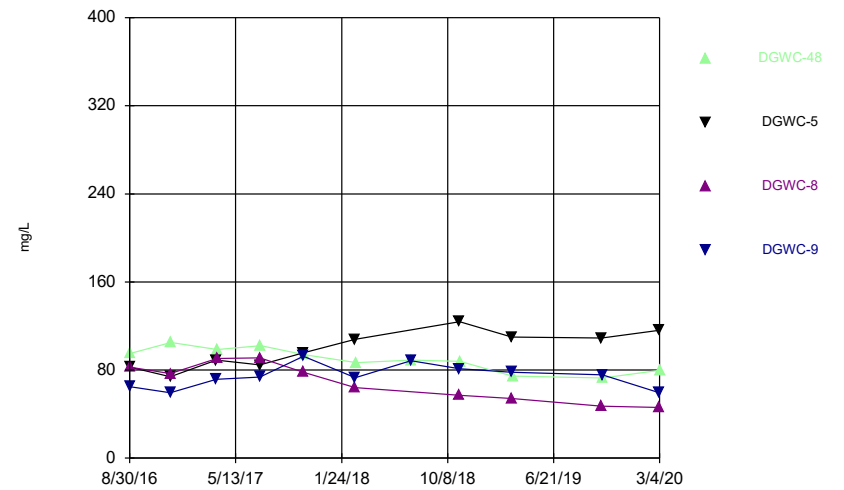
Constituent: Calcium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



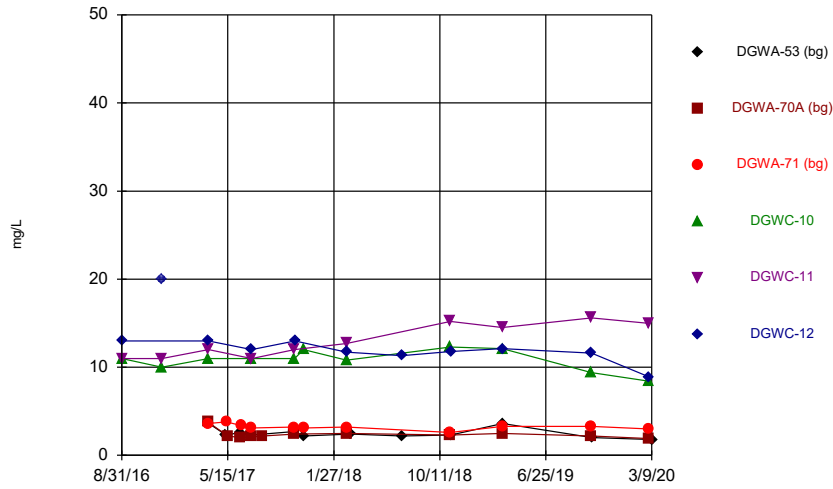
Constituent: Calcium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



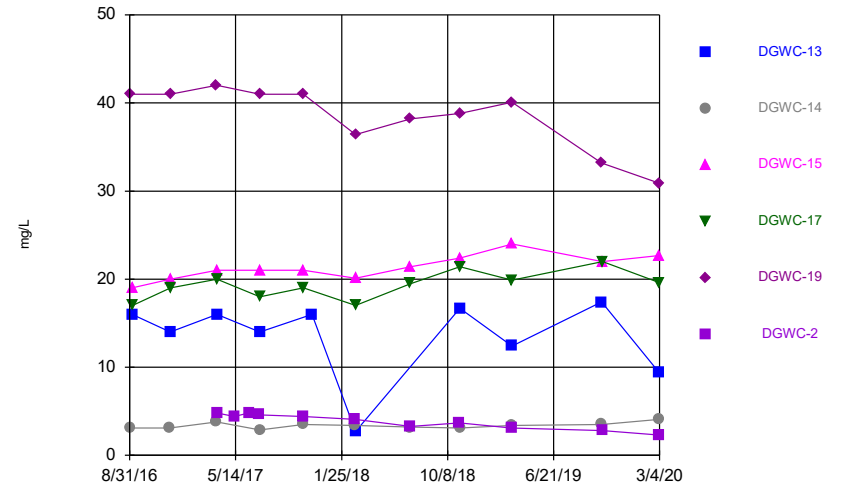
Constituent: Calcium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



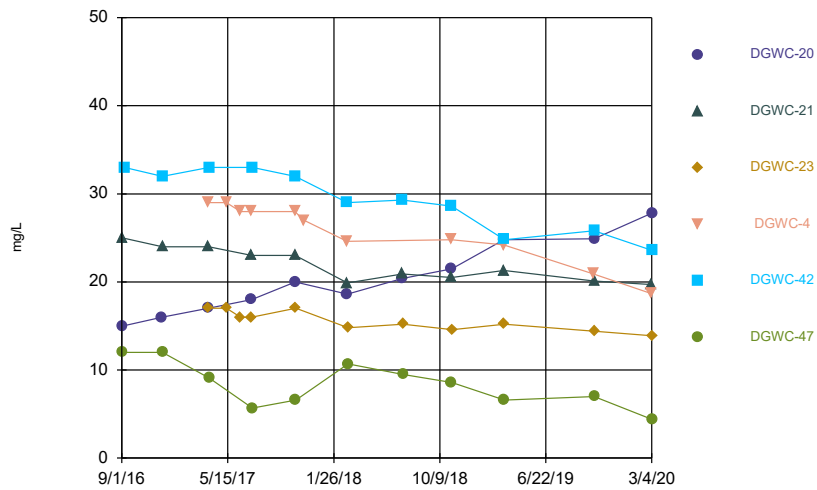
Constituent: Chloride Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



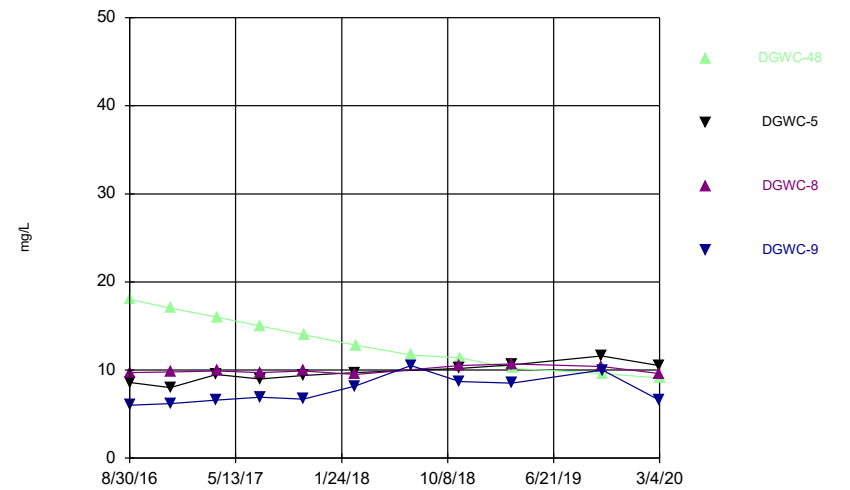
Constituent: Chloride Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



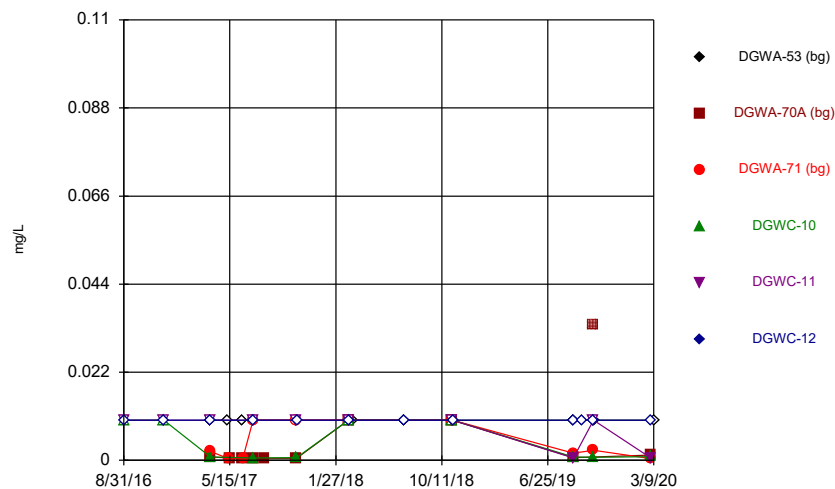
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



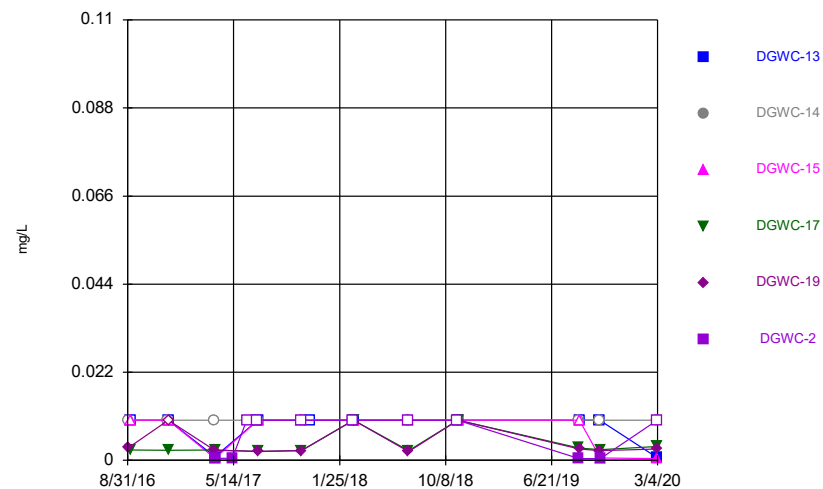
Constituent: Chloride Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



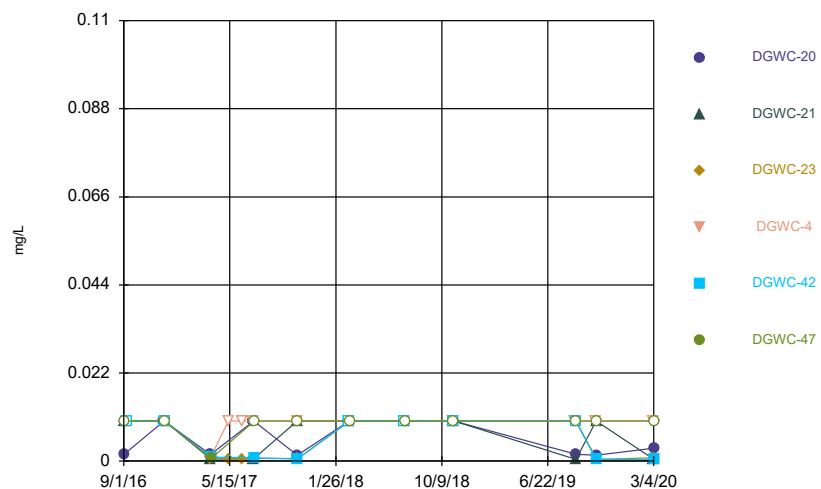
Constituent: Chromium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



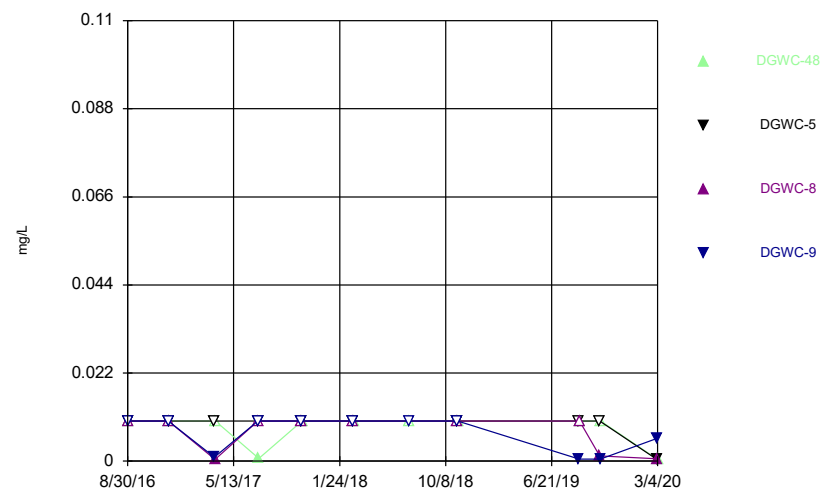
Constituent: Chromium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



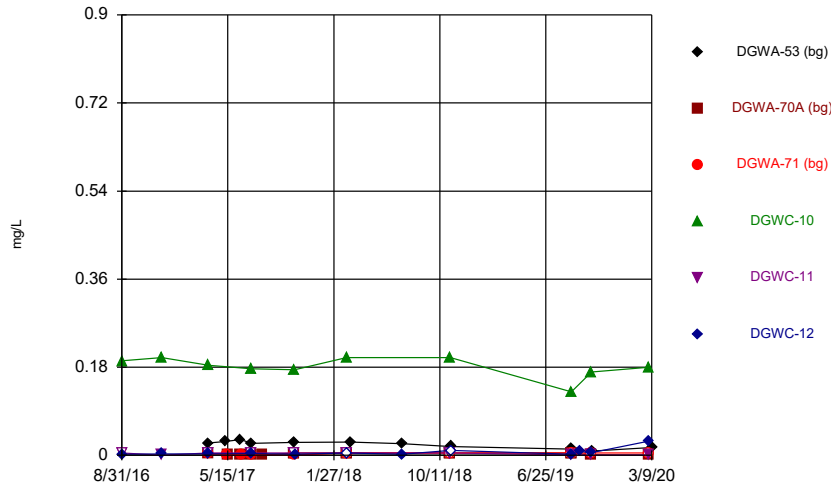
Constituent: Chromium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



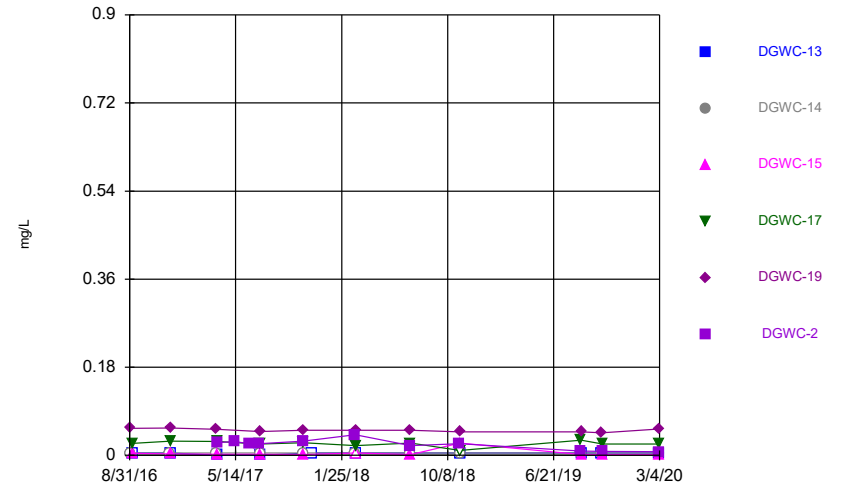
Constituent: Chromium Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



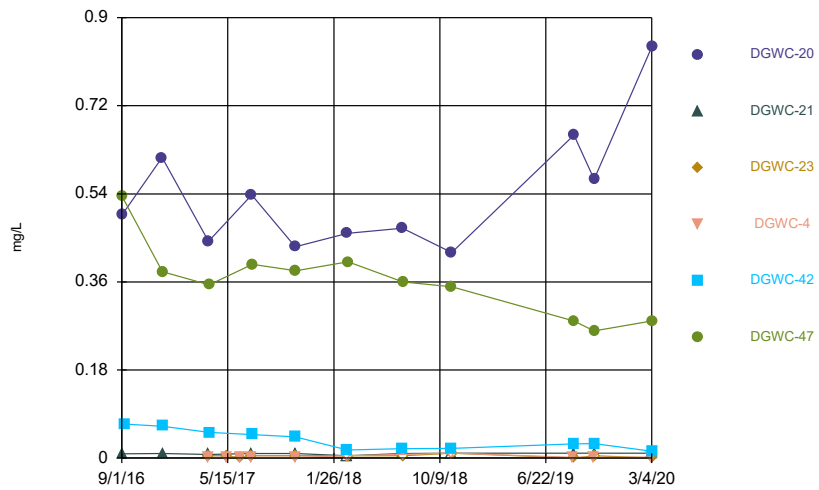
Constituent: Cobalt Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



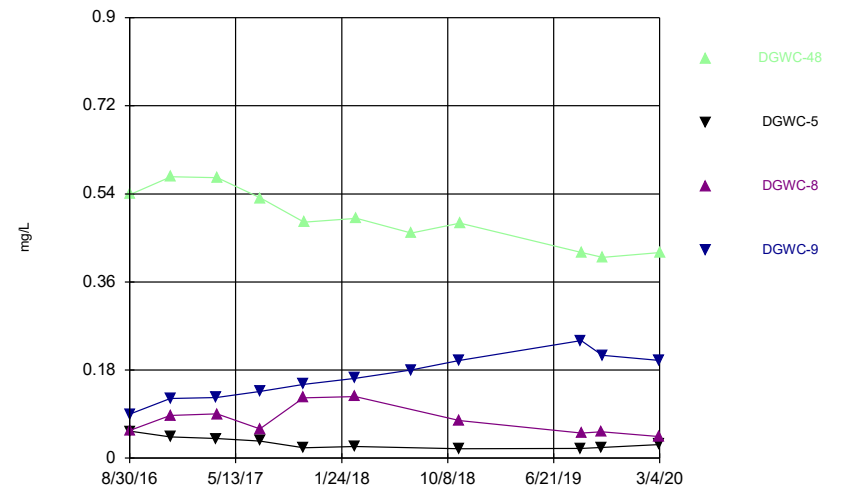
Constituent: Cobalt Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



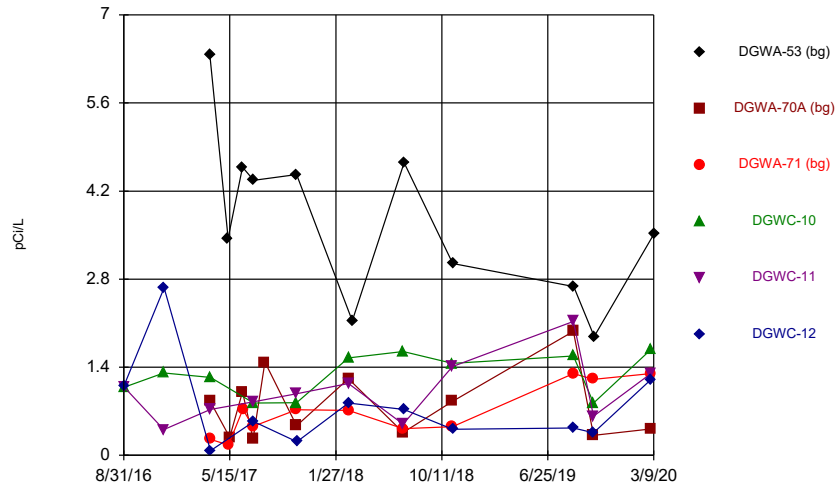
Constituent: Cobalt Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



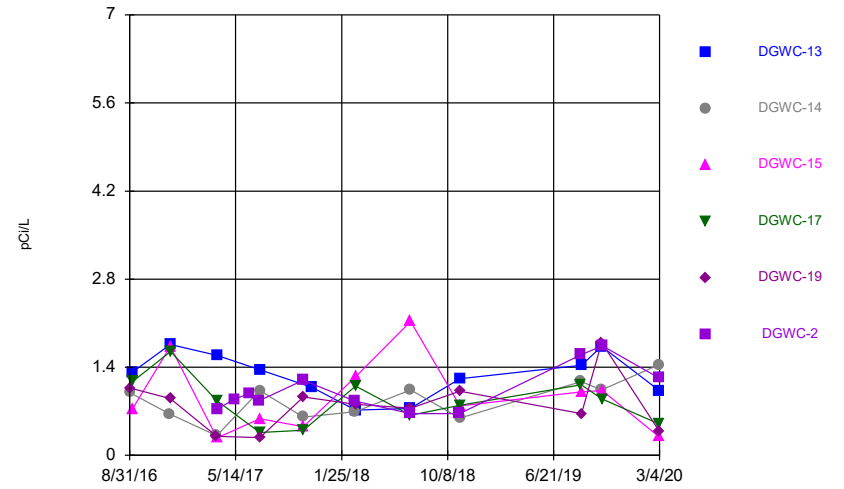
Constituent: Cobalt Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



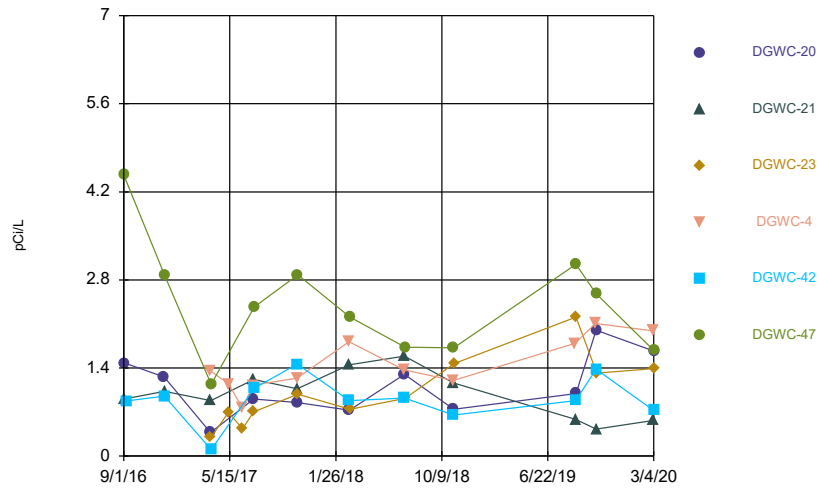
Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



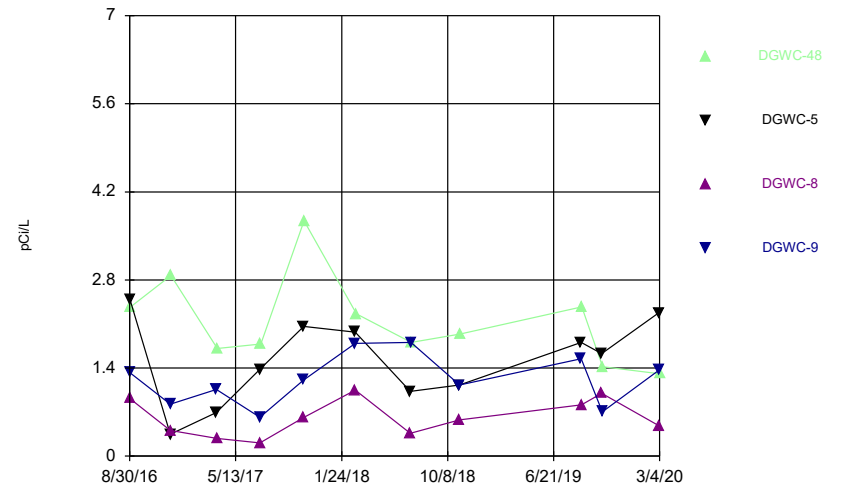
Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



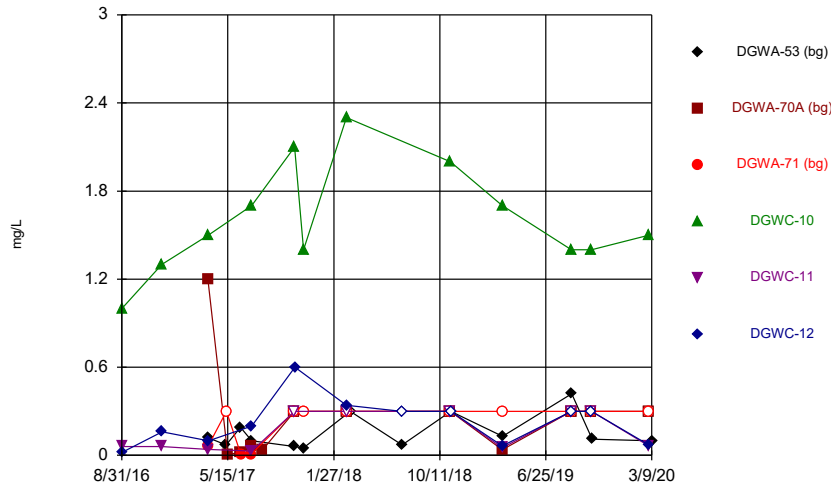
Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



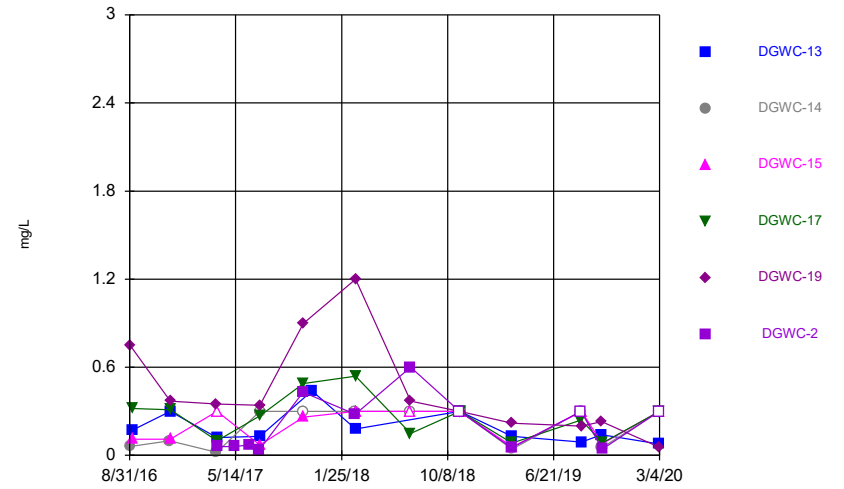
Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



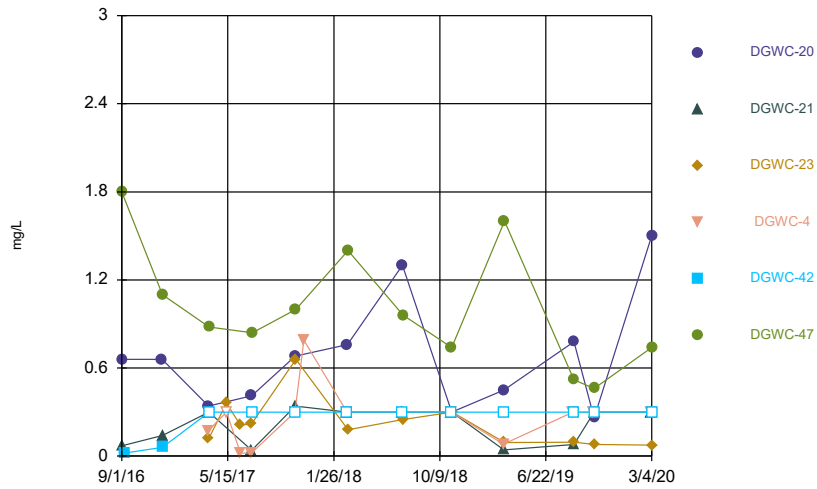
Constituent: Fluoride Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



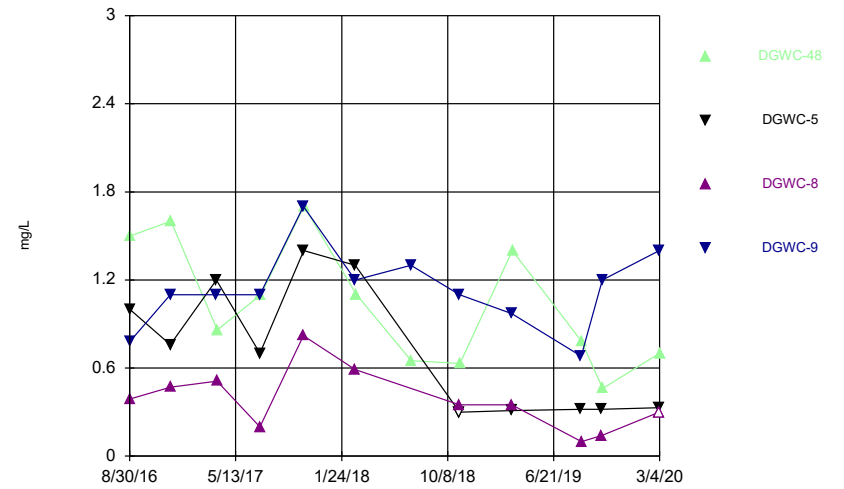
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



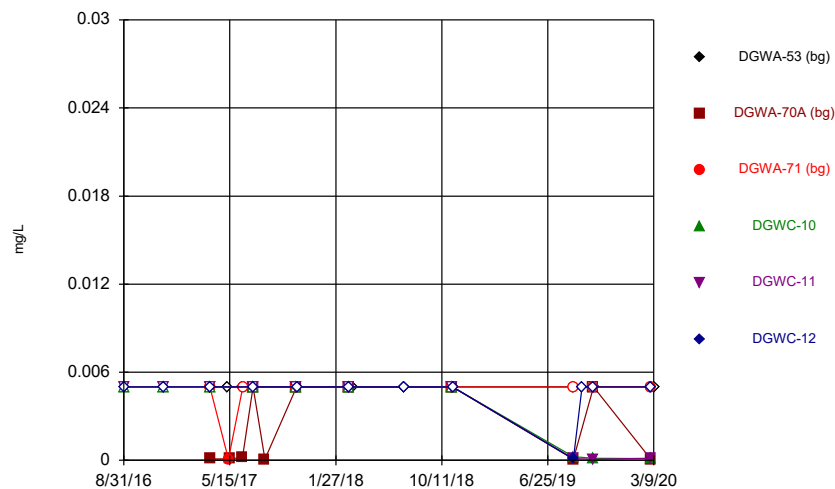
Constituent: Fluoride Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



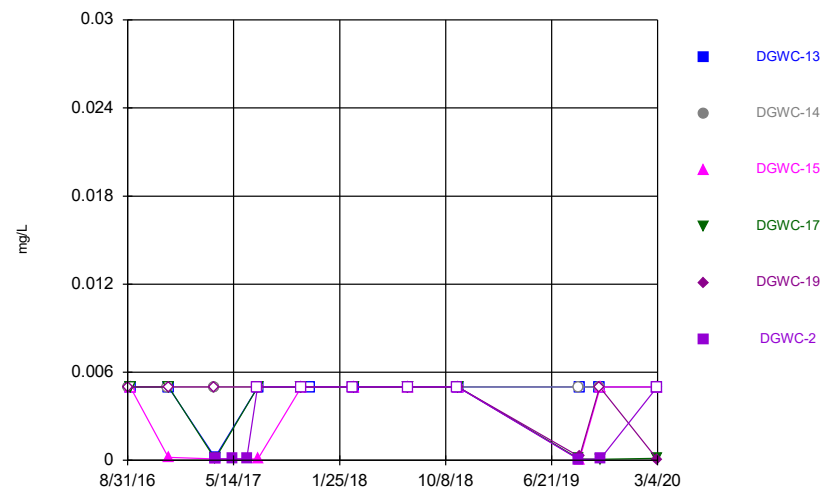
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



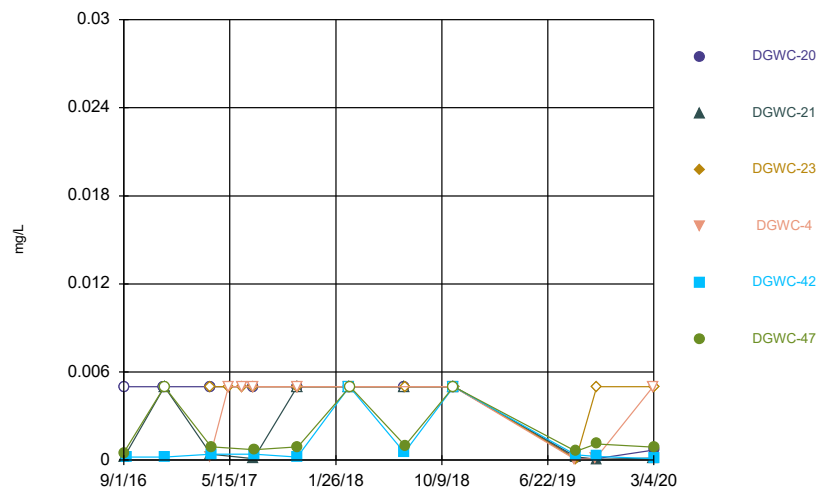
Constituent: Lead Analysis Run 7/2/2020 12:50 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



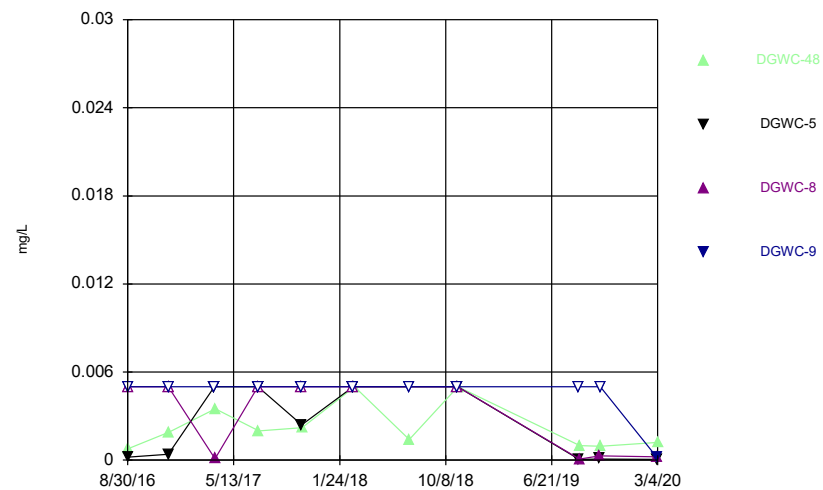
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Time Series



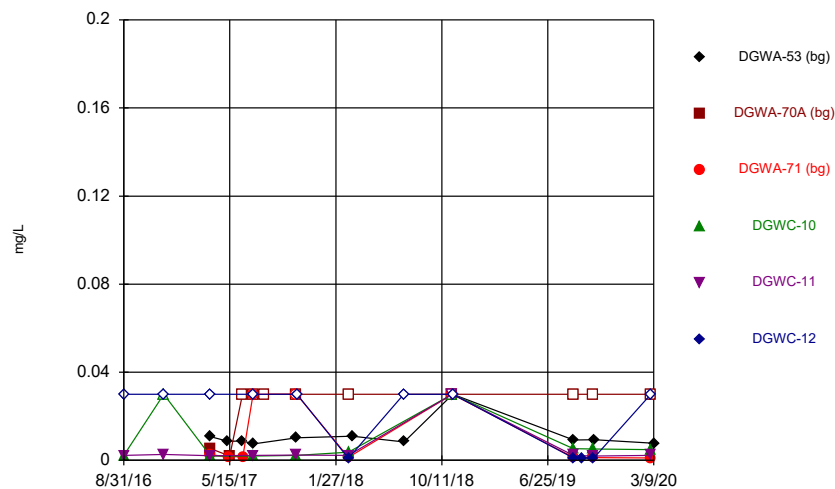
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



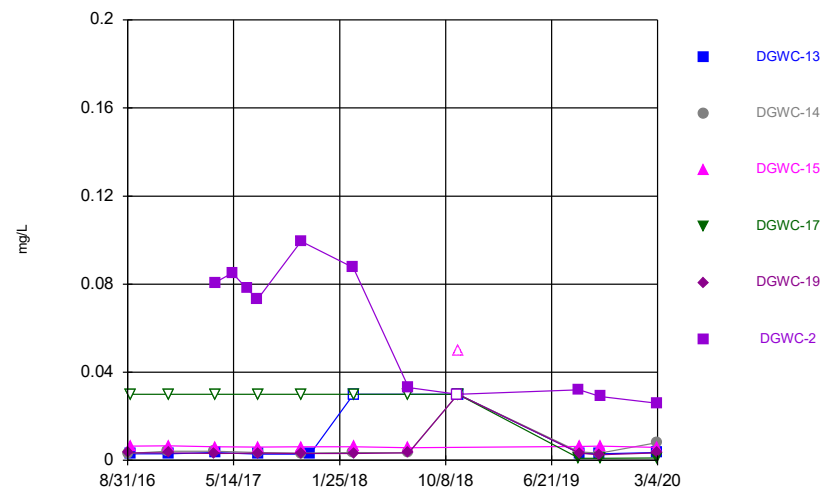
Constituent: Lead Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



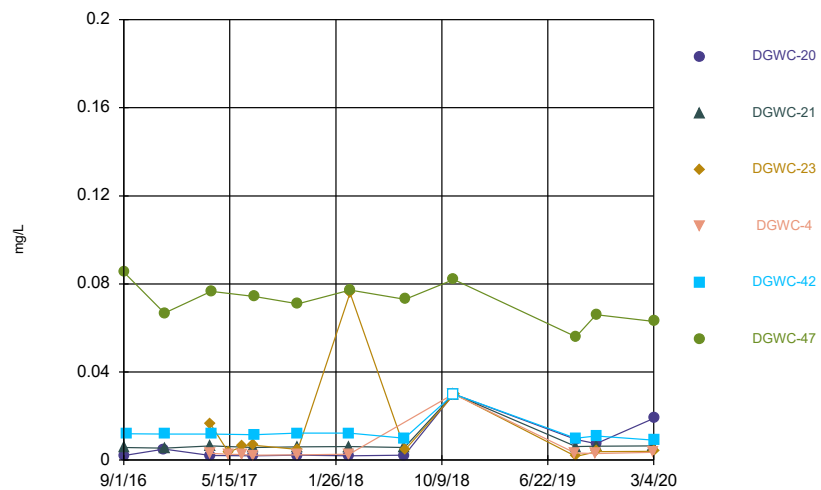
Constituent: Lithium Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



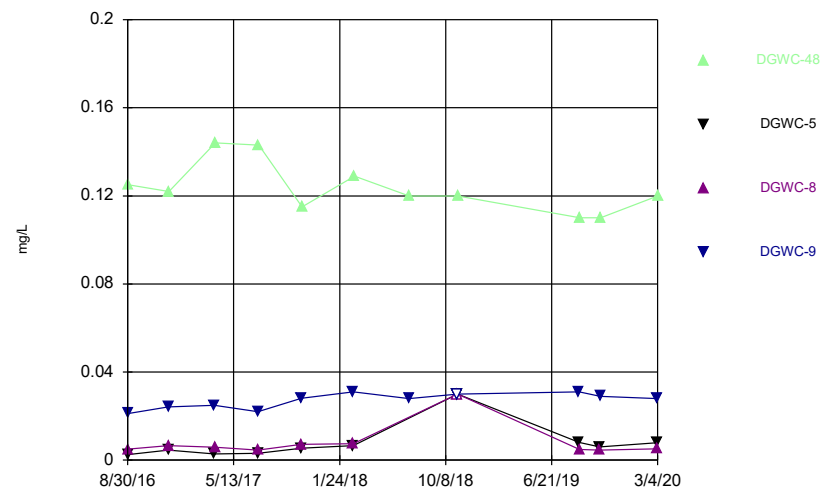
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



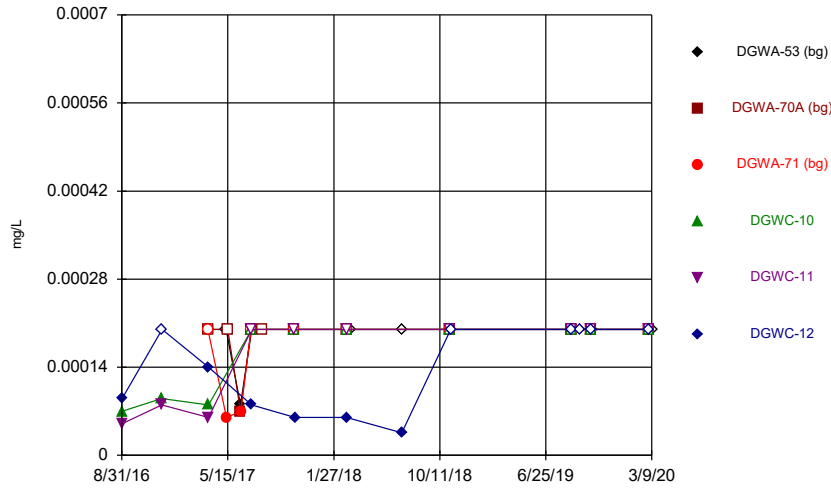
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



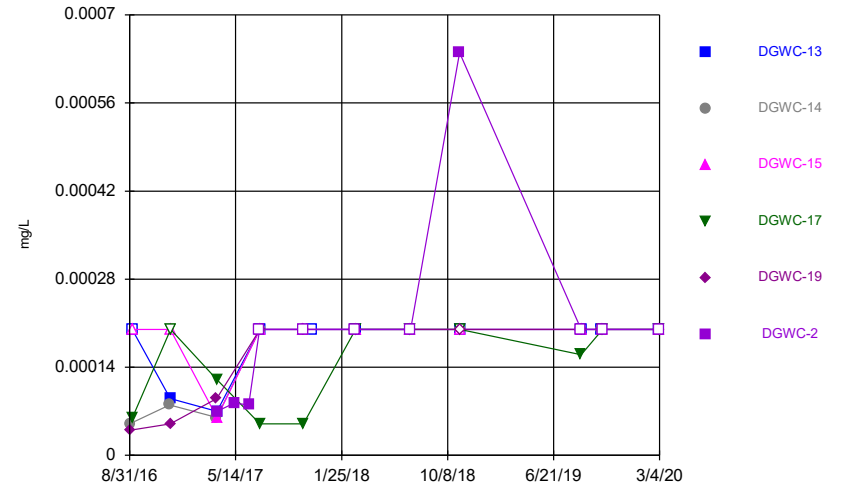
Constituent: Lithium Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



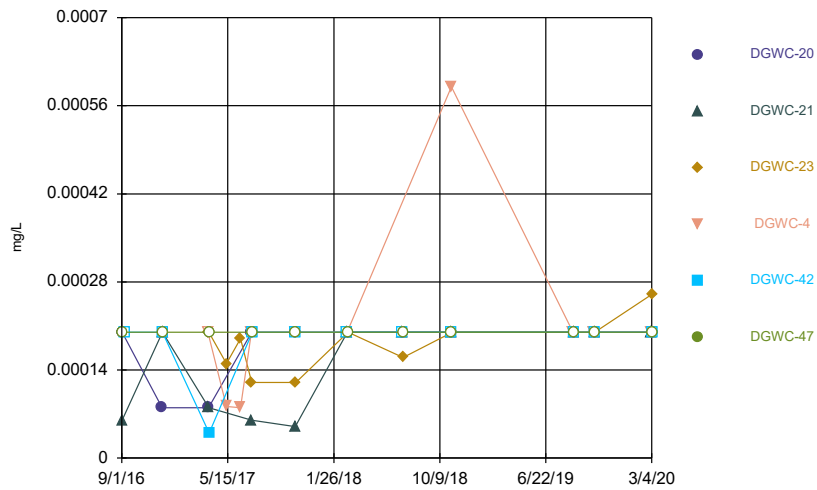
Constituent: Mercury Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



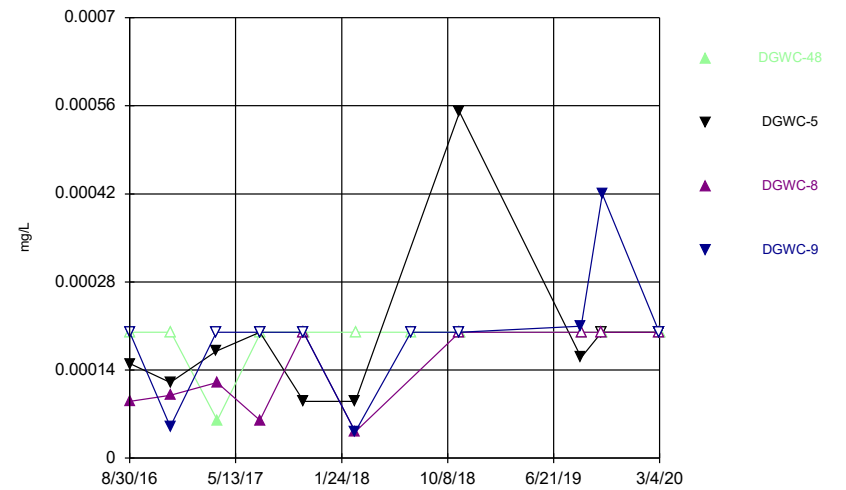
Constituent: Mercury Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



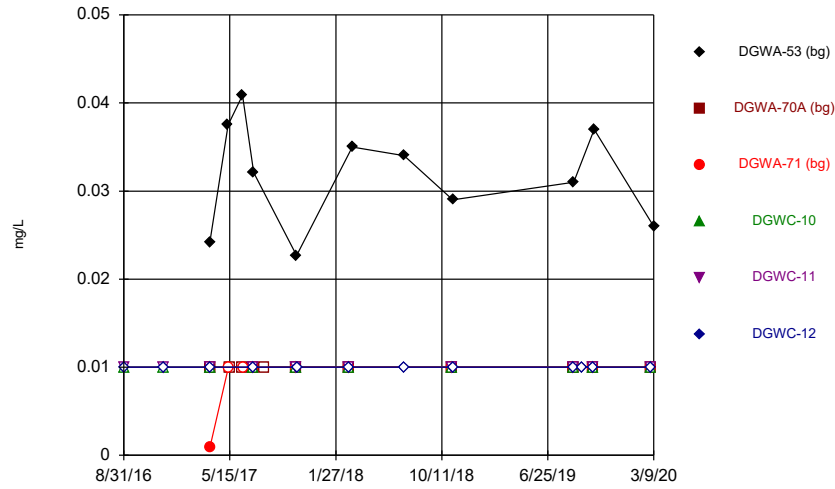
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



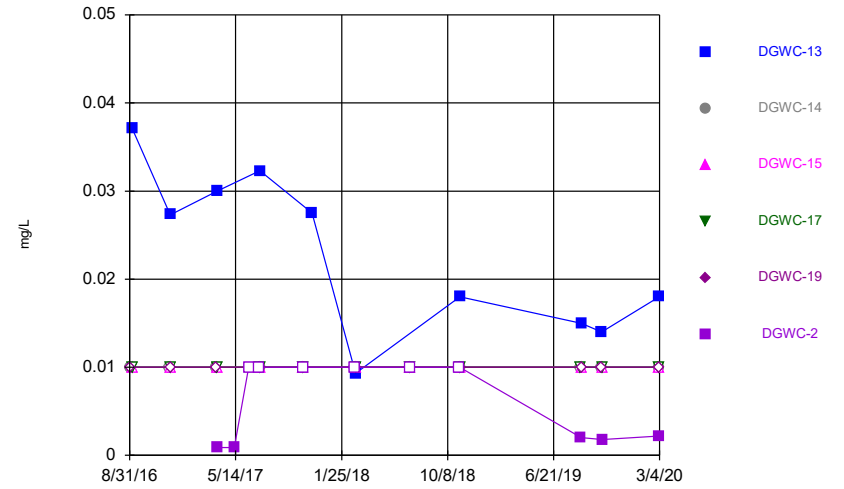
Constituent: Mercury Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



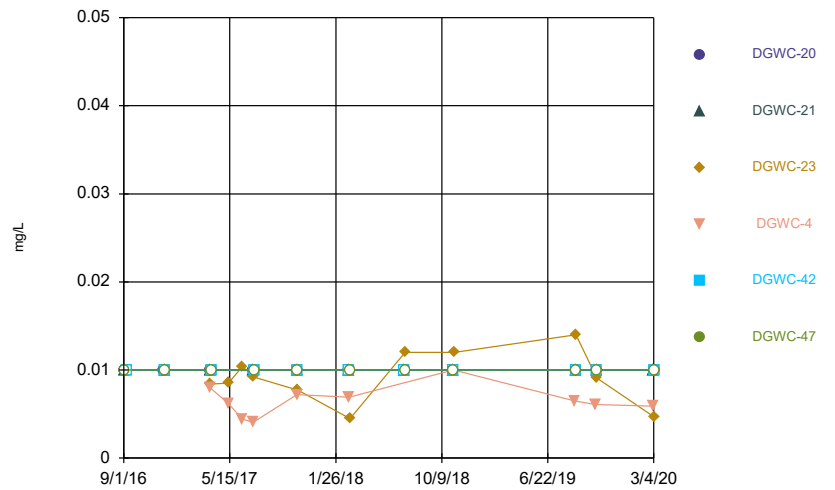
Constituent: Molybdenum Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



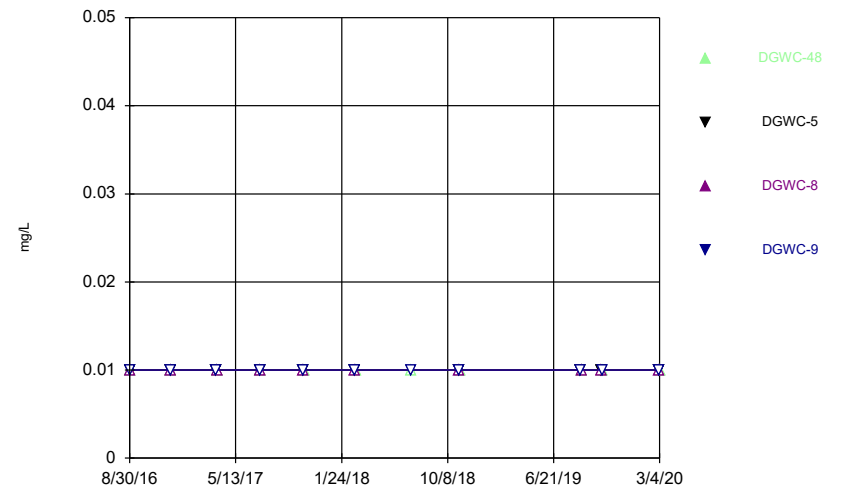
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



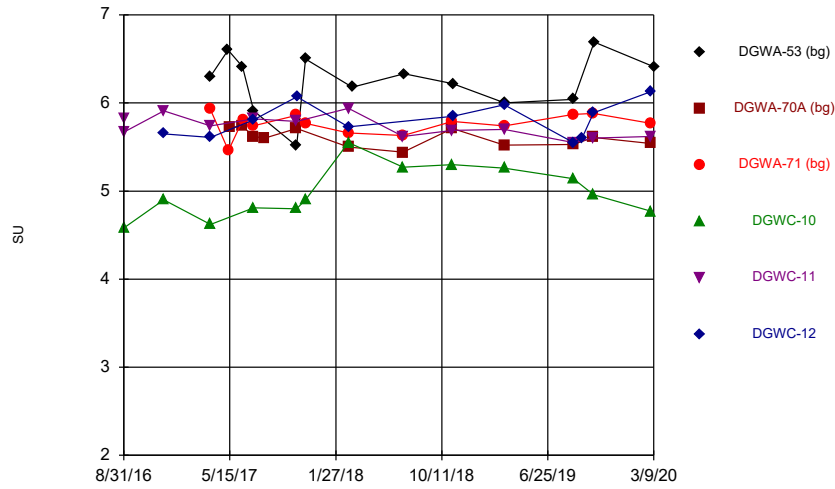
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



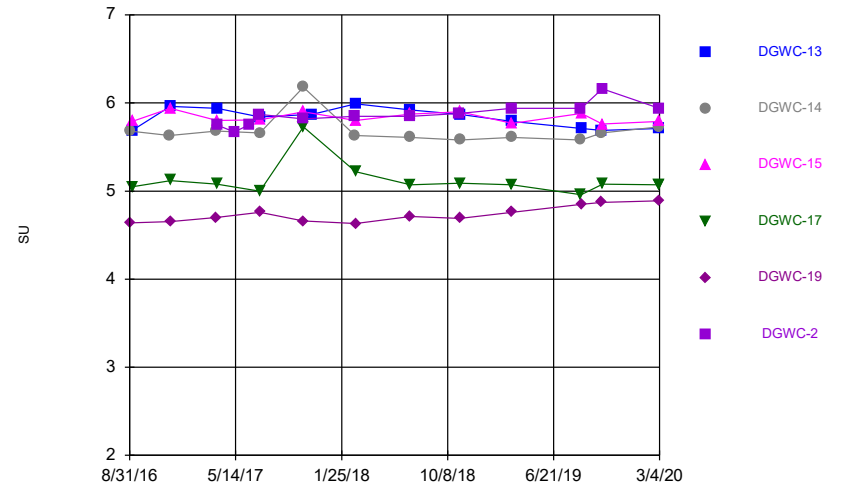
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



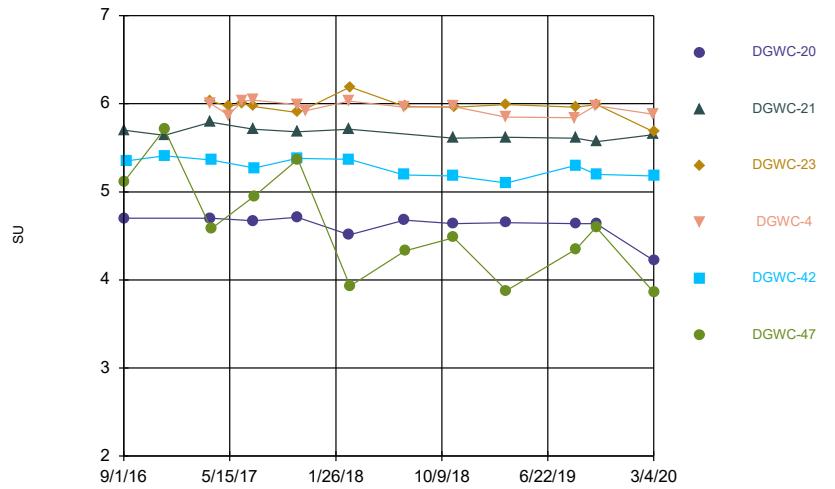
Constituent: pH Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



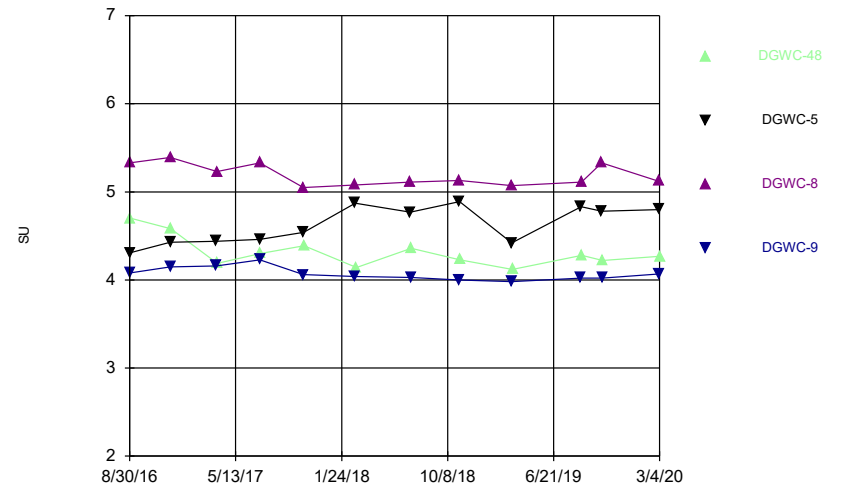
Constituent: pH Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



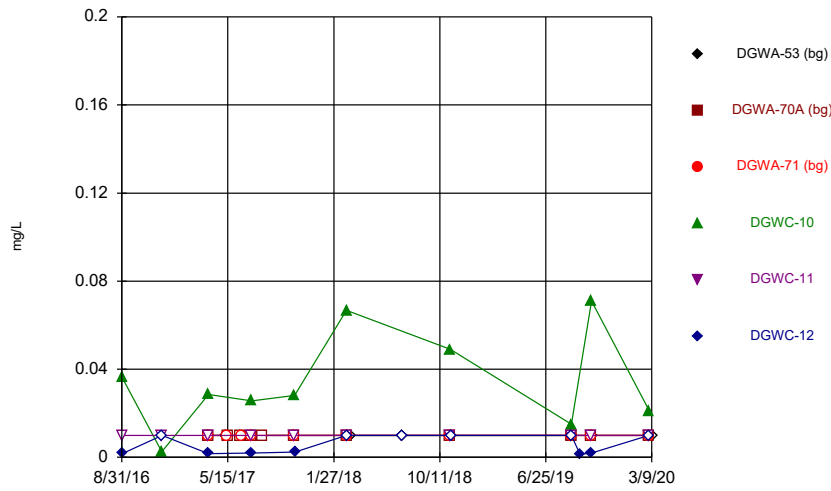
Constituent: pH Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



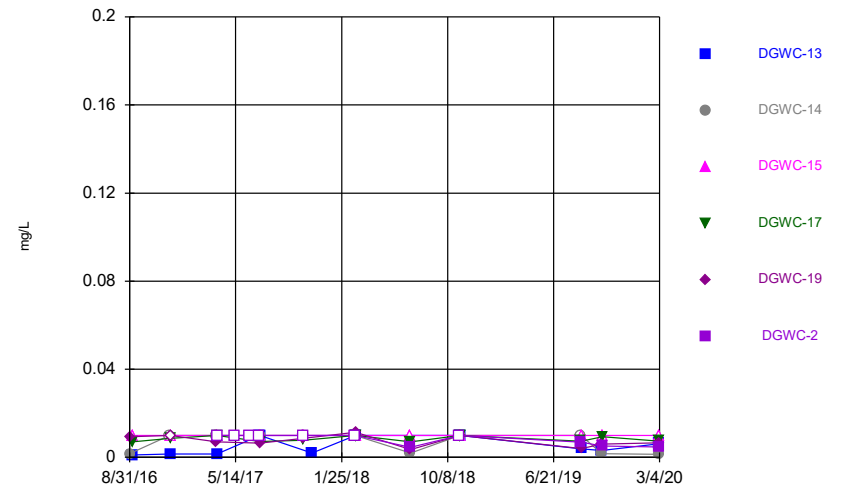
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



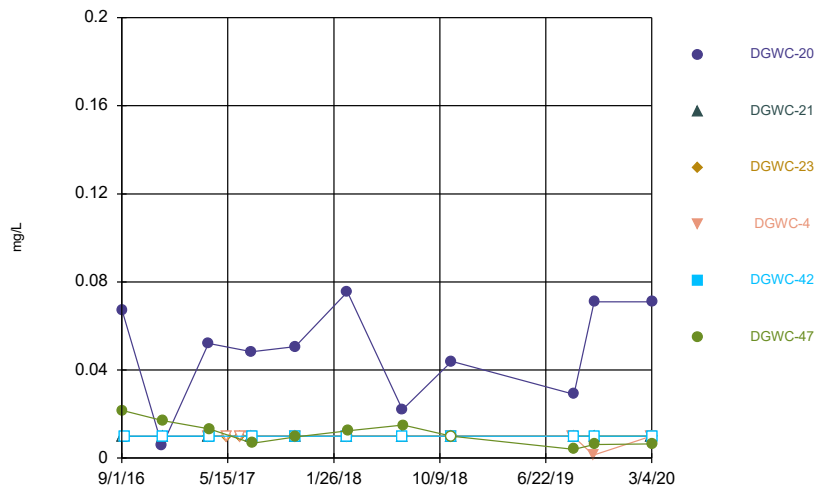
Constituent: Seleniun Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



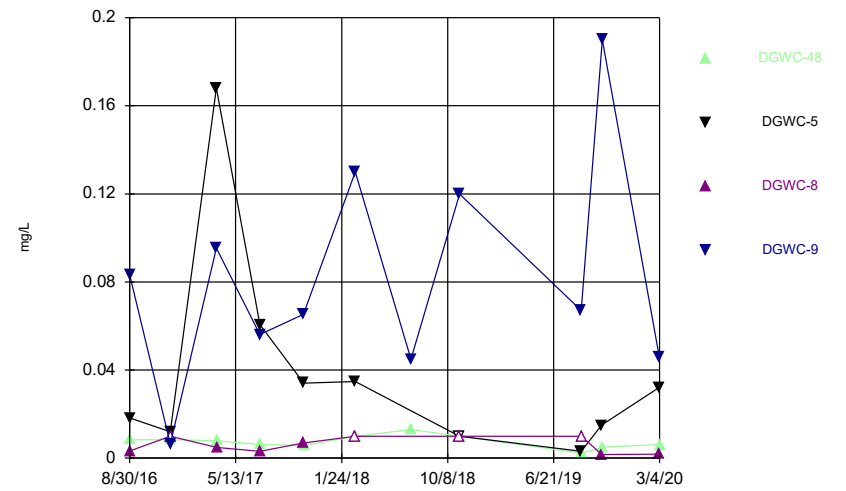
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



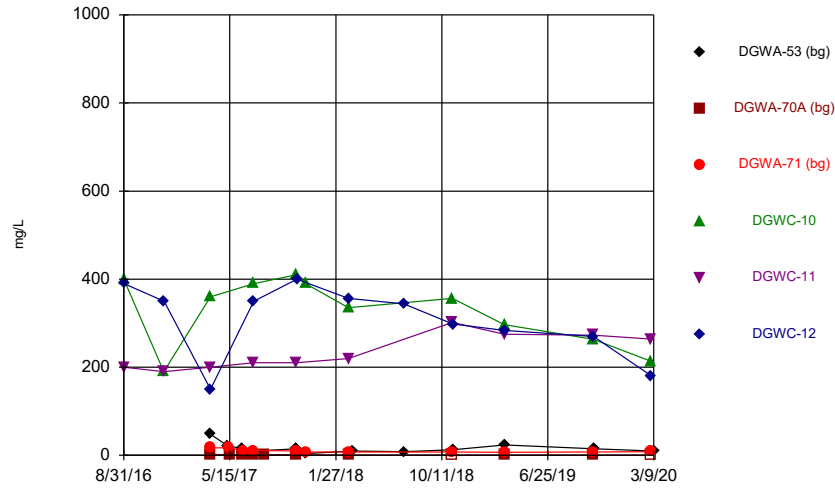
Constituent: Seleniun Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



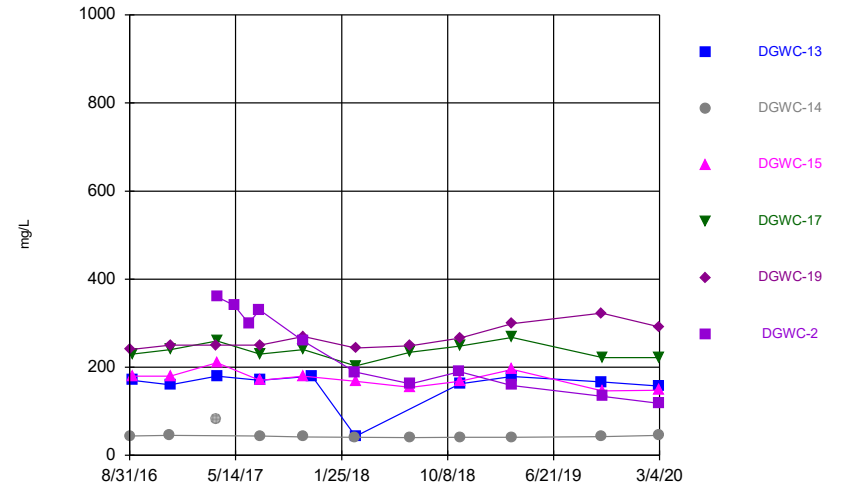
Constituent: Seleniun Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



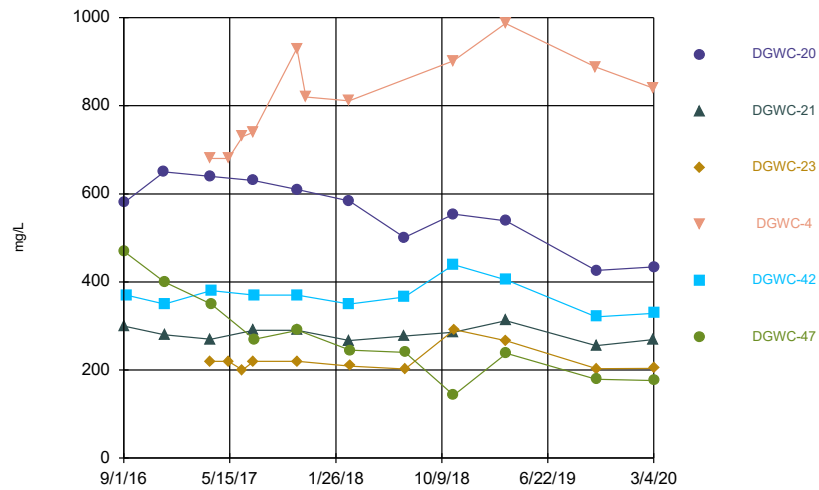
Constituent: Sulfate Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



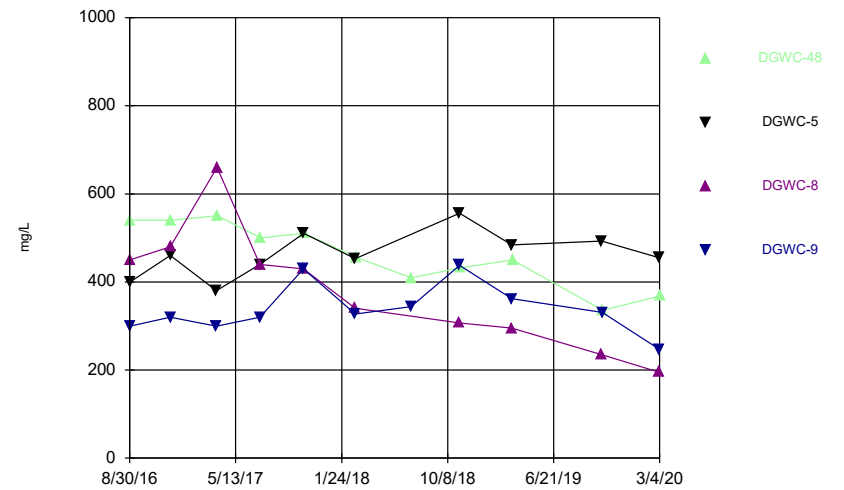
Constituent: Sulfate Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



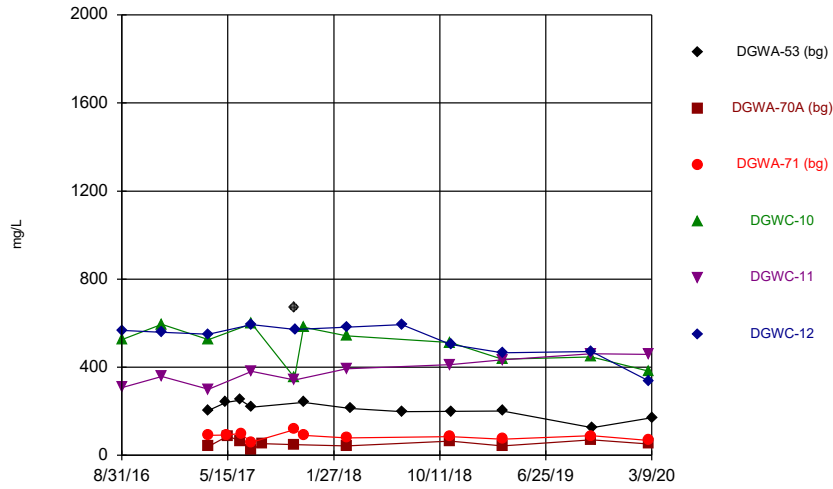
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



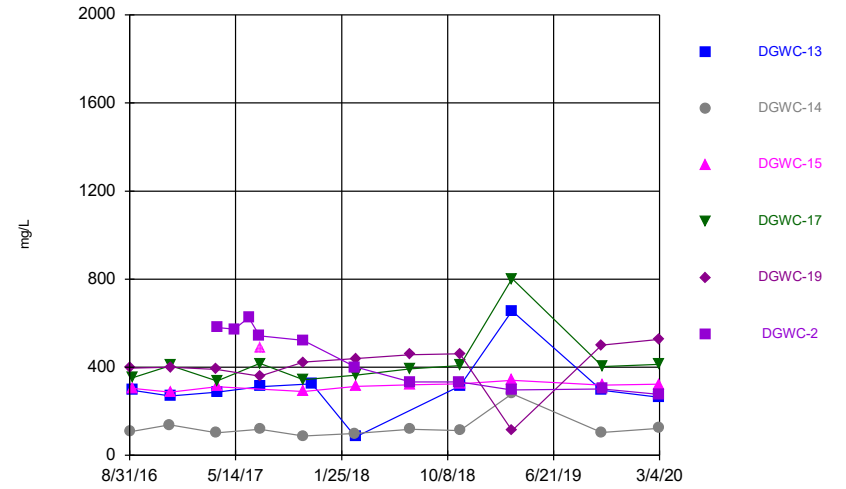
Constituent: Sulfate Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



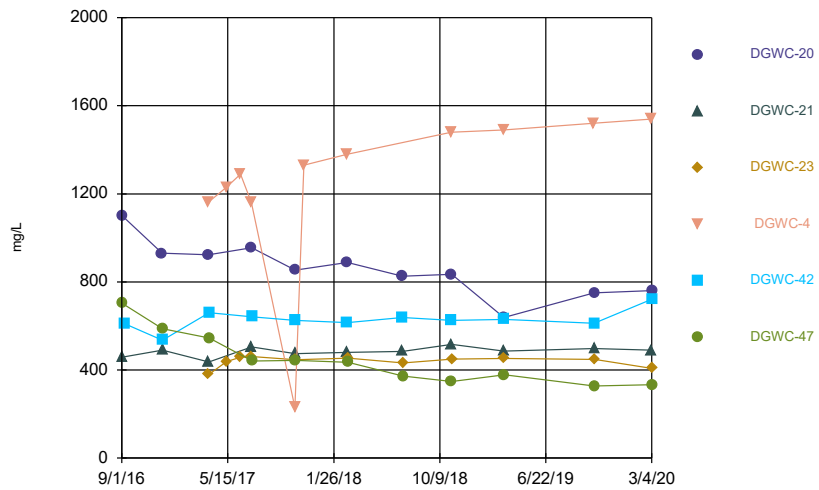
Constituent: TDS Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



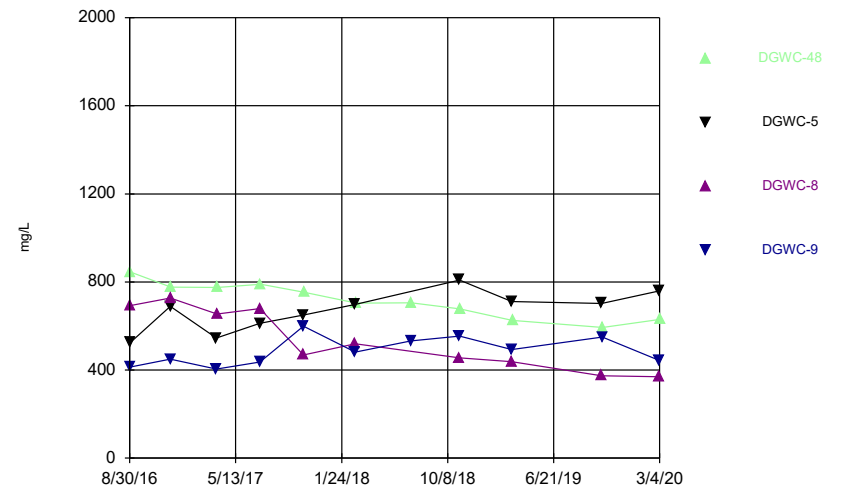
Constituent: TDS Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



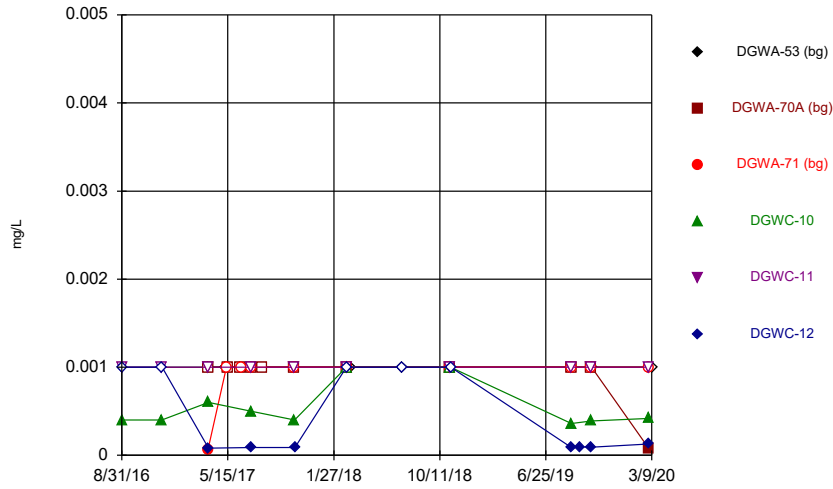
Constituent: TDS Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



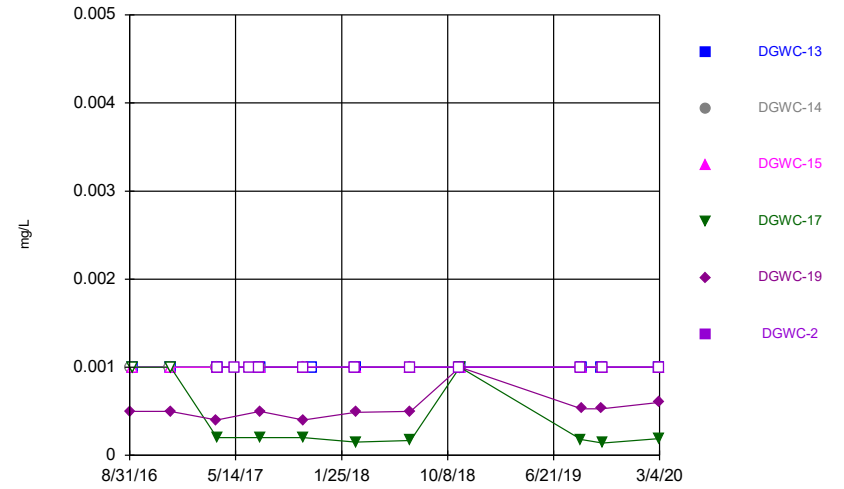
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 Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



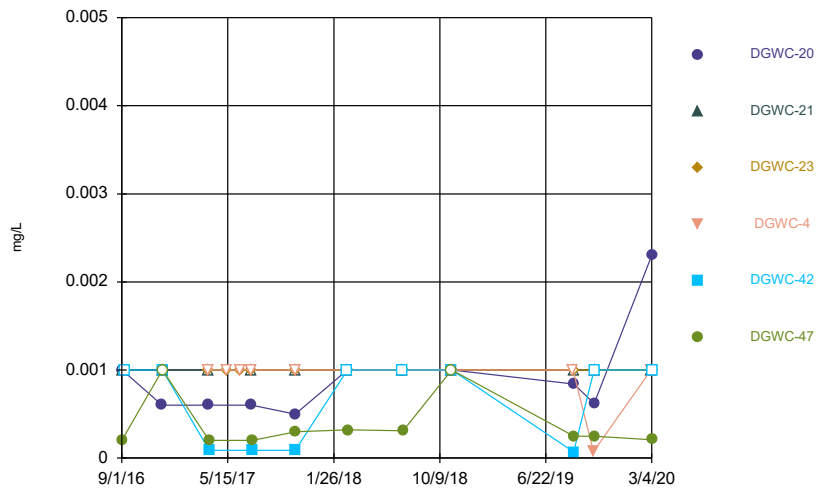
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Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



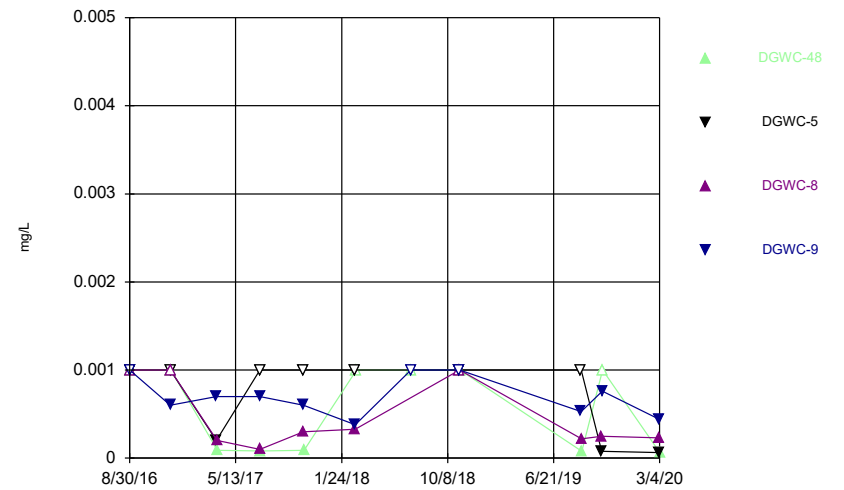
Constituent: Thallium Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Thallium Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series



Constituent: Thallium Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				<0.003	<0.003	
9/1/2016						<0.003
12/6/2016				<0.003	<0.003	
12/7/2016						<0.003
3/28/2017	<0.003	<0.003	0.0007 (J)			
3/29/2017				<0.003	<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
8/8/2017		<0.003				
10/24/2017	<0.003	<0.003	<0.003	<0.003	<0.003	
10/25/2017						<0.003
2/27/2018		<0.003	<0.003	<0.003	<0.003	<0.003
3/8/2018	<0.003					
7/11/2018						<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
8/27/2019		<0.003	<0.003	<0.003	<0.003	<0.003
8/28/2019	<0.003					
9/17/2019						<0.003
10/15/2019		<0.003	<0.003	<0.003	<0.003	<0.003
10/16/2019	<0.003					
3/2/2020		<0.003	0.0018 (J)		<0.003	0.0003 (J)
3/3/2020				<0.003		
3/9/2020	<0.003					

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.003				
9/1/2016					<0.003	
9/6/2016	<0.003		<0.003			
9/7/2016				<0.003		
12/6/2016		<0.003				
12/7/2016	<0.003		<0.003		<0.003	
12/8/2016				<0.003		
3/29/2017		<0.003			<0.003	
3/30/2017	<0.003		<0.003	<0.003		<0.003
5/11/2017						<0.003
6/15/2017						0.0006 (J)
7/11/2017						<0.003
7/12/2017	<0.003	<0.003	<0.003	<0.003	<0.003	
10/24/2017						<0.003
10/25/2017		<0.003	<0.003	<0.003	<0.003	
11/15/2017	<0.003					
2/27/2018		<0.003				<0.003
2/28/2018	<0.003		<0.003	<0.003	<0.003	
7/11/2018		<0.003	<0.003	<0.003	<0.003	<0.003
11/6/2018						<0.003
11/7/2018	<0.003	<0.003	<0.003	<0.003	<0.003	
8/27/2019		<0.003		<0.003		<0.003
8/28/2019	<0.003		0.00033 (J)		<0.003	
10/16/2019	<0.003	<0.003			<0.003	
10/17/2019			<0.003			<0.003
10/18/2019				<0.003		
3/3/2020	<0.003	<0.003	<0.003		<0.003	<0.003
3/4/2020				<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						<0.003
9/2/2016	<0.003	<0.003				
9/7/2016					<0.003	
12/7/2016	<0.003					
12/8/2016		<0.003			<0.003	<0.003
3/28/2017				<0.003		
3/29/2017	<0.003					
3/30/2017		<0.003	<0.003			
3/31/2017					<0.003	<0.003
5/12/2017			<0.003	<0.003		
6/15/2017			0.0007 (J)	0.0008 (J)		
7/11/2017				<0.003		
7/12/2017	<0.003	<0.003	<0.003			
7/13/2017					<0.003	<0.003
10/24/2017				<0.003		
10/25/2017	<0.003	<0.003			<0.003	
10/26/2017			<0.003			<0.003
2/27/2018				<0.003		
2/28/2018	<0.003	<0.003			<0.003	
3/1/2018			<0.003			<0.003
7/11/2018	<0.003	0.0013 (J)			<0.003	
7/12/2018			<0.003			<0.003
11/6/2018				<0.003		
11/7/2018	<0.003	<0.003			<0.003	<0.003
11/8/2018			<0.003			
8/27/2019				<0.003		
8/28/2019					<0.003	
8/29/2019	<0.003	<0.003	<0.003			<0.003
10/15/2019				<0.003		
10/17/2019	<0.003	<0.003			<0.003	<0.003
10/18/2019			<0.003			
3/2/2020				0.00058 (J)		
3/3/2020		<0.003				
3/4/2020	<0.003		<0.003		<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.003	<0.003
8/31/2016		<0.003		
9/1/2016	<0.003			
12/6/2016		<0.003	<0.003	<0.003
12/8/2016	<0.003			
3/28/2017		<0.003		<0.003
3/29/2017			<0.003	
3/30/2017	<0.003			
7/11/2017		<0.003	<0.003	<0.003
7/13/2017	<0.003			
10/24/2017			<0.003	<0.003
10/25/2017		<0.003		
10/26/2017	<0.003			
2/27/2018		<0.003	<0.003	<0.003
3/2/2018	<0.003			
7/11/2018				<0.003
7/12/2018	<0.003			
11/6/2018		<0.003	<0.003	<0.003
11/7/2018	<0.003			
8/27/2019		<0.003		<0.003
8/28/2019			<0.003	
8/29/2019	<0.003			
10/16/2019		<0.003	<0.003	
10/17/2019				<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			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0058	<0.005	
9/1/2016						<0.005
12/6/2016				0.0017 (J)	<0.005	
12/7/2016						<0.005
3/28/2017	0.0005 (J)	<0.005	<0.005			
3/29/2017				0.0055	<0.005	<0.005
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
8/8/2017		<0.005				
10/24/2017	<0.005	<0.005	<0.005	0.0058	<0.005	
10/25/2017						0.0006 (J)
2/27/2018		<0.005	<0.005	0.0105	<0.005	<0.005
3/8/2018	<0.005					
7/11/2018						<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
8/27/2019		<0.005	<0.005	0.0024 (J)	<0.005	<0.005
8/28/2019	<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)					
3/2/2020		<0.005	<0.005		<0.005	<0.005
3/3/2020				0.0025 (J)		
3/9/2020	0.00068 (J)					

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.005				
9/1/2016					0.0022 (J)	
9/6/2016	<0.005		<0.005			
9/7/2016				<0.005		
12/6/2016		<0.005				
12/7/2016	<0.005		<0.005		<0.005	
12/8/2016				<0.005		
3/29/2017		<0.005			0.002 (J)	
3/30/2017	<0.005		0.0006 (J)	0.0008 (J)		<0.005
5/11/2017						<0.005
6/15/2017						<0.005
7/11/2017						<0.005
7/12/2017	<0.005	<0.005	<0.005	<0.005	0.0016 (J)	
10/24/2017						<0.005
10/25/2017		<0.005	<0.005	0.0007 (J)	0.0022 (J)	
11/15/2017	<0.005					
2/27/2018		<0.005				<0.005
2/28/2018	<0.005		<0.005	0.00073 (J)	0.0028 (J)	
7/11/2018		<0.005	<0.005	<0.005	0.0009 (J)	<0.005
11/6/2018						<0.005
11/7/2018	<0.005	<0.005	<0.005	<0.005	<0.005 (J)	
8/27/2019		<0.005		<0.005		0.00099 (J)
8/28/2019	<0.005		<0.005		0.00049 (J)	
10/16/2019	<0.005	0.00039 (J)			0.00046 (J)	
10/17/2019			0.00064 (J)			<0.005
10/18/2019				0.0012 (J)		
3/3/2020	<0.005	<0.005	<0.005		<0.005	0.0025 (J)
3/4/2020				0.0014 (J)		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0037 (J)
9/2/2016	0.0159	<0.005				
9/7/2016					<0.005	
12/7/2016	0.0037 (J)					
12/8/2016		<0.005			<0.005	0.0032 (J)
3/28/2017				0.0005 (J)		
3/29/2017	0.015					
3/30/2017		<0.005	<0.005			
3/31/2017					0.0007 (J)	0.0031 (J)
5/12/2017			<0.005	0.0005 (J)		
6/15/2017			<0.005	<0.005		
7/11/2017				0.0008 (J)		
7/12/2017	0.0121	<0.005	<0.005			
7/13/2017					<0.005	0.0018 (J)
10/24/2017				<0.005		
10/25/2017	0.0135	<0.005			<0.005	
10/26/2017			<0.005			0.0016 (J)
2/27/2018				<0.005		
2/28/2018	0.0177	<0.005			0.0011 (J)	
3/1/2018			<0.005			0.0029 (J)
7/11/2018	0.0055	<0.005			<0.005	
7/12/2018			<0.005			0.0023 (J)
11/6/2018				<0.005		
11/7/2018	0.0054	<0.005			<0.005	<0.005 (J)
11/8/2018			<0.005			
8/27/2019				<0.005		
8/28/2019					<0.005	
8/29/2019	0.0064	<0.005	<0.005			0.00089 (J)
10/15/2019				<0.005		
10/17/2019	0.0094	<0.005			<0.005	0.0013 (J)
10/18/2019			<0.005			
3/2/2020				<0.005		
3/3/2020		<0.005				
3/4/2020	0.029		<0.005		<0.005	0.0012 (J)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.005	0.0241
8/31/2016		0.0035 (J)		
9/1/2016	<0.005			
12/6/2016		0.0032 (J)	<0.005	<0.005
12/8/2016	<0.005			
3/28/2017		0.0385		0.0243
3/29/2017			0.001 (J)	
3/30/2017	0.0015 (J)			
7/11/2017		0.0203	0.0012 (J)	0.0194
7/13/2017	0.0012 (J)			
10/24/2017			0.0015 (J)	0.0249
10/25/2017		0.0119		
10/26/2017	0.0008 (J)			
2/27/2018		0.0094	0.002 (J)	0.0405
3/2/2018	0.0017 (J)			
7/11/2018				0.016
7/12/2018	0.0015 (J)			
11/6/2018		<0.005	<0.005	0.017
11/7/2018	<0.005			
8/27/2019		<0.005		0.021
8/28/2019			<0.005	
8/29/2019	<0.005			
10/16/2019		0.0036 (J)	<0.005	
10/17/2019				0.033
10/18/2019	0.00079 (J)			
3/2/2020		0.0052		
3/3/2020			0.00096 (J)	0.015
3/4/2020	0.0006 (J)			

Time Series

Constituent: Barium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0321	0.0545	
9/1/2016						0.0254
12/6/2016				0.029	0.0564	
12/7/2016						0.0241
3/28/2017	0.134	0.0166	0.0378			
3/29/2017				0.0335	0.0565	0.0268
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
8/8/2017		0.0277				
10/24/2017	0.109	0.0333	0.0313	0.0317	0.0596	
10/25/2017						0.0268
2/27/2018		0.0341	0.0287	0.028	0.0672	0.0255
3/8/2018	0.19					
7/11/2018						0.026
7/12/2018	0.18					
11/6/2018		0.037	0.026	0.025	0.074	
11/7/2018	0.15					0.028
8/27/2019		0.037	0.027	0.021	0.071	0.024
8/28/2019	0.087					
9/17/2019						0.02
10/15/2019		0.034	0.024	0.024	0.064	0.02
10/16/2019	0.077					
3/2/2020		0.035	0.026		0.071	0.04
3/3/2020				0.024		
3/9/2020	0.099					

Time Series

Constituent: Barium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.0576				
9/1/2016					0.0214	
9/6/2016	0.0297		0.0497			
9/7/2016				0.0694		
12/6/2016		0.0608				
12/7/2016	0.0266		0.0469		0.0191	
12/8/2016				0.062		
3/29/2017		0.0693			0.0209	
3/30/2017	0.0308		0.0495	0.0615		0.0232
5/11/2017						0.0231
6/15/2017						0.0223
7/11/2017						0.0201
7/12/2017	0.0291	0.0585	0.0517	0.0532	0.0212	
10/24/2017						0.0206
10/25/2017		0.0563	0.0474	0.0544	0.021	
11/15/2017	0.0309					
2/27/2018		0.0591				0.0207
2/28/2018	<0.01		0.0455	0.0527	0.0213	
7/11/2018		0.061	0.05	0.053	0.023	0.022
11/6/2018						0.021
11/7/2018	0.034	0.055	0.042	0.044	0.024	
8/27/2019		0.059		0.05		0.023
8/28/2019	0.033		0.047		0.026	
10/16/2019	0.034	0.059			0.024	
10/17/2019			0.046			0.022
10/18/2019				0.045		
3/3/2020	0.035	0.064	0.05		0.028	0.022
3/4/2020				0.044		

Time Series

Constituent: Barium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0162
9/2/2016	0.0097 (J)	0.0252				
9/7/2016					0.0194	
12/7/2016	0.0087 (J)					
12/8/2016		0.0262			0.0189	0.0247
3/28/2017				0.0363		
3/29/2017	0.0094 (J)					
3/30/2017		0.0272	0.0184			
3/31/2017					0.0194	0.0189
5/12/2017			0.0202	0.0337		
6/15/2017			0.0188	0.03		
7/11/2017				0.0301		
7/12/2017	0.0099 (J)	0.0276	0.0186			
7/13/2017					0.021	0.0165
10/24/2017				0.0351		
10/25/2017	0.0096 (J)	0.0262			0.0196	
10/26/2017			0.0176			0.0152
2/27/2018				0.0364		
2/28/2018	<0.01	0.027			0.0171	
3/1/2018			0.0164			0.0164
7/11/2018	0.01	0.027			0.02	
7/12/2018			0.022			0.015
11/6/2018				0.035		
11/7/2018	0.011	0.024			0.017	0.02
11/8/2018			0.022			
8/27/2019				0.036		
8/28/2019					0.018	
8/29/2019	0.018	0.027	0.025			0.018
10/15/2019				0.033		
10/17/2019	0.015	0.027			0.018	0.019
10/18/2019			0.019			
3/2/2020				0.036		
3/3/2020		0.027				
3/4/2020	0.017		0.032		0.015	0.017

Time Series

Constituent: Barium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.0435	0.0162
8/31/2016		0.0266 (o)		
9/1/2016	0.0157			
12/6/2016		0.0186	0.0431	0.0138
12/8/2016	0.0155			
3/28/2017		0.0187		0.017
3/29/2017			0.044	
3/30/2017	0.0131			
7/11/2017		0.0174 (J)	0.0389	0.0154 (J)
7/13/2017	0.014			
10/24/2017			0.0369	0.0148
10/25/2017		0.0175		
10/26/2017	0.0117			
2/27/2018		0.0172	0.0346	0.0148
3/2/2018	0.0131			
7/11/2018				0.017
7/12/2018	0.013			
11/6/2018		0.016	0.027	0.015
11/7/2018	0.014			
8/27/2019		0.017		0.016
8/28/2019			0.025	
8/29/2019	0.014			
10/16/2019		0.02	0.027	
10/17/2019				0.015
10/18/2019	0.014			
3/2/2020		0.018		
3/3/2020			0.026	0.016
3/4/2020	0.014			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0046	<0.003	
9/1/2016						0.0002 (J)
12/6/2016				0.0048	<0.003	
12/7/2016						0.0002 (J)
3/28/2017	<0.003	<0.003	9E-05 (J)			
3/29/2017				0.0048	<0.003	0.0002 (J)
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)
8/8/2017		<0.003				
10/24/2017	<0.003	<0.003	<0.003	0.0048	<0.003	
10/25/2017						0.0002 (J)
2/27/2018		<0.003	<0.003	0.0106	<0.003	<0.003
3/8/2018	<0.003					
7/11/2018						0.0002 (J)
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)
8/27/2019		7.9E-05 (J)	<0.003	0.0092	0.00014 (J)	0.00028 (J)
8/28/2019	<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					
3/2/2020		9.6E-05 (J)	0.0001 (J)		0.00016 (J)	7.4E-05 (J)
3/3/2020				0.0085		
3/9/2020	<0.003					

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.003				
9/1/2016					0.0019 (J)	
9/6/2016	<0.003		<0.003			
9/7/2016				0.0006 (J)		
12/6/2016		<0.003				
12/7/2016	<0.003		<0.003		0.0021 (J)	
12/8/2016				0.0005 (J)		
3/29/2017		<0.003			0.0017 (J)	
3/30/2017	7E-05 (J)		<0.003	0.0006 (J)		<0.003
5/11/2017						<0.003
6/15/2017						<0.003
7/11/2017						<0.003
7/12/2017	<0.003	<0.003	<0.003	0.0005 (J)	0.0018 (J)	
10/24/2017						<0.003
10/25/2017		<0.003	<0.003	0.0005 (J)	0.0019 (J)	
11/15/2017	<0.003					
2/27/2018		<0.003				<0.003
2/28/2018	<0.003		<0.003	<0.003	<0.003	
7/11/2018		<0.003	<0.003	0.00058 (J)	0.002 (J)	<0.003
11/6/2018						<0.003
11/7/2018	<0.003 (J)	<0.003	<0.003 (J)	<0.003	<0.003 (J)	
8/27/2019		<0.003		0.00066 (J)		<0.003
8/28/2019	<0.003		<0.003		0.0018 (J)	
10/16/2019	<0.003	<0.003			0.0017 (J)	
10/17/2019			<0.003			<0.003
10/18/2019				0.00071 (J)		
3/3/2020	<0.003	<0.003	<0.003		0.0021 (J)	<0.003
3/4/2020				0.00062 (J)		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0165
9/2/2016	0.0026 (J)	0.0001 (J)				
9/7/2016					0.0021 (J)	
12/7/2016	0.0035					
12/8/2016		0.0001 (J)			0.0023 (J)	0.0116
3/28/2017				0.0002 (J)		
3/29/2017	0.0026 (J)					
3/30/2017		0.0002 (J)	0.0004 (J)			
3/31/2017					0.0025 (J)	0.0112
5/12/2017			0.0004 (J)	0.0002 (J)		
6/15/2017			0.0004 (J)	0.0001 (J)		
7/11/2017				0.0001 (J)		
7/12/2017	0.0025 (J)	0.0001 (J)	0.0004 (J)			
7/13/2017					0.0025 (J)	0.0098
10/24/2017				0.0002 (J)		
10/25/2017	0.0027 (J)	0.0002 (J)			0.0026 (J)	
10/26/2017			0.0004 (J)			0.0119
2/27/2018				<0.003		
2/28/2018	<0.003	<0.003			<0.003	
3/1/2018			<0.003			0.0146
7/11/2018	0.0026 (J)	0.00016 (J)			0.0029 (J)	
7/12/2018			0.00035 (J)			0.013
11/6/2018				<0.003 (J)		
11/7/2018	<0.003 (J)	<0.003 (J)			0.0031	0.014
11/8/2018			<0.003 (J)			
8/27/2019				0.00024 (J)		
8/28/2019					0.0023 (J)	
8/29/2019	0.005	0.00018 (J)	0.00041 (J)			0.011
10/15/2019				0.00022 (J)		
10/17/2019	0.0041	0.00015 (J)			0.0027 (J)	0.0093
10/18/2019			0.00038 (J)			
3/2/2020				0.00025 (J)		
3/3/2020		0.00019 (J)				
3/4/2020	0.0089		0.00077 (J)		0.0029 (J)	0.01

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.0018 (J)	0.0045
8/31/2016		0.0054		
9/1/2016	0.008			
12/6/2016		0.0064	0.0034	0.005
12/8/2016	0.0086			
3/28/2017		0.0049		0.0052
3/29/2017			0.0031	
3/30/2017	0.0106			
7/11/2017		0.005	0.0022 (J)	0.0048
7/13/2017	0.0106			
10/24/2017			0.0042	0.0051
10/25/2017		0.0069		
10/26/2017	0.0078			
2/27/2018		0.0086	0.0047	0.0057
3/2/2018	0.0096			
7/11/2018				0.0058
7/12/2018	0.0086			
11/6/2018		0.01	<0.003 (J)	0.006
11/7/2018	0.0078			
8/27/2019		0.01		0.007
8/28/2019			0.0021 (J)	
8/29/2019	0.0081			
10/16/2019		0.0072	0.0019 (J)	
10/17/2019				0.0063
10/18/2019	0.0099			
3/2/2020		0.0098		
3/3/2020			0.0018 (J)	0.0048
3/4/2020	0.008			

Time Series

Constituent: Boron (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				3.5	0.914	
9/1/2016						7.64
12/6/2016				3.3	1.15	
12/7/2016						8.07
3/28/2017	0.0612	0.0067 (J)	0.0097 (J)			
3/29/2017				4.3 (o)	1.07	8.46
5/11/2017	0.0805					
5/12/2017			0.0082 (J)			
5/15/2017		0.0073 (J)				
6/15/2017	0.0725	<0.04				
6/16/2017			0.0085 (J)			
7/11/2017		<0.04	0.0077 (J)			
7/12/2017	0.0735			3.38	1.14	7.55
8/8/2017		<0.04				
10/24/2017	0.077	0.0082 (J)	0.0083 (J)	3.45	1.18	
10/25/2017						9.97
2/27/2018		0.0062 (J)	0.0069 (J)	3.23	1.17	8.03
3/8/2018	0.13 (J)					
7/11/2018						10.2
7/12/2018	0.076					
11/6/2018		<0.04 (J)	<0.04 (J)	2.1 (o)	1.2	
11/7/2018	0.073					7.7
3/12/2019		0.0073 (J)	0.0068 (J)	0.98	1.2	4.8
3/13/2019	0.08					
9/17/2019						6.9
10/15/2019		<0.04	0.0054 (J)	1.6	1.2	5.9
10/16/2019	0.059					
3/2/2020		0.0055 (J)	0.01 (J)		1.6	3.3
3/3/2020				1.5		
3/9/2020	0.08 (J)					

Time Series

Constituent: Boron (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.0419 (J)				
9/1/2016					3.08	
9/6/2016	1		1.25			
9/7/2016				0.683		
12/6/2016		0.0804				
12/7/2016	0.9		1.56		3.34	
12/8/2016				0.688		
3/29/2017		0.103			3.96	
3/30/2017	0.898		1.5	0.743		1.56
5/11/2017						1.65
6/15/2017						1.44
7/11/2017						1.39
7/12/2017	0.996	0.044	1.49	0.62	2.82	
10/24/2017						1.18
10/25/2017		0.0565	1.47	0.739	3.19	
11/15/2017	0.795					
2/27/2018		0.0539				1.12
2/28/2018	0.106		1.58	0.627	2.91	
7/11/2018		0.057	1.4	0.79	3.7	0.82
11/6/2018						0.9
11/7/2018	0.76	0.055	0.8	1.6	2.6	
3/12/2019						0.72
3/13/2019	0.62	0.047		0.76	2.6	
3/14/2019			1.6			
10/16/2019	0.65	0.052			2.2	
10/17/2019			1.5			0.73
10/18/2019				0.82		
3/3/2020	0.61	0.15	1.7		3.1	0.68
3/4/2020				0.85		

Time Series

Constituent: Boron (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.345
9/2/2016	6.77	4.81				
9/7/2016					0.924	
12/7/2016	6.04					
12/8/2016		3.57			0.957	0.352
3/28/2017				4.01		
3/29/2017	8.23					
3/30/2017		5.68	4.68			
3/31/2017					0.989	0.312
5/12/2017			4.03	3.58		
6/15/2017			4.11	3.58		
7/11/2017				3.85		
7/12/2017	6.81	5.2	3.74			
7/13/2017					1.03	0.28
10/24/2017				3.82		
10/25/2017	8.94	7.92			0.982	
10/26/2017			4.07			0.269
2/27/2018				4.06		
2/28/2018	6.26	5.89			0.918	
3/1/2018			4.37			0.296
7/11/2018	5.7	8.3			0.83	
7/12/2018			4			0.26
11/6/2018				4.1		
11/7/2018	5	4.9			0.89	0.3
11/8/2018			4.7			
3/12/2019				4.6		
3/13/2019	5.6	6.2				
3/14/2019			4.7		0.89	0.26
10/15/2019				5		
10/17/2019	5	7			0.94	0.25
10/18/2019			4.5			
3/2/2020				5.9		
3/3/2020		6.8				
3/4/2020	3.6		4.8		1	0.24

Time Series

Constituent: Boron (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			2.63	1.72
8/31/2016		7.5		
9/1/2016	0.955			
12/6/2016		5.64	2.72	1.92
12/8/2016	0.919			
3/28/2017		6.16		2.01
3/29/2017			3.04	
3/30/2017	0.925			
7/11/2017		4.61	2.55	1.78
7/13/2017	0.972			
10/24/2017			2.29	1.72
10/25/2017		4		
10/26/2017	0.746			
2/27/2018		4.29	2.07	1.68
3/2/2018	0.878			
7/11/2018				1.4
7/12/2018	0.82			
11/6/2018		4.2	1.7	1.4
11/7/2018	0.74			
3/12/2019		4.3	1.5	1.2
3/14/2019	0.72			
10/16/2019		4.3	1.2	
10/17/2019				1.2
10/18/2019	0.74			
3/2/2020		5.5		
3/3/2020			1.5	1.1
3/4/2020	0.77			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0012	<0.0025	
9/1/2016						0.0004 (J)
12/6/2016				0.0013	<0.0025	
12/7/2016						0.0003 (J)
3/28/2017	<0.0025	<0.0025	<0.0025			
3/29/2017				0.0013	<0.0025	0.0003 (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)
8/8/2017		<0.0025				
10/24/2017	<0.0025	<0.0025	<0.0025	0.0014	<0.0025	
10/25/2017						0.0004 (J)
2/27/2018		<0.0025	<0.0025	0.001	<0.0025	<0.0025
3/8/2018	<0.0025					
7/11/2018						0.00033 (J)
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)
8/27/2019		<0.0025	<0.0025	0.00077 (J)	0.00012 (J)	0.00037 (J)
8/28/2019	<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					
3/2/2020		0.00041 (J)	<0.0025		<0.0025	<0.0025
3/3/2020				0.00095 (J)		
3/9/2020	<0.0025					

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.0025				
9/1/2016					0.0004 (J)	
9/6/2016	<0.0025		<0.0025			
9/7/2016				0.0003 (J)		
12/6/2016		<0.0025				
12/7/2016	0.0002 (J)		9E-05 (J)		0.0004 (J)	
12/8/2016				0.0003 (J)		
3/29/2017		<0.0025			0.0004 (J)	
3/30/2017	8E-05 (J)		9E-05 (J)	0.0003 (J)		0.0005 (J)
5/11/2017						0.0004 (J)
6/15/2017						0.0003 (J)
7/11/2017						0.0003 (J)
7/12/2017	<0.0025	<0.0025	<0.0025	0.0002 (J)	0.0004 (J)	
10/24/2017						0.0003 (J)
10/25/2017		<0.0025	<0.0025	0.0002 (J)	0.0004 (J)	
11/15/2017	<0.0025					
2/27/2018		<0.0025				<0.0025
2/28/2018	<0.0025		<0.0025	<0.0025	<0.0025	
7/11/2018		<0.0025	<0.0025	0.00029 (J)	0.00039 (J)	0.00018 (J)
11/6/2018						<0.001 (J)
11/7/2018	<0.0025	<0.0025	<0.001 (J)	<0.0025	<0.001 (J)	
8/27/2019		<0.0025		0.00033 (J)		0.00012 (J)
8/28/2019	<0.0025		<0.0025		0.00033 (J)	
10/16/2019	<0.0025	<0.0025			0.00034 (J)	
10/17/2019			<0.0025			0.00013 (J)
10/18/2019				0.00029 (J)		
3/3/2020	<0.0025	<0.0025	0.00012 (J)		0.00037 (J)	0.00014 (J)
3/4/2020				0.00028 (J)		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0017
9/2/2016	0.0023	0.0006 (J)				
9/7/2016					0.0007 (J)	
12/7/2016	0.0023					
12/8/2016		0.0006 (J)			0.0003 (J)	0.0002 (J)
3/28/2017				0.0006 (J)		
3/29/2017	0.0021					
3/30/2017		0.0008 (J)	0.0002 (J)			
3/31/2017					0.0009 (J)	0.002
5/12/2017			0.0003 (J)	0.0006 (J)		
6/15/2017			0.0002 (J)	0.0005 (J)		
7/11/2017				0.0006 (J)		
7/12/2017	0.0021	0.0006 (J)	0.0002 (J)			
7/13/2017					0.0008 (J)	0.0017
10/24/2017				0.0007 (J)		
10/25/2017	0.002	0.0005 (J)			0.0005 (J)	
10/26/2017			0.0003 (J)			0.0015
2/27/2018				<0.0025		
2/28/2018	0.0018	<0.0025			<0.0025	
3/1/2018			<0.0025			0.0025
7/11/2018	0.0018	0.00054 (J)			0.0024	
7/12/2018			0.00028 (J)			0.0021
11/6/2018				<0.001 (J)		
11/7/2018	0.0018	<0.001 (J)			<0.001 (J)	0.0016
11/8/2018			<0.001 (J)			
8/27/2019				0.00072 (J)		
8/28/2019					0.0015 (J)	
8/29/2019	0.002 (J)	0.00087 (J)	0.00022 (J)			0.0021 (J)
10/15/2019				0.00077 (J)		
10/17/2019	0.0017 (J)	0.0006 (J)			0.00058 (J)	0.0033
10/18/2019			0.00022 (J)			
3/2/2020				0.00088 (J)		
3/3/2020		0.00063 (J)				
3/4/2020	0.0026		0.00024 (J)		0.00037 (J)	0.0017 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.0019	0.0004 (J)
8/31/2016		0.0002 (J)		
9/1/2016	0.0013			
12/6/2016		0.0004 (J)	0.0025	0.0005 (J)
12/8/2016	0.0042			
3/28/2017		0.0002 (J)		0.0005 (J)
3/29/2017			0.0024	
3/30/2017	0.0089			
7/11/2017		0.0003 (J)	0.0021	0.0005 (J)
7/13/2017	0.0033			
10/24/2017			0.0029	0.0006 (J)
10/25/2017		0.0006 (J)		
10/26/2017	0.0032			
2/27/2018		<0.0025	0.0029	<0.0025
3/2/2018	0.0049			
7/11/2018				0.00067 (J)
7/12/2018	0.0032			
11/6/2018		<0.001 (J)	0.0027	<0.001 (J)
11/7/2018	0.0031			
8/27/2019		0.00082 (J)		0.00071 (J)
8/28/2019			0.0022 (J)	
8/29/2019	0.003			
10/16/2019		0.00069 (J)	0.0022 (J)	
10/17/2019				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	0.0036			

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				81.7	44.2	
9/1/2016						80.6
12/6/2016				74.2	48.3	
12/7/2016						82.1
3/28/2017	30.8	5.14	8.31			
3/29/2017				79.5	50.5	88.3
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
8/8/2017		5.2				
10/24/2017	30.3	4.93	6.86	81.5	55	
10/25/2017						92.1
2/27/2018		<25	<25	96.2	51.4	85.6
3/8/2018	39.8					
7/11/2018						93.6
7/12/2018	34.7					
11/6/2018		5.5	5.7	94.8	62.6	
11/7/2018	28.6					73.3
3/12/2019		5.1	5.5	83.5	61.4	62.1
3/13/2019	26.7					
10/15/2019		5.1	5.1	79.1	61.2	61.4
10/16/2019	17.7					
3/2/2020		5.3	5.8		65.8	46.5
3/3/2020				63.6		
3/9/2020	23.7					

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		9.95				
9/1/2016					65.6	
9/6/2016	44		33.6			
9/7/2016				8.61		
12/6/2016		10.4				
12/7/2016	39.8		34.7		68.3	
12/8/2016				7.92		
3/29/2017		14.4			68	
3/30/2017	46.3		36.9	9.56		103
5/11/2017						102
6/15/2017						96.2
7/11/2017						98.4
7/12/2017	47.8	10.5	38.4	10.4	70	
10/24/2017						86
10/25/2017		9.67	36.2	10.9	77	
11/15/2017	49.3					
2/27/2018		<25				66.7
2/28/2018	<25		35	<25	72	
7/11/2018		9.9	37.5	13 (J)	82.7	55
11/6/2018						54.5
11/7/2018	44.8	9.7	11.4	37	81.7	
3/12/2019						52.2
3/13/2019	42.1	9.7		11.9 (J)	76.9	
3/14/2019			34.7			
10/16/2019	43.8	9.4			85.7	
10/17/2019			37			47.2
10/18/2019				12.9		
3/3/2020	49.3	14	37.8		86.8	48.4
3/4/2020				15.8		

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						69.3
9/2/2016	96.3	70.2				
9/7/2016					43.6	
12/7/2016	91.9					
12/8/2016		70.1			45.8	71.1
3/28/2017				229		
3/29/2017	95.7					
3/30/2017		72.5	68.1			
3/31/2017					48.3	62.6
5/12/2017			71.1	233		
6/15/2017			65.9	224		
7/11/2017				249		
7/12/2017	100	80.4	70			
7/13/2017					52.3	52.5
10/24/2017				232		
10/25/2017	97.3	75.6			50.9	
10/26/2017			67.2			46.7
2/27/2018				245		
2/28/2018	86.3	73.2			45.1	
3/1/2018			66.5			44.2
7/11/2018	92.4	82.3			47.8	
7/12/2018			72			41.6
11/6/2018				284		
11/7/2018	85.9	78.5			45.5	38.6
11/8/2018			73.5			
3/12/2019				295		
3/13/2019	86.4	79.9				
3/14/2019			73.2		43.5	36.6
10/15/2019				276		
10/17/2019	86.9	79.8			44.1	36.2
10/18/2019			67.7			
3/2/2020				320		
3/3/2020		87.4				
3/4/2020	103		69.8		48.8	36

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			82.7	64.9
8/31/2016		82.6		
9/1/2016	95.1			
12/6/2016		73.9	76.8	59.3
12/8/2016	105			
3/28/2017		89.1		71.6
3/29/2017			90.5	
3/30/2017	98.6			
7/11/2017		84.6	91.1	73.7
7/13/2017	102			
10/24/2017			78.1	92.5
10/25/2017		95.6		
10/26/2017	94			
2/27/2018		108	64.2	73.1
3/2/2018	86.6			
7/11/2018				88.5
7/12/2018	89.1			
11/6/2018		124	57	81.1
11/7/2018	88			
3/12/2019		110	54.3	78.1
3/14/2019	74.6			
10/16/2019		109	47.3	
10/17/2019				75.6
10/18/2019	72.7			
3/2/2020		116		
3/3/2020			46	59.5
3/4/2020	79.7			

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				11	11	
9/1/2016						13
12/6/2016				10	11	
12/7/2016						20 (o)
3/28/2017	3.7	3.8	3.6			
3/29/2017				11	12	13
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
8/8/2017		2.2				
10/24/2017	2.7	2.4	3.2	11	12	
10/25/2017						13
11/15/2017	2.2		3.1	12		
2/27/2018		2.5	3.2	10.8	12.7	11.7
3/8/2018	2.4					
7/11/2018						11.3
7/12/2018	2.2					
11/6/2018		2.3	2.6	12.3	15.2	
11/7/2018	2.3					11.8
3/12/2019		2.5	3.3	12.1	14.5	12.1
3/13/2019	3.6					
10/15/2019		2.2	3.3	9.4	15.6	11.6
10/16/2019	2					
3/2/2020		1.9	3		15	8.9
3/3/2020				8.4		
3/9/2020	1.8					

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		3.1				
9/1/2016					41	
9/6/2016	16		19			
9/7/2016				17		
12/6/2016		3.1				
12/7/2016	14		20		41	
12/8/2016				19		
3/29/2017		3.8			42	
3/30/2017	16		21	20		4.8
5/11/2017						4.4
6/15/2017						4.8
7/11/2017						4.6
7/12/2017	14	2.9	21	18	41	
10/24/2017						4.4
10/25/2017		3.5	21	19	41	
11/15/2017	16					
2/27/2018		3.4				4.1
2/28/2018	2.7		20.1	17	36.4	
7/11/2018		3.2	21.4	19.5	38.2	3.3
11/6/2018						3.7
11/7/2018	16.7	3.1	22.4	21.4	38.8	
3/12/2019						3.1
3/13/2019	12.4	3.4		19.9	40.1	
3/14/2019			24			
10/16/2019	17.4	3.5			33.2	
10/17/2019			22			2.8
10/18/2019				22		
3/3/2020	9.4	4.1	22.7		30.9	2.3
3/4/2020				19.6		

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						12
9/2/2016	15	25				
9/7/2016					33	
12/7/2016	16					
12/8/2016		24			32	12
3/28/2017				29		
3/29/2017	17					
3/30/2017		24	17			
3/31/2017					33	9.1
5/12/2017			17	29		
6/15/2017			16	28		
7/11/2017				28		
7/12/2017	18	23	16			
7/13/2017					33	5.7
10/24/2017				28		
10/25/2017	20	23			32	
10/26/2017			17			6.6
11/15/2017				27		
2/27/2018				24.6		
2/28/2018	18.6	19.9			29	
3/1/2018			14.8			10.7
7/11/2018	20.4	20.9			29.3	
7/12/2018			15.2			9.5
11/6/2018				24.8		
11/7/2018	21.5	20.5			28.6	8.6
11/8/2018			14.6			
3/12/2019				24.2		
3/13/2019	24.8	21.3				
3/14/2019			15.2		24.8	6.6
10/15/2019				20.9		
10/17/2019	24.9	20.1			25.8	7
10/18/2019			14.4			
3/2/2020				18.7		
3/3/2020		19.7				
3/4/2020	27.8		13.9		23.6	4.4

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			9.7	6
8/31/2016		8.6		
9/1/2016	18			
12/6/2016		8	9.8	6.2
12/8/2016	17			
3/28/2017		9.5		6.6
3/29/2017			9.9	
3/30/2017	16			
7/11/2017		9	9.7	6.9
7/13/2017	15			
10/24/2017			9.9	6.7
10/25/2017		9.4		
10/26/2017	14			
2/27/2018		9.7	9.5	8.2
3/2/2018	12.8			
7/11/2018				10.5
7/12/2018	11.7			
11/6/2018		10.2	10.5	8.7
11/7/2018	11.4			
3/12/2019		10.6	10.7	8.5
3/14/2019	10.2			
10/16/2019		11.6	10.4	
10/17/2019				10
10/18/2019	9.6			
3/2/2020		10.5		
3/3/2020			9.6	6.6
3/4/2020	9.1			

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				<0.01	<0.01	
9/1/2016						<0.01
12/6/2016				<0.01	<0.01	
12/7/2016						<0.01
3/28/2017	<0.01	0.0008 (J)	0.0023 (J)			
3/29/2017				0.0008 (J)	<0.01	<0.01
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
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
2/27/2018		<0.01	<0.01	<0.01	<0.01	<0.01
3/8/2018	<0.01					
7/11/2018						<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
8/27/2019		0.00071 (J)	0.0018 (J)	0.00083 (J)	0.0006 (J)	<0.01
8/28/2019	<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					
3/2/2020		0.0013 (J)	0.00045 (J)		0.0006 (J)	<0.01
3/3/2020				0.00092 (J)		
3/9/2020	<0.01					

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.01				
9/1/2016					0.0031 (J)	
9/6/2016	<0.01		<0.01			
9/7/2016				0.0026 (J)		
12/6/2016		<0.01				
12/7/2016	<0.01		<0.01		<0.01	
12/8/2016				0.0025 (J)		
3/29/2017		<0.01			0.0025 (J)	
3/30/2017	0.0009 (J)		0.0005 (J)	0.0026 (J)		0.0005 (J)
5/11/2017						0.0005 (J)
6/15/2017						<0.01
7/11/2017						<0.01
7/12/2017	<0.01	<0.01	<0.01	0.0022 (J)	0.0023 (J)	
10/24/2017						<0.01
10/25/2017		<0.01	<0.01	0.0024 (J)	0.0024 (J)	
11/15/2017	<0.01					
2/27/2018		<0.01				<0.01
2/28/2018	<0.01		<0.01	<0.01	<0.01	
7/11/2018		<0.01	<0.01	0.0024 (J)	0.0022 (J)	<0.01
11/6/2018						<0.01
11/7/2018	<0.01	<0.01	<0.01 (J)	<0.01	<0.01 (J)	
8/27/2019		<0.01		0.0031 (J)		0.0004 (J)
8/28/2019	<0.01		<0.01		0.0028 (J)	
10/16/2019	<0.01	<0.01			0.0024 (J)	
10/17/2019			0.00058 (J)			0.00046 (J)
10/18/2019				0.0027 (J)		
3/3/2020	0.00066 (J)	<0.01	0.00046 (J)		0.0028 (J)	<0.01
3/4/2020				0.0035 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						<0.01
9/2/2016	0.0017 (J)	<0.01				
9/7/2016					<0.01	
12/7/2016	<0.01					
12/8/2016		<0.01			<0.01	<0.01
3/28/2017				0.0005 (J)		
3/29/2017	0.0016 (J)					
3/30/2017		0.0005 (J)	0.0012 (J)			
3/31/2017					0.001 (J)	0.0007 (J)
5/12/2017			0.0004 (J)	<0.01		
6/15/2017			0.0005 (J)	<0.01		
7/11/2017				<0.01		
7/12/2017	<0.01	0.0006 (J)	0.0007 (J)			
7/13/2017					0.0008 (J)	<0.01
10/24/2017				<0.01		
10/25/2017	0.0015 (J)	<0.01			0.0005 (J)	
10/26/2017			0.0007 (J)			<0.01
2/27/2018				<0.01		
2/28/2018	<0.01	<0.01			<0.01	
3/1/2018			<0.01			<0.01
7/11/2018	<0.01	<0.01			<0.01	
7/12/2018			<0.01			<0.01
11/6/2018				<0.01		
11/7/2018	<0.01 (J)	<0.01			<0.01	<0.01
11/8/2018			<0.01			
8/27/2019				<0.01		
8/28/2019					<0.01	
8/29/2019	0.0017 (J)	0.00041 (J)	<0.01			<0.01
10/15/2019				<0.01		
10/17/2019	0.0015 (J)	<0.01			0.00041 (J)	<0.01
10/18/2019			0.00041 (J)			
3/2/2020				<0.01		
3/3/2020		0.00048 (J)				
3/4/2020	0.0032 (J)		0.00081 (J)		0.00042 (J)	<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.01	<0.01
8/31/2016		<0.01		
9/1/2016	<0.01			
12/6/2016		<0.01	<0.01	<0.01
12/8/2016	<0.01			
3/28/2017		<0.01		0.001 (J)
3/29/2017			0.0004 (J)	
3/30/2017	<0.01			
7/11/2017		<0.01	<0.01	<0.01
7/13/2017	0.0007 (J)			
10/24/2017			<0.01	<0.01
10/25/2017		<0.01		
10/26/2017	<0.01			
2/27/2018		<0.01	<0.01	<0.01
3/2/2018	<0.01			
7/11/2018				<0.01
7/12/2018	<0.01			
11/6/2018		<0.01	<0.01	<0.01
11/7/2018	<0.01			
8/27/2019		<0.01		0.00048 (J)
8/28/2019			<0.01	
8/29/2019	<0.01			
10/16/2019		<0.01	0.0013 (J)	
10/17/2019				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	0.0004 (J)			

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.193	<0.005	
9/1/2016						0.0021 (J)
12/6/2016				0.2	0.0006 (J)	
12/7/2016						0.0026 (J)
3/28/2017	0.025	0.0034 (J)	0.0033 (J)			
3/29/2017				0.184	<0.005	0.0026 (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)
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)
2/27/2018		<0.005	<0.005	0.2	<0.005	<0.005
3/8/2018	0.027					
7/11/2018						0.002 (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)
8/27/2019		<0.005	<0.005	0.13	0.00076 (J)	0.0021 (J)
8/28/2019	0.013					
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					
3/2/2020		0.00037 (J)	<0.005		0.00078 (J)	0.029
3/3/2020				0.18		
3/9/2020	0.016					

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.005				
9/1/2016					0.0553	
9/6/2016	<0.005		0.0042 (J)			
9/7/2016				0.0247		
12/6/2016		<0.005				
12/7/2016	<0.005		0.0028 (J)		0.0561	
12/8/2016				0.029		
3/29/2017		<0.005			0.0534	
3/30/2017	0.0005 (J)		0.0024 (J)	0.0283		0.0255
5/11/2017						0.0284
6/15/2017						0.0238
7/11/2017						0.0238
7/12/2017	0.0004 (J)	<0.005	0.002 (J)	0.023	0.0489	
10/24/2017						0.0292
10/25/2017		<0.005	0.0019 (J)	0.0259	0.0514	
11/15/2017	<0.005					
2/27/2018		<0.005				0.042
2/28/2018	<0.005		<0.005	0.02	0.0511	
7/11/2018		<0.005	0.0018 (J)	0.025	0.051	0.02
11/6/2018						0.024
11/7/2018	<0.005	<0.005	0.025	<0.01 (J)	0.048	
8/27/2019		<0.005		0.031		0.0088
8/28/2019	<0.005		0.0015 (J)		0.048	
10/16/2019	<0.005	<0.005			0.046	
10/17/2019			0.0018 (J)			0.0084
10/18/2019				0.023		
3/3/2020	<0.005	<0.005	0.0018 (J)		0.054	0.0073
3/4/2020				0.023		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.536
9/2/2016	0.497	0.0085 (J)				
9/7/2016					0.0695	
12/7/2016	0.614					
12/8/2016		0.0095 (J)			0.0652	0.381
3/28/2017				0.0018 (J)		
3/29/2017	0.443					
3/30/2017		0.0076 (J)	<0.005			
3/31/2017					0.0524	0.354
5/12/2017			<0.005	0.0015 (J)		
6/15/2017			0.0003 (J)	0.0015 (J)		
7/11/2017				0.0015 (J)		
7/12/2017	0.538	0.0092 (J)	<0.005			
7/13/2017					0.0481	0.396
10/24/2017				0.0017 (J)		
10/25/2017	0.432	0.0092 (J)			0.0435	
10/26/2017			<0.005			0.383
2/27/2018				<0.005		
2/28/2018	0.459	<0.005			0.0167	
3/1/2018			<0.005			0.401
7/11/2018	0.47	0.0097 (J)			0.019	
7/12/2018			<0.005			0.36
11/6/2018				<0.01 (J)		
11/7/2018	0.42	<0.01 (J)			0.02	0.35
11/8/2018			<0.01 (J)			
8/27/2019				0.0018 (J)		
8/28/2019					0.029	
8/29/2019	0.66	0.01	0.00036 (J)			0.28
10/15/2019				0.0018 (J)		
10/17/2019	0.57	0.01			0.03	0.26
10/18/2019			<0.005			
3/2/2020				0.0021 (J)		
3/3/2020		0.01				
3/4/2020	0.84		0.00043 (J)		0.014	0.28

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.0568	0.0896
8/31/2016		0.055		
9/1/2016	0.539			
12/6/2016		0.0432	0.0873	0.122
12/8/2016	0.575			
3/28/2017		0.04		0.124
3/29/2017			0.0902	
3/30/2017	0.573			
7/11/2017		0.0351 (J)	0.0601	0.136
7/13/2017	0.531			
10/24/2017			0.123	0.151
10/25/2017		0.0209		
10/26/2017	0.482			
2/27/2018		0.024	0.126	0.163
3/2/2018	0.49			
7/11/2018				0.18
7/12/2018	0.46			
11/6/2018		0.019	0.077	0.2
11/7/2018	0.48			
8/27/2019		0.02		0.24
8/28/2019			0.051	
8/29/2019	0.42			
10/16/2019		0.022	0.054	
10/17/2019				0.21
10/18/2019	0.41			
3/2/2020		0.028		
3/3/2020			0.044	0.2
3/4/2020	0.42			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				1.08	1.09	
9/1/2016						1.11
12/6/2016				1.31	0.409 (U)	
12/7/2016						2.66
3/28/2017	6.36	0.866 (U)	0.257 (U)			
3/29/2017				1.24	0.727	0.0726 (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)
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)
2/27/2018		1.22	0.714 (U)	1.55	1.14	0.83
3/8/2018	2.14					
7/10/2018		0.362 (U)	0.426 (U)	1.65	0.495 (U)	
7/11/2018						0.728 (U)
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)
8/27/2019		1.97	1.3 (U)	1.58	2.13	0.434 (U)
8/28/2019	2.68					
10/15/2019		0.319 (U)	1.21 (U)	0.831 (U)	0.622 (U)	0.359 (U)
10/16/2019	1.89					
3/2/2020		0.419 (U)	1.3		1.3	1.2 (U)
3/3/2020				1.69		
3/9/2020	3.51					

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.997 (U)				
9/1/2016					1.07 (U)	
9/6/2016	1.32		0.731 (U)			
9/7/2016				1.17		
12/6/2016		0.659 (U)				
12/7/2016	1.76		1.73		0.903 (U)	
12/8/2016				1.65		
3/29/2017		0.313 (U)			0.302 (U)	
3/30/2017	1.59		0.276 (U)	0.865 (U)		0.737 (U)
5/11/2017						0.892 (U)
6/15/2017						0.979 (U)
7/11/2017						0.871 (U)
7/12/2017	1.36	1.03 (U)	0.584 (U)	0.362 (U)	0.283 (U)	
10/24/2017						1.19
10/25/2017		0.607 (U)	0.454 (U)	0.401 (U)	0.927 (U)	
11/15/2017	1.08 (U)					
2/27/2018		0.695 (U)				0.863 (U)
2/28/2018	0.721 (U)		1.25	1.1 (U)	0.813 (U)	
7/10/2018	0.746 (U)					
7/11/2018		1.04 (U)	2.13	0.64 (U)	0.751 (U)	0.663 (U)
11/6/2018						0.664
11/7/2018	1.22 (U)	0.593 (U)	0.786 (U)	0.795 (U)	1.02	
8/27/2019		1.17 (U)		1.12		1.6
8/28/2019	1.43		1.01 (U)		0.661 (U)	
10/16/2019	1.73	1.04 (U)			1.79	
10/17/2019			1.03 (U)			1.74
10/18/2019				0.89 (U)		
3/3/2020	1.03	1.44	0.293 (U)		0.383 (U)	1.23
3/4/2020				0.493 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						4.47
9/2/2016	1.48	0.908 (U)				
9/7/2016					0.876 (U)	
12/7/2016	1.26 (U)					
12/8/2016		1.03 (U)			0.955	2.88
3/28/2017				1.36		
3/29/2017	0.373 (U)					
3/30/2017		0.884 (U)	0.297 (U)			
3/31/2017					0.102 (U)	1.14
5/12/2017			0.693 (U)	1.15		
6/15/2017			0.435 (U)	0.765 (U)		
7/11/2017				1.13		
7/12/2017	0.91 (U)	1.22	0.703 (U)			
7/13/2017					1.08 (U)	2.37
10/24/2017				1.24		
10/25/2017	0.853 (U)	1.07 (U)			1.46	
10/26/2017			0.984 (U)			2.88
2/27/2018				1.82		
2/28/2018	0.727 (U)	1.45			0.882 (U)	
3/1/2018			0.743 (U)			2.21
7/10/2018				1.37		
7/11/2018	1.3	1.59			0.924 (U)	
7/12/2018			0.918 (U)			1.73
11/6/2018				1.2		
11/7/2018	0.746 (U)	1.16			0.654 (U)	1.72
11/8/2018			1.47			
8/27/2019				1.79		
8/28/2019					0.883 (U)	
8/29/2019	0.996 (U)	0.582 (U)	2.21			3.05
10/15/2019				2.11 (U)		
10/17/2019	2	0.427 (U)			1.38	2.58
10/18/2019			1.32			
3/2/2020				1.99		
3/3/2020		0.567 (U)				
3/4/2020	1.67		1.39		0.722 (U)	1.68

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.919 (U)	1.33
8/31/2016		2.49		
9/1/2016	2.37			
12/6/2016		0.348 (U)	0.407 (U)	0.828 (U)
12/8/2016	2.87			
3/28/2017		0.693 (U)		1.06
3/29/2017			0.28 (U)	
3/30/2017	1.71			
7/11/2017		1.38	0.209 (U)	0.62 (U)
7/13/2017	1.78			
10/24/2017			0.615 (U)	1.21
10/25/2017		2.06		
10/26/2017	3.74			
2/27/2018		1.97	1.05 (U)	1.79
3/2/2018	2.26			
7/10/2018		1.03 (U)	0.363 (U)	
7/11/2018				1.81
7/12/2018	1.81			
11/6/2018		1.13	0.577 (U)	1.13
11/7/2018	1.94			
8/27/2019		1.81		1.55
8/28/2019			0.815 (U)	
8/29/2019	2.37			
10/16/2019		1.63	0.999 (U)	
10/17/2019				0.702 (U)
10/18/2019	1.42			
3/2/2020		2.28		
3/3/2020			0.481 (U)	1.37
3/4/2020	1.31			

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				1	0.06 (J)	
9/1/2016						0.02 (J)
12/6/2016				1.3	0.06 (J)	
12/7/2016						0.16 (J)
3/28/2017	0.12 (J)	1.2	0.06 (J)			
3/29/2017				1.5	0.04 (J)	0.1 (J)
5/11/2017	0.07 (J)					
5/12/2017			<0.3			
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)
8/8/2017		0.04 (J)				
10/24/2017	0.06 (J)	<0.3	<0.3	2.1	<0.3	
10/25/2017						0.6
11/15/2017	0.05 (J)		<0.3	1.4		
2/27/2018		<0.3	<0.3	2.3	<0.3	0.34
3/8/2018	<0.3					
7/11/2018						<0.3
7/12/2018	0.071 (J)					
11/6/2018		<0.3	<0.3	2	<0.3	
11/7/2018	<0.3					<0.3 (J)
3/12/2019		0.039 (J)	<0.3	1.7	0.052 (J)	0.065 (J)
3/13/2019	0.13 (J)					
8/27/2019		<0.3	<0.3	1.4	<0.3	<0.3
8/28/2019	0.42					
10/15/2019		<0.3	<0.3	1.4	<0.3	<0.3
10/16/2019	0.11 (J)					
3/2/2020		<0.3	<0.3		0.064 (J)	0.071 (J)
3/3/2020				1.5		
3/9/2020	0.1 (J)					

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.06 (J)				
9/1/2016					0.75	
9/6/2016	0.17 (J)		0.11 (J)			
9/7/2016				0.32		
12/6/2016		0.1 (J)				
12/7/2016	0.3		0.11 (J)		0.37	
12/8/2016				0.31		
3/29/2017		0.02 (J)			0.35	
3/30/2017	0.12 (J)		<0.3	0.1 (J)		0.06 (J)
5/11/2017						0.06 (J)
6/15/2017						0.07 (J)
7/11/2017						0.04 (J)
7/12/2017	0.13 (J)	<0.3	0.07 (J)	0.27 (J)	0.34	
10/24/2017						0.43
10/25/2017		<0.3	0.26 (J)	0.49	0.9	
11/15/2017	0.44					
2/27/2018		<0.3				0.28
2/28/2018	0.18		<0.3	0.54	1.2	
7/11/2018		<0.3	<0.3	0.15 (J)	0.37	0.6
11/6/2018						<0.3
11/7/2018	<0.3 (J)	<0.3	<0.3	<0.3 (J)	<0.3 (J)	
3/12/2019						0.052 (J)
3/13/2019	0.13 (J)	0.042 (J)		0.084 (J)	0.22 (J)	
3/14/2019			0.057 (J)			
8/27/2019		<0.3		0.24 (J)		<0.3
8/28/2019	0.091 (J)		<0.3		0.2	
10/16/2019	0.14 (J)	0.052 (J)			0.23 (J)	
10/17/2019			0.079 (J)			0.042 (J)
10/18/2019				0.086 (J)		
3/3/2020	0.078 (J)	<0.3	<0.3		0.056 (J)	<0.3
3/4/2020				<0.3		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						1.8
9/2/2016	0.66	0.07 (J)				
9/7/2016					0.02 (J)	
12/7/2016	0.66					
12/8/2016		0.14 (J)			0.06 (J)	1.1
3/28/2017				0.17 (J)		
3/29/2017	0.34					
3/30/2017		<0.3	0.12 (J)			
3/31/2017					<0.3	0.88
5/12/2017			0.36	<0.3		
6/15/2017			0.21 (J)	0.02 (J)		
7/11/2017				0.02 (J)		
7/12/2017	0.41	0.04 (J)	0.22 (J)			
7/13/2017					<0.3	0.84
10/24/2017				<0.3		
10/25/2017	0.68	0.34			<0.3	
10/26/2017			0.66			1
11/15/2017				0.79		
2/27/2018				<0.3		
2/28/2018	0.76	<0.3			<0.3	
3/1/2018			0.18			1.4
7/11/2018	1.3	<0.3			<0.3	
7/12/2018			0.25 (J)			0.96
11/6/2018				<0.3		
11/7/2018	<0.3 (J)	<0.3			<0.3	0.74
11/8/2018			<0.3 (J)			
3/12/2019				0.082 (J)		
3/13/2019	0.45	0.043 (J)				
3/14/2019			0.092 (J)		<0.3	1.6
8/27/2019				<0.3		
8/28/2019					<0.3	
8/29/2019	0.78	0.079 (J)	0.095 (J)			0.52
10/15/2019				<0.3		
10/17/2019	0.26 (J)	<0.3			<0.3	0.46
10/18/2019			0.079 (J)			
3/2/2020				<0.3		
3/3/2020		<0.3				
3/4/2020	1.5		0.075 (J)		<0.3	0.74

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.39	0.78
8/31/2016		1		
9/1/2016	1.5			
12/6/2016		0.76	0.47	1.1
12/8/2016	1.6			
3/28/2017		1.2		1.1
3/29/2017			0.51	
3/30/2017	0.86			
7/11/2017		0.7	0.2 (J)	1.1
7/13/2017	1.1			
10/24/2017			0.82	1.7
10/25/2017		1.4		
10/26/2017	1.7			
2/27/2018		1.3	0.59	1.2
3/2/2018	1.1			
7/11/2018				1.3
7/12/2018	0.65			
11/6/2018		<0.3 (J)	0.35	1.1
11/7/2018	0.63			
3/12/2019		0.31	0.35	0.97
3/14/2019	1.4			
8/27/2019		0.32		0.68
8/28/2019			0.098 (J)	
8/29/2019	0.78			
10/16/2019		0.32	0.14 (J)	
10/17/2019				1.2
10/18/2019	0.46			
3/2/2020		0.33		
3/3/2020			<0.3	1.4
3/4/2020	0.7			

Time Series

Constituent: Lead (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				<0.005	<0.005	
9/1/2016						<0.005
12/6/2016				<0.005	<0.005	
12/7/2016						<0.005
3/28/2017	<0.005	9E-05 (J)	<0.005			
3/29/2017				<0.005	<0.005	<0.005
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
8/8/2017		7E-05 (J)				
10/24/2017	<0.005	<0.005	<0.005	<0.005	<0.005	
10/25/2017						<0.005
2/27/2018		<0.005	<0.005	<0.005	<0.005	<0.005
3/8/2018	<0.005					
7/11/2018						<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
8/27/2019		7.8E-05 (J)	<0.005	0.00024 (J)	0.00012 (J)	0.0001 (J)
8/28/2019	<0.005					
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					
3/2/2020		7.4E-05 (J)	<0.005		0.00015 (J)	<0.005
3/3/2020				0.00011 (J)		
3/9/2020	<0.005					

Time Series

Constituent: Lead (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.005				
9/1/2016					<0.005	
9/6/2016	<0.005		<0.005			
9/7/2016				<0.005		
12/6/2016		<0.005				
12/7/2016	<0.005		0.0002 (J)		<0.005	
12/8/2016				<0.005		
3/29/2017		<0.005			<0.005	
3/30/2017	0.0002 (J)		0.0001 (J)	0.0001 (J)		0.0001 (J)
5/11/2017						9E-05 (J)
6/15/2017						0.0001 (J)
7/11/2017						<0.005
7/12/2017	<0.005	<0.005	0.0001 (J)	<0.005	<0.005	
10/24/2017						<0.005
10/25/2017		<0.005	<0.005	<0.005	<0.005	
11/15/2017	<0.005					
2/27/2018		<0.005				<0.005
2/28/2018	<0.005		<0.005	<0.005	<0.005	
7/11/2018		<0.005	<0.005	<0.005	<0.005	<0.005
11/6/2018						<0.005
11/7/2018	<0.005	<0.005	<0.005	<0.005	<0.005	
8/27/2019		<0.005		9E-05 (J)		6E-05 (J)
8/28/2019	<0.005		5.9E-05 (J)		0.00026 (J)	
10/16/2019	<0.005	<0.005			<0.005	
10/17/2019			<0.005			8.6E-05 (J)
10/18/2019				7.4E-05 (J)		
3/3/2020	<0.005	<0.005	<0.005		7E-05 (J)	<0.005
3/4/2020				0.00013 (J)		

Time Series

Constituent: Lead (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0005 (J)
9/2/2016	<0.005	0.0002 (J)				
9/7/2016					0.0002 (J)	
12/7/2016	<0.005					
12/8/2016		<0.005			0.0002 (J)	<0.005
3/28/2017				0.0002 (J)		
3/29/2017	<0.005					
3/30/2017		0.0004 (J)	<0.005			
3/31/2017					0.0004 (J)	0.0009 (J)
5/12/2017			<0.005	<0.005		
6/15/2017			<0.005	<0.005		
7/11/2017				<0.005		
7/12/2017	<0.005	0.0001 (J)	<0.005			
7/13/2017					0.0004 (J)	0.0007 (J)
10/24/2017				<0.005		
10/25/2017	<0.005	<0.005			0.0002 (J)	
10/26/2017			<0.005			0.0009 (J)
2/27/2018				<0.005		
2/28/2018	<0.005	<0.005			<0.005	
3/1/2018			<0.005			<0.005
7/11/2018	<0.005	<0.005			0.00052 (J)	
7/12/2018			<0.005			0.001 (J)
11/6/2018				<0.005		
11/7/2018	<0.005	<0.005			<0.005 (J)	<0.005 (J)
11/8/2018			<0.005			
8/27/2019				4.9E-05 (J)		
8/28/2019					0.00036 (J)	
8/29/2019	0.00015 (J)	0.00023 (J)	6.6E-05 (J)			0.0006 (J)
10/15/2019				0.0001 (J)		
10/17/2019	9.7E-05 (J)	4.6E-05 (J)			0.00026 (J)	0.0011 (J)
10/18/2019			<0.005			
3/2/2020				<0.005		
3/3/2020		0.00015 (J)				
3/4/2020	0.00068 (J)		<0.005		0.0001 (J)	0.00088 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.005	<0.005
8/31/2016		0.0002 (J)		
9/1/2016	0.0008 (J)			
12/6/2016		0.0004 (J)	<0.005	<0.005
12/8/2016	0.0019 (J)			
3/28/2017		<0.005		<0.005
3/29/2017			0.0001 (J)	
3/30/2017	0.0035 (J)			
7/11/2017		<0.005	<0.005	<0.005
7/13/2017	0.002 (J)			
10/24/2017			<0.005	<0.005
10/25/2017		0.0024 (J)		
10/26/2017	0.0022 (J)			
2/27/2018		<0.005	<0.005	<0.005
3/2/2018	<0.005			
7/11/2018				<0.005
7/12/2018	0.0014 (J)			
11/6/2018		<0.005	<0.005	<0.005
11/7/2018	<0.005 (J)			
8/27/2019		5.1E-05 (J)		<0.005
8/28/2019			8.2E-05 (J)	
8/29/2019	0.001 (J)			
10/16/2019		8.5E-05 (J)	0.00029 (J)	
10/17/2019				<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	0.0012 (J)			

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0022 (J)	0.0022 (J)	
9/1/2016						<0.03
12/6/2016				<0.03	0.0027 (J)	
12/7/2016						<0.03
3/28/2017	0.0108 (J)	0.0054 (J)	0.0025 (J)			
3/29/2017				0.002 (J)	0.0021 (J)	<0.03
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
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
2/27/2018		<0.03	0.0013 (J)	0.0037 (J)	0.0022 (J)	0.00097 (J)
3/8/2018	0.011 (J)					
7/11/2018						<0.03
7/12/2018	0.0084 (J)					
11/6/2018		<0.03	<0.03	<0.03	<0.03	
11/7/2018	<0.03					<0.03
8/27/2019		<0.03	0.0014 (J)	0.0053 (J)	0.0023 (J)	0.0011 (J)
8/28/2019	0.0092 (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)					
3/2/2020		<0.03	0.0011 (J)		0.0023 (J)	<0.03
3/3/2020				0.0049 (J)		
3/9/2020	0.0077 (J)					

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.0031 (J)				
9/1/2016					0.0034 (J)	
9/6/2016	0.0029 (J)		0.0064 (J)			
9/7/2016				<0.03		
12/6/2016		0.0042 (J)				
12/7/2016	0.003 (J)		0.0066 (J)		0.0034 (J)	
12/8/2016				<0.03		
3/29/2017		0.0041 (J)			0.0031 (J)	
3/30/2017	0.0035 (J)		0.0061 (J)	<0.03		0.0807
5/11/2017						0.085
6/15/2017						0.0781
7/11/2017						0.0731
7/12/2017	0.0028 (J)	0.0036 (J)	0.006 (J)	<0.03	0.0032 (J)	
10/24/2017						0.0995
10/25/2017		0.0032 (J)	0.0061 (J)	<0.03	0.0031 (J)	
11/15/2017	0.0028 (J)					
2/27/2018		0.0035 (J)				0.0875
2/28/2018	<0.03		0.0062 (J)	<0.03	0.0031 (J)	
7/11/2018		0.0034 (J)	0.0058 (J)	<0.03	0.0034 (J)	0.033 (J)
11/6/2018						<0.03
11/7/2018	<0.03	<0.03	<0.05 (o)	<0.03	<0.03	
8/27/2019		0.0038 (J)		0.00089 (J)		0.032
8/28/2019	0.0033 (J)		0.0063 (J)		0.0032 (J)	
10/16/2019	0.0029 (J)	0.0032 (J)			0.0026 (J)	
10/17/2019			0.0064 (J)			0.029 (J)
10/18/2019				0.00096 (J)		
3/3/2020	0.0035 (J)	0.008 (J)	0.0059 (J)		0.0034 (J)	0.026 (J)
3/4/2020				0.0011 (J)		

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0854
9/2/2016	0.0021 (J)	0.0057 (J)				
9/7/2016					0.012 (J)	
12/7/2016	0.005 (J)					
12/8/2016		0.0054 (J)			0.0118 (J)	0.0667
3/28/2017				0.0031 (J)		
3/29/2017	0.0021 (J)					
3/30/2017		0.0065 (J)	0.0162 (J)			
3/31/2017					0.0119 (J)	0.0767
5/12/2017			0.0036 (J)	0.0027 (J)		
6/15/2017			0.0063 (J)	0.0025 (J)		
7/11/2017				0.0022 (J)		
7/12/2017	0.0019 (J)	0.0057 (J)	0.0068 (J)			
7/13/2017					0.0116 (J)	0.0743
10/24/2017				0.0024 (J)		
10/25/2017	0.0022 (J)	0.006 (J)			0.0122 (J)	
10/26/2017			0.0049 (J)			0.071
2/27/2018				0.0027 (J)		
2/28/2018	0.0019 (J)	0.0061 (J)			0.0122 (J)	
3/1/2018			0.0759			0.0772
7/11/2018	0.0022 (J)	0.0057 (J)			0.01 (J)	
7/12/2018			0.0047 (J)			0.073
11/6/2018				<0.03		
11/7/2018	<0.03	<0.03			<0.03	0.082
11/8/2018			<0.03			
8/27/2019				0.0033 (J)		
8/28/2019					0.01 (J)	
8/29/2019	0.0093 (J)	0.0061 (J)	0.0017 (J)			0.056
10/15/2019				0.0029 (J)		
10/17/2019	0.0075 (J)	0.0063 (J)			0.011 (J)	0.066
10/18/2019			0.0039 (J)			
3/2/2020				0.0035 (J)		
3/3/2020		0.0065 (J)				
3/4/2020	0.019 (J)		0.004 (J)		0.0091 (J)	0.063

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.005 (J)	0.0212 (J)
8/31/2016		0.0026 (J)		
9/1/2016	0.125			
12/6/2016		0.0046 (J)	0.0066 (J)	0.0242 (J)
12/8/2016	0.122			
3/28/2017		0.0028 (J)		0.0249 (J)
3/29/2017			0.0059 (J)	
3/30/2017	0.144			
7/11/2017		0.0031 (J)	0.0045 (J)	0.022 (J)
7/13/2017	0.143			
10/24/2017			0.0072 (J)	0.0281 (J)
10/25/2017		0.0055 (J)		
10/26/2017	0.115			
2/27/2018		0.0066 (J)	0.0075 (J)	0.031 (J)
3/2/2018	0.129			
7/11/2018				0.028 (J)
7/12/2018	0.12			
11/6/2018		<0.03	<0.03	<0.03
11/7/2018	0.12			
8/27/2019		0.008 (J)		0.031
8/28/2019			0.0048 (J)	
8/29/2019	0.11			
10/16/2019		0.006 (J)	0.0045 (J)	
10/17/2019				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	0.12			

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				7E-05 (J)	5E-05 (J)	
9/1/2016						9E-05 (J)
12/6/2016				9E-05 (J)	8E-05 (J)	
12/7/2016						<0.0002
3/28/2017	<0.0002	<0.0002	<0.0002			
3/29/2017				8E-05 (J)	6E-05 (J)	0.00014 (J)
5/11/2017	<0.0002					
5/12/2017			6E-05 (J)			
5/15/2017		<0.0002				
6/15/2017	8E-05 (J)	7E-05 (J)				
6/16/2017			7E-05 (J)			
7/11/2017		<0.0002	<0.0002			
7/12/2017	<0.0002			<0.0002	<0.0002	8E-05 (J)
8/8/2017		<0.0002				
10/24/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
10/25/2017						6E-05 (J)
2/27/2018		<0.0002	<0.0002	<0.0002	<0.0002	6E-05 (J)
3/8/2018	<0.0002					
7/11/2018						3.6E-05 (J)
7/12/2018	<0.0002					
11/6/2018		<0.0002	<0.0002	<0.0002	<0.0002	
11/7/2018	<0.0002					<0.0002
8/27/2019		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002					
9/17/2019						<0.0002
10/15/2019		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002					
3/2/2020		<0.0002	<0.0002		<0.0002	<0.0002
3/3/2020				<0.0002		
3/9/2020	<0.0002					

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		5E-05 (J)				
9/1/2016					4E-05 (J)	
9/6/2016	<0.0002		<0.0002			
9/7/2016				6E-05 (J)		
12/6/2016		8E-05 (J)				
12/7/2016	9E-05 (J)		<0.0002		5E-05 (J)	
12/8/2016				<0.0002		
3/29/2017		6E-05 (J)			9E-05 (J)	
3/30/2017	7E-05 (J)		6E-05 (J)	0.00012 (J)		7E-05 (J)
5/11/2017						8.3E-05 (J)
6/15/2017						8E-05 (J)
7/11/2017						<0.0002
7/12/2017	<0.0002	<0.0002	<0.0002	5E-05 (J)	<0.0002	
10/24/2017						<0.0002
10/25/2017		<0.0002	<0.0002	5E-05 (J)	<0.0002	
11/15/2017	<0.0002					
2/27/2018		<0.0002				<0.0002
2/28/2018	<0.0002		<0.0002	<0.0002	<0.0002	
7/11/2018		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
11/6/2018						0.00064
11/7/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/27/2019		<0.0002		0.00016 (J)		<0.0002
8/28/2019	<0.0002		<0.0002		<0.0002	
10/16/2019	<0.0002	<0.0002			<0.0002	
10/17/2019			<0.0002			<0.0002
10/18/2019				<0.0002		
3/3/2020	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
3/4/2020				<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						<0.0002
9/2/2016	<0.0002	6E-05 (J)				
9/7/2016					<0.0002	
12/7/2016	8E-05 (J)					
12/8/2016		<0.0002			<0.0002	<0.0002
3/28/2017				<0.0002		
3/29/2017	8E-05 (J)					
3/30/2017		8E-05 (J)	0.0002 (J)			
3/31/2017					4E-05 (J)	<0.0002
5/12/2017			0.00015 (J)	8.2E-05 (J)		
6/15/2017			0.00019 (J)	8E-05 (J)		
7/11/2017				<0.0002		
7/12/2017	<0.0002	6E-05 (J)	0.00012 (J)			
7/13/2017					<0.0002	<0.0002
10/24/2017				<0.0002		
10/25/2017	<0.0002	5E-05 (J)			<0.0002	
10/26/2017			0.00012 (J)			<0.0002
2/27/2018				<0.0002		
2/28/2018	<0.0002	<0.0002			<0.0002	
3/1/2018			<0.0002			<0.0002
7/11/2018	<0.0002	<0.0002			<0.0002	
7/12/2018			0.00016 (J)			<0.0002
11/6/2018				0.00059		
11/7/2018	<0.0002	<0.0002			<0.0002	<0.0002
11/8/2018			<0.0002			
8/27/2019				<0.0002		
8/28/2019					<0.0002	
8/29/2019	<0.0002	<0.0002	<0.0002			<0.0002
10/15/2019				<0.0002		
10/17/2019	<0.0002	<0.0002			<0.0002	<0.0002
10/18/2019			<0.0002			
3/2/2020				<0.0002		
3/3/2020		<0.0002				
3/4/2020	<0.0002		0.00026		<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			9E-05 (J)	<0.0002
8/31/2016		0.00015 (J)		
9/1/2016	<0.0002			
12/6/2016		0.00012 (J)	0.0001 (J)	5E-05 (J)
12/8/2016	<0.0002			
3/28/2017		0.00017 (J)		<0.0002
3/29/2017			0.00012 (J)	
3/30/2017	6E-05 (J)			
7/11/2017		0.0002 (J)	6E-05 (J)	<0.0002
7/13/2017	<0.0002			
10/24/2017			<0.0002	<0.0002
10/25/2017		9E-05 (J)		
10/26/2017	<0.0002			
2/27/2018		9E-05 (J)	4.2E-05 (J)	4.2E-05 (J)
3/2/2018	<0.0002			
7/11/2018				<0.0002
7/12/2018	<0.0002			
11/6/2018		0.00055	<0.0002	<0.0002
11/7/2018	<0.0002			
8/27/2019		0.00016 (J)		0.00021 (J)
8/28/2019			<0.0002	
8/29/2019	<0.0002			
10/16/2019		<0.0002	<0.0002	
10/17/2019				0.00042 (J)
10/18/2019	<0.0002			
3/2/2020		<0.0002		
3/3/2020			<0.0002	<0.0002
3/4/2020	<0.0002			

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				<0.01	<0.01	
9/1/2016						<0.01
12/6/2016				<0.01	<0.01	
12/7/2016						<0.01
3/28/2017	0.0242	<0.01	0.0009 (J)			
3/29/2017				<0.01	<0.01	<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
8/8/2017		<0.01				
10/24/2017	0.0227	<0.01	<0.01	<0.01	<0.01	
10/25/2017						<0.01
2/27/2018		<0.01	<0.01	<0.01	<0.01	<0.01
3/8/2018	0.035					
7/11/2018						<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
8/27/2019		<0.01	<0.01	<0.01	<0.01	<0.01
8/28/2019	0.031					
9/17/2019						<0.01
10/15/2019		<0.01	<0.01	<0.01	<0.01	<0.01
10/16/2019	0.037					
3/2/2020		<0.01	<0.01		<0.01	<0.01
3/3/2020				<0.01		
3/9/2020	0.026					

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.01				
9/1/2016					<0.01	
9/6/2016	0.0371		<0.01			
9/7/2016				<0.01		
12/6/2016		<0.01				
12/7/2016	0.0273		<0.01		<0.01	
12/8/2016				<0.01		
3/29/2017		<0.01			<0.01	
3/30/2017	0.03		<0.01	<0.01		0.0009 (J)
5/11/2017						0.0009 (J)
6/15/2017						<0.01
7/11/2017						<0.01
7/12/2017	0.0323	<0.01	<0.01	<0.01	<0.01	
10/24/2017						<0.01
10/25/2017		<0.01	<0.01	<0.01	<0.01	
11/15/2017	0.0275					
2/27/2018		<0.01				<0.01
2/28/2018	0.0093 (J)		<0.01	<0.01	<0.01	
7/11/2018		<0.01	<0.01	<0.01	<0.01	<0.01
11/6/2018						<0.01
11/7/2018	0.018	<0.01	<0.01	<0.01	<0.01	
8/27/2019		<0.01		<0.01		0.002 (J)
8/28/2019	0.015		<0.01		<0.01	
10/16/2019	0.014	<0.01			<0.01	
10/17/2019			<0.01			0.0018 (J)
10/18/2019				<0.01		
3/3/2020	0.018	<0.01	<0.01		<0.01	0.0022 (J)
3/4/2020				<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						<0.01
9/2/2016	<0.01	<0.01				
9/7/2016					<0.01	
12/7/2016	<0.01					
12/8/2016		<0.01			<0.01	<0.01
3/28/2017				0.008 (J)		
3/29/2017	<0.01					
3/30/2017		<0.01	0.0084 (J)			
3/31/2017					<0.01	<0.01
5/12/2017			0.0085 (J)	0.0062 (J)		
6/15/2017			0.0104	0.0044 (J)		
7/11/2017				0.0041 (J)		
7/12/2017	<0.01	<0.01	0.0092 (J)			
7/13/2017					<0.01	<0.01
10/24/2017				0.0072 (J)		
10/25/2017	<0.01	<0.01			<0.01	
10/26/2017			0.0077 (J)			<0.01
2/27/2018				0.0069 (J)		
2/28/2018	<0.01	<0.01			<0.01	
3/1/2018			0.0045 (J)			<0.01
7/11/2018	<0.01	<0.01			<0.01	
7/12/2018			0.012			<0.01
11/6/2018				<0.01 (J)		
11/7/2018	<0.01	<0.01			<0.01	<0.01
11/8/2018			0.012			
8/27/2019				0.0065 (J)		
8/28/2019					<0.01	
8/29/2019	<0.01	<0.01	0.014			<0.01
10/15/2019				0.0061 (J)		
10/17/2019	<0.01	<0.01			<0.01	<0.01
10/18/2019			0.0091 (J)			
3/2/2020				0.0059 (J)		
3/3/2020		<0.01				
3/4/2020	<0.01		0.0047 (J)		<0.01	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.01	<0.01
8/31/2016		<0.01		
9/1/2016	<0.01			
12/6/2016		<0.01	<0.01	<0.01
12/8/2016	<0.01			
3/28/2017		<0.01		<0.01
3/29/2017			<0.01	
3/30/2017	<0.01			
7/11/2017		<0.01	<0.01	<0.01
7/13/2017	<0.01			
10/24/2017			<0.01	<0.01
10/25/2017		<0.01		
10/26/2017	<0.01			
2/27/2018		<0.01	<0.01	<0.01
3/2/2018	<0.01			
7/11/2018				<0.01
7/12/2018	<0.01			
11/6/2018		<0.01	<0.01	<0.01
11/7/2018	<0.01			
8/27/2019		<0.01		<0.01
8/28/2019			<0.01	
8/29/2019	<0.01			
10/16/2019		<0.01	<0.01	
10/17/2019				<0.01
10/18/2019	<0.01			
3/2/2020		<0.01		
3/3/2020			<0.01	<0.01
3/4/2020	<0.01			

Time Series

Constituent: pH (SU) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				4.58	5.83	
9/1/2016					5.67	
12/6/2016				4.9	5.91	
12/7/2016						5.65
3/28/2017	6.29		5.94			
3/29/2017				4.62	5.74	5.61
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
8/8/2017		5.6				
10/24/2017	5.51	5.71	5.86	4.8	5.79	
10/25/2017						6.07
11/15/2017	6.5		5.77	4.9		
2/27/2018		5.5	5.66	5.55	5.94	5.73
3/8/2018	6.18					
7/10/2018		5.44	5.63	5.27	5.62	
7/12/2018	6.33					
11/6/2018		5.71	5.79	5.3	5.69	
11/7/2018	6.22					5.85
3/12/2019		5.52	5.74	5.26	5.7	5.98
3/13/2019	6					
8/27/2019		5.53	5.87	5.14	5.55	5.55
8/28/2019	6.04					
9/17/2019						5.6
10/15/2019		5.61	5.88	4.96	5.6	5.89
10/16/2019	6.69					
3/2/2020		5.54	5.77		5.62	6.13
3/3/2020				4.77		
3/9/2020	6.41 (D)					

Time Series

Constituent: pH (SU) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		5.68				
9/1/2016					4.64	
9/6/2016	5.69		5.79			
9/7/2016				5.05		
12/6/2016		5.63				
12/7/2016	5.96		5.94		4.655 (D)	
12/8/2016				5.12		
3/29/2017		5.68			4.7	
3/30/2017	5.94		5.8	5.08		5.75
5/11/2017						5.67
6/15/2017						5.75
7/11/2017						5.87
7/12/2017	5.84	5.66	5.81	5	4.76	
10/24/2017						5.82
10/25/2017		6.18	5.9	5.73	4.66	
11/15/2017	5.87					
2/27/2018		5.63				5.85
2/28/2018	5.99		5.8	5.22	4.63	
7/10/2018	5.92					
7/11/2018		5.61	5.875 (D)	5.07	4.71	5.85
11/6/2018						5.88
11/7/2018	5.87	5.58	5.9	5.09	4.69	
3/12/2019						5.94
3/13/2019	5.79	5.61		5.07	4.76	
3/14/2019			5.77			
8/27/2019		5.58		4.96		5.94
8/28/2019	5.71		5.88		4.85	
10/16/2019	5.69	5.66			4.87	
10/17/2019			5.76			6.16
10/18/2019				5.08		
3/3/2020	5.71	5.73	5.79	5.07	4.89	5.94
3/4/2020				5.07		

Time Series

Constituent: pH (SU) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						5.11
9/2/2016	4.7	5.7				
9/7/2016					5.35	
12/8/2016		5.64			5.41	5.71
3/28/2017				6.01		
3/29/2017	4.7					
3/30/2017		5.79	6.03			
3/31/2017					5.36	4.58
5/12/2017			5.97	5.87		
6/15/2017			6	6.03		
7/11/2017				6.04		
7/12/2017	4.67	5.71	5.97			
7/13/2017					5.27	4.95
10/24/2017				5.99		
10/25/2017	4.71	5.68			5.38 (D)	
10/26/2017			5.9			5.37 (D)
11/15/2017				5.92		
2/27/2018				6.03		
2/28/2018	4.51	5.71			5.37	
3/1/2018			6.19			3.93
7/10/2018				5.96		
7/11/2018	4.68				5.19	
7/12/2018			5.97			4.33
11/6/2018				5.97		
11/7/2018	4.64	5.61			5.18	4.48
11/8/2018			5.96			
3/12/2019				5.85		
3/13/2019	4.65	5.62				
3/14/2019			5.99		5.1	3.88
8/27/2019				5.84		
8/28/2019					5.3	
8/29/2019	4.64	5.61	5.96			4.35
10/15/2019				5.98		
10/17/2019	4.64	5.57			5.2	4.6
10/18/2019			5.99			
3/2/2020				5.88		
3/3/2020		5.65				
3/4/2020	4.22		5.68		5.18	3.86

Time Series

Constituent: pH (SU) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			5.33	4.08
8/31/2016		4.31		
9/1/2016	4.7			
12/6/2016		4.43	5.39	4.15
12/8/2016	4.58			
3/28/2017		4.44		4.16
3/29/2017			5.23	
3/30/2017	4.19			
7/11/2017		4.46	5.33	4.23
7/13/2017	4.3			
10/24/2017			5.05	4.06
10/25/2017		4.54 (D)		
10/26/2017	4.39			
2/27/2018		4.87	5.08 (D)	4.04
3/2/2018	4.14			
7/10/2018		4.77	5.11	
7/11/2018				4.03
7/12/2018	4.36			
11/6/2018		4.89	5.13	4
11/7/2018	4.23			
3/12/2019		4.42	5.07	3.98
3/14/2019	4.12			
8/27/2019		4.83		4.02
8/28/2019			5.11	
8/29/2019	4.28			
10/16/2019		4.78	5.33	
10/17/2019				4.02
10/18/2019	4.22			
3/2/2020		4.8		
3/3/2020			5.12	4.07
3/4/2020	4.27			

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0366	<0.01	
9/1/2016						0.0017 (J)
12/6/2016				0.0026 (J)	<0.01	
12/7/2016						<0.01
3/28/2017	<0.01	<0.01	<0.01			
3/29/2017				0.0286	<0.01	0.0017 (J)
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)
8/8/2017		<0.01				
10/24/2017	<0.01	<0.01	<0.01	0.0281	<0.01	
10/25/2017						0.0024 (J)
2/27/2018		<0.01	<0.01	0.0667	<0.01	<0.01
3/8/2018	<0.01					
7/11/2018						<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)
8/27/2019		<0.01	<0.01	0.015	<0.01	<0.01
8/28/2019	<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					
3/2/2020		<0.01	<0.01		<0.01	<0.01
3/3/2020				0.021		
3/9/2020	<0.01					

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		0.0016 (J)				
9/1/2016					0.0093 (J)	
9/6/2016	0.0011 (J)		<0.01			
9/7/2016				0.007 (J)		
12/6/2016		<0.01				
12/7/2016	0.0015 (J)		<0.01		<0.01	
12/8/2016				0.0087 (J)		
3/29/2017		<0.01			0.0071 (J)	
3/30/2017	0.0015 (J)		<0.01	0.0099 (J)		<0.01
5/11/2017						<0.01
6/15/2017						<0.01
7/11/2017						<0.01
7/12/2017	<0.01	<0.01	<0.01	0.0072 (J)	0.0065 (J)	
10/24/2017						<0.01
10/25/2017		<0.01	<0.01	0.0078 (J)	0.0087 (J)	
11/15/2017	0.0019 (J)					
2/27/2018		<0.01				<0.01
2/28/2018	<0.01		<0.01	<0.01	0.0114	
7/11/2018		0.002 (J)	<0.01	0.007 (J)	0.0036 (J)	0.0045 (J)
11/6/2018						<0.01 (J)
11/7/2018	<0.01 (J)	<0.01 (J)	<0.01 (J)	<0.01	<0.01 (J)	
8/27/2019		<0.01		0.0073 (J)		0.0069 (J)
8/28/2019	0.0039 (J)		<0.01		0.004 (J)	
10/16/2019	0.0031 (J)	0.0017 (J)			0.006 (J)	
10/17/2019			<0.01			0.0051 (J)
10/18/2019				0.0093 (J)		
3/3/2020	0.0062 (J)	0.0014 (J)	<0.01		0.0066 (J)	0.0047 (J)
3/4/2020				0.0074 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0217
9/2/2016	0.0671	<0.01				
9/7/2016					<0.01	
12/7/2016	0.0056 (J)					
12/8/2016		<0.01			<0.01	0.017
3/28/2017				<0.01		
3/29/2017	0.0521					
3/30/2017		<0.01	<0.01			
3/31/2017					<0.01	0.0133
5/12/2017			<0.01	<0.01		
6/15/2017			<0.01	<0.01		
7/11/2017				<0.01		
7/12/2017	0.0483	<0.01	<0.01			
7/13/2017					<0.01	0.0068 (J)
10/24/2017				<0.01		
10/25/2017	0.0506	<0.01			<0.01	
10/26/2017			<0.01			0.0097 (J)
2/27/2018				<0.01		
2/28/2018	0.0755	<0.01			<0.01	
3/1/2018			<0.01			0.0124
7/11/2018	0.022	<0.01			<0.01	
7/12/2018			<0.01			0.015
11/6/2018				<0.01		
11/7/2018	0.044	<0.01			<0.01	<0.01 (J)
11/8/2018			<0.01			
8/27/2019				<0.01		
8/28/2019					<0.01	
8/29/2019	0.029	<0.01	<0.01			0.004 (J)
10/15/2019				0.0014 (J)		
10/17/2019	0.071	<0.01			<0.01	0.0062 (J)
10/18/2019			<0.01			
3/2/2020				<0.01		
3/3/2020		<0.01				
3/4/2020	0.071		<0.01		<0.01	0.0065 (J)

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			0.0032 (J)	0.0833
8/31/2016		0.0182		
9/1/2016	0.0084 (J)			
12/6/2016		0.012	<0.01	0.0065 (J)
12/8/2016	0.0084 (J)			
3/28/2017		0.168		0.0954
3/29/2017			0.0048 (J)	
3/30/2017	0.0079 (J)			
7/11/2017		0.0607	0.0031 (J)	0.0561
7/13/2017	0.0062 (J)			
10/24/2017			0.0069 (J)	0.0653
10/25/2017		0.034		
10/26/2017	0.0058 (J)			
2/27/2018		0.0348	<0.01	0.13
3/2/2018	<0.01			
7/11/2018				0.045
7/12/2018	0.013			
11/6/2018		<0.01 (J)	<0.01 (J)	0.12
11/7/2018	<0.01 (J)			
8/27/2019		0.0031 (J)		0.067
8/28/2019			<0.01	
8/29/2019	0.0023 (J)			
10/16/2019		0.015	0.0016 (J)	
10/17/2019				0.19
10/18/2019	0.005 (J)			
3/2/2020		0.032		
3/3/2020			0.0018 (J)	0.046
3/4/2020	0.0061 (J)			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				400	200	
9/1/2016						390
12/6/2016				190	190	
12/7/2016						350
3/28/2017	49	2.7	17			
3/29/2017				360	200	150
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
8/8/2017		1.5				
10/24/2017	15	1.4	9.6	410	210	
10/25/2017						400
11/15/2017	3.8		7.8	390		
2/27/2018		0.54 (J)	7.4	335	220	356
3/8/2018	9.7					
7/11/2018						344
7/12/2018	8					
11/6/2018		<1 (J)	7.3	356	302	
11/7/2018	12.8					298
3/12/2019		0.35 (J)	7	297	275	284
3/13/2019	23.7					
10/15/2019		0.16 (J)	7.4	263	273	270
10/16/2019	15.1					
3/2/2020		<1	8.5		264	181
3/3/2020				213		
3/9/2020	9.5					

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		44				
9/1/2016					240	
9/6/2016	170		180			
9/7/2016				230		
12/6/2016		45				
12/7/2016	160		180		250	
12/8/2016				240		
3/29/2017		81 (o)			250	
3/30/2017	180		210	260		360
5/11/2017						340
6/15/2017						300
7/11/2017						330
7/12/2017	170	44	170	230	250	
10/24/2017						260
10/25/2017		42	180	240	270	
11/15/2017	180					
2/27/2018		41				189
2/28/2018	43.5		168	203	244	
7/11/2018		40.6	154	234	249	162
11/6/2018						190
11/7/2018	162	41.3	168	248	266	
3/12/2019						159
3/13/2019	179	41.2		268	299	
3/14/2019			195			
10/16/2019	167	42.1			323	
10/17/2019			146			134
10/18/2019				222		
3/3/2020	157	45.5	148		292	118
3/4/2020				222		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						470
9/2/2016	580	300				
9/7/2016					370	
12/7/2016	650					
12/8/2016		280			350	400
3/28/2017				680		
3/29/2017	640					
3/30/2017		270	220			
3/31/2017					380	350
5/12/2017			220	680		
6/15/2017			200	730		
7/11/2017				740		
7/12/2017	630	290	220			
7/13/2017					370	270
10/24/2017				930		
10/25/2017	610	290			370	
10/26/2017			220			290
11/15/2017				820		
2/27/2018				811		
2/28/2018	584	267			350	
3/1/2018			209			245
7/11/2018	501	277			366	
7/12/2018			202			240
11/6/2018				902		
11/7/2018	554	286			439	143
11/8/2018			292			
3/12/2019				987		
3/13/2019	539	312				
3/14/2019			266		404	238
10/15/2019				888		
10/17/2019	426	255			321	179
10/18/2019			203			
3/2/2020				840		
3/3/2020		269				
3/4/2020	434		204		329	176

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			450	300
8/31/2016		400		
9/1/2016	540			
12/6/2016		460	480	320
12/8/2016	540			
3/28/2017		380		300
3/29/2017			660	
3/30/2017	550			
7/11/2017		440	440	320
7/13/2017	500			
10/24/2017			430	430
10/25/2017		510		
10/26/2017	510			
2/27/2018		453	340	327
3/2/2018	456			
7/11/2018				344
7/12/2018	409			
11/6/2018		556	307	438
11/7/2018	432			
3/12/2019		484	295	362
3/14/2019	450			
10/16/2019		493	235	
10/17/2019				331
10/18/2019	336			
3/2/2020		455		
3/3/2020			195	247
3/4/2020	368			

Time Series

Constituent: TDS (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				525	307	
9/1/2016						568
12/6/2016				595	358	
12/7/2016						559
3/28/2017	202	39	90			
3/29/2017				525	300	550
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
8/8/2017		53				
10/24/2017	671 (o)	49	117	353	342	
10/25/2017						571
11/15/2017	241		90	582		
2/27/2018		43	79	542	393	582
3/8/2018	213					
7/11/2018						593
7/12/2018	198					
11/6/2018		65	85	512	412	
11/7/2018	200					504
3/12/2019		43	74	436	433	465
3/13/2019	201					
10/15/2019		70	89	447	461	472
10/16/2019	126					
3/2/2020		52	67		458	338
3/3/2020				382		
3/9/2020	171					

Time Series

Constituent: TDS (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		106				
9/1/2016					396	
9/6/2016	296		304			
9/7/2016				353		
12/6/2016		138				
12/7/2016	270		287		400	
12/8/2016				408		
3/29/2017		102			390	
3/30/2017	287		312	338		580
5/11/2017						573
6/15/2017						626
7/11/2017						542
7/12/2017	312	118	490 (o)	417	360	
10/24/2017						523
10/25/2017		88	290	343	423	
11/15/2017	325					
2/27/2018		99				401
2/28/2018	84		313	364	440	
7/11/2018		119	320	393	457	334
11/6/2018						334
11/7/2018	314	113	325	408	461	
3/12/2019						297
3/13/2019	656	280		802	113	
3/14/2019			340			
10/16/2019	296	104			500	
10/17/2019			319			302
10/18/2019				403		
3/3/2020	263	123	323		526	277
3/4/2020				414		

Time Series

Constituent: TDS (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						704
9/2/2016	1100	459				
9/7/2016					611	
12/7/2016	930					
12/8/2016		491			535	587
3/28/2017				1160		
3/29/2017	923					
3/30/2017		436	380			
3/31/2017					661	545
5/12/2017			438	1230		
6/15/2017			458	1290		
7/11/2017				1160		
7/12/2017	956	505	461			
7/13/2017					641	441
10/24/2017				229		
10/25/2017	854	474			626	
10/26/2017			446			444
11/15/2017				1330		
2/27/2018				1380		
2/28/2018	888	480			616	
3/1/2018			454			435
7/11/2018	826	485			638	
7/12/2018			432			372
11/6/2018				1480		
11/7/2018	834	516			626	348
11/8/2018			450			
3/12/2019				1490		
3/13/2019	639	486				
3/14/2019			453		630	378
10/15/2019				1520		
10/17/2019	751	498			612	327
10/18/2019			448			
3/2/2020				1540		
3/3/2020		490				
3/4/2020	761		408		721	334

Time Series

Constituent: TDS (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			693	414
8/31/2016		524		
9/1/2016	845			
12/6/2016		690	727	449
12/8/2016	777			
3/28/2017		545		404
3/29/2017			654	
3/30/2017	775			
7/11/2017		612	679	436
7/13/2017	789			
10/24/2017			468	599
10/25/2017		650		
10/26/2017	753			
2/27/2018		698	520	482
3/2/2018	704			
7/11/2018				532
7/12/2018	705			
11/6/2018		809	456	554
11/7/2018	678			
3/12/2019		711	438	493
3/14/2019	625			
10/16/2019		702	374	
10/17/2019				550
10/18/2019	593			
3/2/2020		759		
3/3/2020			369	444
3/4/2020	630			

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 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
8/31/2016				0.0004 (J)	<0.001	
9/1/2016						<0.001
12/6/2016				0.0004 (J)	<0.001	
12/7/2016						<0.001
3/28/2017	<0.001	<0.001	6E-05 (J)			
3/29/2017				0.0006 (J)	<0.001	8E-05 (J)
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)
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)
2/27/2018		<0.001	<0.001	<0.001	<0.001	<0.001
3/8/2018	<0.001					
7/11/2018						<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
8/27/2019		<0.001	<0.001	0.00036 (J)	<0.001	8.9E-05 (J)
8/28/2019	<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					
3/2/2020		7.8E-05 (J)	<0.001		<0.001	0.00013 (J)
3/3/2020				0.00042 (J)		
3/9/2020	<0.001					

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-13	DGWC-14	DGWC-15	DGWC-17	DGWC-19	DGWC-2
8/31/2016		<0.001				
9/1/2016					0.0005 (J)	
9/6/2016	<0.001		<0.001			
9/7/2016				<0.001		
12/6/2016		<0.001				
12/7/2016	<0.001		<0.001		0.0005 (J)	
12/8/2016				<0.001		
3/29/2017		<0.001			0.0004 (J)	
3/30/2017	<0.001		<0.001	0.0002 (J)		<0.001
5/11/2017						<0.001
6/15/2017						<0.001
7/11/2017						<0.001
7/12/2017	<0.001	<0.001	<0.001	0.0002 (J)	0.0005 (J)	
10/24/2017						<0.001
10/25/2017		<0.001	<0.001	0.0002 (J)	0.0004 (J)	
11/15/2017	<0.001					
2/27/2018		<0.001				<0.001
2/28/2018	<0.001		<0.001	0.00015 (J)	0.00049 (J)	
7/11/2018		<0.001	<0.001	0.00017 (J)	0.0005 (J)	<0.001
11/6/2018						<0.001
11/7/2018	<0.001	<0.001	<0.001 (J)	<0.001	<0.001 (J)	
8/27/2019		<0.001		0.00018 (J)		<0.001
8/28/2019	<0.001		<0.001		0.00053 (J)	
10/16/2019	<0.001	<0.001			0.00053 (J)	
10/17/2019			<0.001			<0.001
10/18/2019				0.00014 (J)		
3/3/2020	<0.001	<0.001	<0.001		0.0006 (J)	<0.001
3/4/2020				0.00019 (J)		

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-23	DGWC-4	DGWC-42	DGWC-47
9/1/2016						0.0002 (J)
9/2/2016	<0.001	<0.001				
9/7/2016					<0.001	
12/7/2016	0.0006 (J)					
12/8/2016		<0.001			<0.001	<0.001
3/28/2017				<0.001		
3/29/2017	0.0006 (J)					
3/30/2017		<0.001	<0.001			
3/31/2017					9E-05 (J)	0.0002 (J)
5/12/2017			<0.001	<0.001		
6/15/2017			<0.001	<0.001		
7/11/2017				<0.001		
7/12/2017	0.0006 (J)	<0.001	<0.001			
7/13/2017					9E-05 (J)	0.0002 (J)
10/24/2017				<0.001		
10/25/2017	0.0005 (J)	<0.001			9E-05 (J)	
10/26/2017			<0.001			0.0003 (J)
2/27/2018				<0.001		
2/28/2018	<0.001	<0.001			<0.001	
3/1/2018			<0.001			0.00032 (J)
7/11/2018	<0.001	<0.001			<0.001	
7/12/2018			<0.001			0.00031 (J)
11/6/2018				<0.001		
11/7/2018	<0.001 (J)	<0.001			<0.001	<0.001 (J)
11/8/2018			<0.001 (J)			
8/27/2019				<0.001		
8/28/2019					6.9E-05 (J)	
8/29/2019	0.00084 (J)	<0.001	<0.001			0.00025 (J)
10/15/2019				7.3E-05 (J)		
10/17/2019	0.00062 (J)	<0.001			<0.001	0.00025 (J)
10/18/2019			<0.001			
3/2/2020				<0.001		
3/3/2020		<0.001				
3/4/2020	0.0023 (J)		<0.001		<0.001	0.00021 (J)

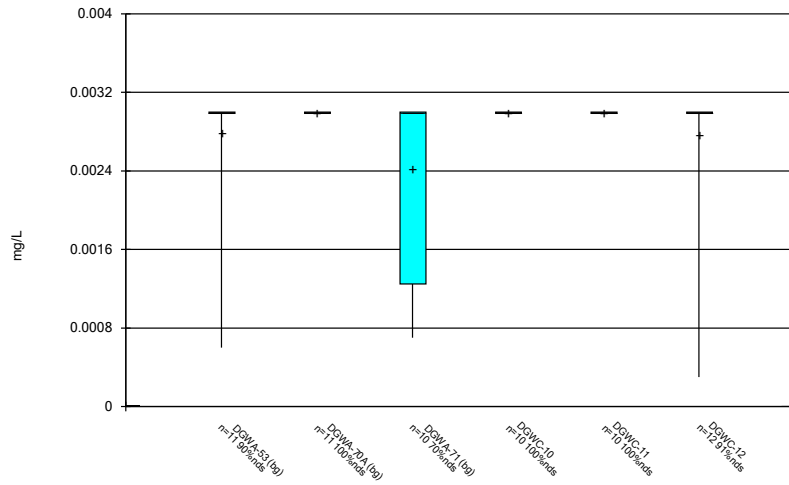
Time Series

Constituent: Thallium (mg/L) Analysis Run 7/2/2020 12:51 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-48	DGWC-5	DGWC-8	DGWC-9
8/30/2016			<0.001	<0.001
8/31/2016		<0.001		
9/1/2016	<0.001			
12/6/2016		<0.001	<0.001	0.0006 (J)
12/8/2016	<0.001			
3/28/2017		0.0002 (J)		0.0007 (J)
3/29/2017			0.0002 (J)	
3/30/2017	9E-05 (J)			
7/11/2017		<0.001	0.0001 (J)	0.0007 (J)
7/13/2017	8E-05 (J)			
10/24/2017			0.0003 (J)	0.0006 (J)
10/25/2017		<0.001		
10/26/2017	9E-05 (J)			
2/27/2018		<0.001	0.00033 (J)	0.00038 (J)
3/2/2018	<0.001			
7/11/2018				<0.001
7/12/2018	<0.001			
11/6/2018		<0.001	<0.001 (J)	<0.001
11/7/2018	<0.001			
8/27/2019		<0.001		0.00053 (J)
8/28/2019			0.00022 (J)	
8/29/2019	7.8E-05 (J)			
10/16/2019		7.8E-05 (J)	0.00025 (J)	
10/17/2019				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	6.8E-05 (J)			

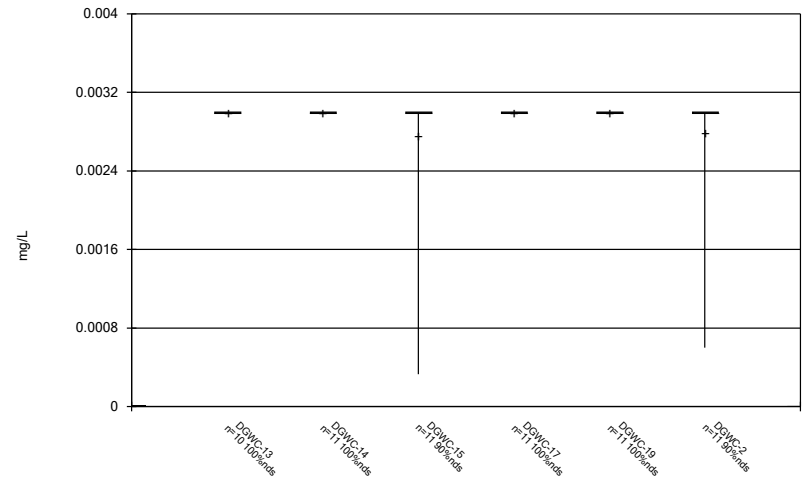
FIGURE B.

Box & Whiskers Plot



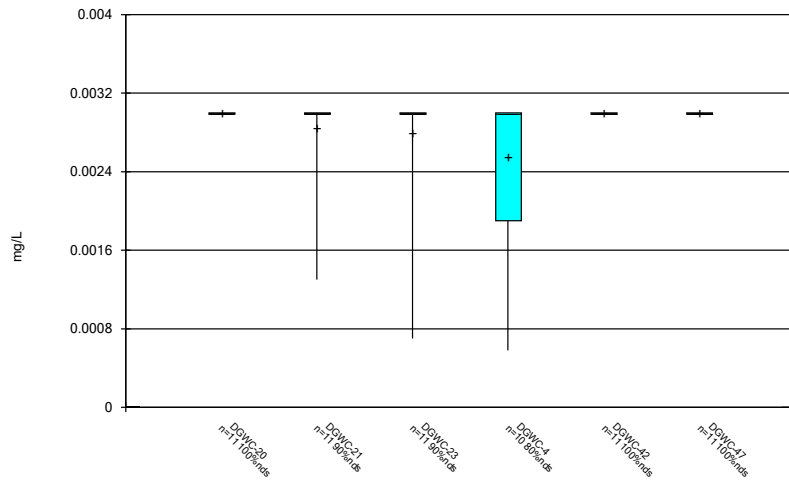
Constituent: Antimony Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



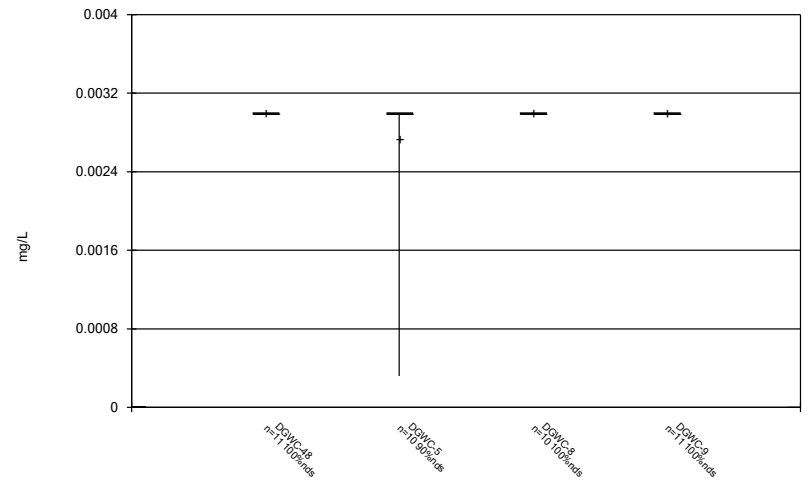
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



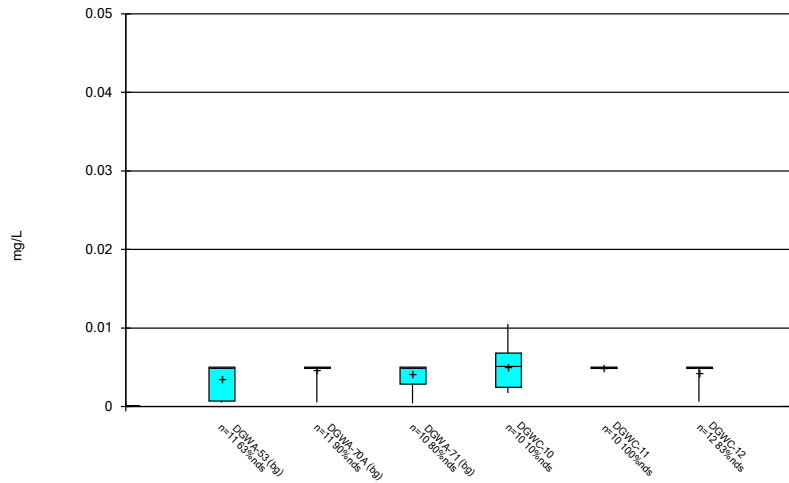
Constituent: Antimony Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



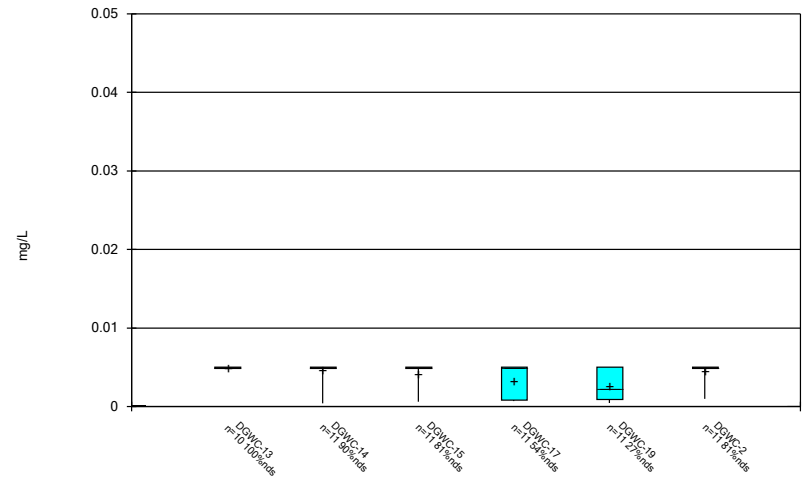
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



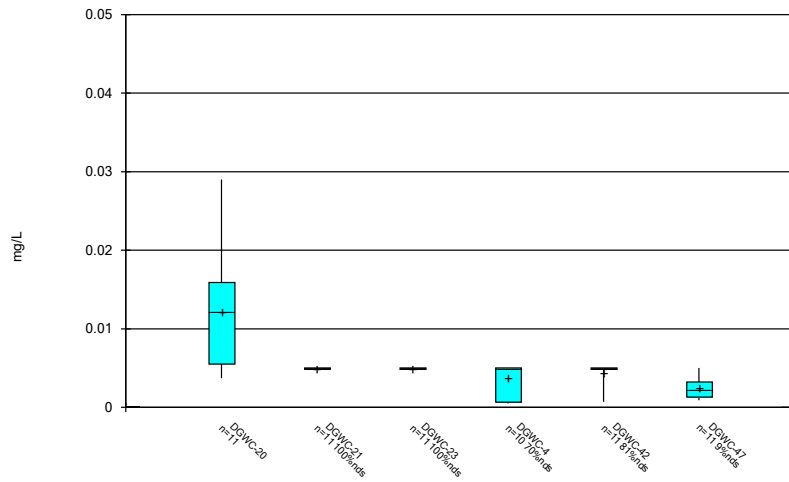
Constituent: Arsenic Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



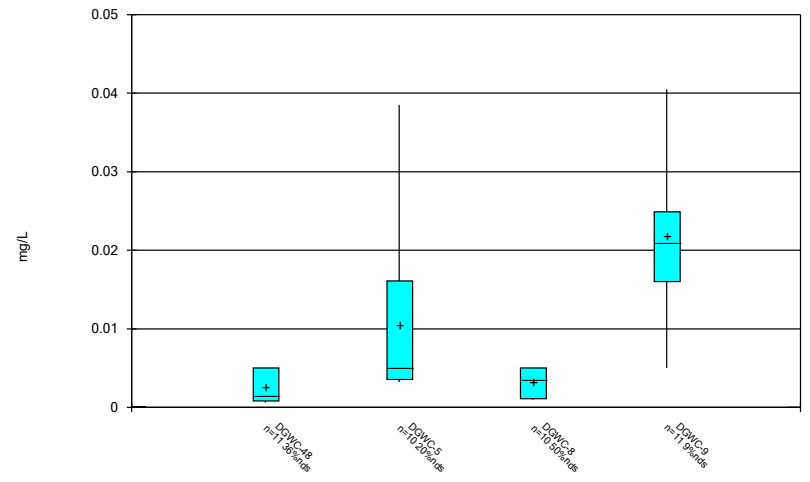
Constituent: Arsenic Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



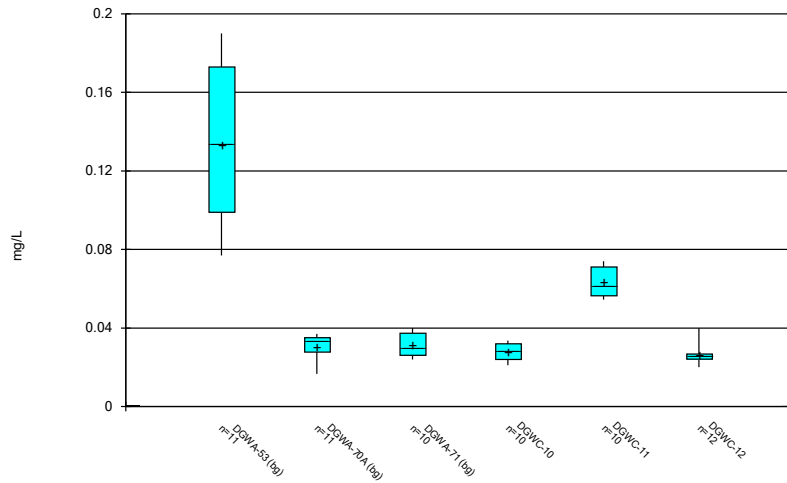
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



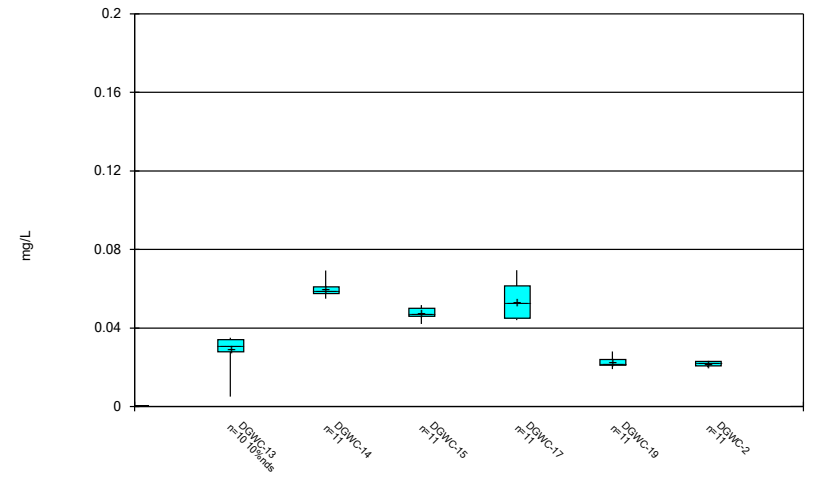
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



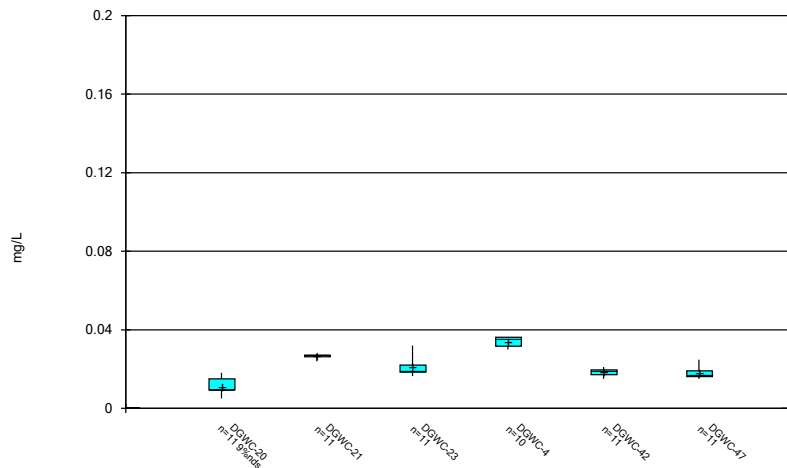
Constituent: Barium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



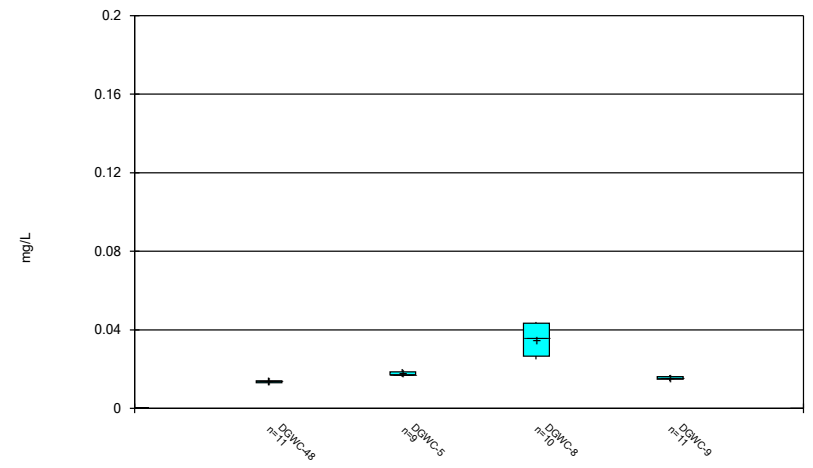
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



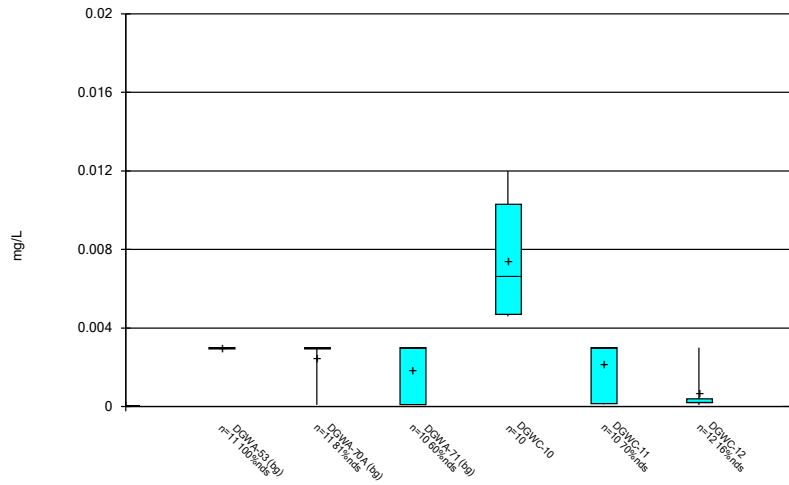
Constituent: Barium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



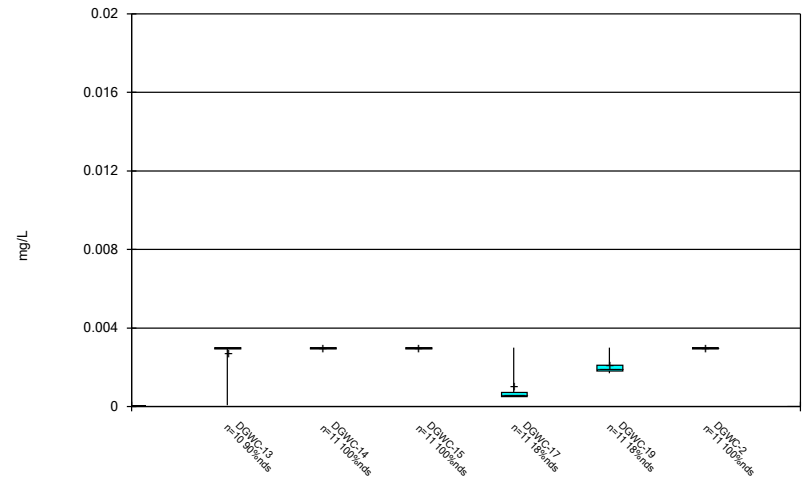
Constituent: Barium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



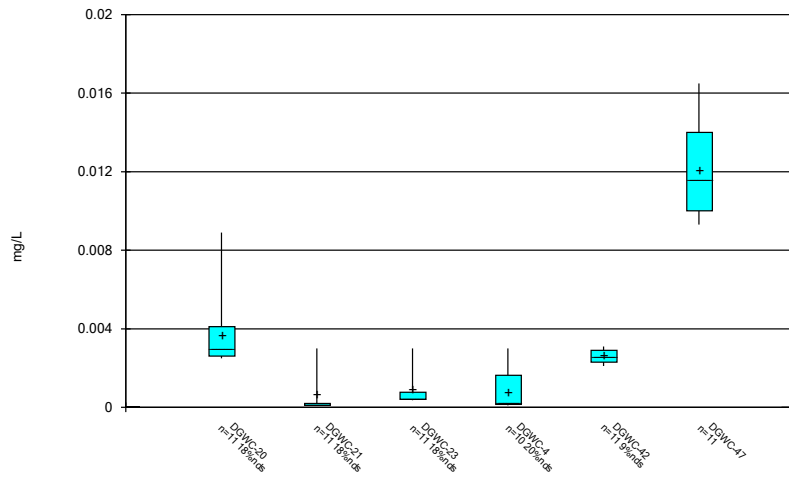
Constituent: Beryllium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



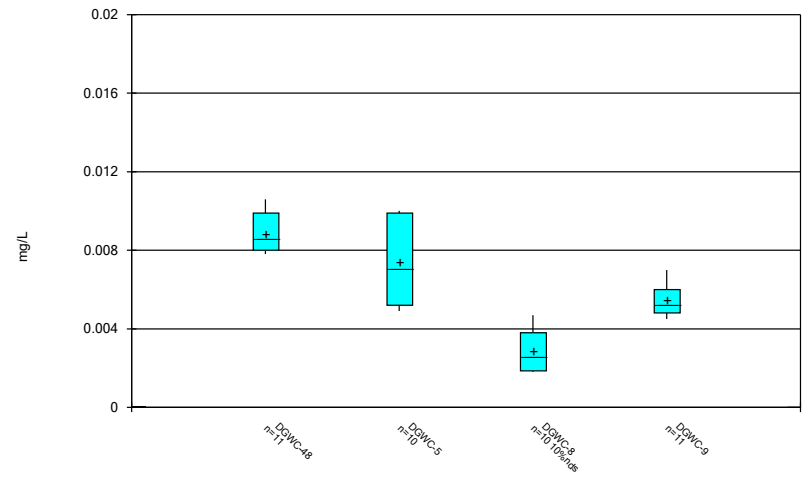
Constituent: Beryllium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



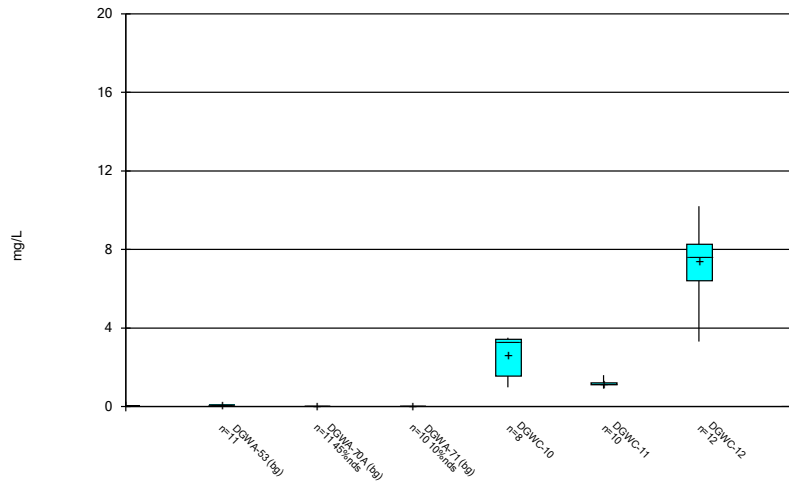
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



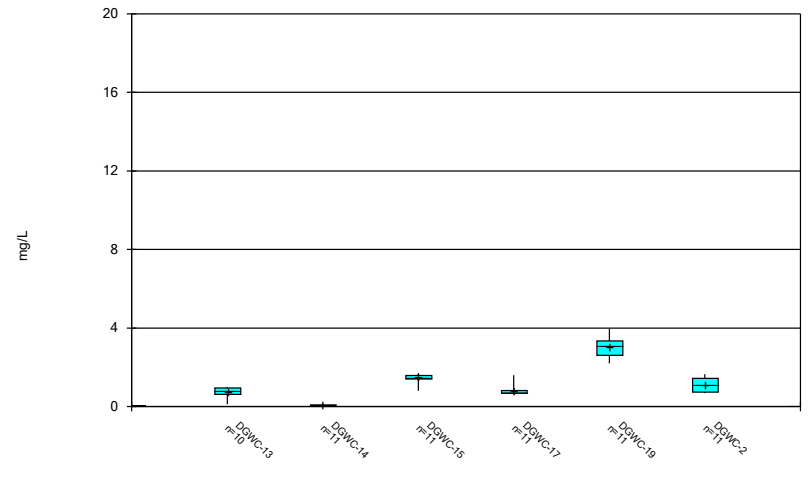
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



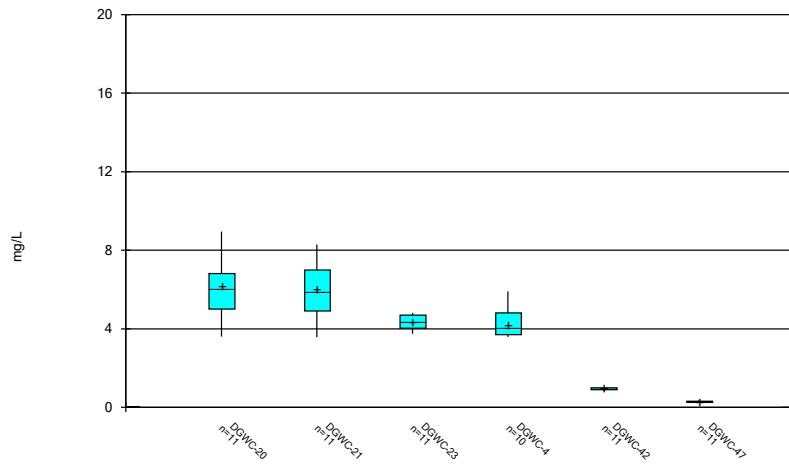
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



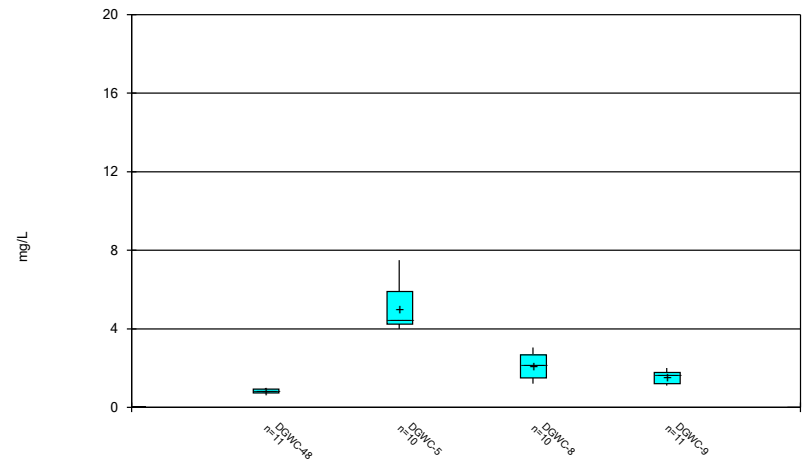
Constituent: Boron Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



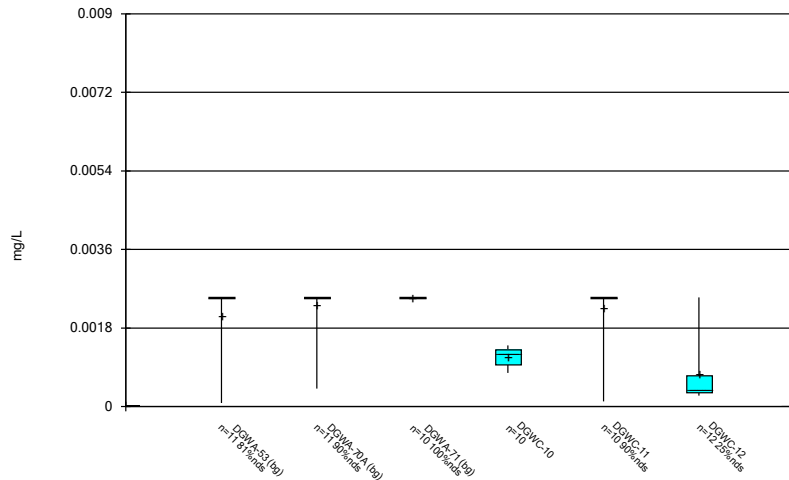
Constituent: Boron Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



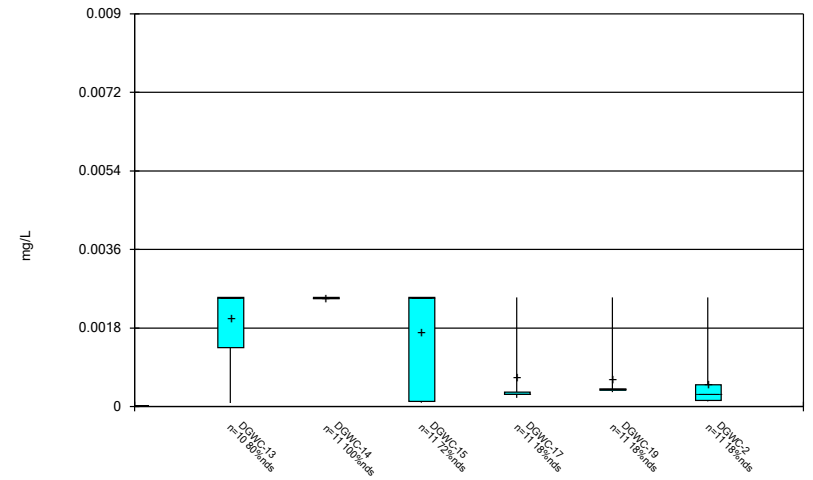
Constituent: Boron Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



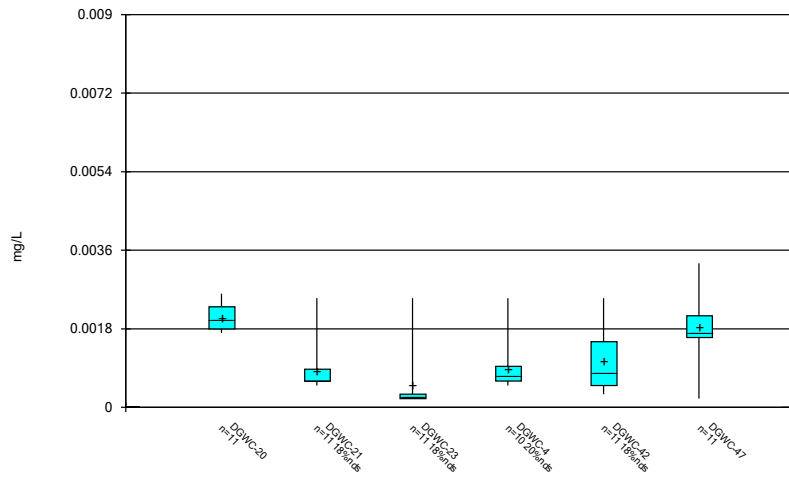
Constituent: Cadmium Analysis Run 7/2/2020 12:58 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



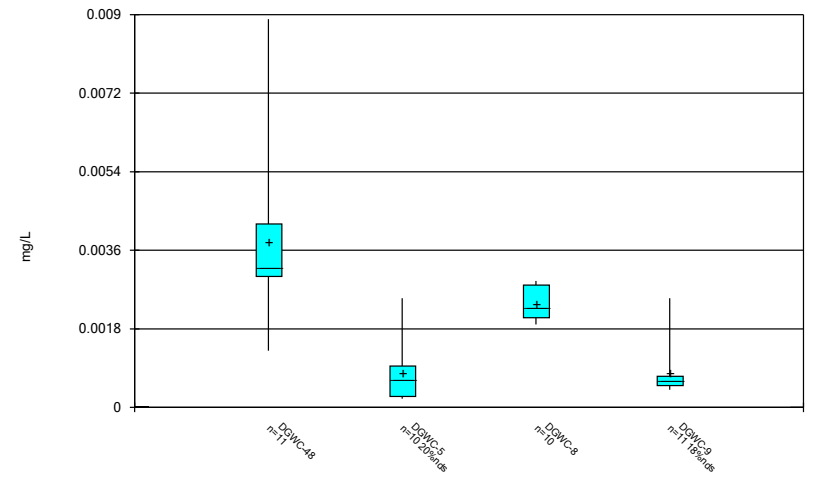
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



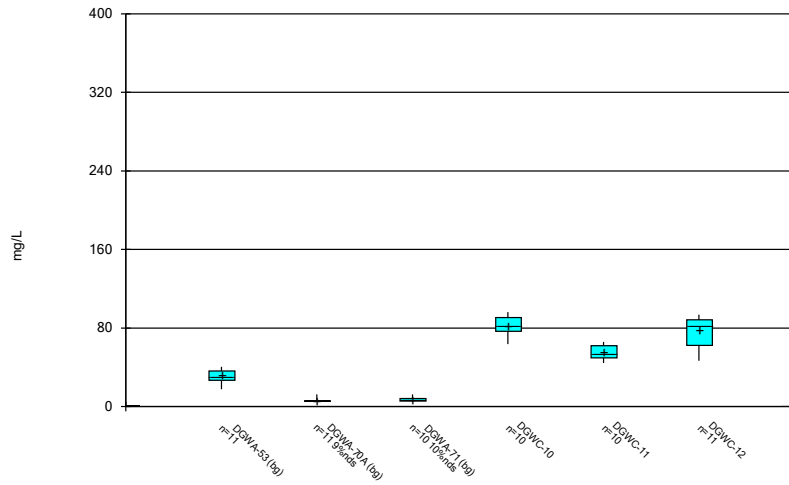
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



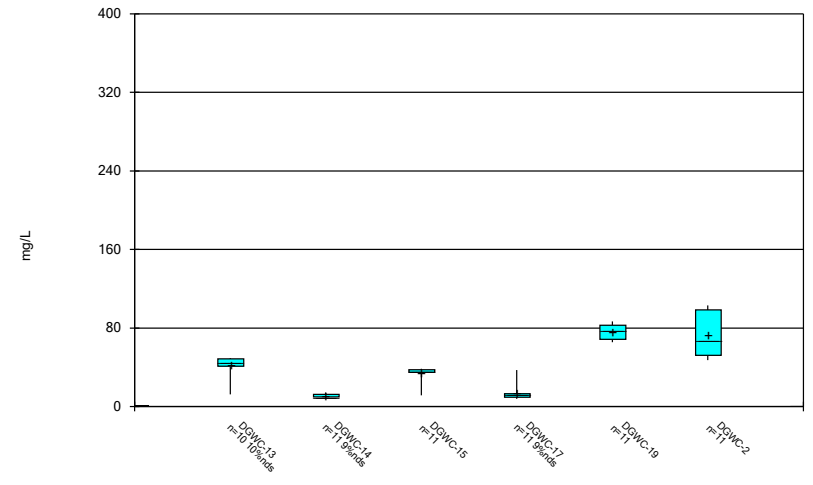
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Box & Whiskers Plot



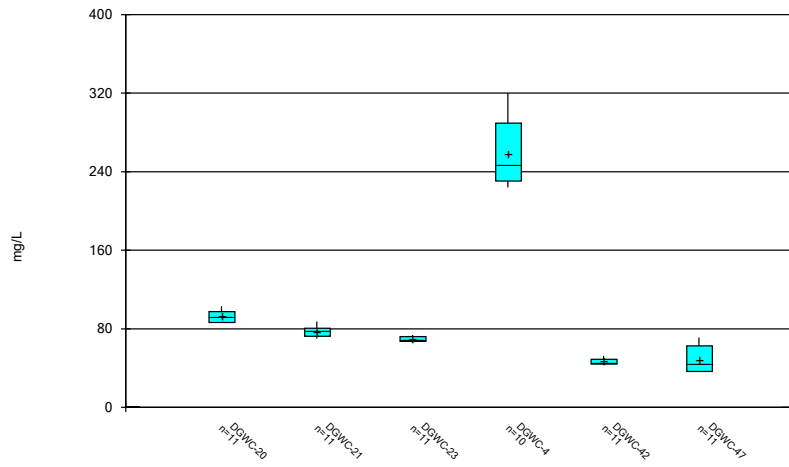
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



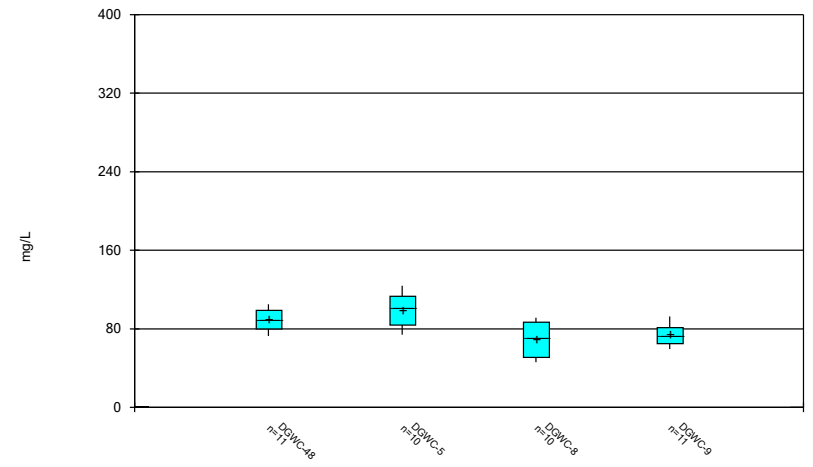
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Box & Whiskers Plot



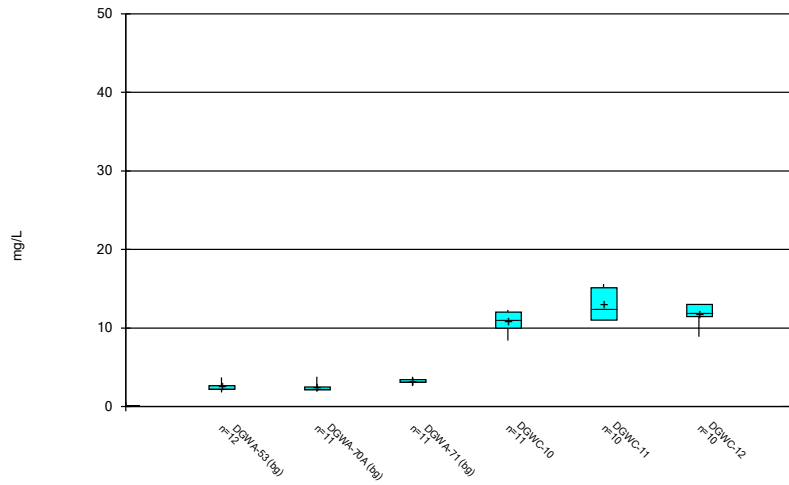
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Box & Whiskers Plot



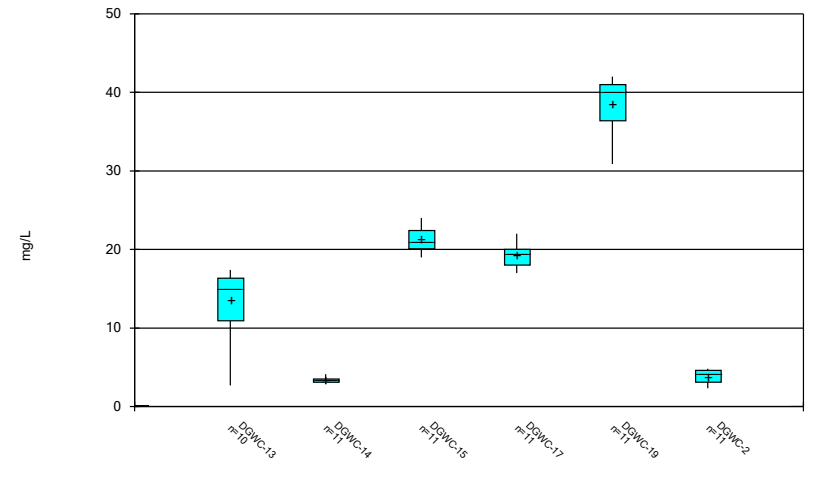
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Box & Whiskers Plot



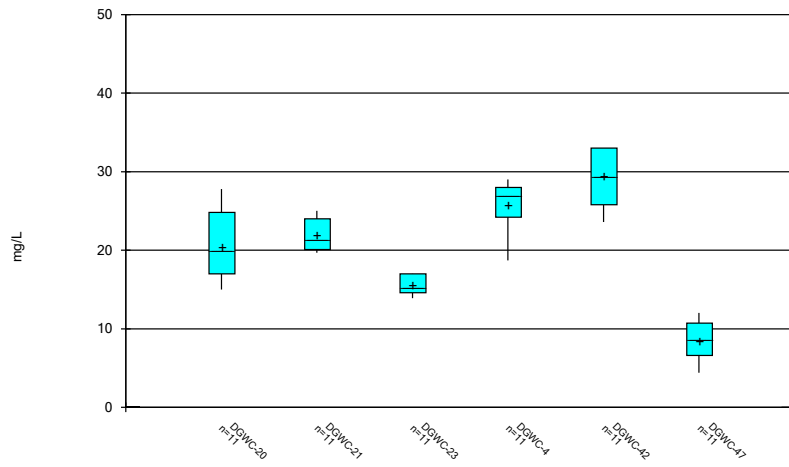
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



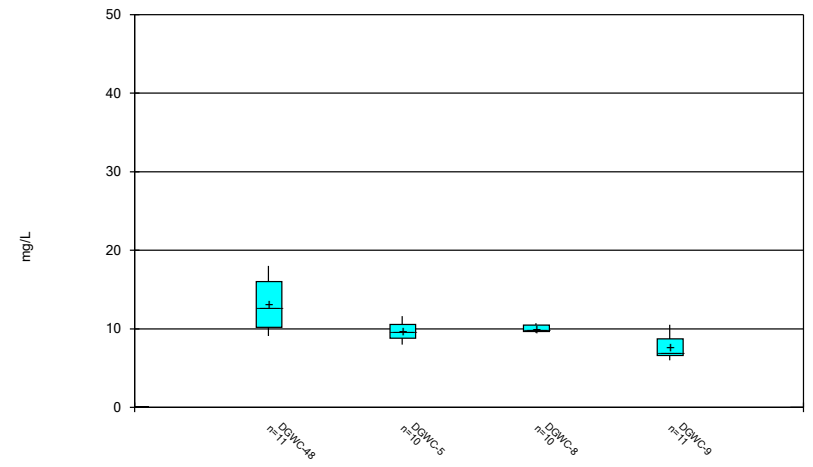
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Box & Whiskers Plot



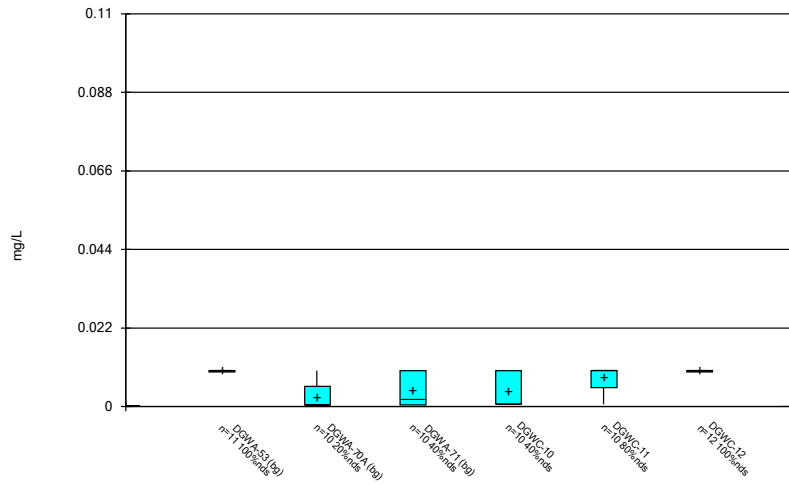
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Box & Whiskers Plot



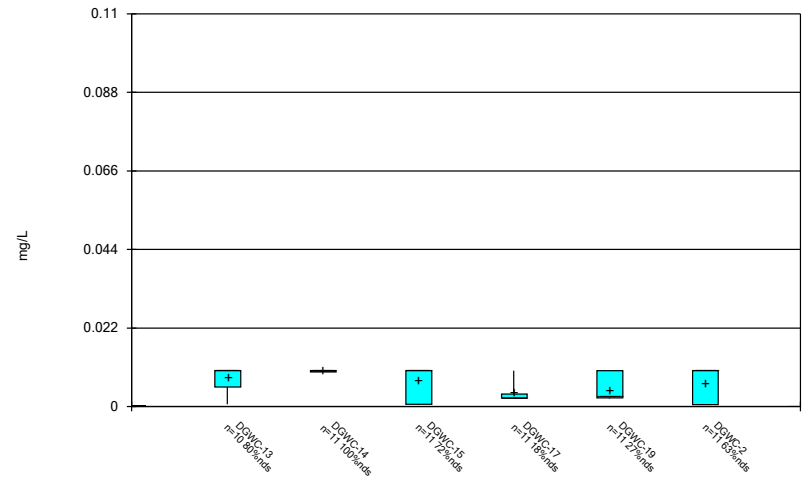
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Box & Whiskers Plot



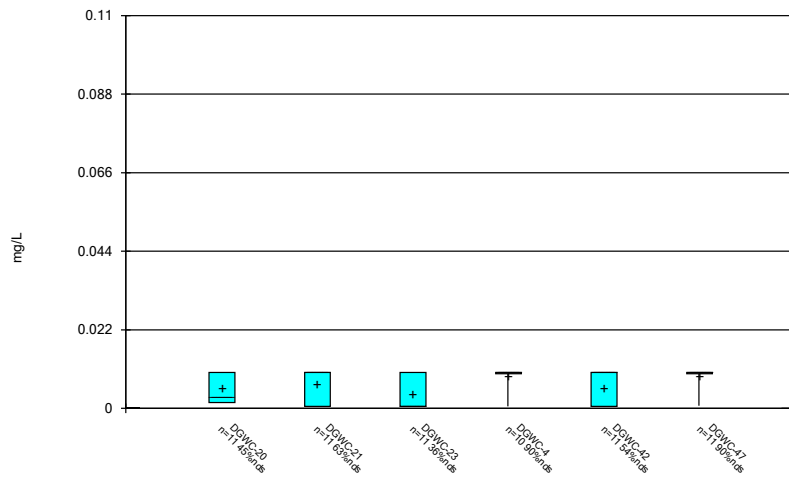
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



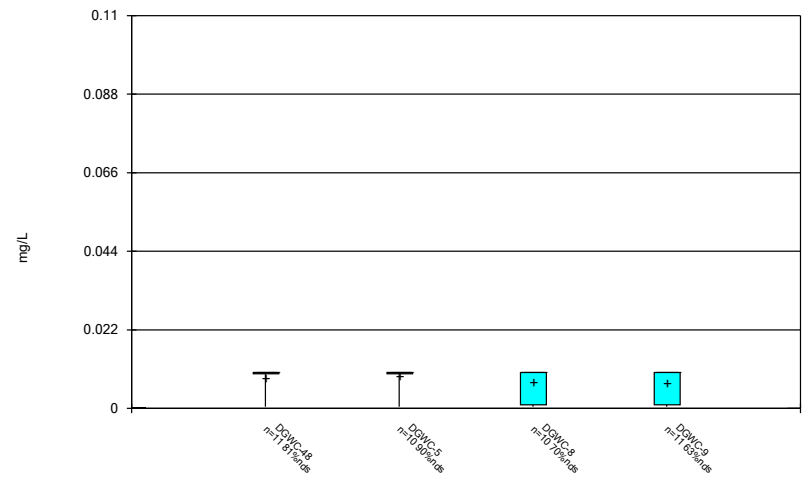
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Box & Whiskers Plot



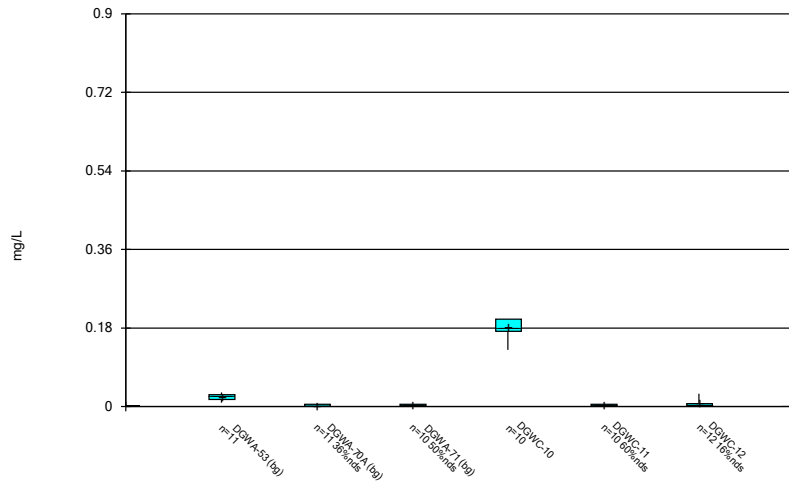
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



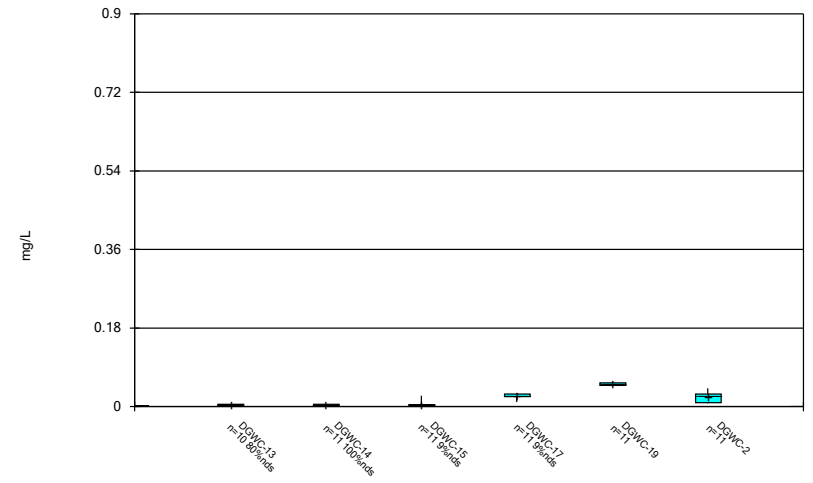
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Box & Whiskers Plot



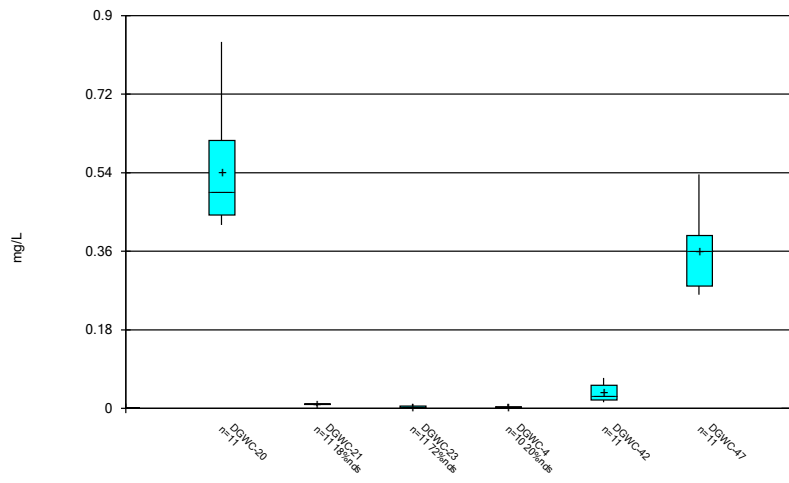
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



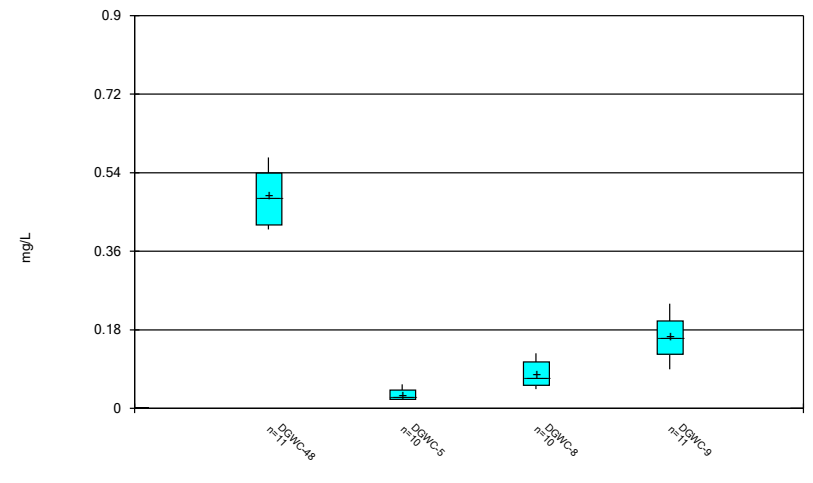
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



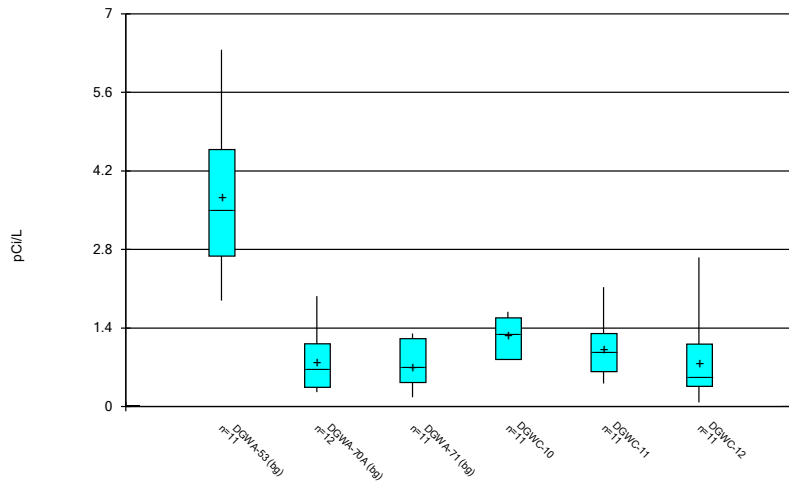
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



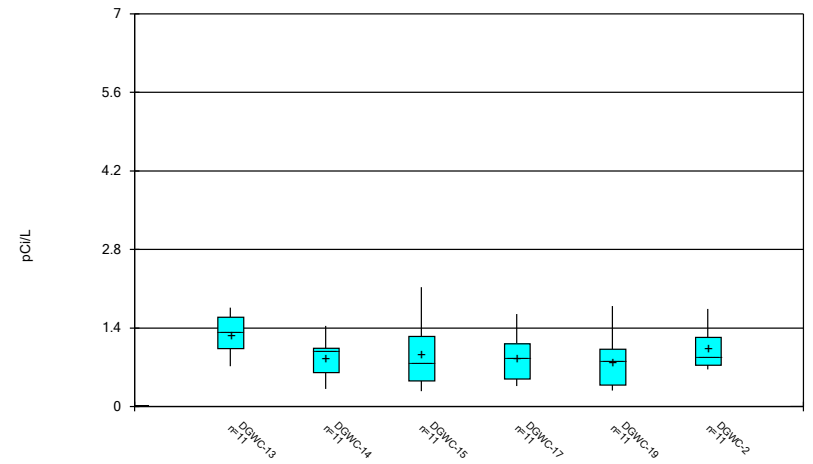
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



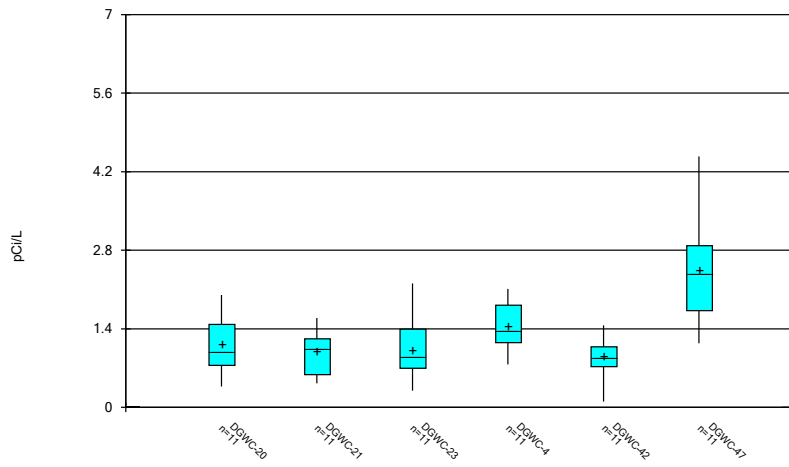
Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 12:59 PM View: AP - 2, 3-4
Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



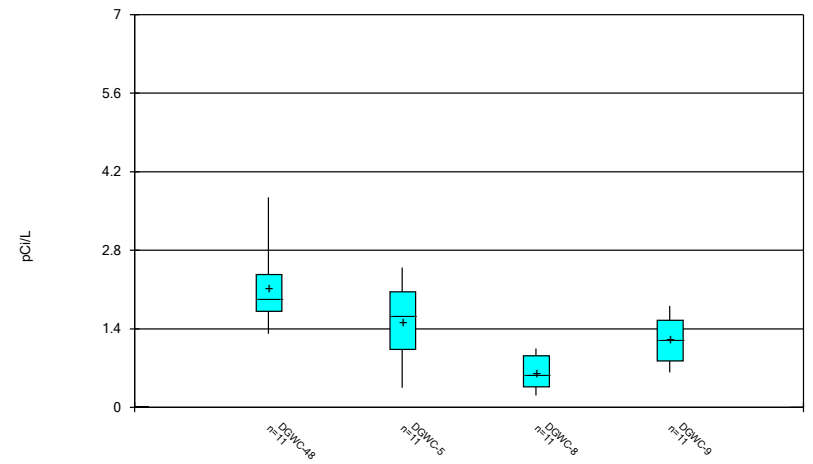
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



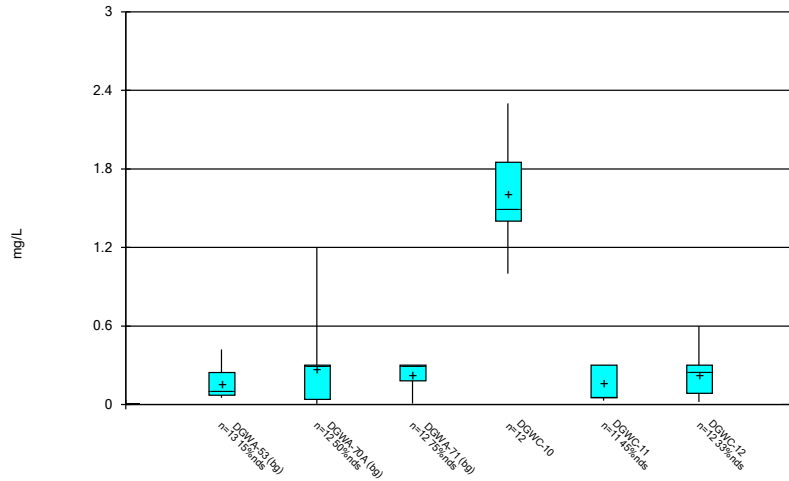
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



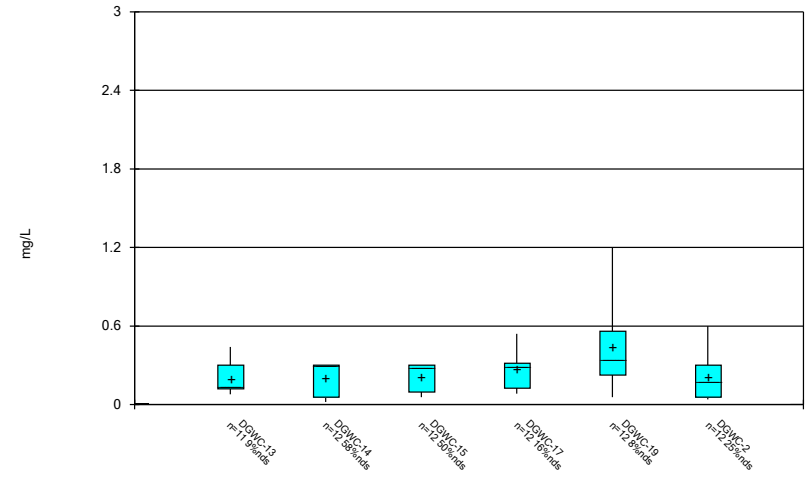
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



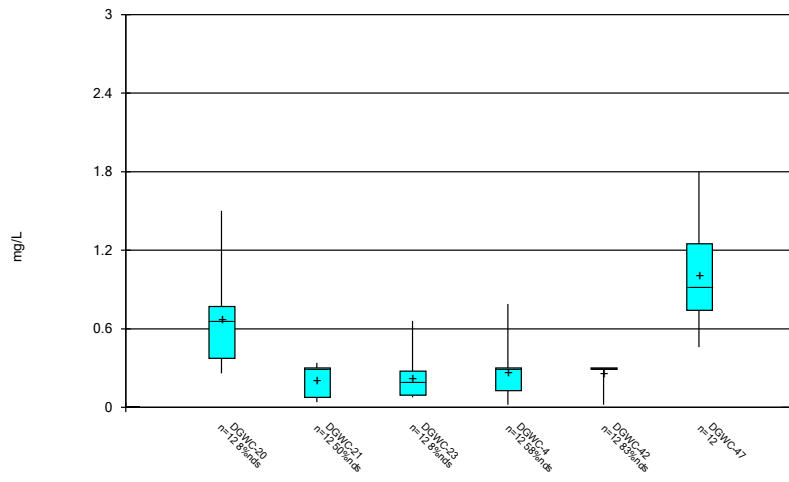
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Box & Whiskers Plot



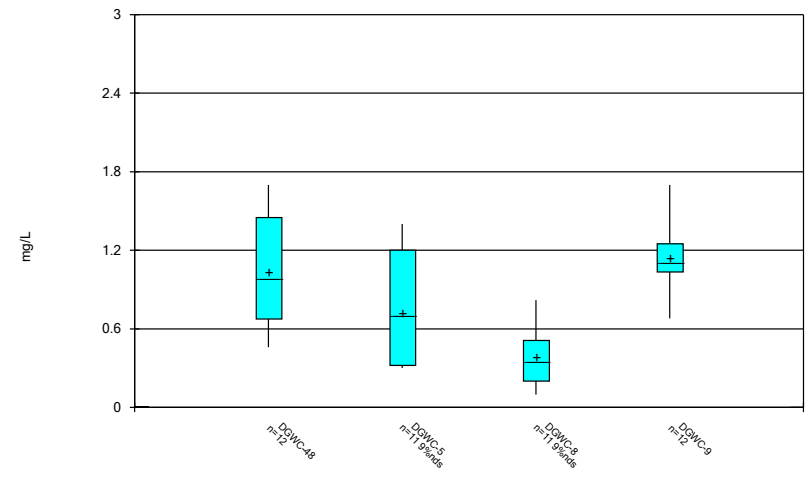
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Box & Whiskers Plot



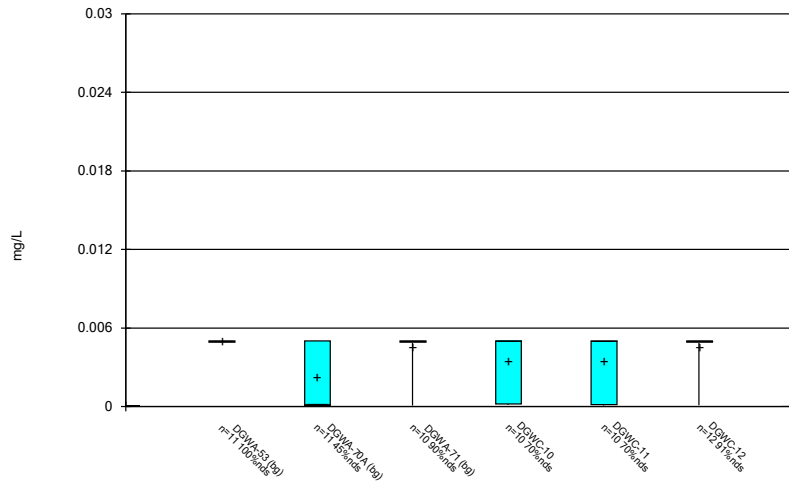
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Box & Whiskers Plot



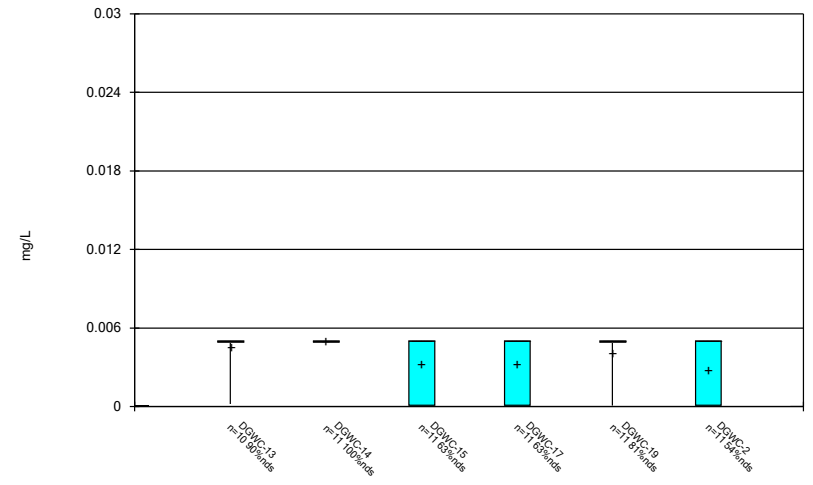
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Box & Whiskers Plot



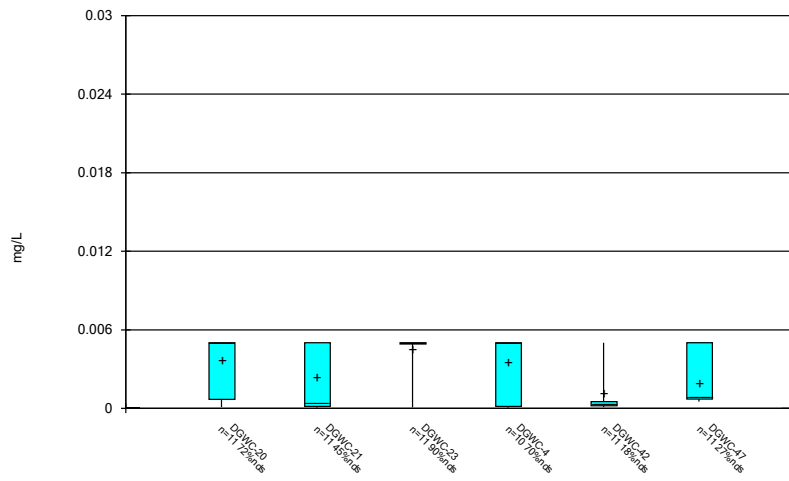
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Box & Whiskers Plot



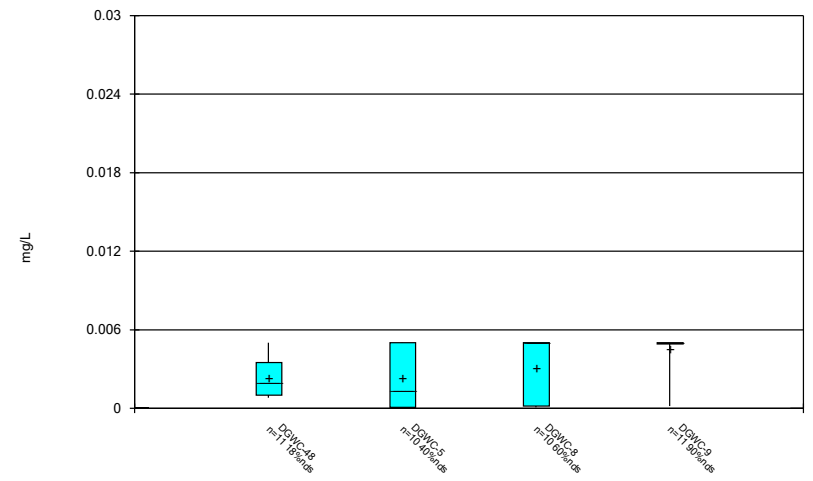
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Box & Whiskers Plot



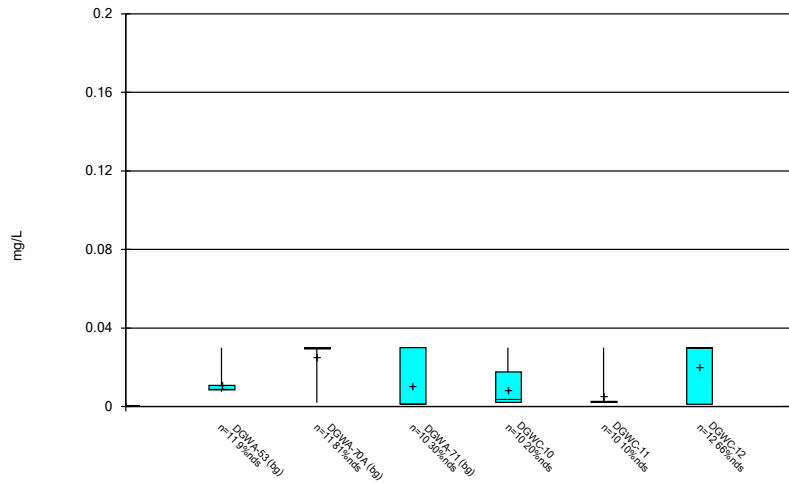
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Box & Whiskers Plot



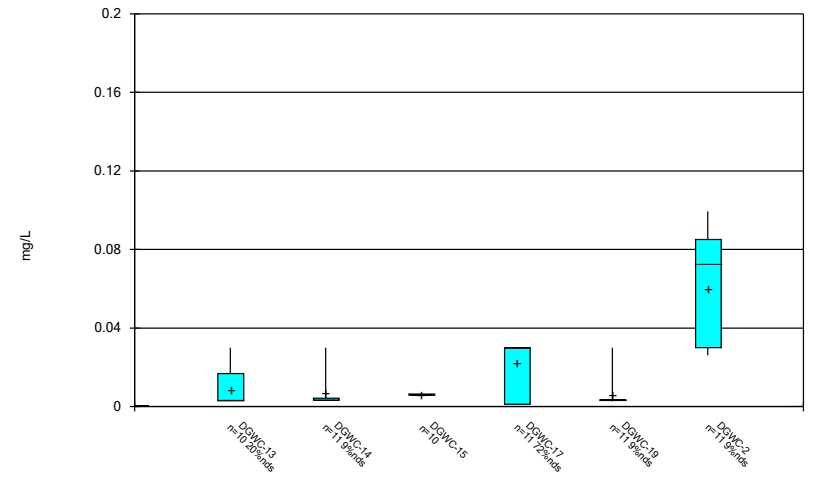
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Box & Whiskers Plot



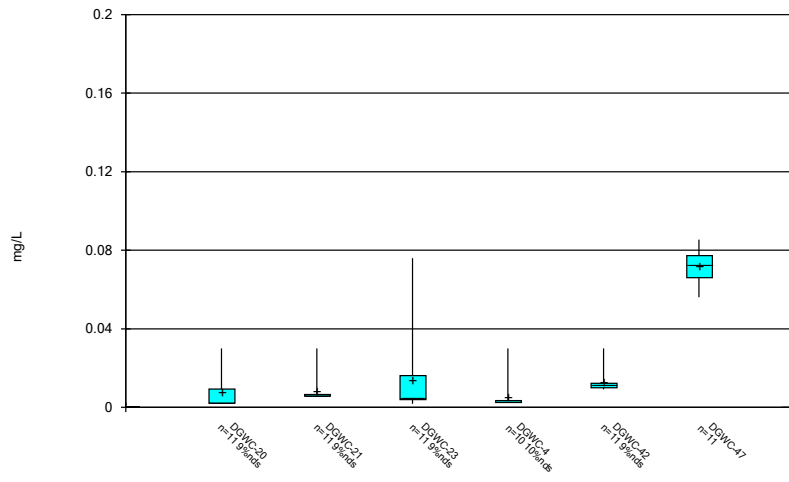
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



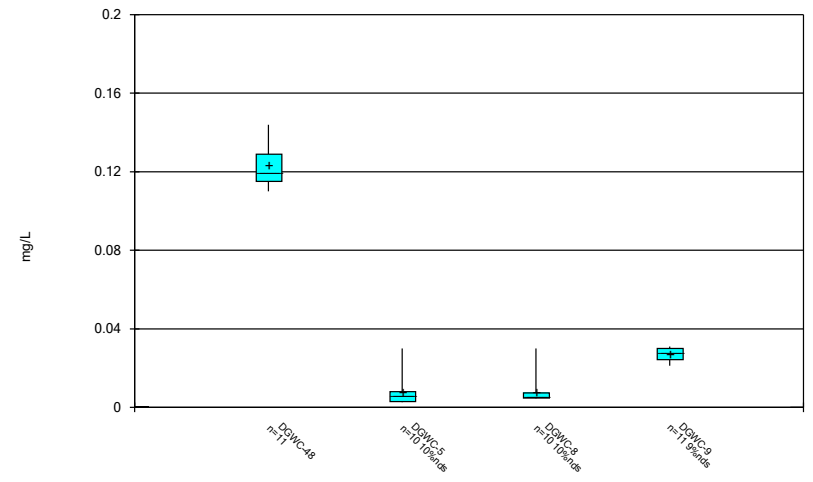
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



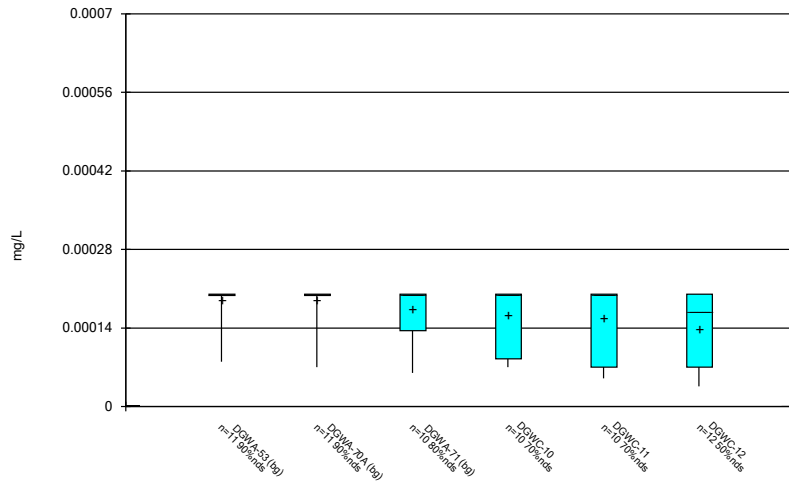
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Box & Whiskers Plot



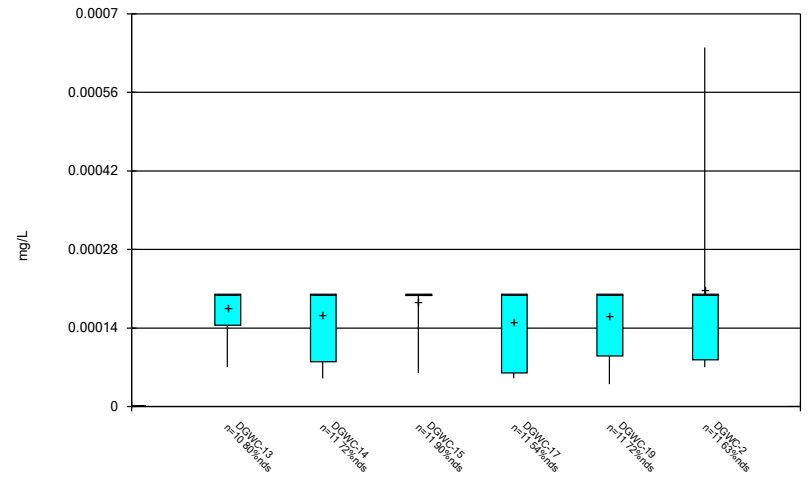
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Box & Whiskers Plot



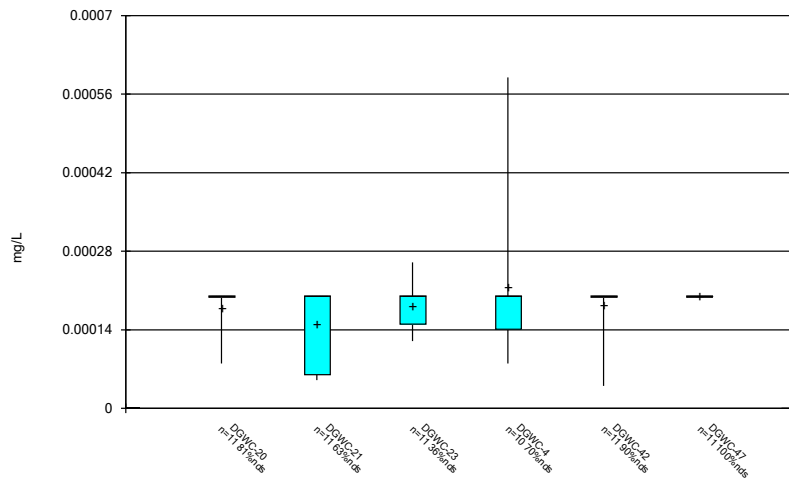
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



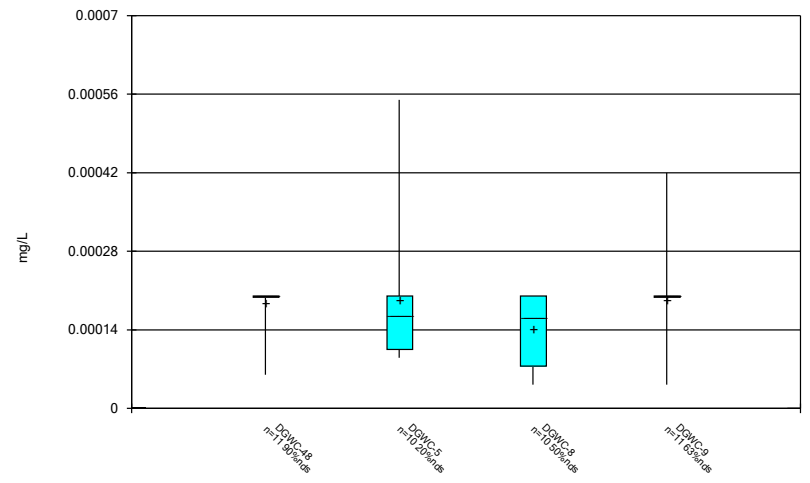
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Box & Whiskers Plot



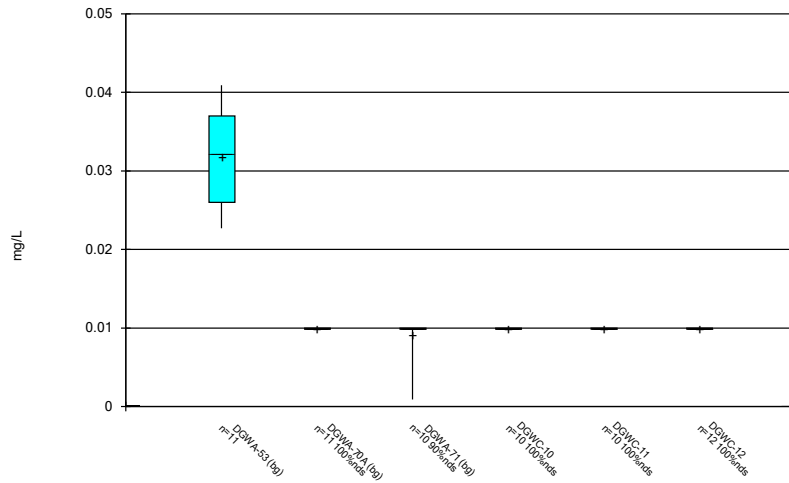
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Box & Whiskers Plot



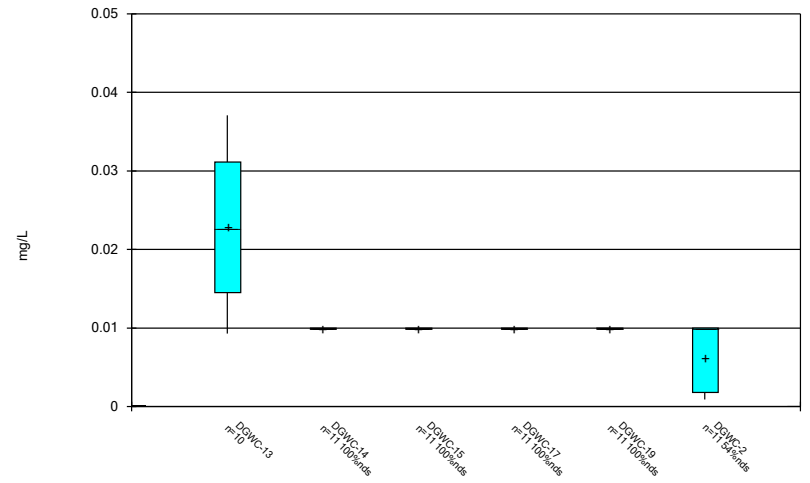
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Box & Whiskers Plot



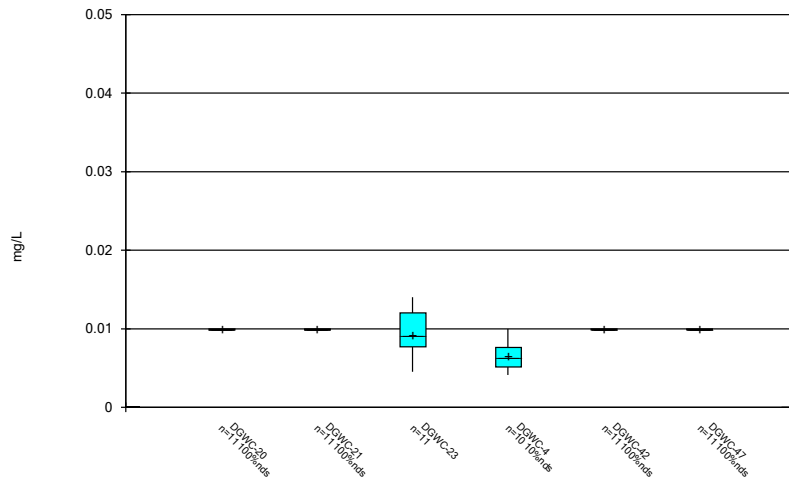
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Box & Whiskers Plot



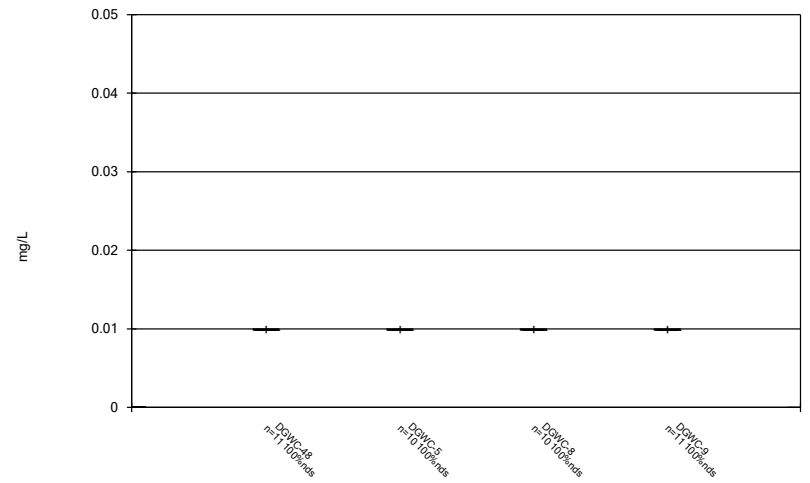
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



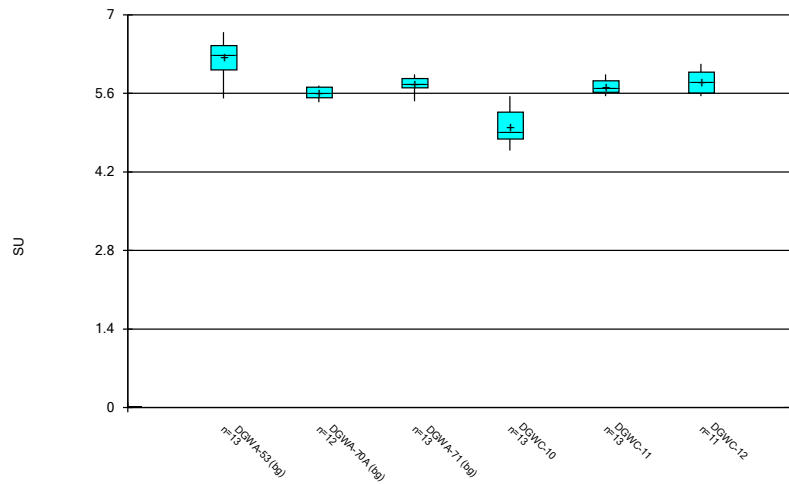
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



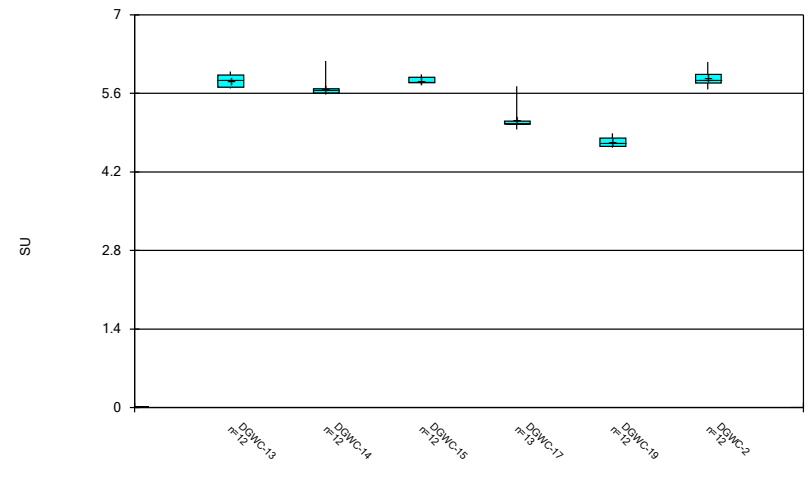
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



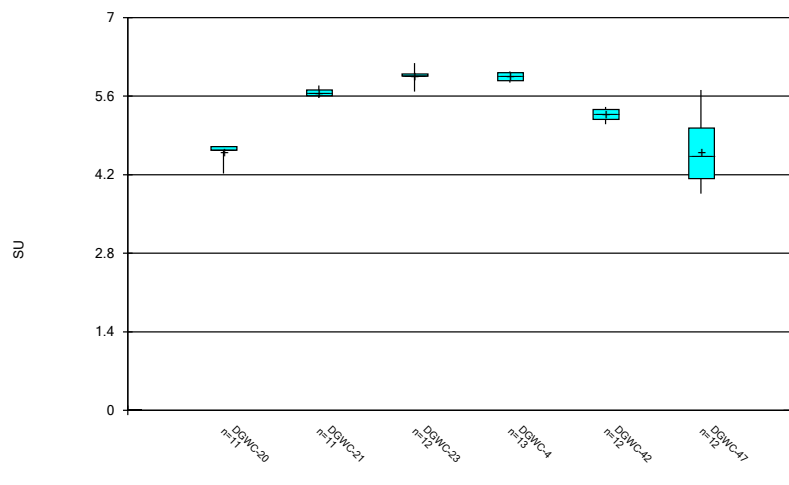
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Box & Whiskers Plot



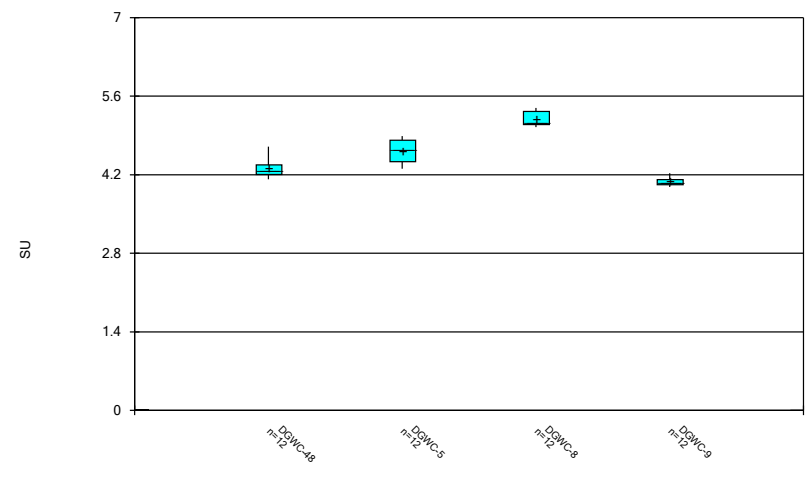
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Box & Whiskers Plot



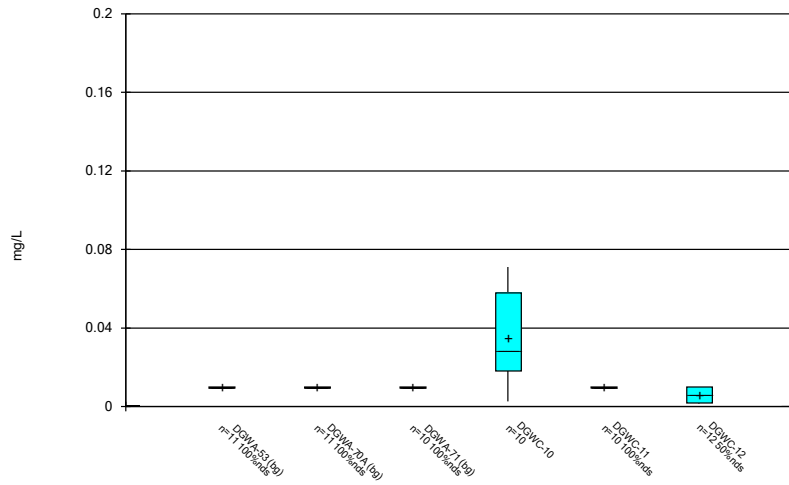
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



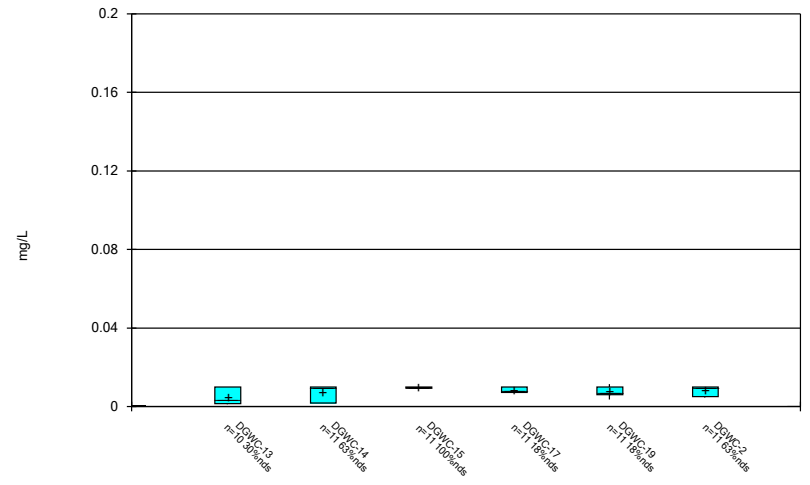
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Box & Whiskers Plot



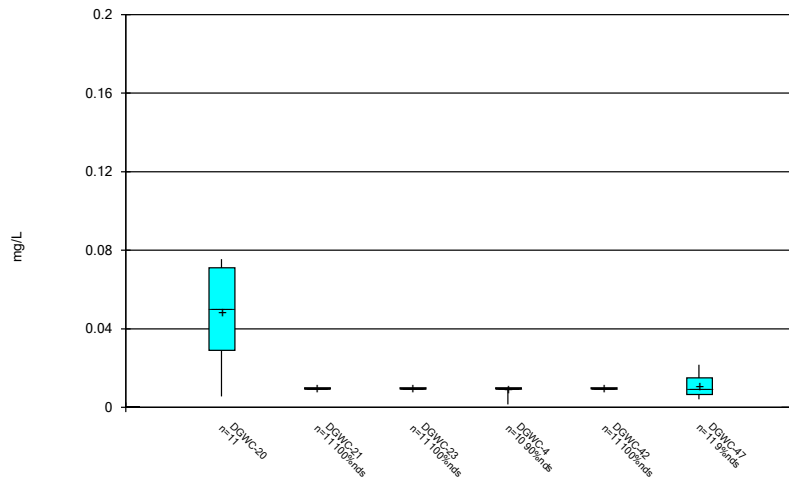
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



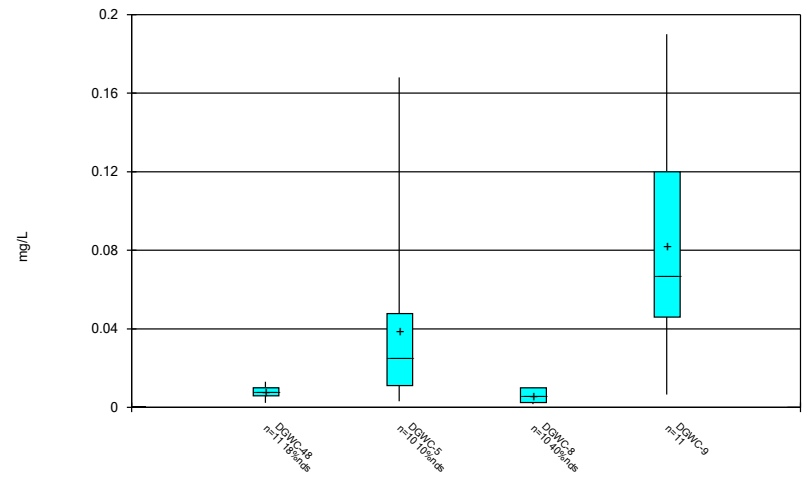
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



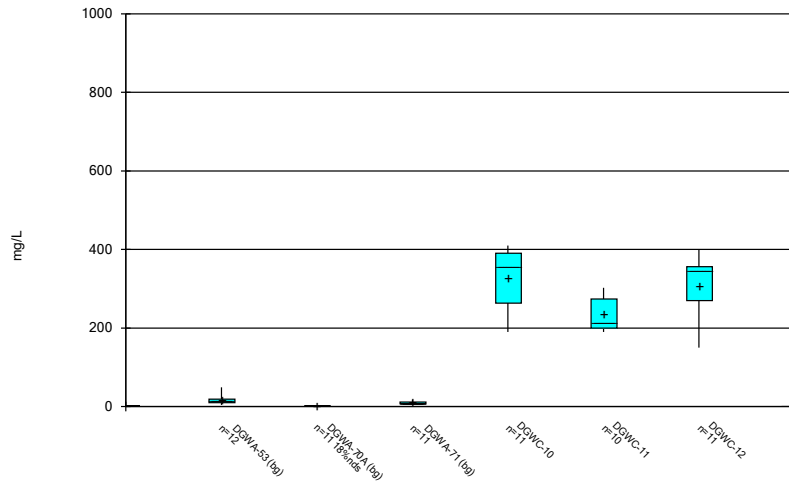
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



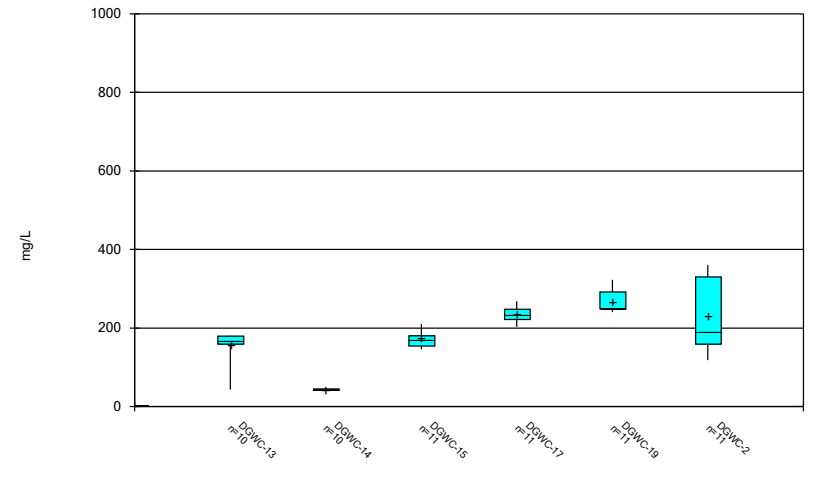
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Box & Whiskers Plot



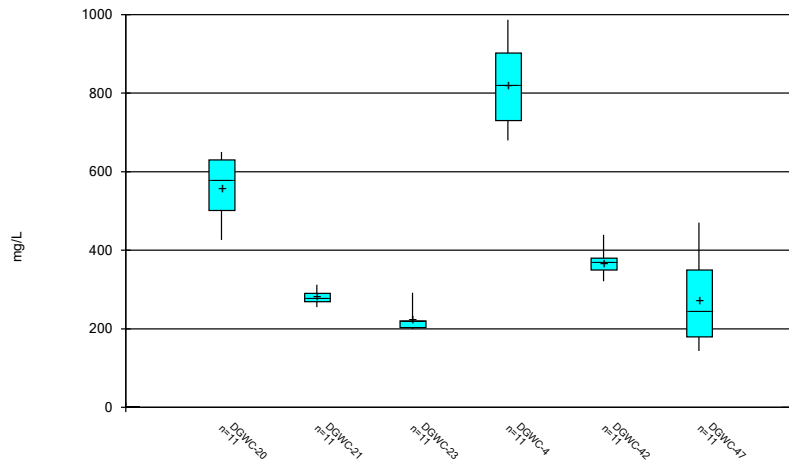
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Box & Whiskers Plot



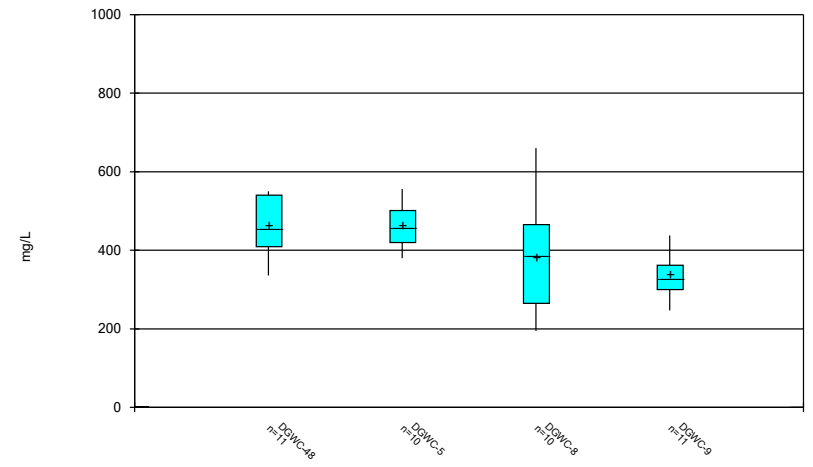
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



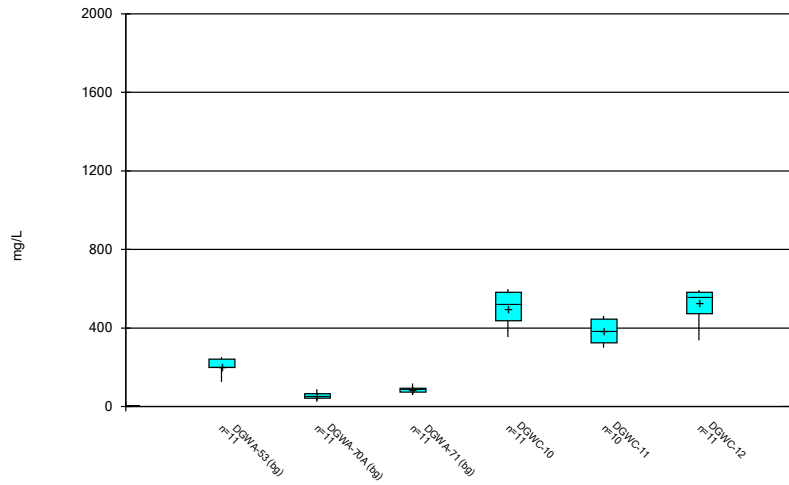
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



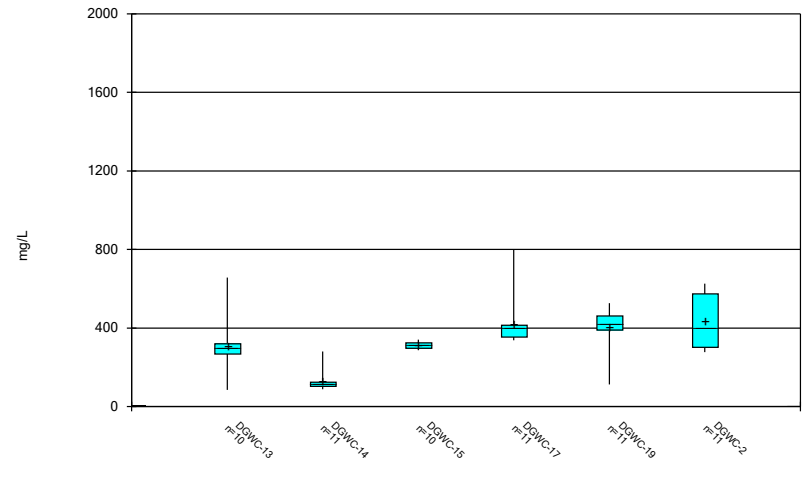
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 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



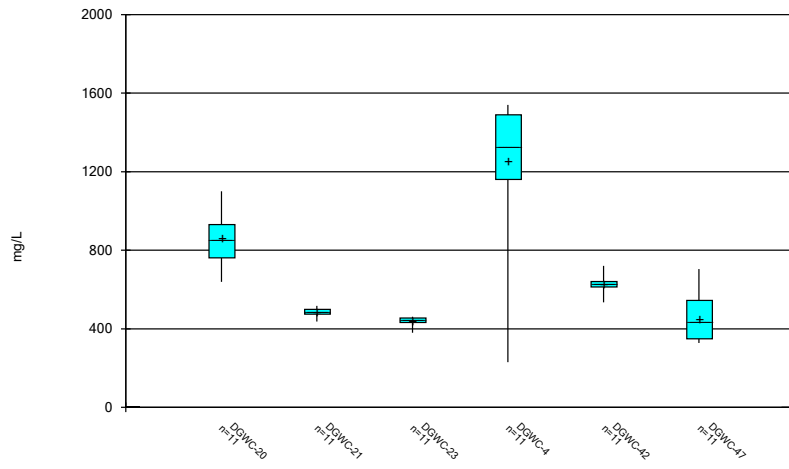
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Box & Whiskers Plot



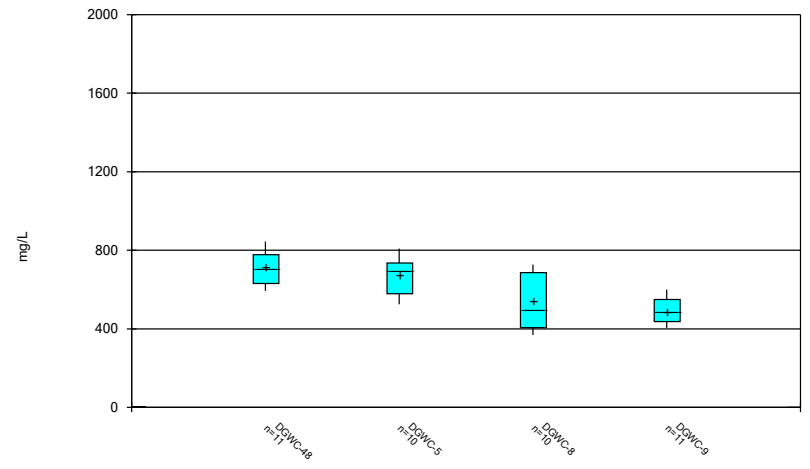
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Box & Whiskers Plot



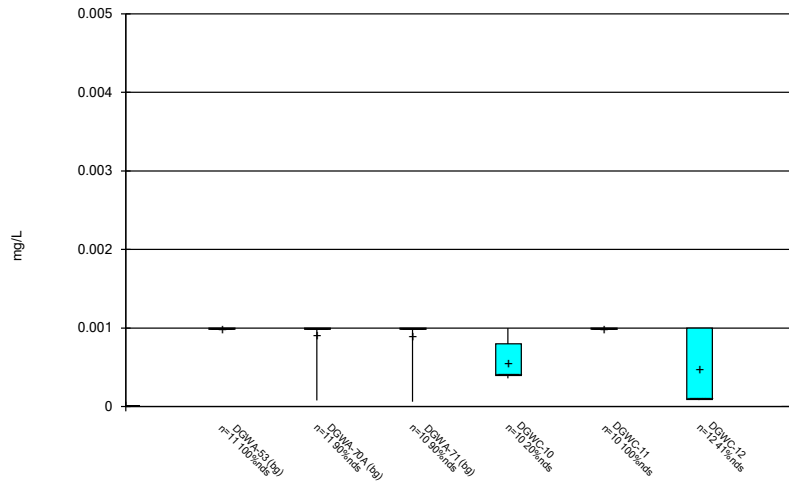
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Box & Whiskers Plot



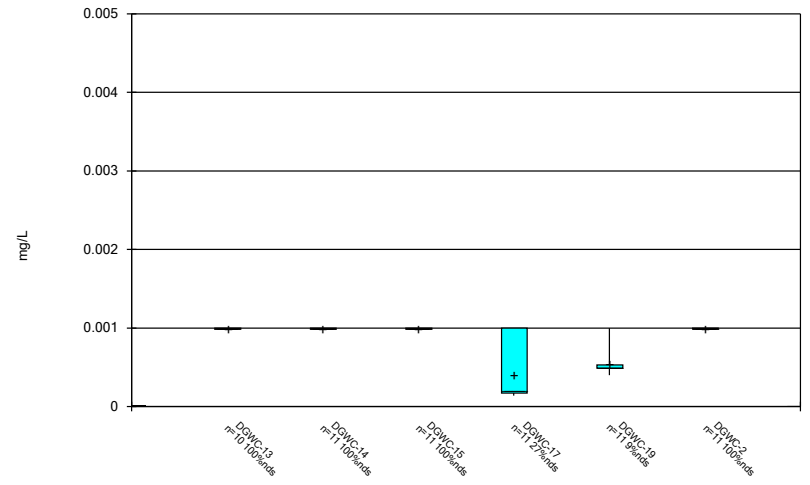
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Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



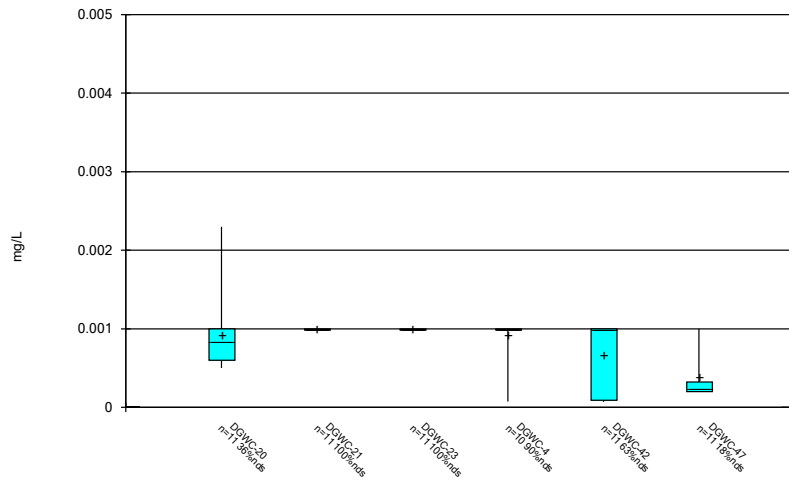
Constituent: Thallium Analysis Run 7/2/2020 12:59 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



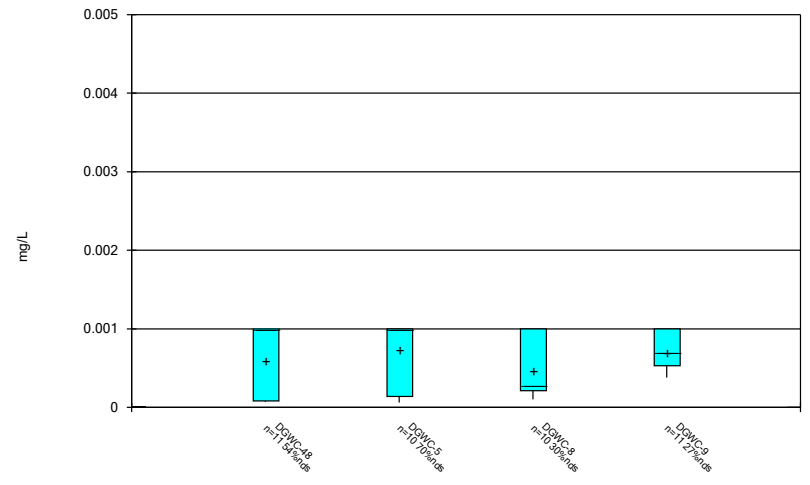
Constituent: Thallium Analysis Run 7/2/2020 12:59 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/2/2020 12:59 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/2/2020 12:59 PM View: AP - 2, 3-4
 Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE C.

Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 12:58 PM

	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.

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	3/2/2020	1.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	3/2/2020	3.3	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	3/3/2020	0.61	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	3/3/2020	0.15	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	3/3/2020	1.7	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	3/4/2020	0.85	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	3/3/2020	3.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	3/3/2020	0.68	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	3/4/2020	3.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	3/3/2020	6.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	3/4/2020	4.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	3/2/2020	5.9	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	3/4/2020	1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	3/4/2020	0.24	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	3/4/2020	0.77	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	3/2/2020	5.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	3/3/2020	1.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40.3	n/a	3/3/2020	63.6	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40.3	n/a	3/2/2020	65.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40.3	n/a	3/2/2020	46.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40.3	n/a	3/3/2020	49.3	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40.3	n/a	3/3/2020	86.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40.3	n/a	3/3/2020	48.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40.3	n/a	3/4/2020	103	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40.3	n/a	3/3/2020	87.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40.3	n/a	3/4/2020	69.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40.3	n/a	3/2/2020	320	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40.3	n/a	3/4/2020	48.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40.3	n/a	3/4/2020	79.7	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40.3	n/a	3/2/2020	116	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40.3	n/a	3/3/2020	46	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40.3	n/a	3/3/2020	59.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.192	n/a	3/3/2020	8.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.192	n/a	3/2/2020	15	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.192	n/a	3/2/2020	8.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.192	n/a	3/3/2020	9.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.192	n/a	3/3/2020	22.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.192	n/a	3/4/2020	19.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.192	n/a	3/3/2020	30.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.192	n/a	3/4/2020	27.8	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.192	n/a	3/3/2020	19.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.192	n/a	3/4/2020	13.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.192	n/a	3/2/2020	18.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.192	n/a	3/4/2020	23.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.192	n/a	3/4/2020	4.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.192	n/a	3/4/2020	9.1	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.192	n/a	3/2/2020	10.5	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-8	4.192	n/a	3/3/2020	9.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.192	n/a	3/3/2020	6.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	1.2	n/a	3/3/2020	1.5	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	1.2	n/a	3/4/2020	1.5	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	1.2	n/a	3/3/2020	1.4	Yes	37	n/a	n/a	n/a	45.95	n/a	n/a	0.001235 NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.69	5.44	3/3/2020	4.77	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NB	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
pH (SU)	DGWC-17	6.69	5.44	3/4/2020	5.07	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-19	6.69	5.44	3/3/2020	4.89	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-20	6.69	5.44	3/4/2020	4.22	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-42	6.69	5.44	3/4/2020	5.18	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-47	6.69	5.44	3/4/2020	3.86	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-48	6.69	5.44	3/4/2020	4.27	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-5	6.69	5.44	3/2/2020	4.8	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-8	6.69	5.44	3/3/2020	5.12	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
pH (SU)	DGWC-9	6.69	5.44	3/3/2020	4.07	Yes	38	n/a	n/a	n/a	0	n/a	n/a	0.002356 NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-10	36.77	n/a	3/3/2020	213	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36.77	n/a	3/2/2020	264	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36.77	n/a	3/2/2020	181	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36.77	n/a	3/3/2020	157	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36.77	n/a	3/3/2020	45.5	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36.77	n/a	3/3/2020	148	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36.77	n/a	3/4/2020	222	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36.77	n/a	3/3/2020	292	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36.77	n/a	3/3/2020	118	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36.77	n/a	3/4/2020	434	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36.77	n/a	3/3/2020	269	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36.77	n/a	3/4/2020	204	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36.77	n/a	3/2/2020	840	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36.77	n/a	3/4/2020	329	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36.77	n/a	3/4/2020	176	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-48	36.77	n/a	3/4/2020	368	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36.77	n/a	3/2/2020	455	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36.77	n/a	3/3/2020	195	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36.77	n/a	3/3/2020	247	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	327.9	n/a	3/3/2020	382	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	327.9	n/a	3/2/2020	458	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	327.9	n/a	3/2/2020	338	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	327.9	n/a	3/4/2020	414	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	327.9	n/a	3/3/2020	526	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	327.9	n/a	3/4/2020	761	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	327.9	n/a	3/3/2020	490	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	327.9	n/a	3/4/2020	408	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	327.9	n/a	3/2/2020	1540	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	327.9	n/a	3/4/2020	721	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	327.9	n/a	3/4/2020	334	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	327.9	n/a	3/4/2020	630	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	327.9	n/a	3/2/2020	759	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	327.9	n/a	3/3/2020	369	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	327.9	n/a	3/3/2020	444	Yes	33	4.67	0.9751	0	None	x^(1/3)	0.000396	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron (mg/L)	DGWC-10	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-11	0.13	n/a	3/2/2020	1.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-12	0.13	n/a	3/2/2020	3.3	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-13	0.13	n/a	3/3/2020	0.61	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-14	0.13	n/a	3/3/2020	0.15	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-15	0.13	n/a	3/3/2020	1.7	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-17	0.13	n/a	3/4/2020	0.85	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-19	0.13	n/a	3/3/2020	3.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-2	0.13	n/a	3/3/2020	0.68	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-20	0.13	n/a	3/4/2020	3.6	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-21	0.13	n/a	3/3/2020	6.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-23	0.13	n/a	3/4/2020	4.8	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-4	0.13	n/a	3/2/2020	5.9	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-42	0.13	n/a	3/4/2020	1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-47	0.13	n/a	3/4/2020	0.24	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-48	0.13	n/a	3/4/2020	0.77	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-5	0.13	n/a	3/2/2020	5.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-8	0.13	n/a	3/3/2020	1.5	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-9	0.13	n/a	3/3/2020	1.1	Yes	32	n/a	n/a	n/a	18.75	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-10	40.3	n/a	3/3/2020	63.6	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-11	40.3	n/a	3/2/2020	65.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-12	40.3	n/a	3/2/2020	46.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-13	40.3	n/a	3/3/2020	49.3	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-14	40.3	n/a	3/3/2020	14	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-15	40.3	n/a	3/3/2020	37.8	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-17	40.3	n/a	3/4/2020	15.8	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-19	40.3	n/a	3/3/2020	86.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-2	40.3	n/a	3/3/2020	48.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-20	40.3	n/a	3/4/2020	103	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-21	40.3	n/a	3/3/2020	87.4	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-23	40.3	n/a	3/4/2020	69.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-4	40.3	n/a	3/2/2020	320	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-42	40.3	n/a	3/4/2020	48.8	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-47	40.3	n/a	3/4/2020	36	No	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-48	40.3	n/a	3/4/2020	79.7	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-5	40.3	n/a	3/2/2020	116	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-8	40.3	n/a	3/3/2020	46	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-9	40.3	n/a	3/3/2020	59.5	Yes	32	n/a	n/a	n/a	6.25	n/a	n/a	0.001593 NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-10	4.192	n/a	3/3/2020	8.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-11	4.192	n/a	3/2/2020	15	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-12	4.192	n/a	3/2/2020	8.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-13	4.192	n/a	3/3/2020	9.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-14	4.192	n/a	3/3/2020	4.1	No	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-15	4.192	n/a	3/3/2020	22.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-17	4.192	n/a	3/4/2020	19.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-19	4.192	n/a	3/3/2020	30.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-2	4.192	n/a	3/3/2020	2.3	No	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-20	4.192	n/a	3/4/2020	27.8	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-21	4.192	n/a	3/3/2020	19.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-23	4.192	n/a	3/4/2020	13.9	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-4	4.192	n/a	3/2/2020	18.7	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-42	4.192	n/a	3/4/2020	23.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-47	4.192	n/a	3/4/2020	4.4	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-48	4.192	n/a	3/4/2020	9.1	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-5	4.192	n/a	3/2/2020	10.5	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Chloride (mg/L)	DGWC-8	4.192	n/a	3/3/2020	9.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Chloride (mg/L)	DGWC-9	4.192	n/a	3/3/2020	6.6	Yes	34	1.633	0.182	0	None	sqrt(x)	0.000396	Param Inter 1 of 2
Fluoride (mg/L)	DGWC-10	1.2	n/a	3/3/2020	1.5	Yes	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-11	1.2	n/a	3/2/2020	0.064J	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-12	1.2	n/a	3/2/2020	0.071J	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-13	1.2	n/a	3/3/2020	0.078J	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-14	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-15	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-17	1.2	n/a	3/4/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-19	1.2	n/a	3/3/2020	0.056J	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-2	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-20	1.2	n/a	3/4/2020	1.5	Yes	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-21	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-23	1.2	n/a	3/4/2020	0.075J	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-4	1.2	n/a	3/2/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-42	1.2	n/a	3/4/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-47	1.2	n/a	3/4/2020	0.74	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-48	1.2	n/a	3/4/2020	0.7	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-5	1.2	n/a	3/2/2020	0.33	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-8	1.2	n/a	3/3/2020	0.3ND	No	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-9	1.2	n/a	3/3/2020	1.4	Yes	37	n/a	n/a	45.95	n/a	n/a	0.001235	NP Inter (normality) 1 of 2
pH (SU)	DGWC-10	6.69	5.44	3/3/2020	4.77	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-11	6.69	5.44	3/2/2020	5.62	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-12	6.69	5.44	3/2/2020	6.13	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-13	6.69	5.44	3/3/2020	5.71	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-14	6.69	5.44	3/3/2020	5.73	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-15	6.69	5.44	3/3/2020	5.79	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-17	6.69	5.44	3/4/2020	5.07	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-19	6.69	5.44	3/3/2020	4.89	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-2	6.69	5.44	3/3/2020	5.94	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-20	6.69	5.44	3/4/2020	4.22	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-21	6.69	5.44	3/3/2020	5.65	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-23	6.69	5.44	3/4/2020	5.68	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-4	6.69	5.44	3/2/2020	5.88	No	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-42	6.69	5.44	3/4/2020	5.18	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-47	6.69	5.44	3/4/2020	3.86	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-48	6.69	5.44	3/4/2020	4.27	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-5	6.69	5.44	3/2/2020	4.8	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-8	6.69	5.44	3/3/2020	5.12	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
pH (SU)	DGWC-9	6.69	5.44	3/3/2020	4.07	Yes	38	n/a	n/a	0	n/a	n/a	0.002356	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-10	36.77	n/a	3/3/2020	213	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-11	36.77	n/a	3/2/2020	264	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-12	36.77	n/a	3/2/2020	181	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-13	36.77	n/a	3/3/2020	157	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-14	36.77	n/a	3/3/2020	45.5	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-15	36.77	n/a	3/3/2020	148	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-17	36.77	n/a	3/4/2020	222	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-19	36.77	n/a	3/3/2020	292	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-2	36.77	n/a	3/3/2020	118	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-20	36.77	n/a	3/4/2020	434	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-21	36.77	n/a	3/3/2020	269	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-23	36.77	n/a	3/4/2020	204	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-4	36.77	n/a	3/2/2020	840	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-42	36.77	n/a	3/4/2020	329	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-47	36.77	n/a	3/4/2020	176	Yes	34	2.668	1.493	5.882	None	sqrt(x)	0.000396	Param Inter 1 of 2

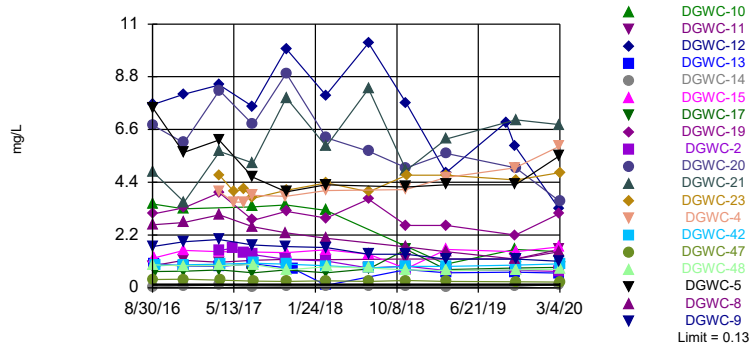
Appendix III Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Sulfate (mg/L)	DGWC-48	36.77	n/a	3/4/2020	368	Yes 34	2.668	1.493	5.882	None	sqrt(x) 0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-5	36.77	n/a	3/2/2020	455	Yes 34	2.668	1.493	5.882	None	sqrt(x) 0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-8	36.77	n/a	3/3/2020	195	Yes 34	2.668	1.493	5.882	None	sqrt(x) 0.000396	Param Inter 1 of 2
Sulfate (mg/L)	DGWC-9	36.77	n/a	3/3/2020	247	Yes 34	2.668	1.493	5.882	None	sqrt(x) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-10	327.9	n/a	3/3/2020	382	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-11	327.9	n/a	3/2/2020	458	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-12	327.9	n/a	3/2/2020	338	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-13	327.9	n/a	3/3/2020	263	No 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-14	327.9	n/a	3/3/2020	123	No 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-15	327.9	n/a	3/3/2020	323	No 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-17	327.9	n/a	3/4/2020	414	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-19	327.9	n/a	3/3/2020	526	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-2	327.9	n/a	3/3/2020	277	No 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-20	327.9	n/a	3/4/2020	761	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-21	327.9	n/a	3/3/2020	490	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-23	327.9	n/a	3/4/2020	408	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-4	327.9	n/a	3/2/2020	1540	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-42	327.9	n/a	3/4/2020	721	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-47	327.9	n/a	3/4/2020	334	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-48	327.9	n/a	3/4/2020	630	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-5	327.9	n/a	3/2/2020	759	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-8	327.9	n/a	3/3/2020	369	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2
TDS (mg/L)	DGWC-9	327.9	n/a	3/3/2020	444	Yes 33	4.67	0.9751	0	None	x^(1/3) 0.000396	Param Inter 1 of 2

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-14, DGWC-15, DGWC-17, DGWC-19, DGWC-2, DGWC-20, DGWC-21, DGWC-23, DGWC-4, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9
Limit = 0.13

Prediction Limit Interwell Non-parametric

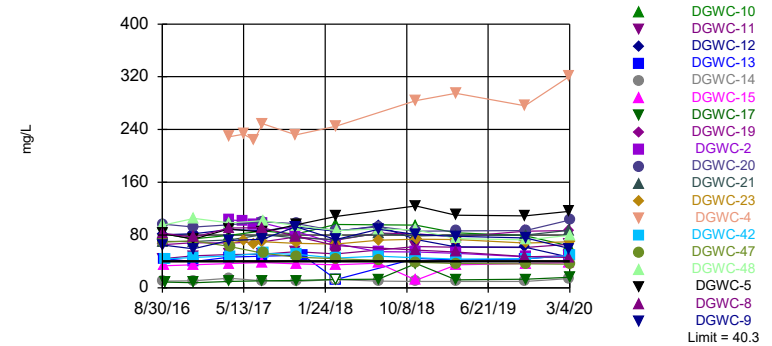


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 18.75% NDs. Annual per-constituent alpha = 0.05879. Individual comparison alpha = 0.001593 (1 of 2). Comparing 19 points to limit.

Constituent: Boron Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-13, DGWC-19, DGWC-2, DGWC-20, DGWC-21, DGWC-23, DGWC-4, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9
Limit = 40.3

Prediction Limit Interwell Non-parametric

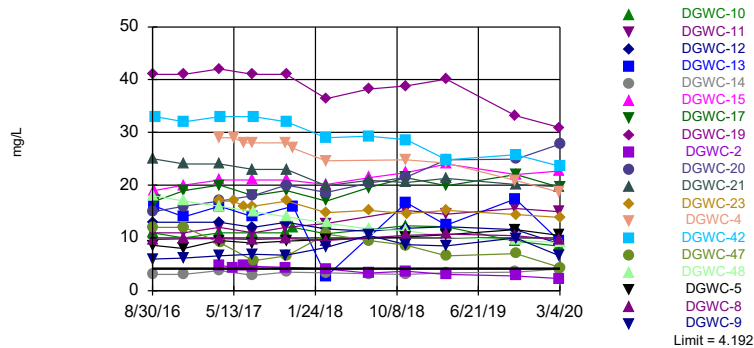


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 6.25% NDs. Annual per-constituent alpha = 0.05879. Individual comparison alpha = 0.001593 (1 of 2). Comparing 19 points to limit.

Constituent: Calcium Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
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-23, DGWC-4, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9
Limit = 4.192

Prediction Limit Interwell Parametric

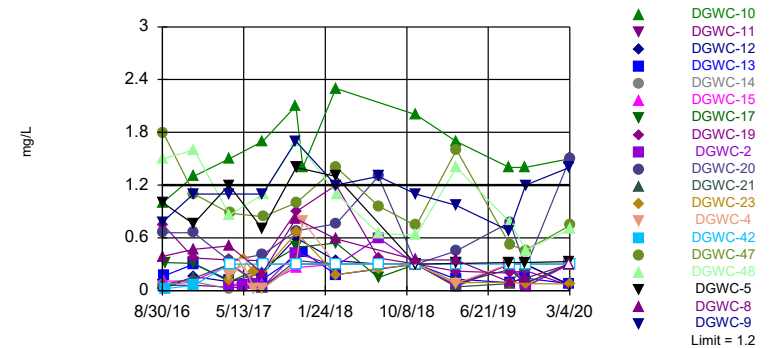


Background Data Summary (based on square root transformation): Mean=1.633, Std. Dev.=0.182, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9183, critical = 0.908. Kappa = 2.275 (c=7, w=19, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.000396. Comparing 19 points to limit.

Constituent: Chloride Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-20, DGWC-9
Limit = 1.2

Prediction Limit Interwell Non-parametric

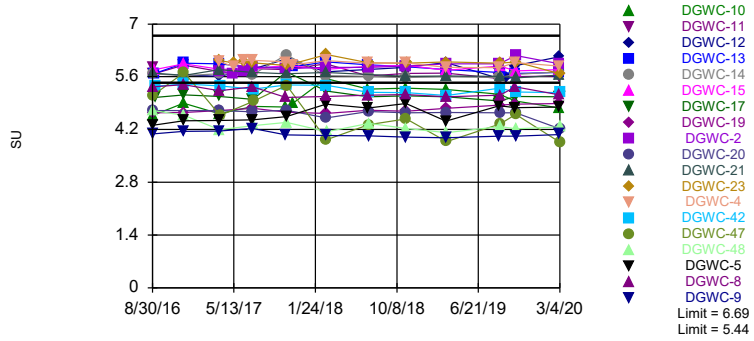


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 37 background values. 45.95% NDs. Annual per-constituent alpha = 0.04586. Individual comparison alpha = 0.001235 (1 of 2). Comparing 19 points to limit.

Constituent: Fluoride Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limits: DGWC-10, DGWC-17, DGWC-19, DGWC-20, DGWC-42, DGWC-47, DGWC-48, DGWC-5, DGWC-8, DGWC-9

Prediction Limit
Interwell Non-parametric

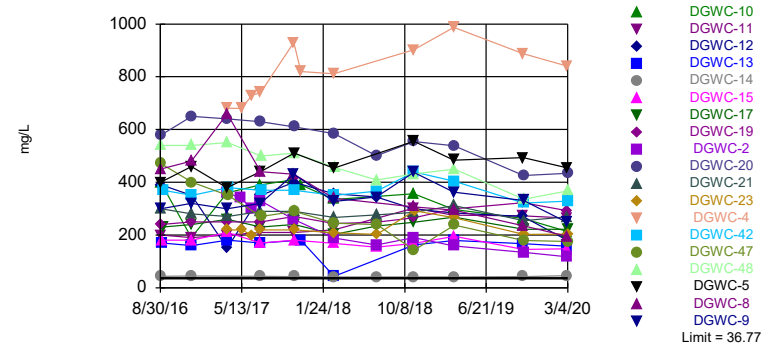


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 38 background values. Annual per-constituent alpha = 0.0876. Individual comparison alpha = 0.002356 (1 of 2). Comparing 19 points to limit.

Constituent: pH Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
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

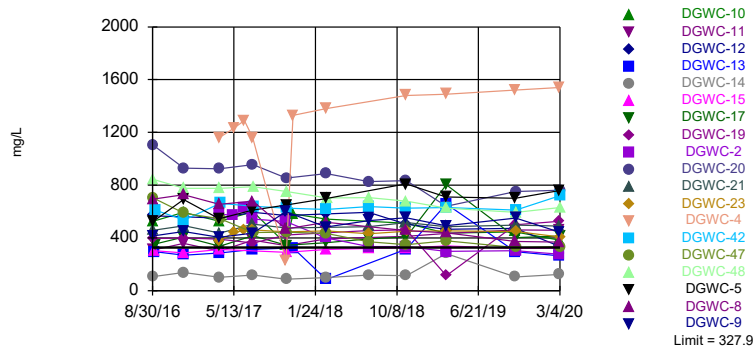


Background Data Summary (based on square root transformation): Mean=2.668, Std. Dev.=1.493, n=34, 5.882% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9388, critical = 0.908. Kappa = 2.275 (c=7, w=19, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.000396. Comparing 19 points to limit.

Constituent: Sulfate Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Exceeds Limit: DGWC-10, DGWC-11, DGWC-12, DGWC-17, DGWC-19, DGWC-20, DGWC-21, DGWC-23, DGWC-4, DGWC-42...

Prediction Limit
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=4.67, Std. Dev.=0.9751, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9181, critical = 0.906. Kappa = 2.283 (c=7, w=19, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.000396. Comparing 19 points to limit.

Constituent: TDS Analysis Run 7/2/2020 1:02 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-47	DGWC-20	DGWC-21	DGWC-13	DGWC-15	DGWC-42	DGWC-17	DGWA-53 (bg)	DGWA-71 (bg)
8/30/2016									
8/31/2016									
9/1/2016	0.345								
9/2/2016		6.77	4.81						
9/6/2016				1	1.25				
9/7/2016						0.924	0.683		
12/6/2016									
12/7/2016		6.04		0.9	1.56				
12/8/2016	0.352		3.57			0.957	0.688		
3/28/2017								0.0612	0.0097 (J)
3/29/2017		8.23							
3/30/2017			5.68	0.898	1.5		0.743		
3/31/2017	0.312					0.989			
5/11/2017								0.0805	
5/12/2017									0.0082 (J)
5/15/2017									
6/15/2017								0.0725	
6/16/2017									0.0085 (J)
7/11/2017									0.0077 (J)
7/12/2017		6.81	5.2	0.996	1.49		0.62	0.0735	
7/13/2017	0.28					1.03			
8/8/2017									
10/24/2017								0.077	0.0083 (J)
10/25/2017		8.94	7.92		1.47	0.982	0.739		
10/26/2017	0.269								
11/15/2017				0.795					
2/27/2018									0.0069 (J)
2/28/2018		6.26	5.89	0.106	1.58	0.918	0.627		
3/1/2018	0.296								
3/2/2018									
3/8/2018								0.13 (J)	
7/11/2018		5.7	8.3		1.4	0.83	0.79		
7/12/2018	0.26							0.076	
11/6/2018									<0.04 (J)
11/7/2018	0.3	5	4.9	0.76	0.8	0.89	1.6	0.073	
11/8/2018									
3/12/2019									0.0068 (J)
3/13/2019		5.6	6.2	0.62			0.76	0.08	
3/14/2019	0.26				1.6	0.89			
9/17/2019									
10/15/2019									0.0054 (J)
10/16/2019				0.65				0.059	
10/17/2019	0.25	5	7		1.5	0.94			
10/18/2019							0.82		
3/2/2020									0.01 (J)
3/3/2020			6.8	0.61	1.7				
3/4/2020	0.24	3.6				1	0.85		
3/9/2020								0.08 (J)	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-70A (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	0.0067 (J)		
3/29/2017				
3/30/2017			4.68	1.56
3/31/2017				
5/11/2017				1.65
5/12/2017	3.58		4.03	
5/15/2017		0.0073 (J)		
6/15/2017	3.58	<0.04	4.11	1.44
6/16/2017				
7/11/2017	3.85	<0.04		1.39
7/12/2017			3.74	
7/13/2017				
8/8/2017		<0.04		
10/24/2017	3.82	0.0082 (J)		1.18
10/25/2017				
10/26/2017			4.07	
11/15/2017				
2/27/2018	4.06	0.0062 (J)		1.12
2/28/2018				
3/1/2018			4.37	
3/2/2018				
3/8/2018				
7/11/2018				0.82
7/12/2018			4	
11/6/2018	4.1	<0.04 (J)		0.9
11/7/2018				
11/8/2018			4.7	
3/12/2019	4.6	0.0073 (J)		0.72
3/13/2019				
3/14/2019			4.7	
9/17/2019				
10/15/2019	5	<0.04		
10/16/2019				
10/17/2019				0.73
10/18/2019			4.5	
3/2/2020	5.9	0.0055 (J)		
3/3/2020				0.68
3/4/2020			4.8	
3/9/2020				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-71 (bg)	DGWC-4	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	8.31	229		
3/29/2017				
3/30/2017			68.1	103
3/31/2017				
5/11/2017				102
5/12/2017	8.04	233	71.1	
5/15/2017				
6/15/2017		224	65.9	96.2
6/16/2017	7.66			
7/11/2017	7.71	249		98.4
7/12/2017			70	
7/13/2017				
8/8/2017				
10/24/2017	6.86	232		86
10/25/2017				
10/26/2017			67.2	
11/15/2017				
2/27/2018	<25	245		66.7
2/28/2018				
3/1/2018			66.5	
3/2/2018				
3/8/2018				
7/11/2018				55
7/12/2018			72	
11/6/2018	5.7	284		54.5
11/7/2018				
11/8/2018			73.5	
3/12/2019	5.5	295		52.2
3/13/2019				
3/14/2019			73.2	
10/15/2019	5.1	276		
10/16/2019				
10/17/2019				47.2
10/18/2019			67.7	
3/2/2020	5.8	320		
3/3/2020				48.4
3/4/2020			69.8	
3/9/2020				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (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	3.8	3.7		
3/29/2017				
3/30/2017			17	4.8
3/31/2017				
5/11/2017		2.3		4.4
5/12/2017			17	
5/15/2017	2.2			
6/15/2017	2	2.6	16	4.8
6/16/2017				
7/11/2017	2.1			4.6
7/12/2017		2.3	16	
7/13/2017				
8/8/2017	2.2			
10/24/2017	2.4	2.7		4.4
10/25/2017				
10/26/2017			17	
11/15/2017		2.2		
2/27/2018	2.5			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			3.7
11/7/2018		2.3		
11/8/2018			14.6	
3/12/2019	2.5			3.1
3/13/2019		3.6		
3/14/2019			15.2	
10/15/2019	2.2			
10/16/2019		2		
10/17/2019				2.8
10/18/2019			14.4	
3/2/2020	1.9			
3/3/2020				2.3
3/4/2020			13.9	
3/9/2020		1.8		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-19	DGWC-21	DGWC-20	DGWC-13	DGWC-15	DGWC-17	DGWC-42	DGWA-53 (bg)	DGWA-70A (bg)
8/30/2016									
8/31/2016									
9/1/2016	0.75								
9/2/2016		0.07 (J)	0.66						
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)				0.31	0.06 (J)		
3/28/2017								0.12 (J)	1.2
3/29/2017	0.35		0.34						
3/30/2017		<0.3		0.12 (J)	<0.3	0.1 (J)			
3/31/2017							<0.3		
5/11/2017								0.07 (J)	
5/12/2017									
5/15/2017									0.005 (J)
6/15/2017								0.19 (J)	0.02 (J)
6/16/2017									
7/11/2017									0.06 (J)
7/12/2017	0.34	0.04 (J)	0.41	0.13 (J)	0.07 (J)	0.27 (J)		0.1 (J)	
7/13/2017							<0.3		
8/8/2017									0.04 (J)
10/24/2017								0.06 (J)	<0.3
10/25/2017	0.9	0.34	0.68		0.26 (J)	0.49	<0.3		
10/26/2017									
11/15/2017				0.44				0.05 (J)	
2/27/2018									<0.3
2/28/2018	1.2	<0.3	0.76	0.18	<0.3	0.54	<0.3		
3/1/2018									
3/2/2018									
3/8/2018								<0.3	
7/11/2018	0.37	<0.3	1.3		<0.3	0.15 (J)	<0.3		
7/12/2018								0.071 (J)	
11/6/2018									<0.3
11/7/2018	<0.3 (J)	<0.3	<0.3 (J)	<0.3 (J)	<0.3	<0.3 (J)	<0.3	<0.3	
11/8/2018									
3/12/2019									0.039 (J)
3/13/2019	0.22 (J)	0.043 (J)	0.45	0.13 (J)		0.084 (J)		0.13 (J)	
3/14/2019					0.057 (J)		<0.3		
8/27/2019						0.24 (J)			<0.3
8/28/2019	0.2			0.091 (J)	<0.3		<0.3	0.42	
8/29/2019		0.079 (J)	0.78						
10/15/2019									<0.3
10/16/2019	0.23 (J)			0.14 (J)				0.11 (J)	
10/17/2019		<0.3	0.26 (J)		0.079 (J)		<0.3		
10/18/2019						0.086 (J)			
3/2/2020									<0.3
3/3/2020	0.056 (J)	<0.3		0.078 (J)	<0.3				
3/4/2020			1.5			<0.3	<0.3		
3/9/2020								0.1 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-71 (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	0.17 (J)	0.06 (J)		
3/29/2017				
3/30/2017			0.12 (J)	0.06 (J)
3/31/2017				
5/11/2017				0.06 (J)
5/12/2017	<0.3	<0.3	0.36	
5/15/2017				
6/15/2017	0.02 (J)		0.21 (J)	0.07 (J)
6/16/2017		0.008 (J)		
7/11/2017	0.02 (J)	0.007 (J)		0.04 (J)
7/12/2017			0.22 (J)	
7/13/2017				
8/8/2017				
10/24/2017	<0.3	<0.3		0.43
10/25/2017				
10/26/2017			0.66	
11/15/2017	0.79	<0.3		
2/27/2018	<0.3	<0.3		0.28
2/28/2018				
3/1/2018			0.18	
3/2/2018				
3/8/2018				
7/11/2018				0.6
7/12/2018			0.25 (J)	
11/6/2018	<0.3	<0.3		<0.3
11/7/2018				
11/8/2018			<0.3 (J)	
3/12/2019	0.082 (J)	<0.3		0.052 (J)
3/13/2019				
3/14/2019			0.092 (J)	
8/27/2019	<0.3	<0.3		<0.3
8/28/2019				
8/29/2019			0.095 (J)	
10/15/2019	<0.3	<0.3		
10/16/2019				
10/17/2019				0.042 (J)
10/18/2019			0.079 (J)	
3/2/2020	<0.3	<0.3		<0.3
3/3/2020				<0.3
3/4/2020			0.075 (J)	
3/9/2020				

Prediction Limit

Constituent: pH (SU) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-20	DGWC-21	DGWC-13	DGWC-15	DGWC-17	DGWC-42	DGWC-12	DGWA-53 (bg)	DGWC-4
8/30/2016									
8/31/2016									
9/1/2016									
9/2/2016	4.7	5.7							
9/6/2016			5.69	5.79					
9/7/2016					5.05	5.35			
12/6/2016									
12/7/2016			5.96	5.94			5.65		
12/8/2016		5.64			5.12	5.41			
3/28/2017								6.29	6.01
3/29/2017	4.7						5.61		
3/30/2017		5.79	5.94	5.8	5.08				
3/31/2017						5.36			
5/11/2017								6.6	
5/12/2017									5.87
5/15/2017									
6/15/2017								6.41	6.03
6/16/2017									
7/11/2017									6.04
7/12/2017	4.67	5.71	5.84	5.81	5		5.81	5.91	
7/13/2017						5.27			
8/8/2017									
10/24/2017								5.51	5.99
10/25/2017	4.71	5.68		5.9	5.73	5.38 (D)	6.07		
10/26/2017									
11/15/2017			5.87					6.5	5.92
2/27/2018							5.73		6.03
2/28/2018	4.51	5.71	5.99	5.8	5.22	5.37			
3/1/2018									
3/2/2018									
3/8/2018								6.18	
7/10/2018			5.92						5.96
7/11/2018	4.68			5.875 (D)	5.07	5.19			
7/12/2018								6.33	
11/6/2018									5.97
11/7/2018	4.64	5.61	5.87	5.9	5.09	5.18	5.85	6.22	
11/8/2018									
3/12/2019							5.98		5.85
3/13/2019	4.65	5.62	5.79		5.07			6	
3/14/2019				5.77		5.1			
8/27/2019					4.96		5.55		5.84
8/28/2019			5.71	5.88		5.3		6.04	
8/29/2019	4.64	5.61							
9/17/2019							5.6		
10/15/2019							5.89		5.98
10/16/2019			5.69					6.69	
10/17/2019	4.64	5.57		5.76		5.2			
10/18/2019					5.08				
3/2/2020							6.13		5.88
3/3/2020		5.65	5.71	5.79	5.07				
3/4/2020	4.22				5.07	5.18			
3/9/2020								6.41 (D)	

Prediction Limit

Constituent: pH (SU) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-71 (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	5.94			
3/29/2017				
3/30/2017		6.03	5.75	
3/31/2017				
5/11/2017			5.67	
5/12/2017	5.46	5.97		
5/15/2017				5.72
6/15/2017		6	5.75	5.74
6/16/2017	5.81			
7/11/2017	5.74		5.87	5.62
7/12/2017		5.97		
7/13/2017				
8/8/2017				5.6
10/24/2017	5.86		5.82	5.71
10/25/2017				
10/26/2017		5.9		
11/15/2017	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				
7/10/2018	5.63			5.44
7/11/2018			5.85	
7/12/2018		5.97		
11/6/2018	5.79		5.88	5.71
11/7/2018				
11/8/2018		5.96		
3/12/2019	5.74		5.94	5.52
3/13/2019				
3/14/2019		5.99		
8/27/2019	5.87		5.94	5.53
8/28/2019				
8/29/2019		5.96		
9/17/2019				
10/15/2019	5.88			5.61
10/16/2019				
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				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
 Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-70A (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	680	2.7		
3/29/2017				
3/30/2017			220	360
3/31/2017				
5/11/2017				340
5/12/2017	680		220	
5/15/2017		1		
6/15/2017	730	0.86 (J)	200	300
6/16/2017				
7/11/2017	740	1.4		330
7/12/2017			220	
7/13/2017				
8/8/2017		1.5		
10/24/2017	930	1.4		260
10/25/2017				
10/26/2017			220	
11/15/2017	820			
2/27/2018	811	0.54 (J)		189
2/28/2018				
3/1/2018			209	
3/2/2018				
3/8/2018				
7/11/2018				162
7/12/2018			202	
11/6/2018	902	<1 (J)		190
11/7/2018				
11/8/2018			292	
3/12/2019	987	0.35 (J)		159
3/13/2019				
3/14/2019			266	
10/15/2019	888	0.16 (J)		
10/16/2019				
10/17/2019				134
10/18/2019			203	
3/2/2020	840	<1		
3/3/2020				118
3/4/2020			204	
3/9/2020				

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/2/2020 1:04 PM View: AP - 2, 3-4 Appendix III
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-4	DGWA-71 (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	1160	90		
3/29/2017				
3/30/2017			380	580
3/31/2017				
5/11/2017				573
5/12/2017	1230	92	438	
5/15/2017				
6/15/2017	1290		458	626
6/16/2017		100		
7/11/2017	1160	59		542
7/12/2017			461	
7/13/2017				
8/8/2017				
10/24/2017	229	117		523
10/25/2017				
10/26/2017			446	
11/15/2017	1330	90		
2/27/2018	1380	79		401
2/28/2018				
3/1/2018			454	
3/2/2018				
3/8/2018				
7/11/2018				334
7/12/2018			432	
11/6/2018	1480	85		334
11/7/2018				
11/8/2018			450	
3/12/2019	1490	74		297
3/13/2019				
3/14/2019			453	
10/15/2019	1520	89		
10/16/2019				
10/17/2019				302
10/18/2019			448	
3/2/2020	1540	67		
3/3/2020				277
3/4/2020			408	
3/9/2020				

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWC-11	0.06655	36	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.1117	-31	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3862	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5766	34	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02715	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5305	-36	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2569	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	5.679	37	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.05	43	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-22.57	-51	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	29.82	31	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.995	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-5	11.3	33	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-8	-11.22	-33	-30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.413	33	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.9639	40	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.476	53	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.468	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-1	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.147	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.826	-43	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.877	-55	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.8224	35	30	Yes	10	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.0709	43	38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3895	-35	-34	Yes	11	18.18	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.658	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-84.58	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-53.77	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-77.34	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-56.39	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-86.9	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	41.71	35	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-78.21	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	136.2	42	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-47	-85.78	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-68.09	-45	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	59.33	31	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-102	-39	-30	Yes	10	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	DGWA-53 (bg)	0.002168	6	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-70A (bg)	0	-4	-34	No	11	45.45	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	-0.0009787	-11	-30	No	10	10	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-10	-0.6016	-18	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-11	0.06655	36	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-12	-0.8174	-28	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-13	-0.1117	-31	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-14	0.001798	5	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-15	0.04323	12	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-17	0.04785	31	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-19	-0.274	-20	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-2	-0.3862	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-20	-0.869	-34	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-21	0.6052	25	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-23	0.2174	22	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-4	0.5766	34	30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-42	-0.01135	-6	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-47	-0.02715	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-48	-0.06307	-32	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-5	-0.4685	-14	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-8	-0.5305	-36	-30	Yes	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-9	-0.2569	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-53 (bg)	-4.822	-29	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-70A (bg)	-0.06282	-10	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-1.211	-27	-30	No	10	10	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-10	-0.1742	-3	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-11	5.679	37	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-12	-9.311	-21	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-13	1.016	6	30	No	10	10	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-19	6.05	43	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-2	-22.57	-51	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-20	-2.103	-7	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-21	3.84	33	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-23	0.8456	11	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-4	29.82	31	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-42	-0.3908	-5	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-48	-7.995	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-5	11.3	33	30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-8	-11.22	-33	-30	Yes	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-9	2.637	11	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-53 (bg)	-0.2044	-28	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-70A (bg)	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWA-71 (bg)	-0.2047	-22	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-10	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-11	1.413	33	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-12	-0.7019	-26	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-13	0	-3	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-15	0.9639	40	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-17	0.7833	25	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-19	-2.124	-33	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-20	3.476	53	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-21	-1.468	-41	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-23	-1	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-4	-3.147	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-42	-2.826	-43	-34	Yes	11	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	DGWC-47	-1.698	-27	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-48	-2.877	-55	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-5	0.8224	35	30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-8	0.196	9	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	DGWC-9	1.043	30	34	No	11	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-53 (bg)	0.01591	12	43	No	13	15.38	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-70A (bg)	0.01478	17	38	No	12	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWA-71 (bg)	0	20	38	No	12	75	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-10	0.05261	11	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-20	0.04208	11	38	No	12	8.333	n/a	n/a	0.01	NP
Fluoride (mg/L)	DGWC-9	0.0416	11	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-53 (bg)	0.0155	1	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-70A (bg)	-0.05316	-23	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWA-71 (bg)	0.01074	6	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-10	0.1276	21	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-17	-0.006459	-13	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-19	0.0709	43	38	Yes	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-20	-0.02556	-31	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-42	-0.06213	-33	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-47	-0.3562	-32	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-48	-0.06522	-26	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-5	0.1365	34	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-8	-0.04359	-14	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	DGWC-9	-0.03363	-31	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-2.447	-20	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	-0.3895	-35	-34	Yes	11	18.18	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-71 (bg)	-2.658	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-10	-43.53	-24	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-11	23.37	29	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-12	-39.62	-28	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-13	-0.9648	-9	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-14	-0.6078	-6	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-15	-9.882	-27	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-17	-2.292	-4	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-19	17.46	30	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-2	-84.58	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-20	-53.77	-39	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-21	-4.859	-14	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-23	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-4	115	32	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-42	-5.637	-9	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-47	-77.34	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-48	-56.39	-40	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-5	24.5	17	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-8	-86.9	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-9	11.06	15	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-53 (bg)	-23.86	-32	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-70A (bg)	1.273	3	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWA-71 (bg)	-5.967	-20	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-10	-46.35	-24	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-11	41.71	35	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-12	-34.15	-23	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-17	23.84	22	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-19	36.69	29	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-20	-78.21	-41	-34	Yes	11	0	n/a	n/a	0.01	NP

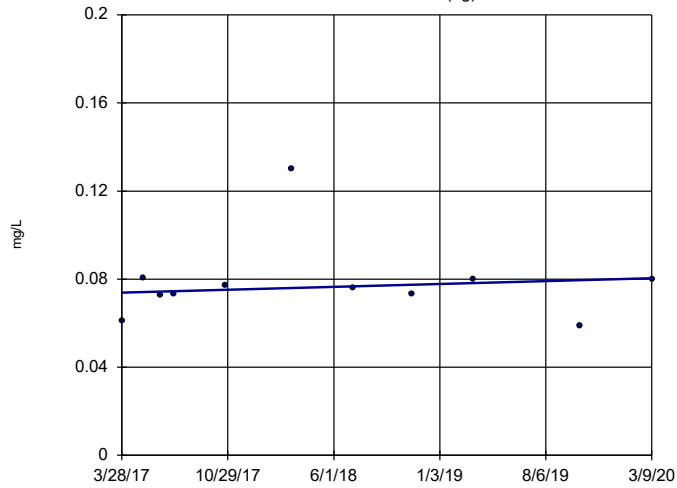
Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
TDS (mg/L)	DGWC-21	10.25	21	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-23	-2.122	-3	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-4	136.2	42	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-42	7.554	10	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-47	-85.78	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-48	-68.09	-45	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-5	59.33	31	30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-8	-102	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	DGWC-9	34.16	19	34	No	11	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

DGWA-53 (bg)



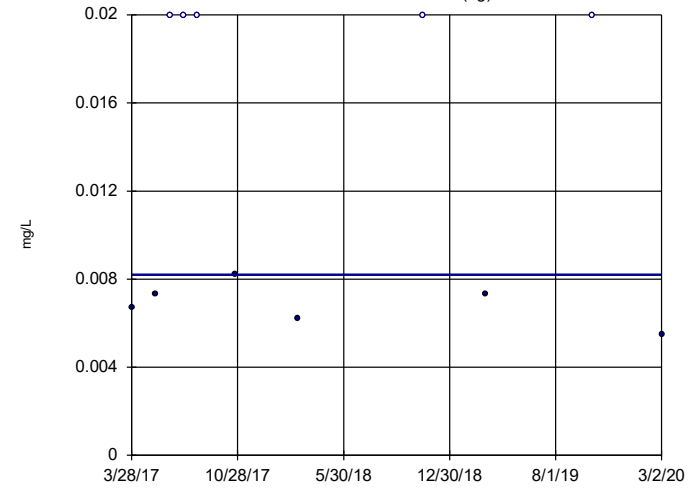
n = 11
 Slope = 0.002168 units per year.
 Mann-Kendall statistic = 6
 critical = 34
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)

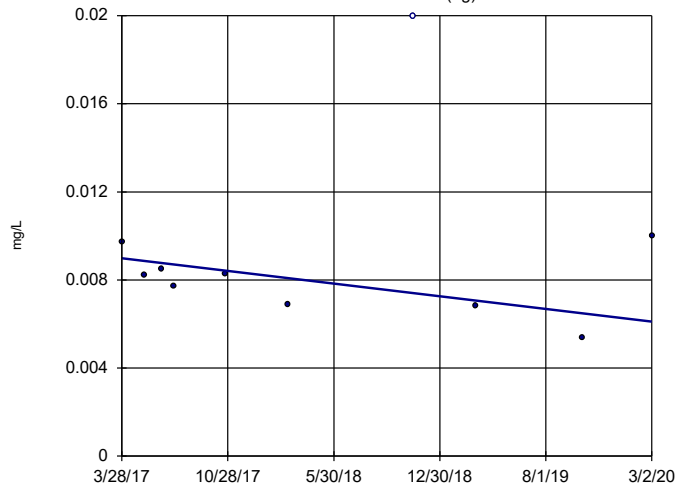


n = 11
 Slope = 0 units per year.
 Mann-Kendall statistic = -4
 critical = -34
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

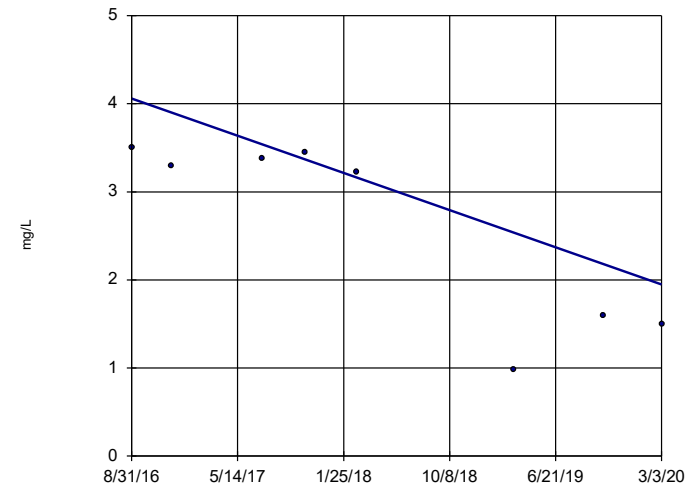


n = 10
 Slope = -0.0009787 units per year.
 Mann-Kendall statistic = -11
 critical = -30
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

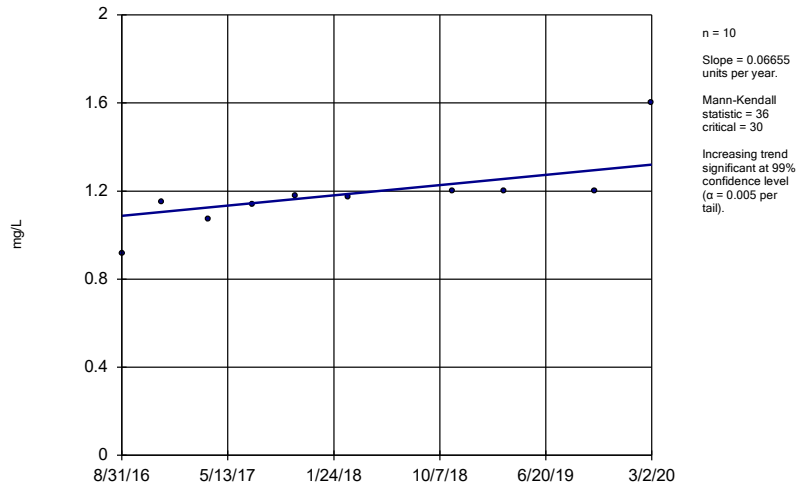
DGWC-10



n = 8
 Slope = -0.6016 units per year.
 Mann-Kendall statistic = -18
 critical = -21
 Trend not significant at 99% confidence level (α = 0.005 per tail).

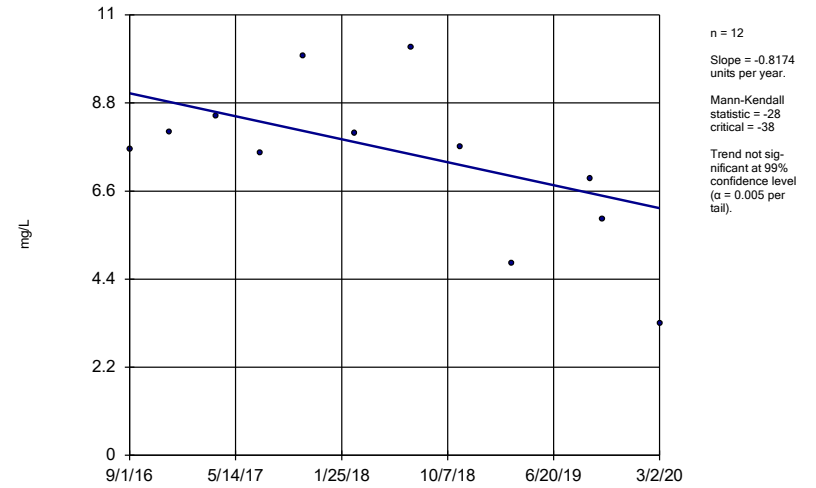
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-11



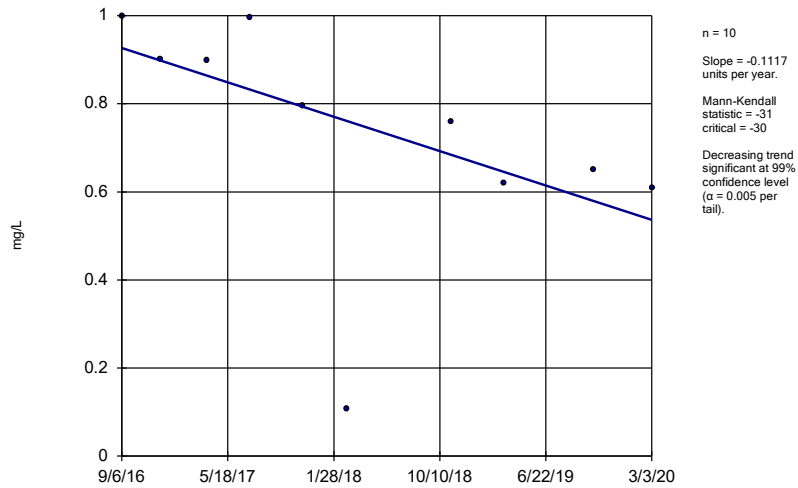
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-12



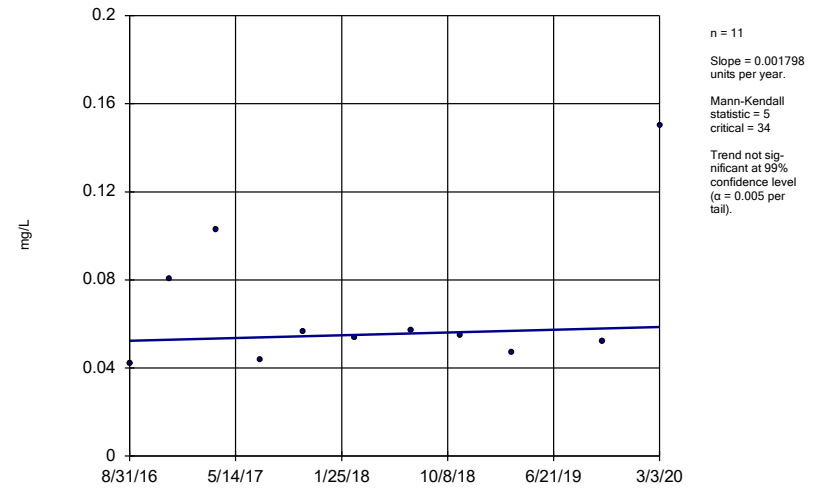
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-13



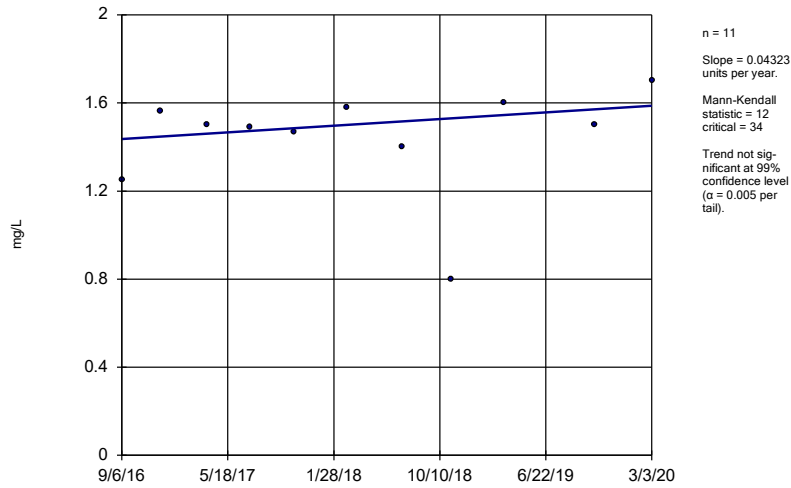
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-14



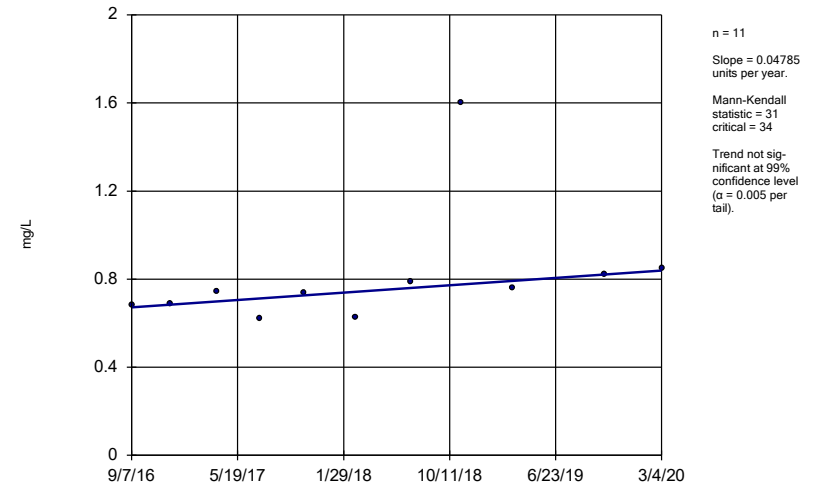
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-15



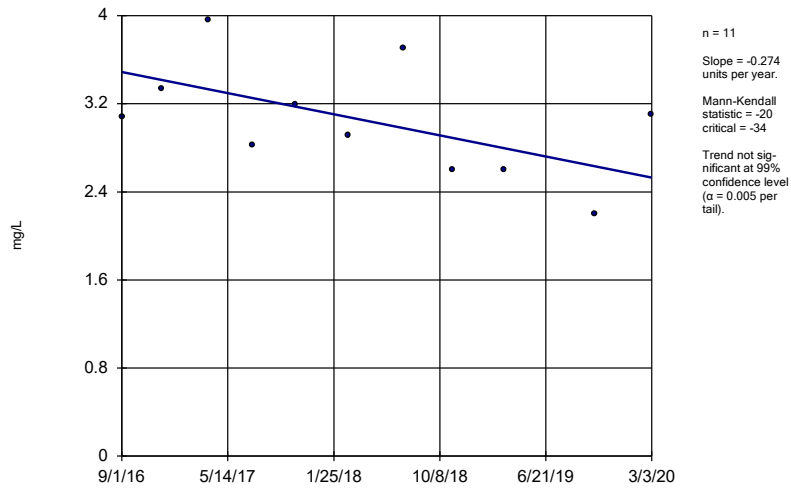
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-17



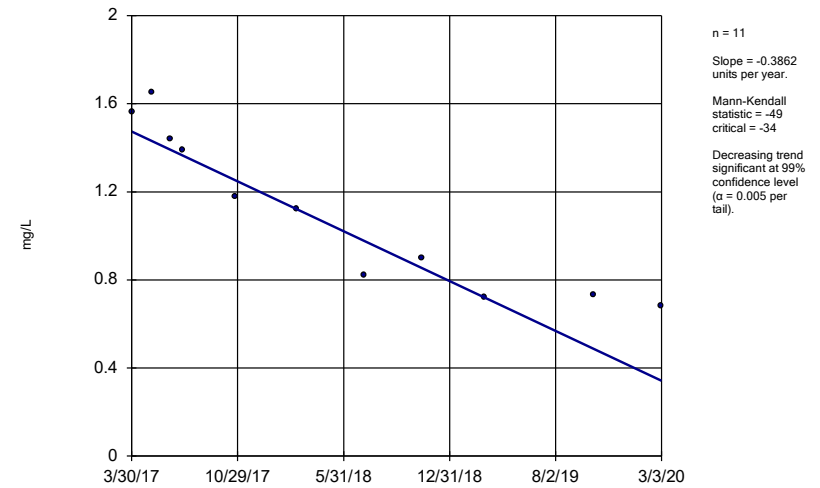
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-19



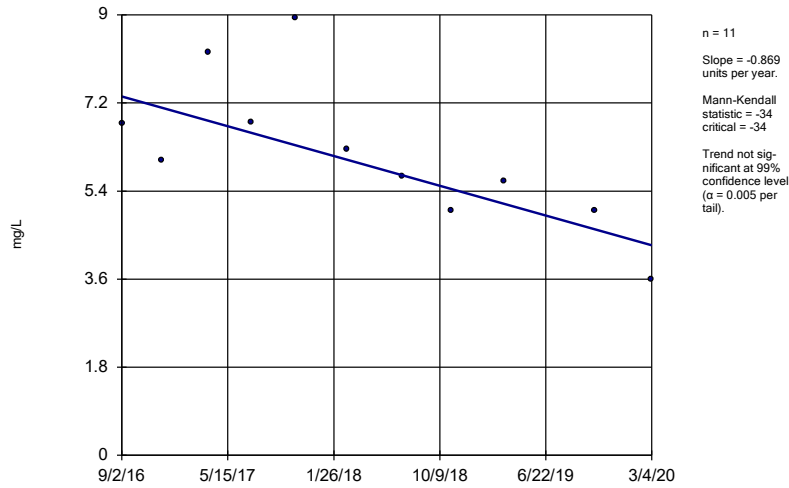
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-2



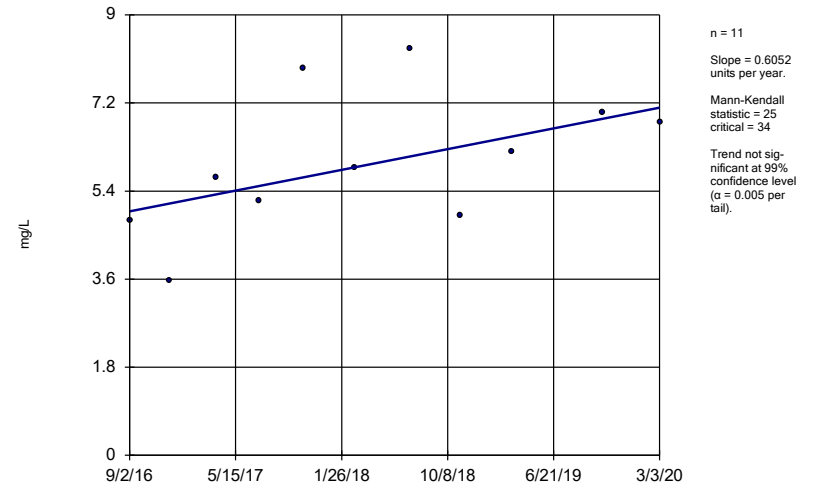
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-20



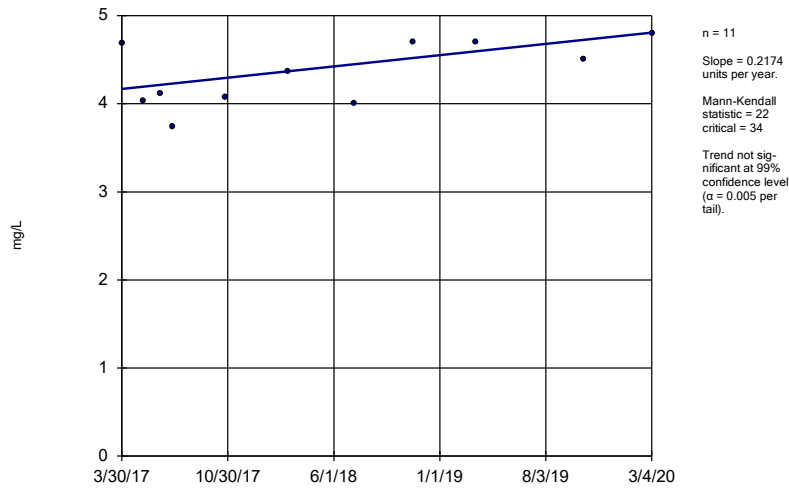
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-21



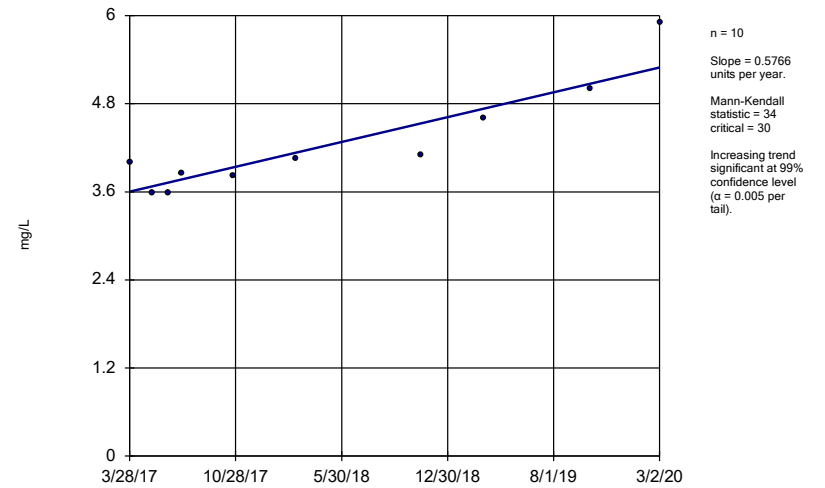
Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-23



Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

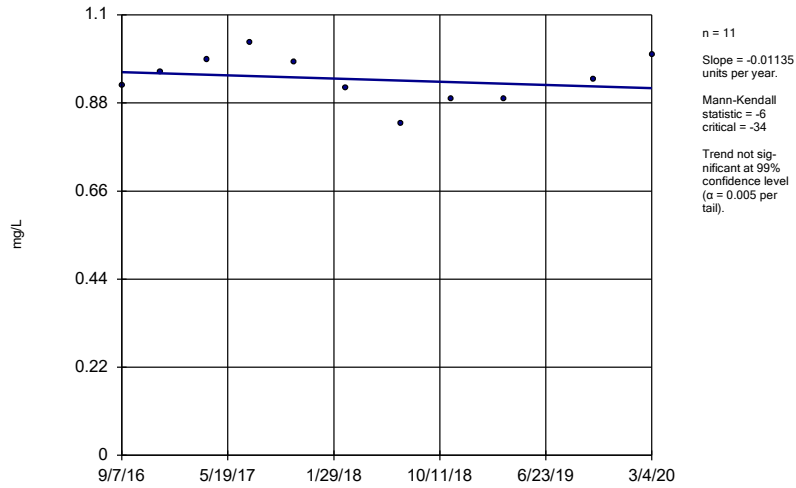
Sen's Slope Estimator
DGWC-4



Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

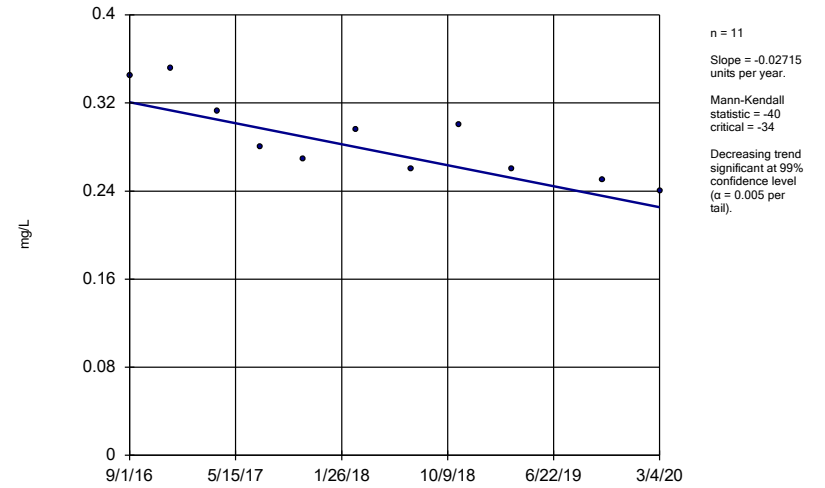
DGWC-42



Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

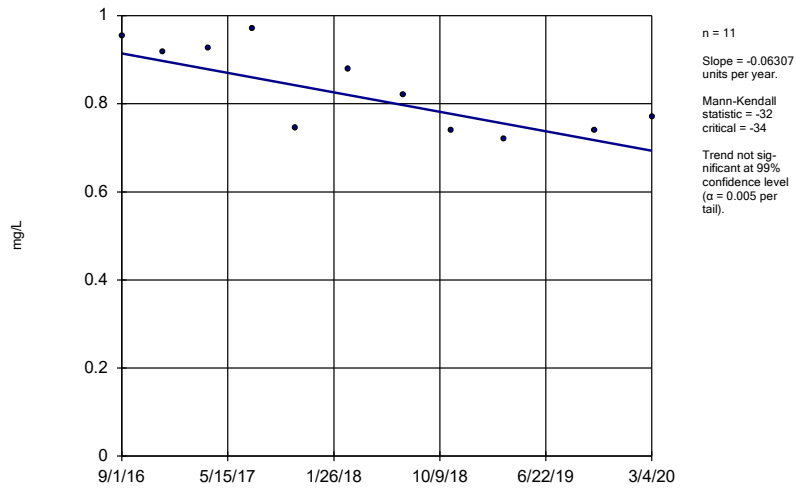
DGWC-47



Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

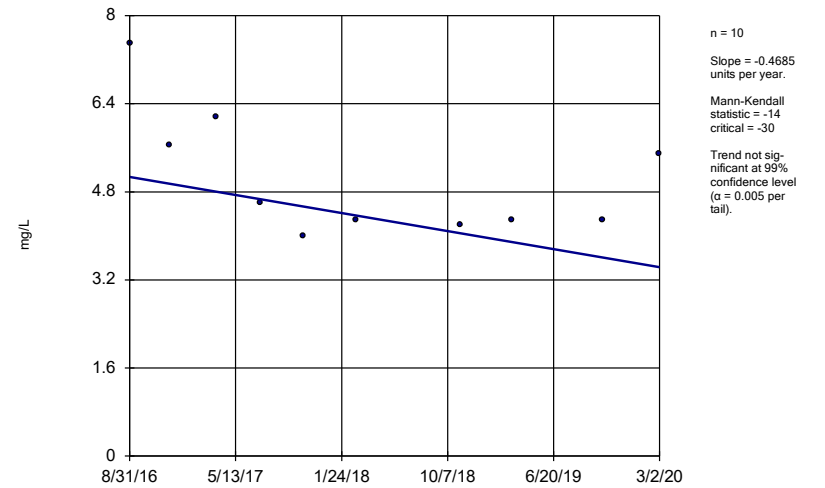
DGWC-48



Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

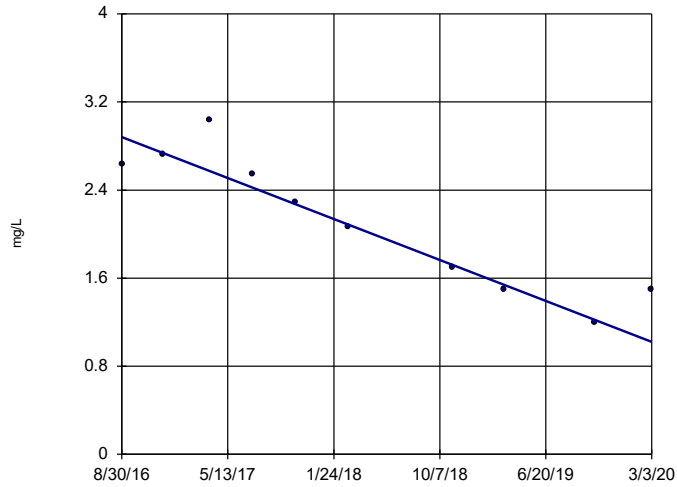
Sen's Slope Estimator

DGWC-5

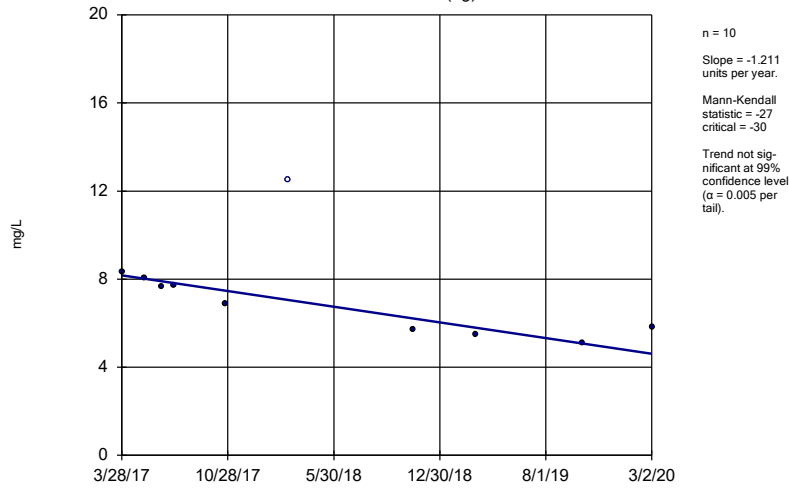


Constituent: Boron Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator DGWC-8

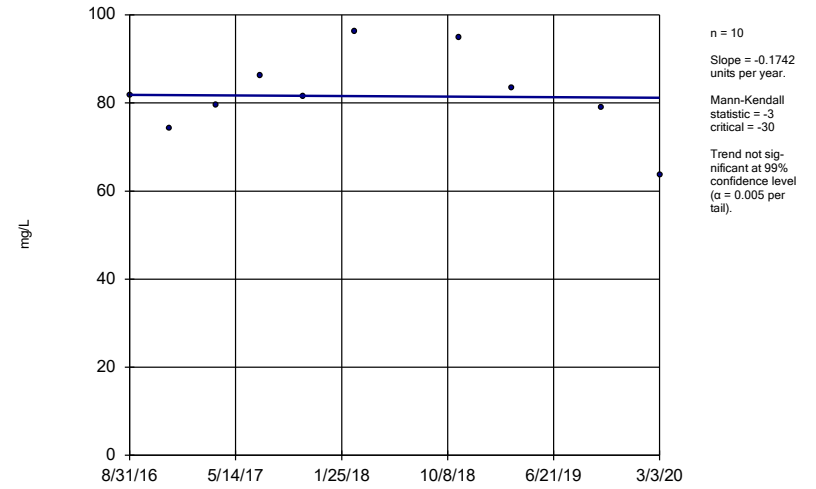


Sen's Slope Estimator
 DGWA-71 (bg)



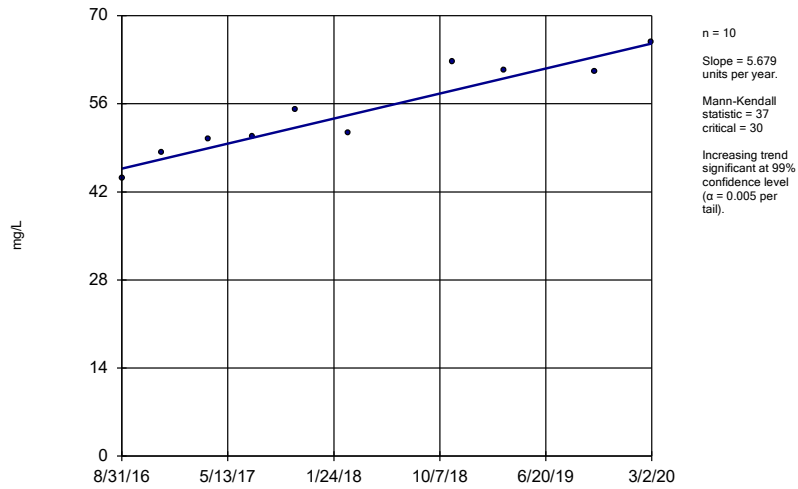
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-10



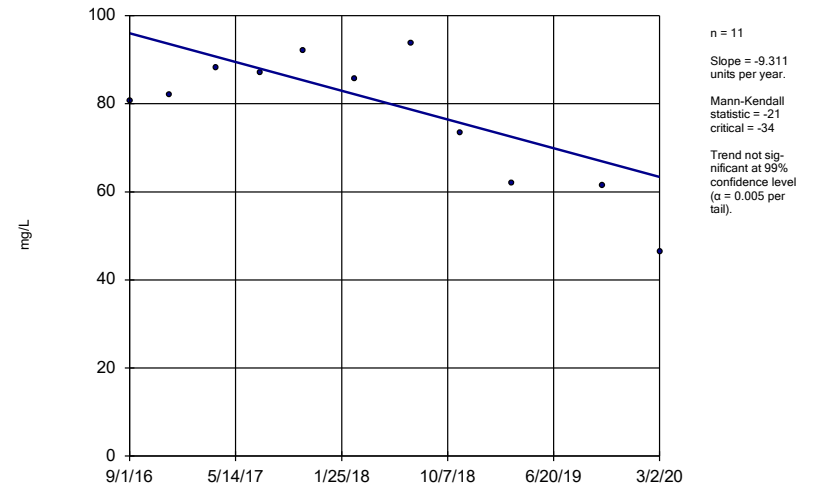
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-11



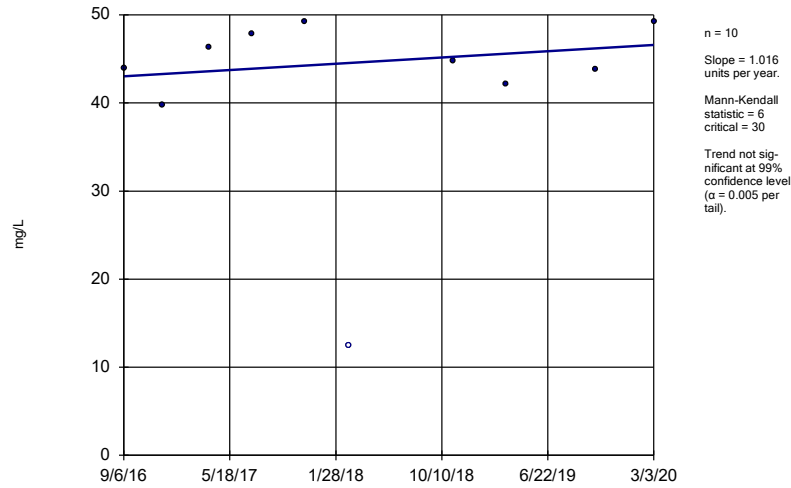
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-12



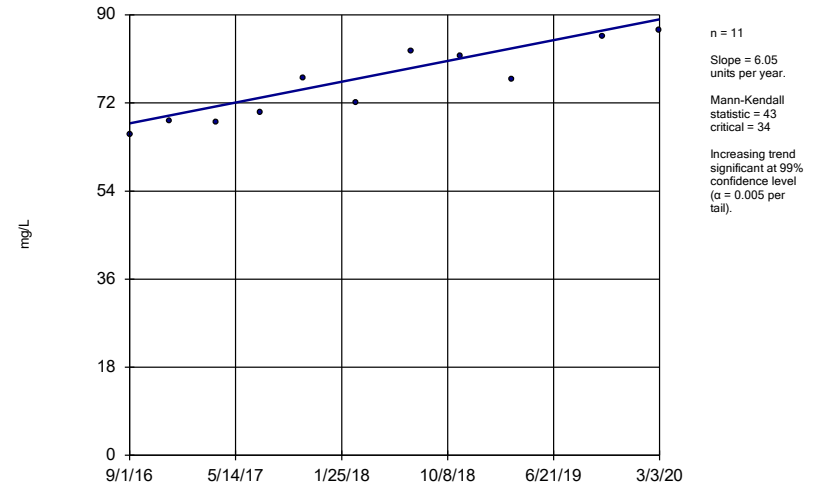
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-13



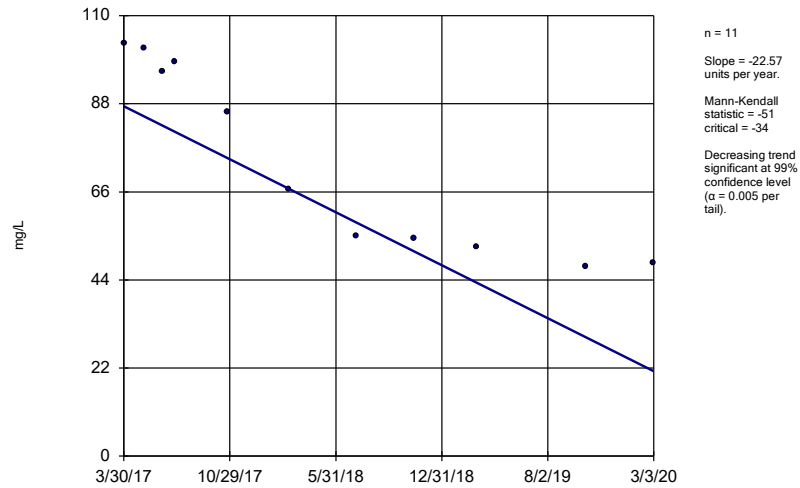
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-19



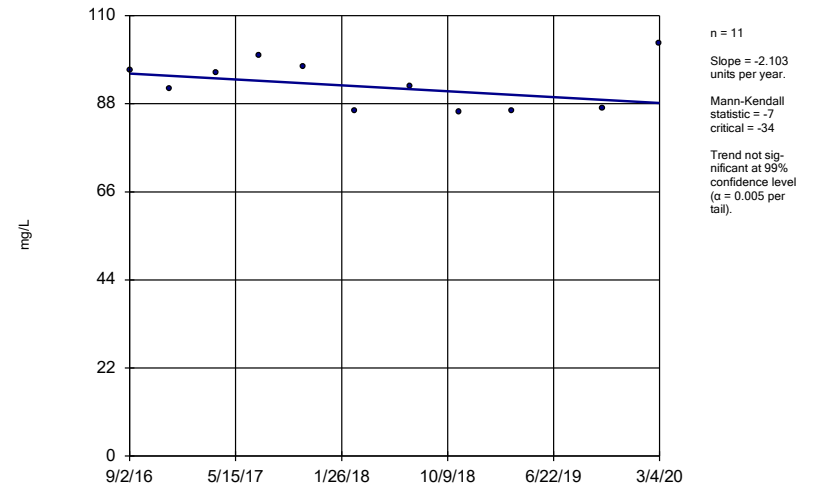
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
 DGWC-2



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

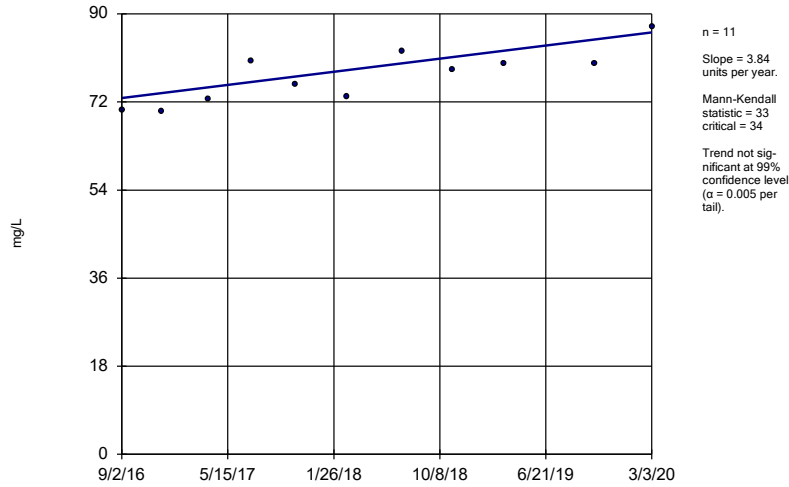
Sen's Slope Estimator
 DGWC-20



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

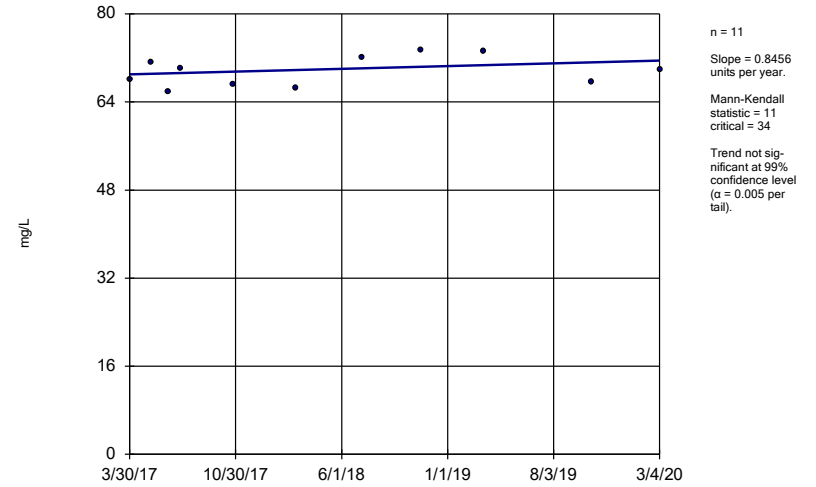
DGWC-21



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

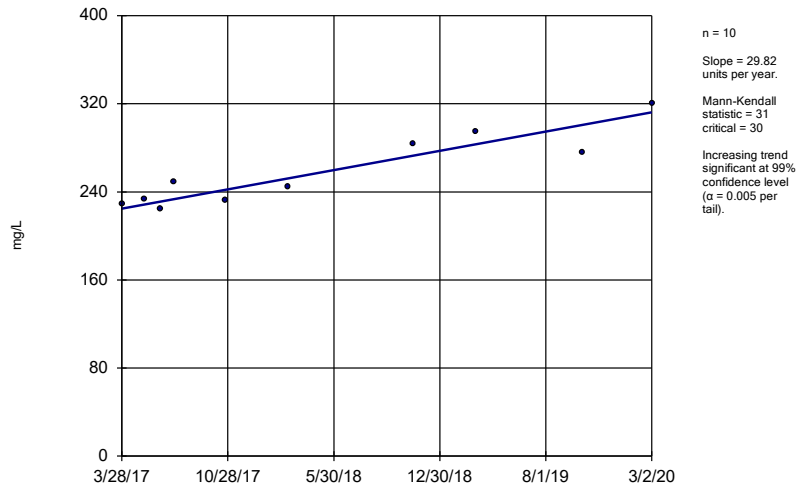
DGWC-23



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

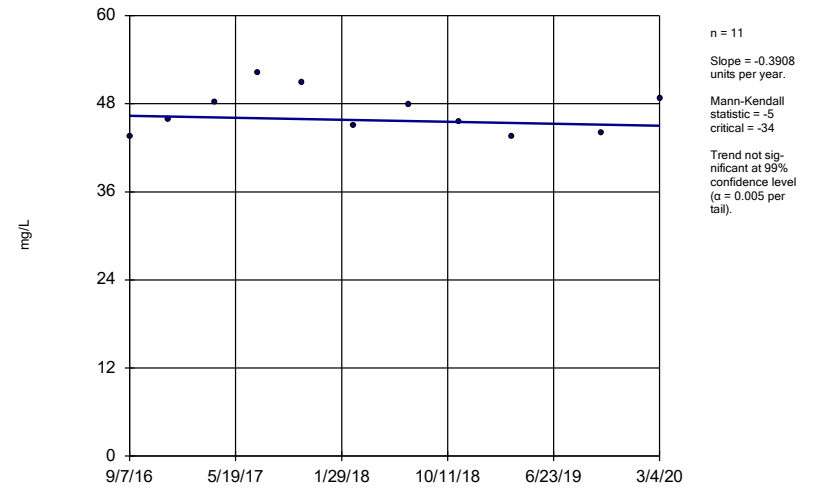
DGWC-4



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

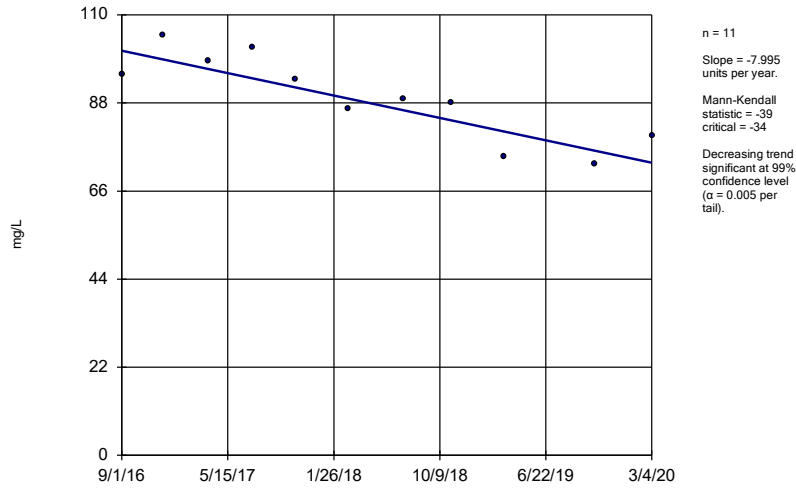
Sen's Slope Estimator

DGWC-42



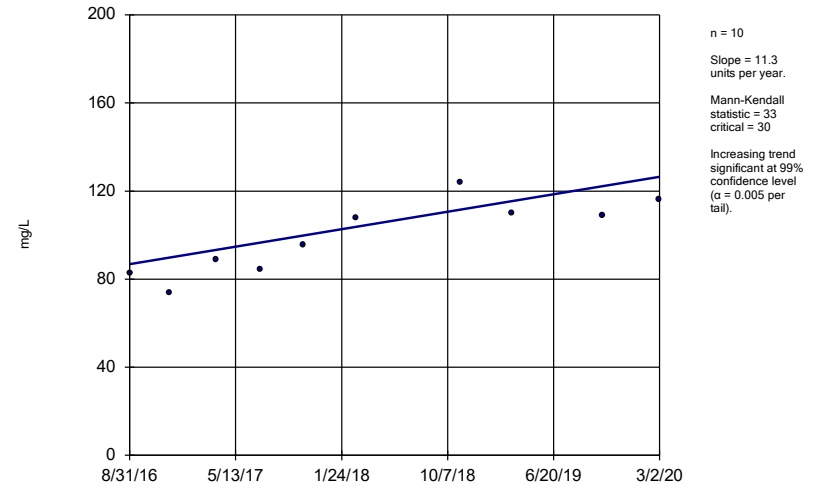
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-48



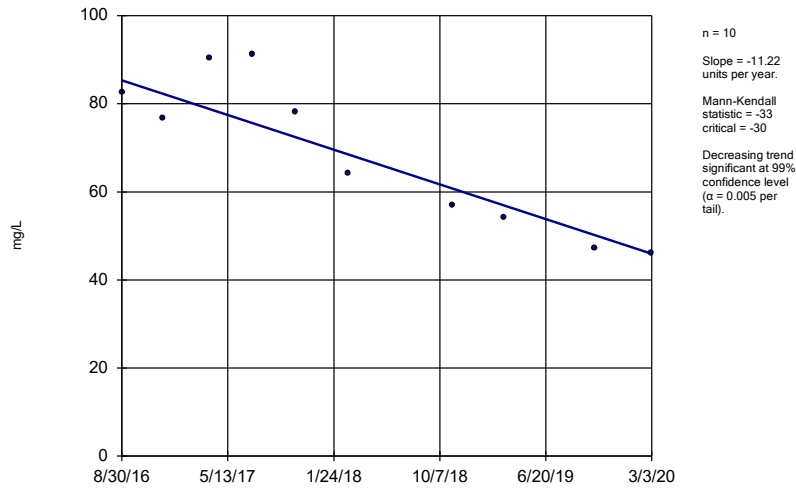
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-5



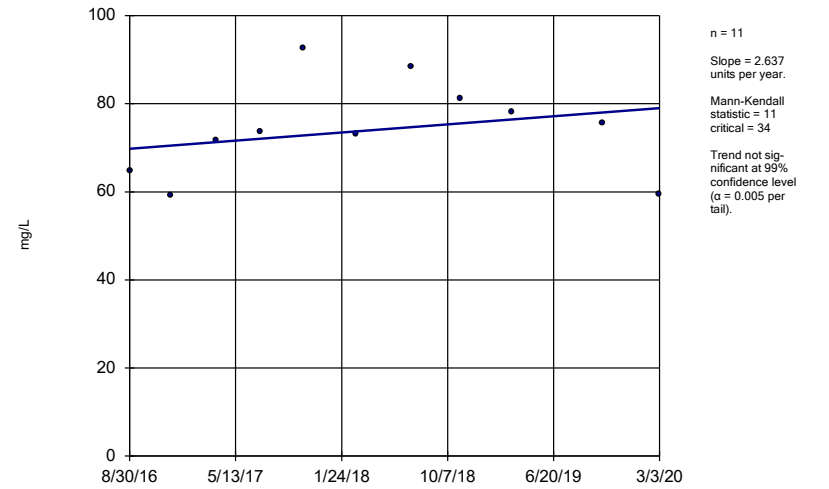
Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-8



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

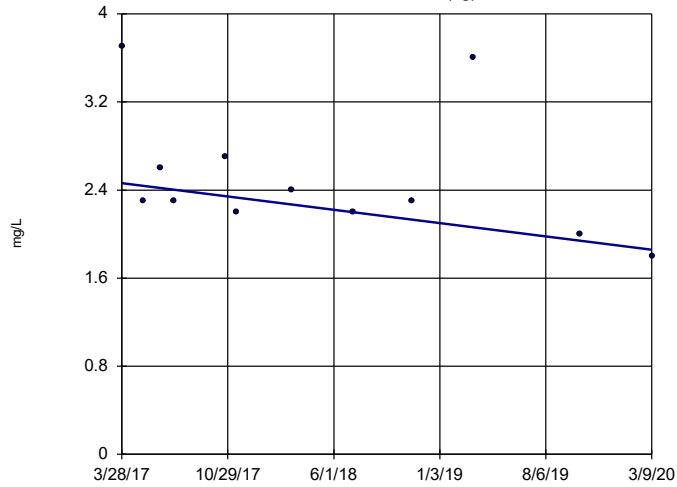
Sen's Slope Estimator
DGWC-9



Constituent: Calcium Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-53 (bg)

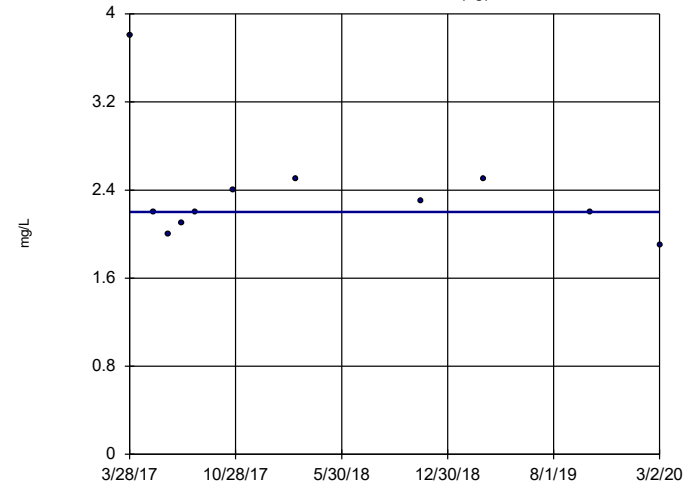


n = 12
 Slope = -0.2044
 units per year.
 Mann-Kendall
 statistic = -.28
 critical = -.38
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)

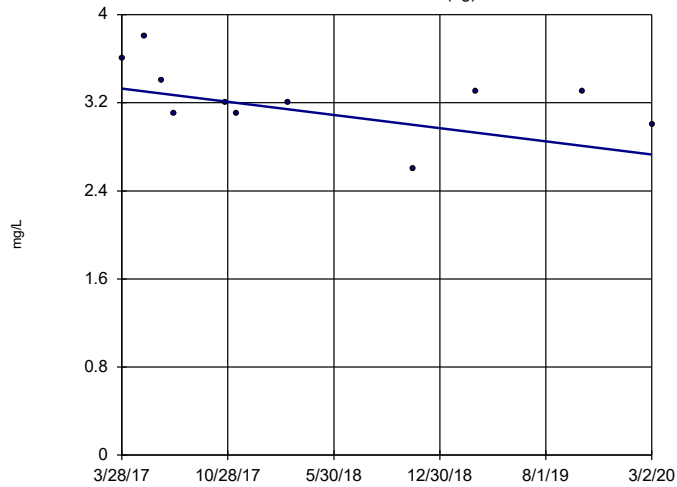


n = 11
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -.3
 critical = -.34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

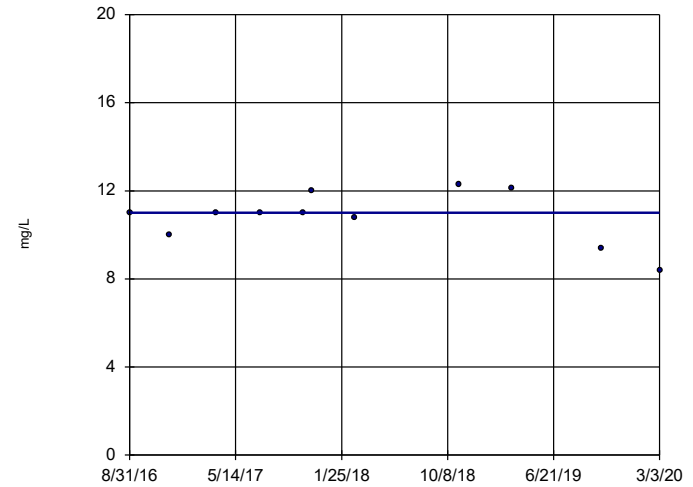


n = 11
 Slope = -0.2047
 units per year.
 Mann-Kendall
 statistic = -.22
 critical = -.34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

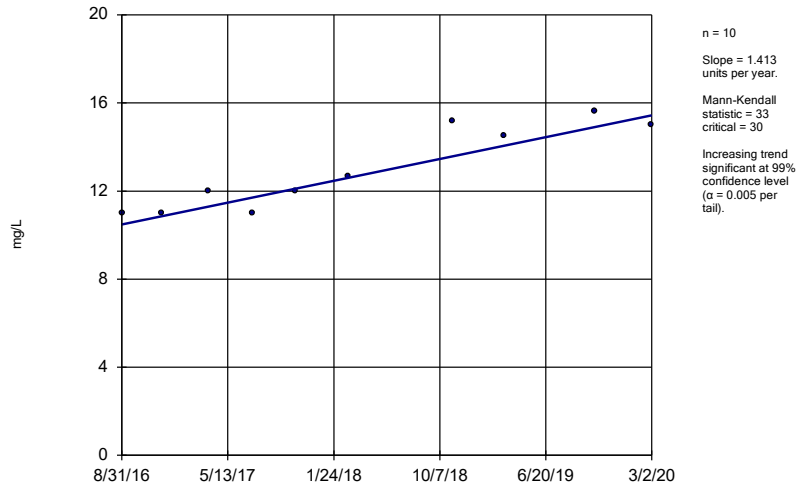
DGWC-10



n = 11
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -.3
 critical = -.34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

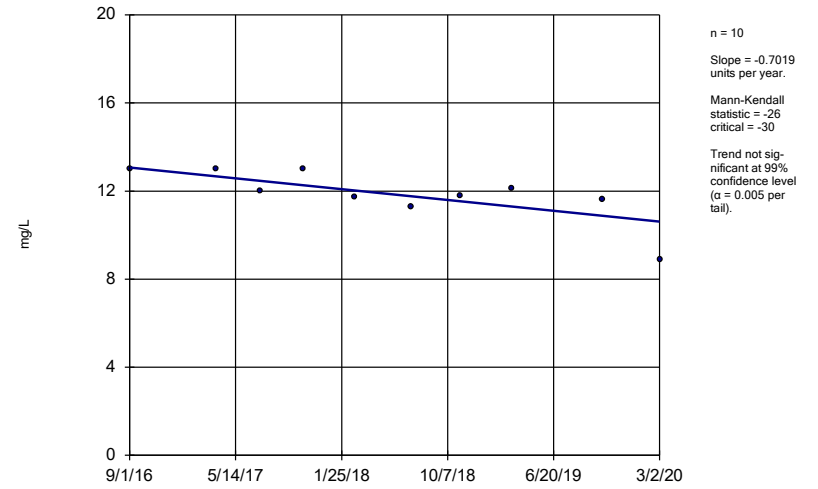
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-11



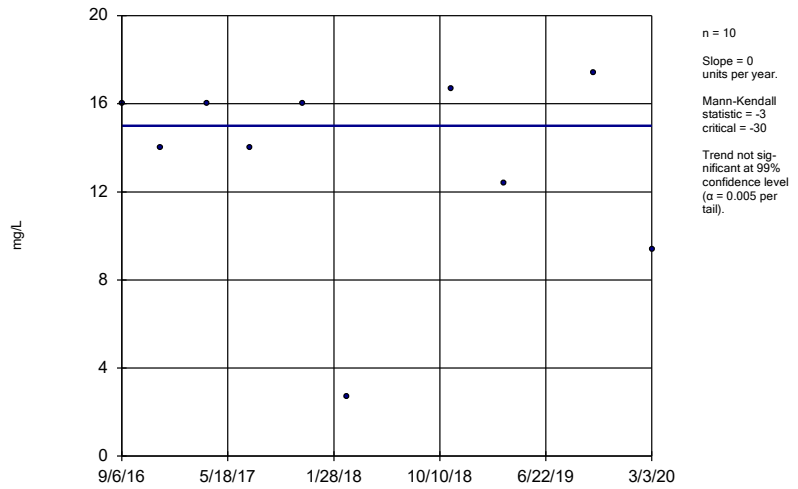
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-12



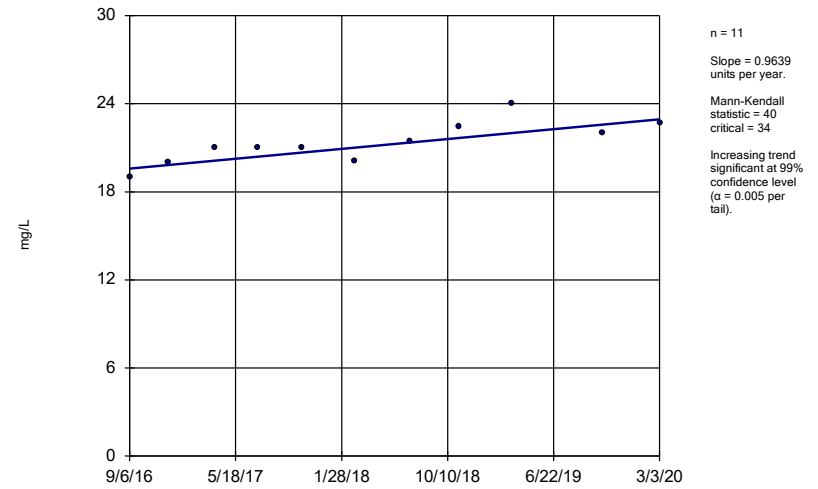
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-13



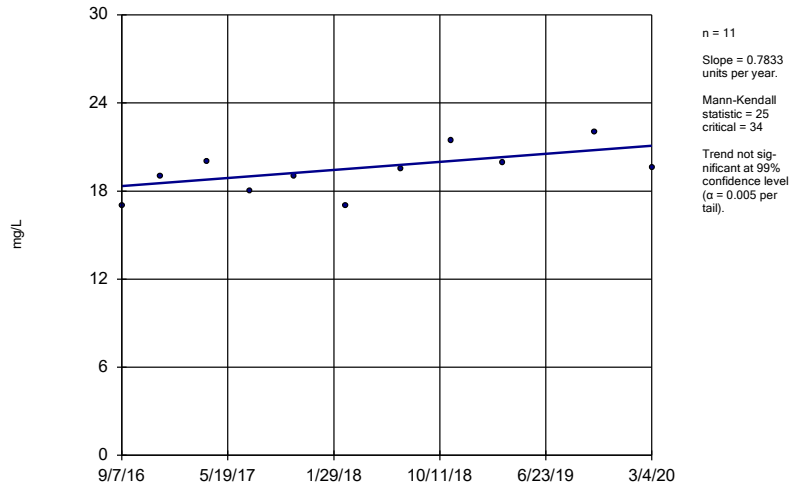
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-15



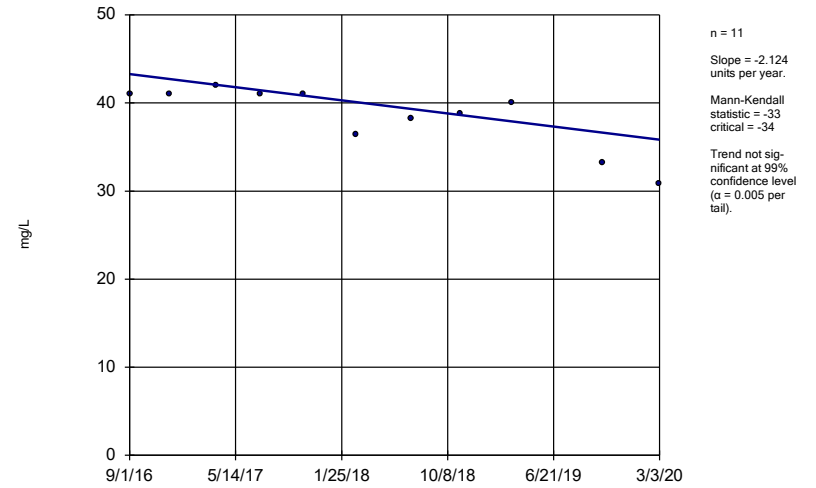
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-17



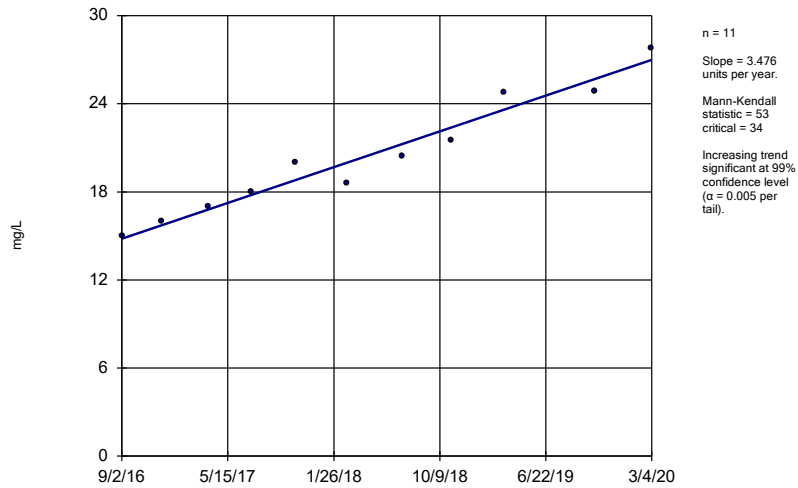
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-19



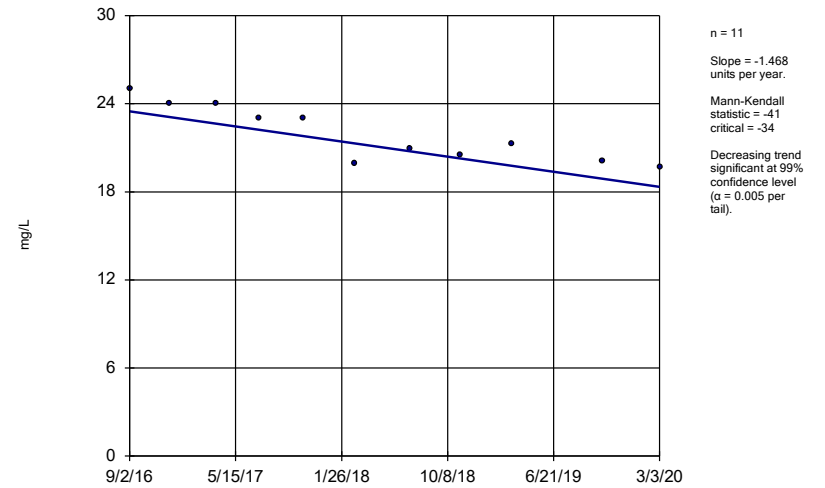
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-20



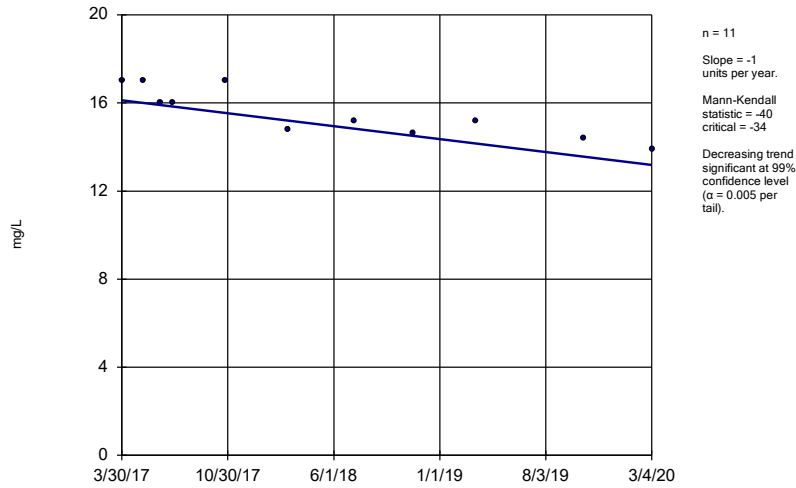
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-21



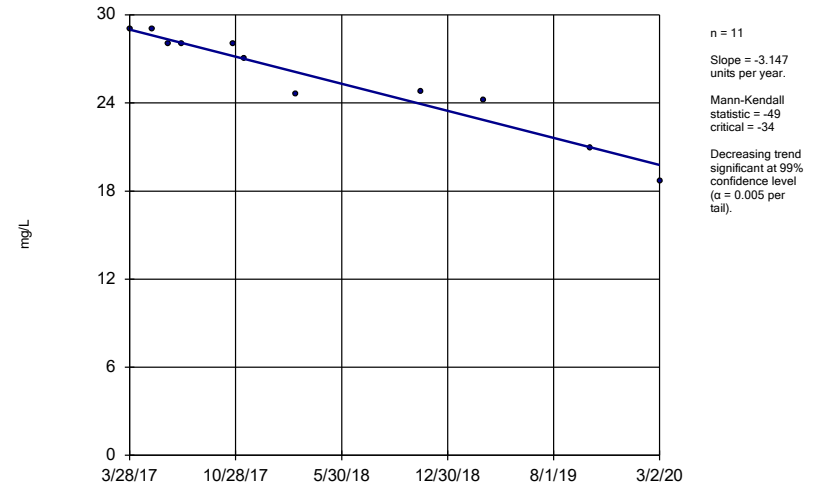
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-23



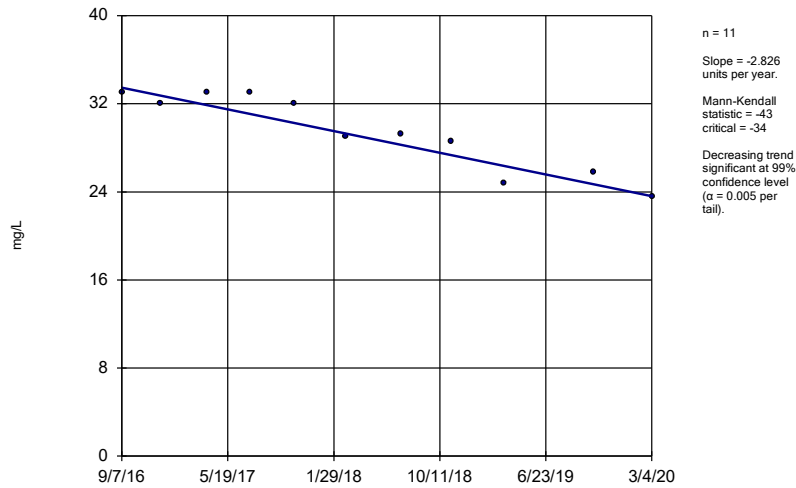
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-4



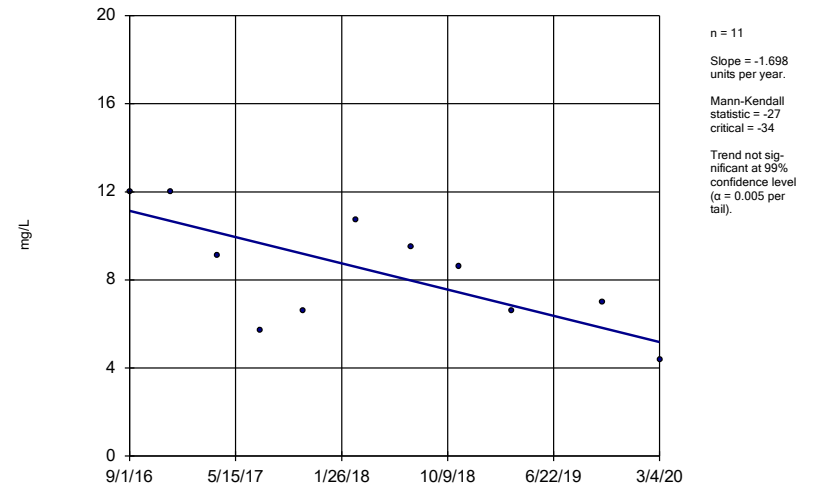
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-42



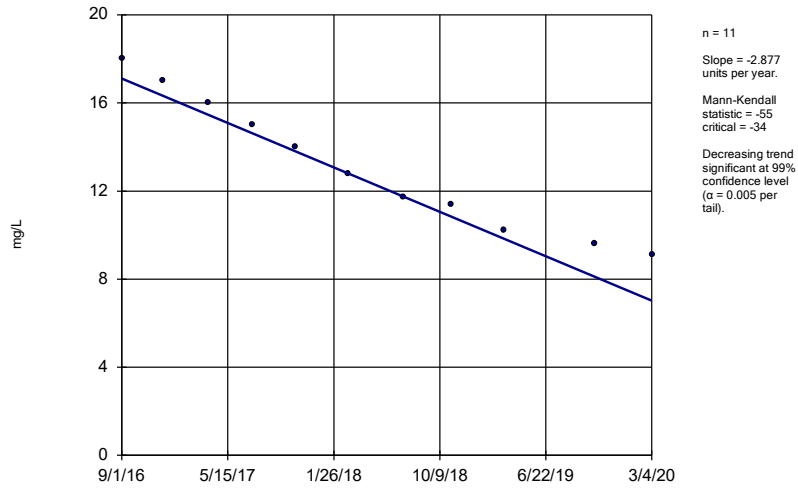
Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-47

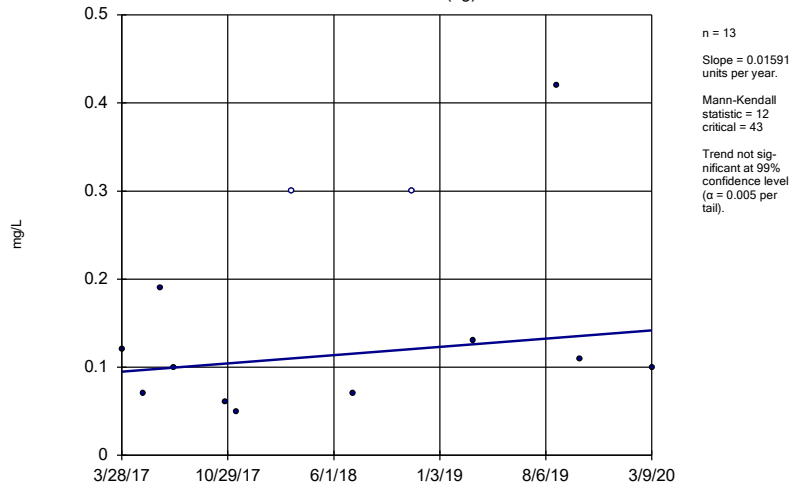


Constituent: Chloride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-48

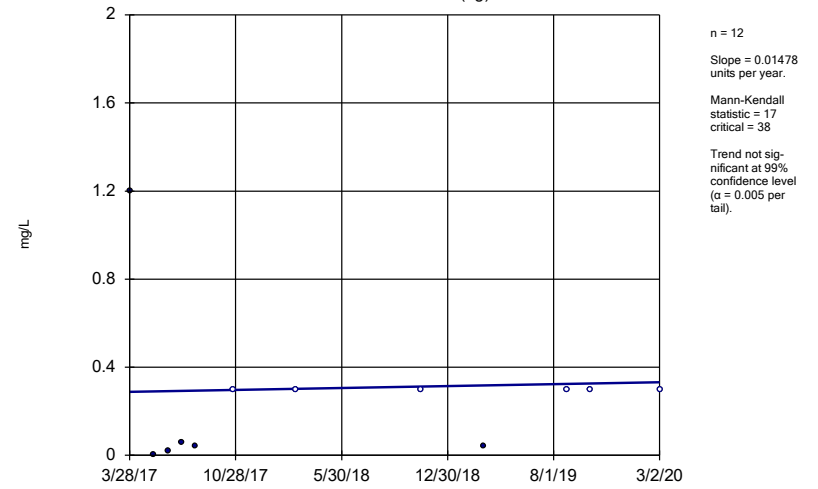


Sen's Slope Estimator
DGWA-53 (bg)



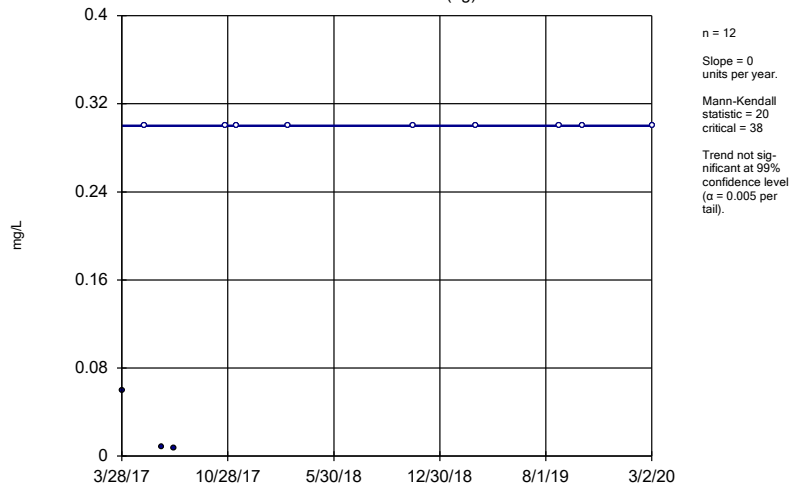
Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



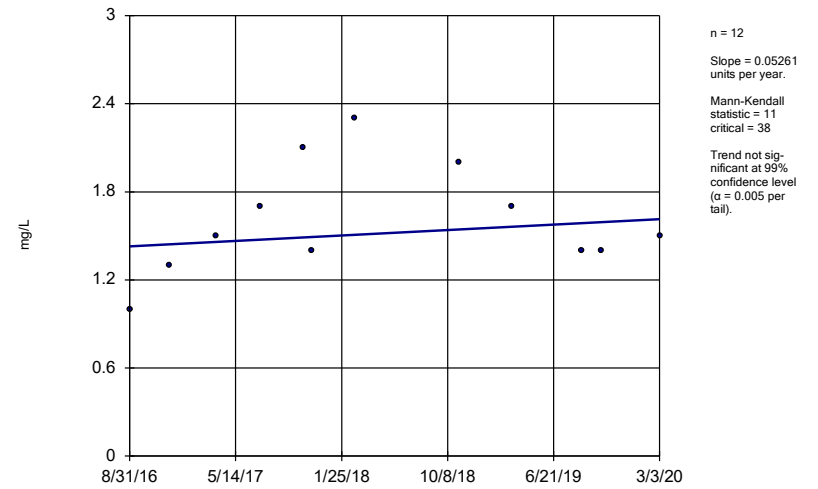
Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-71 (bg)



Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

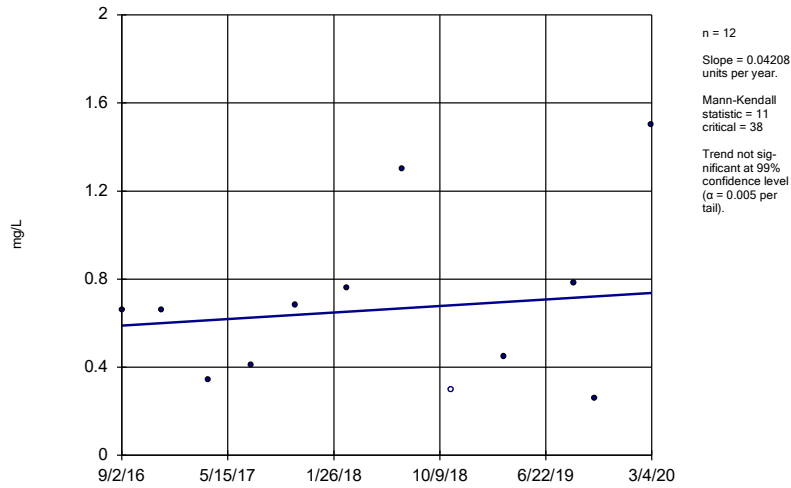
Sen's Slope Estimator
DGWC-10



Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

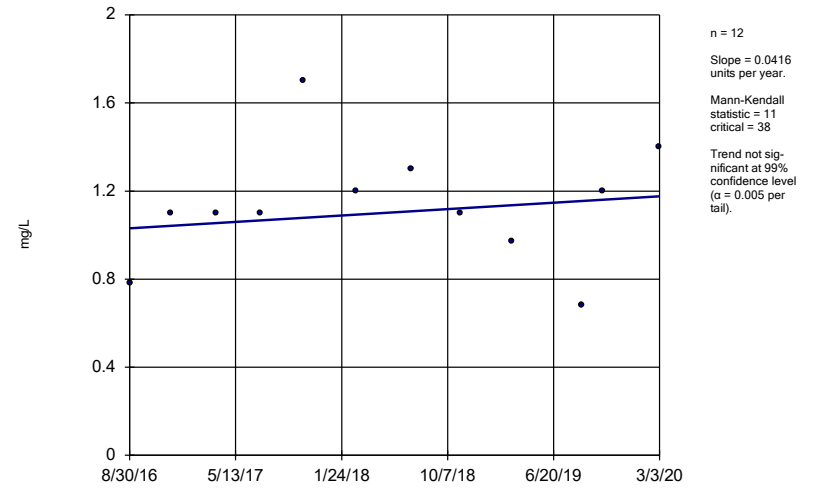
DGWC-20



Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

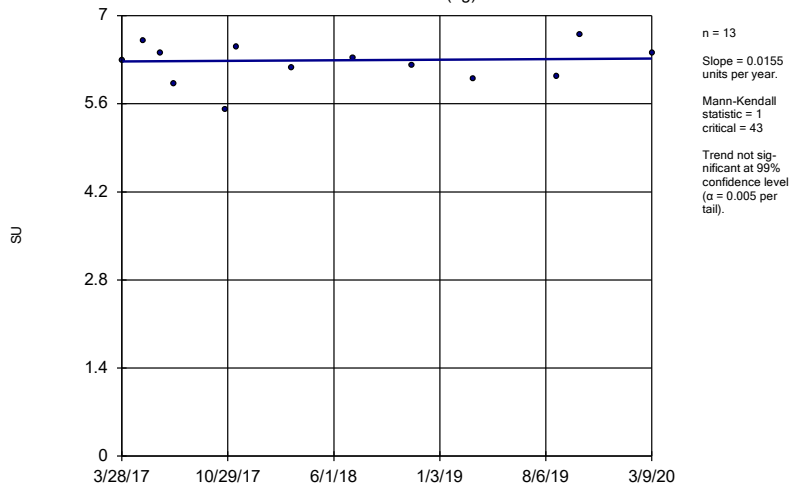
DGWC-9



Constituent: Fluoride Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

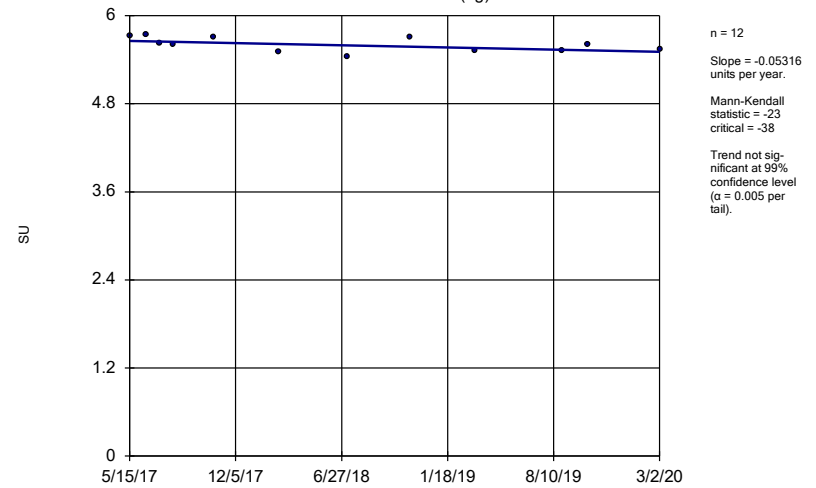
DGWA-53 (bg)



Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

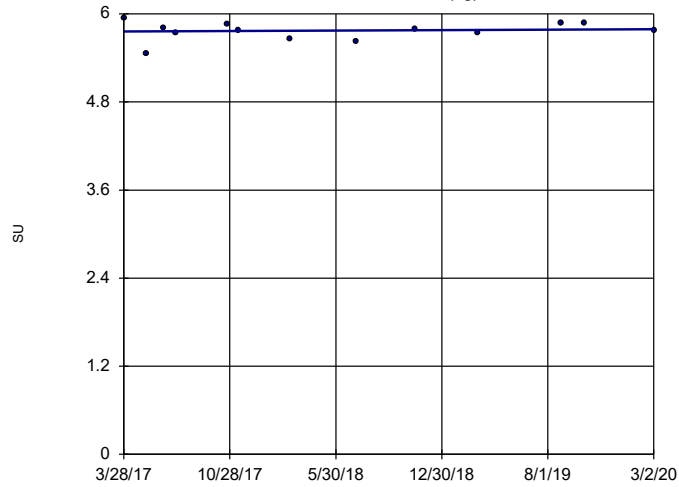
DGWA-70A (bg)



Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

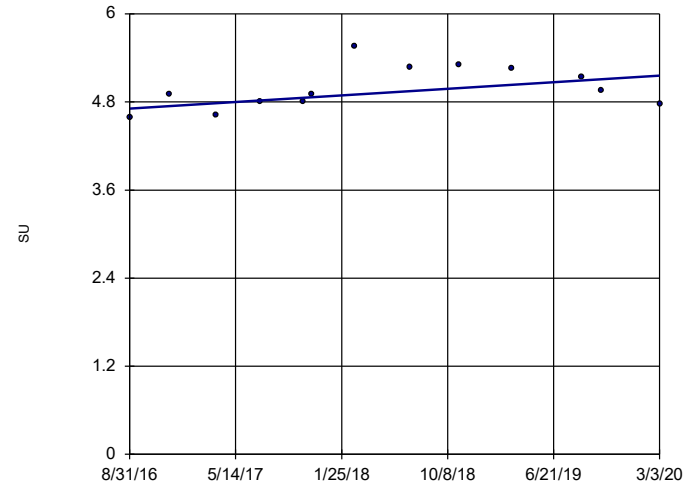


n = 13
 Slope = 0.01074
 units per year.
 Mann-Kendall
 statistic = 6
 critical = 43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-10

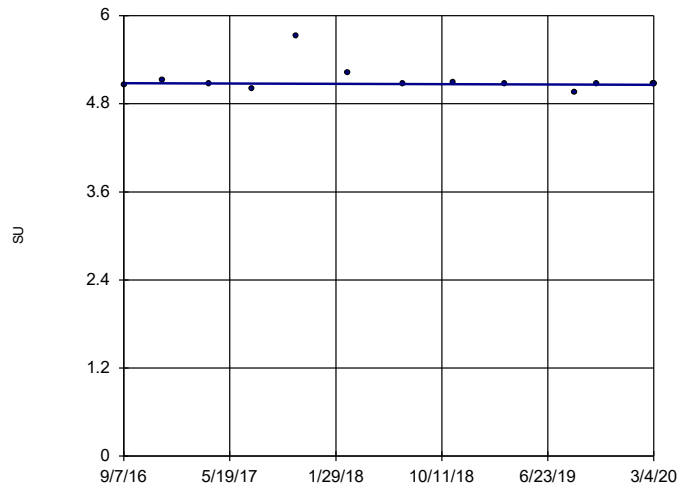


n = 13
 Slope = 0.1276
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-17

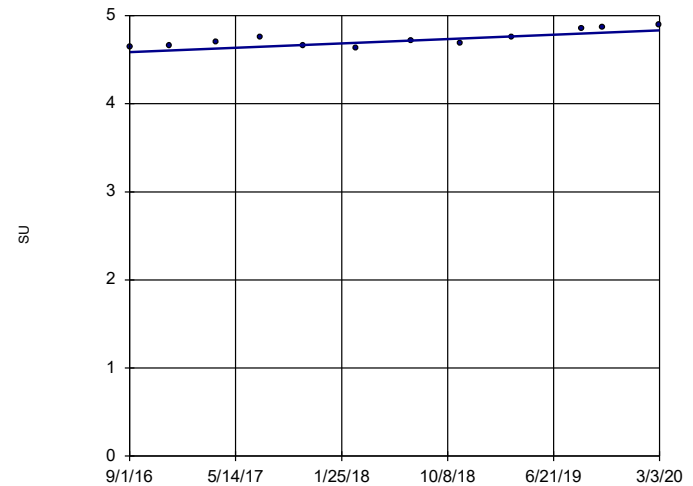


n = 13
 Slope = -0.006459
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

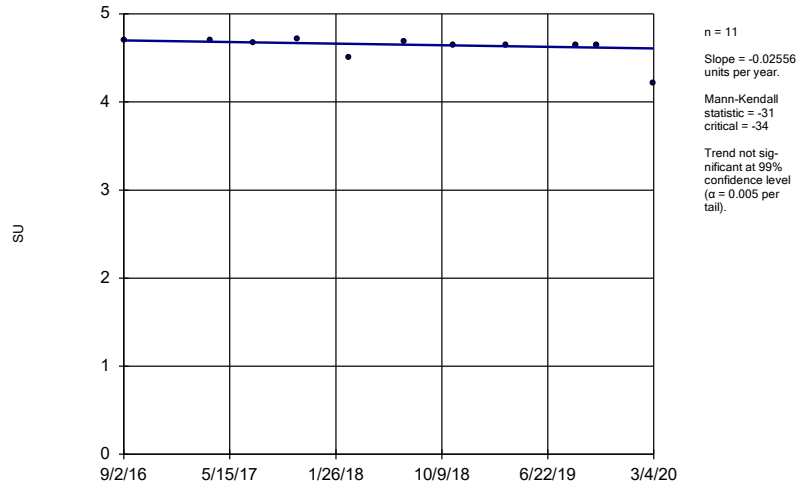
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-19



Sen's Slope Estimator
DGWC-20



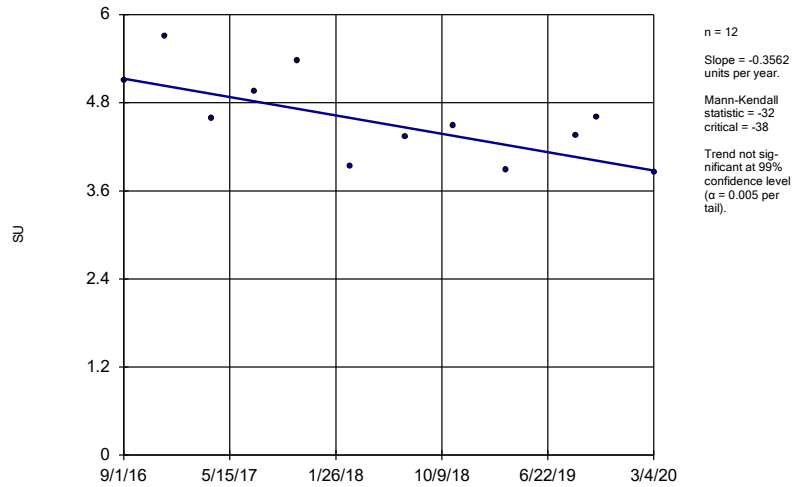
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-42



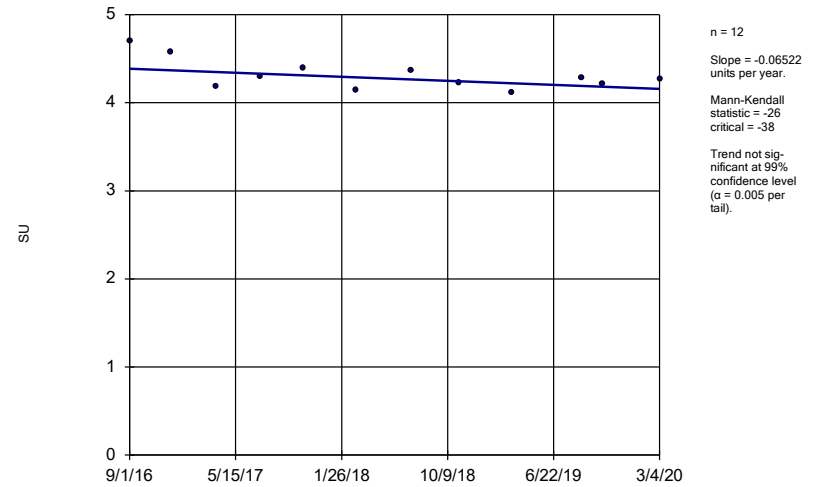
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-47



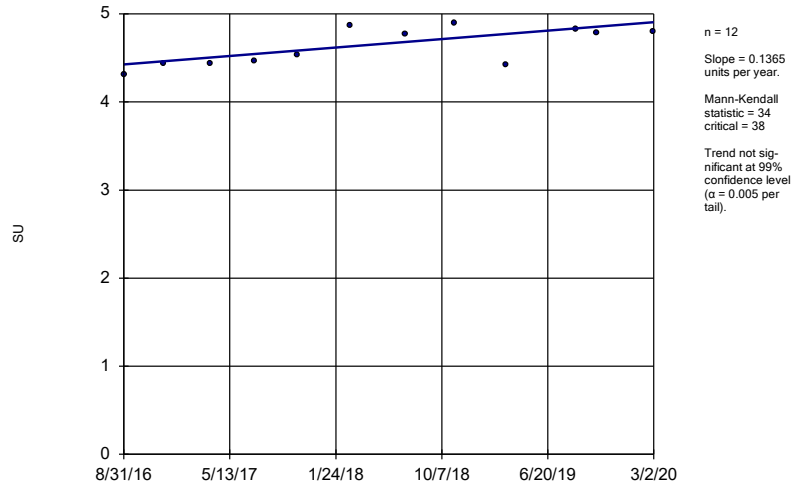
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-48



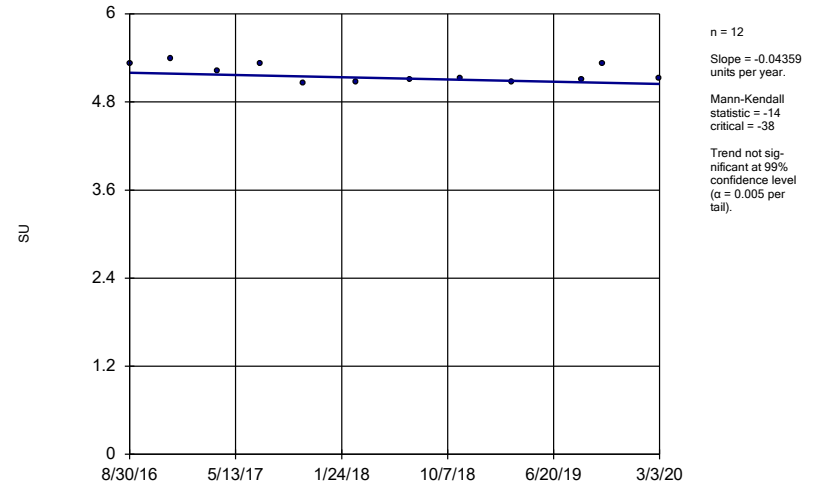
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-5



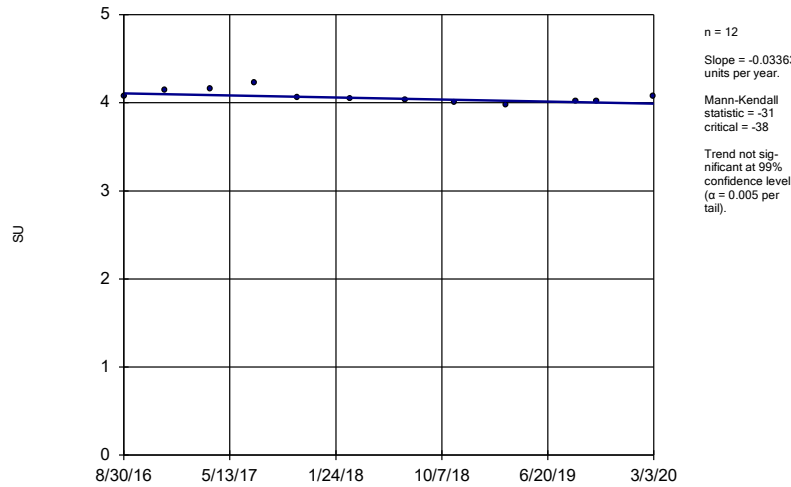
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-8



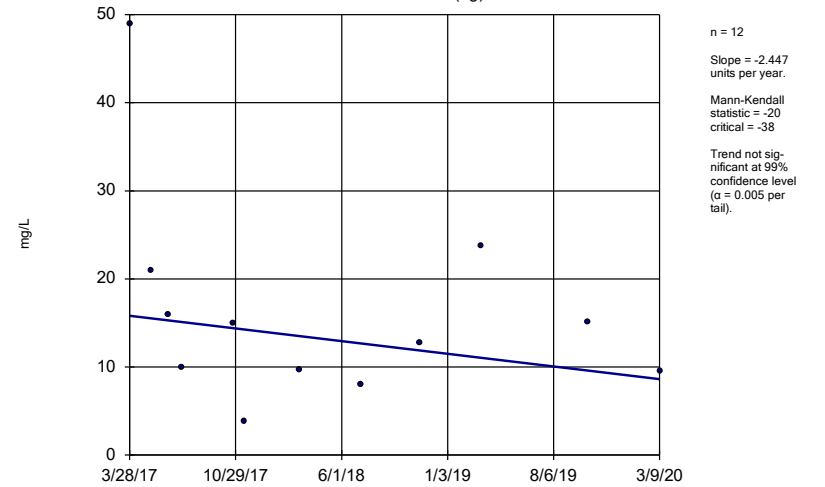
Constituent: pH Analysis Run 7/2/2020 1:10 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-9



Constituent: pH Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

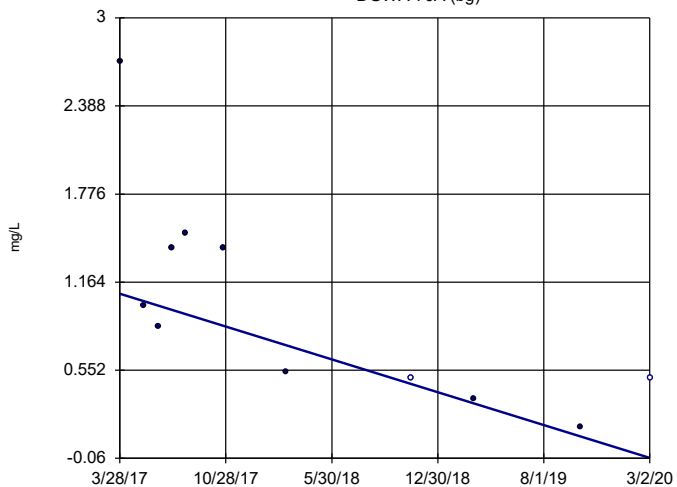
Sen's Slope Estimator
DGWA-53 (bg)



Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-70A (bg)

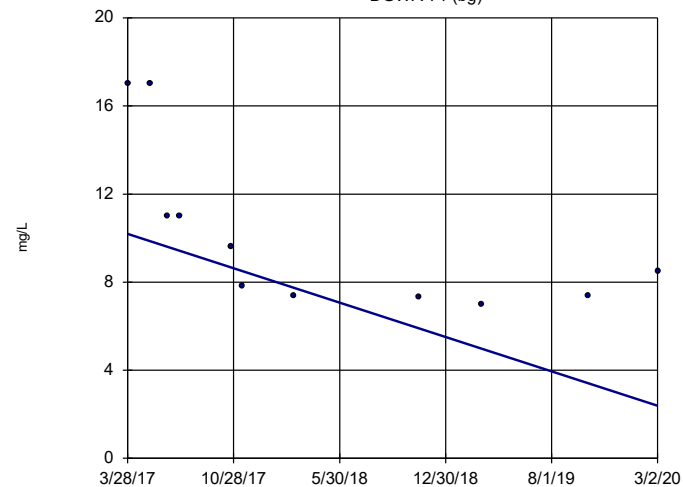


n = 11
 Slope = -0.3895
 units per year.
 Mann-Kendall
 statistic = -35
 critical = -34
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWA-71 (bg)

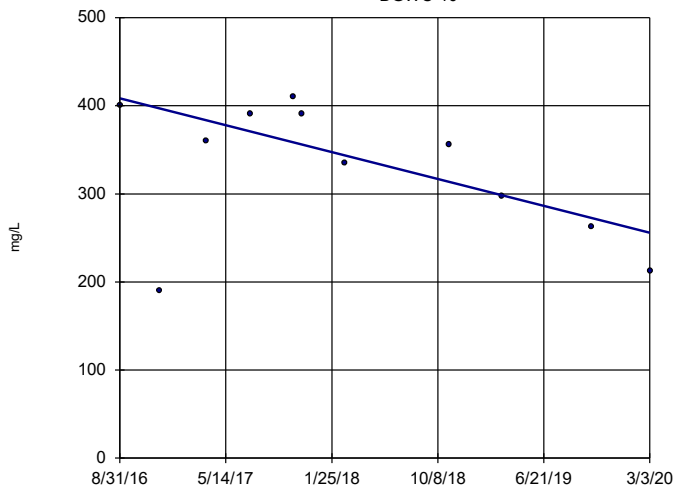


n = 11
 Slope = -2.658
 units per year.
 Mann-Kendall
 statistic = -38
 critical = -34
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

DGWC-10

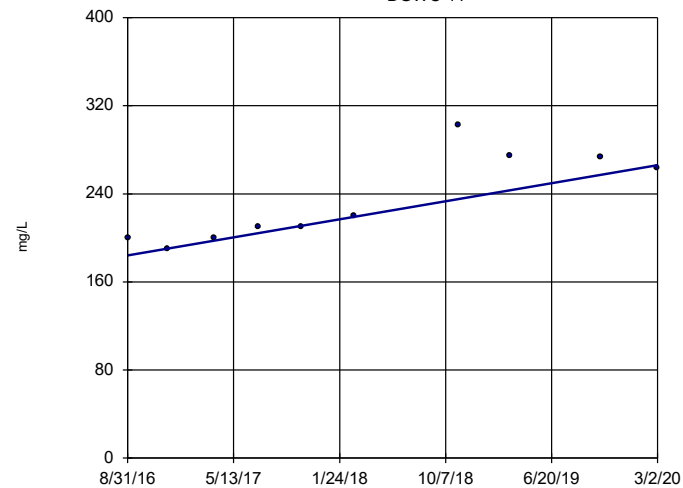


n = 11
 Slope = -43.53
 units per year.
 Mann-Kendall
 statistic = -24
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

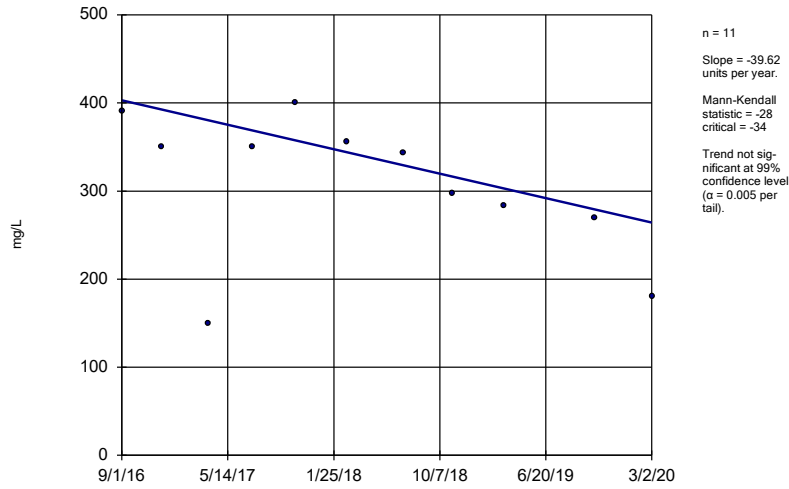
DGWC-11



n = 10
 Slope = 23.37
 units per year.
 Mann-Kendall
 statistic = 29
 critical = 30
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

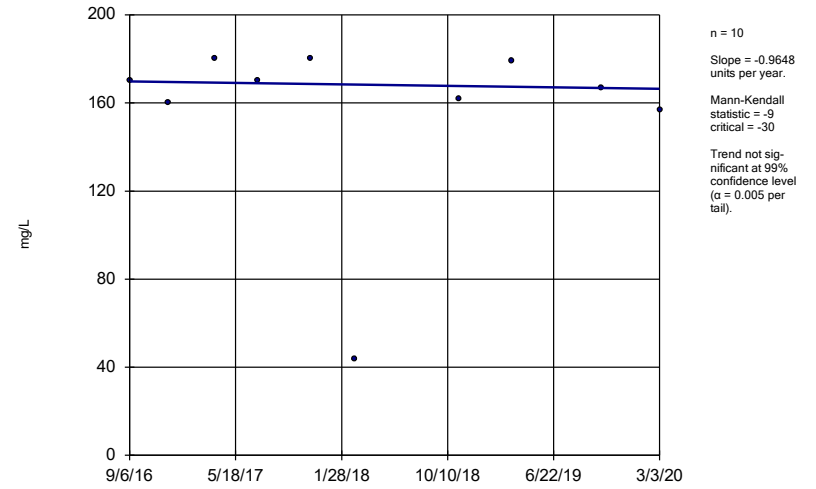
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-12



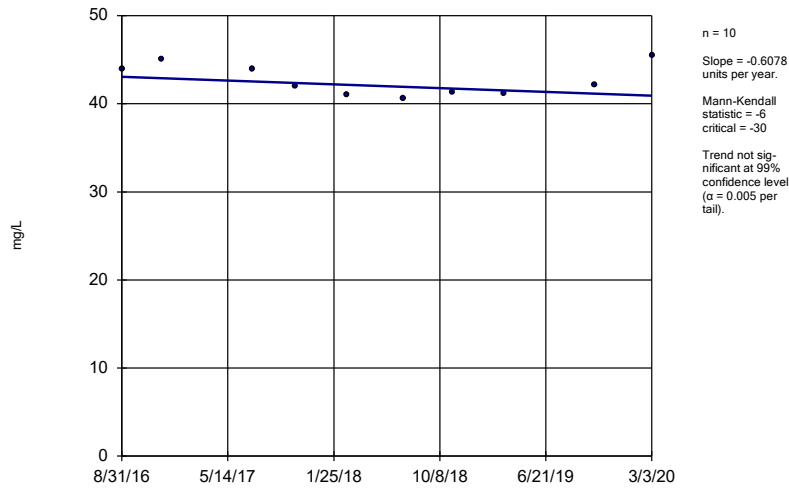
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-13



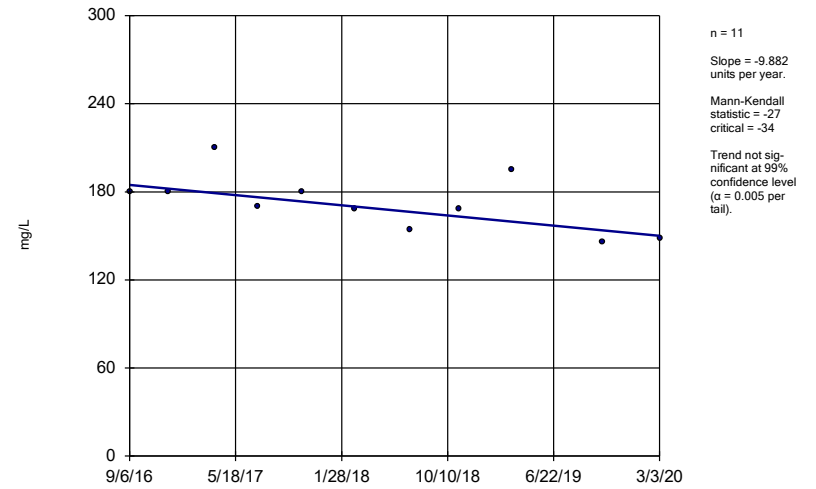
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-14



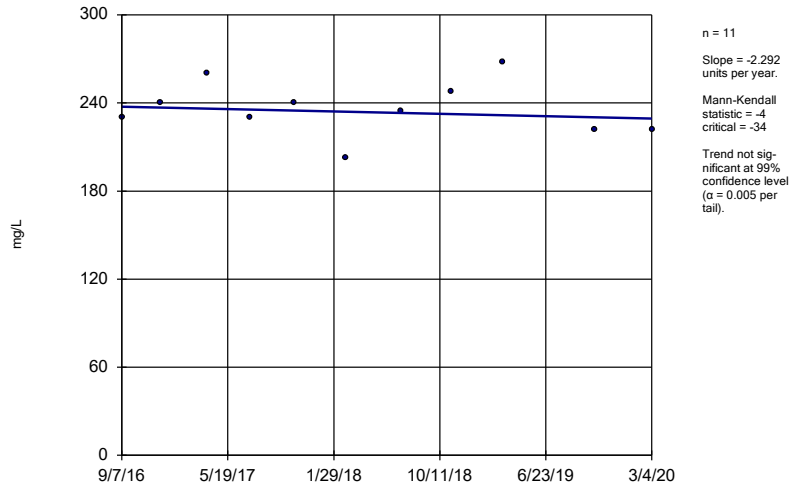
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-15



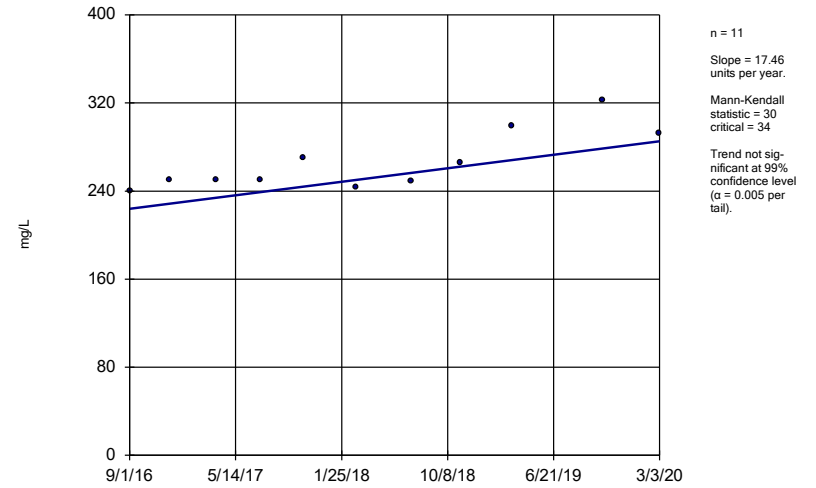
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-17



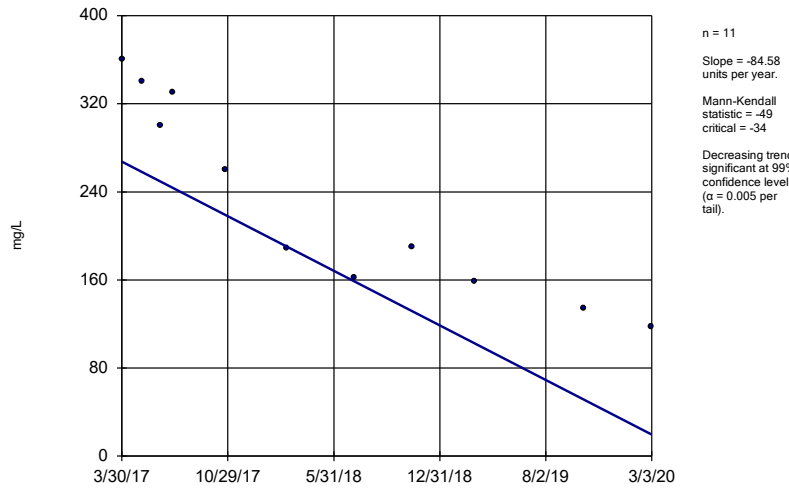
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-19



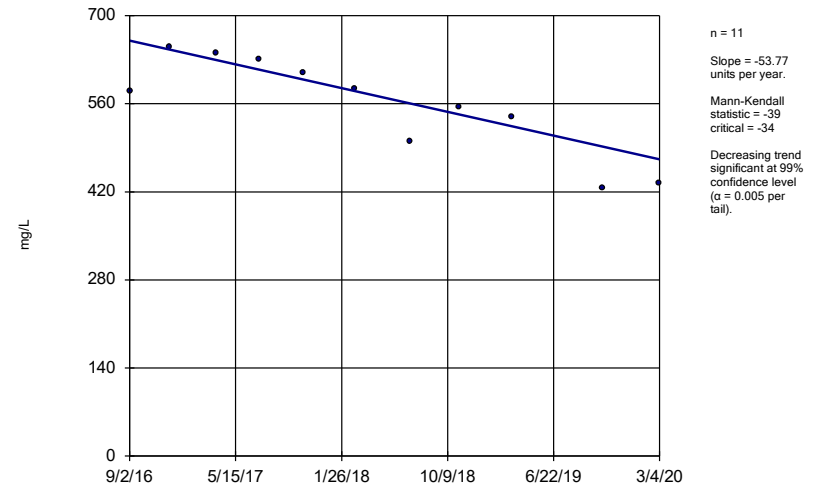
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-2



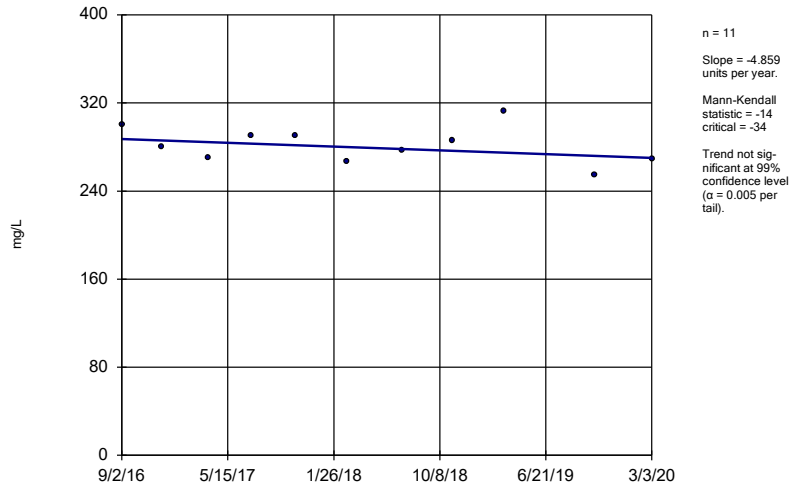
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-20



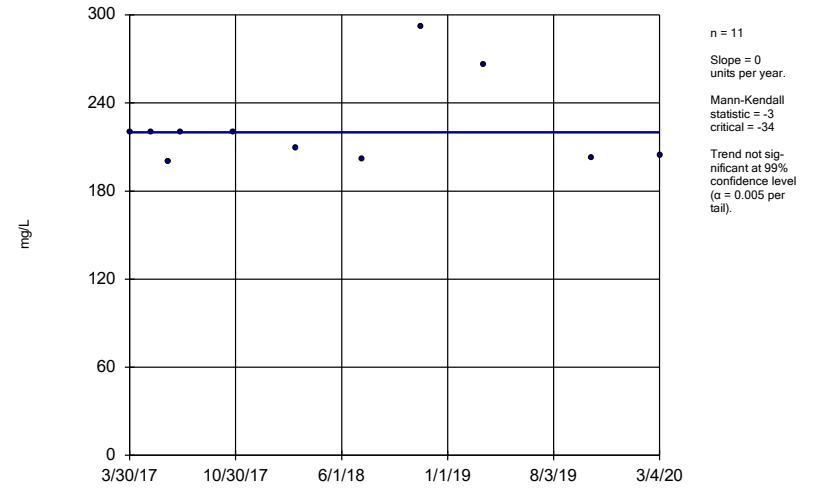
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-21



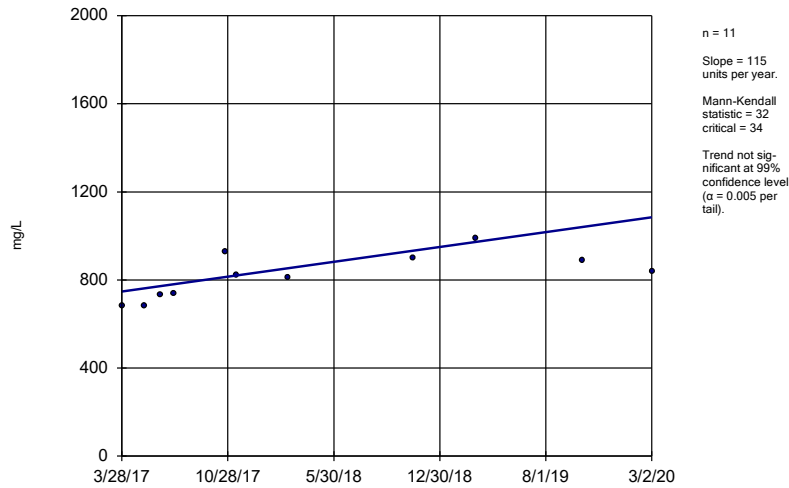
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-23



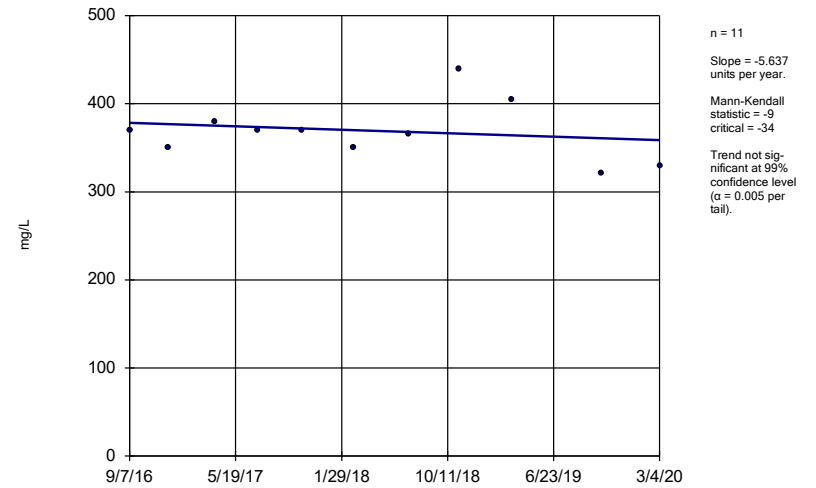
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-4



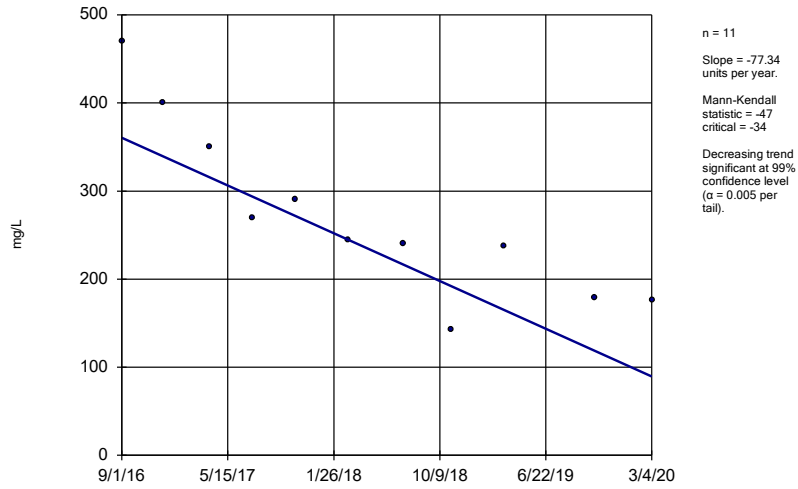
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-42



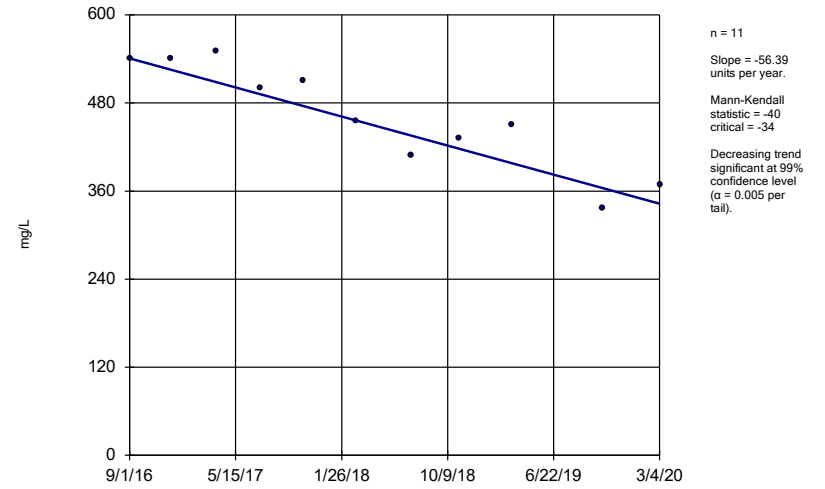
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-47



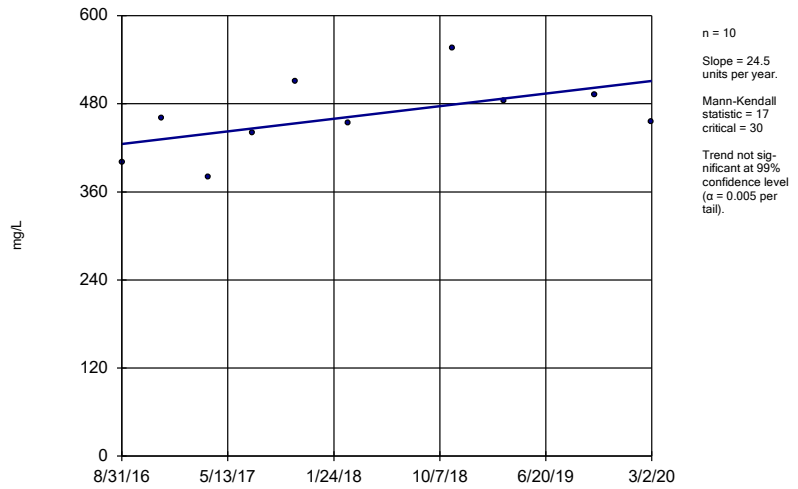
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-48



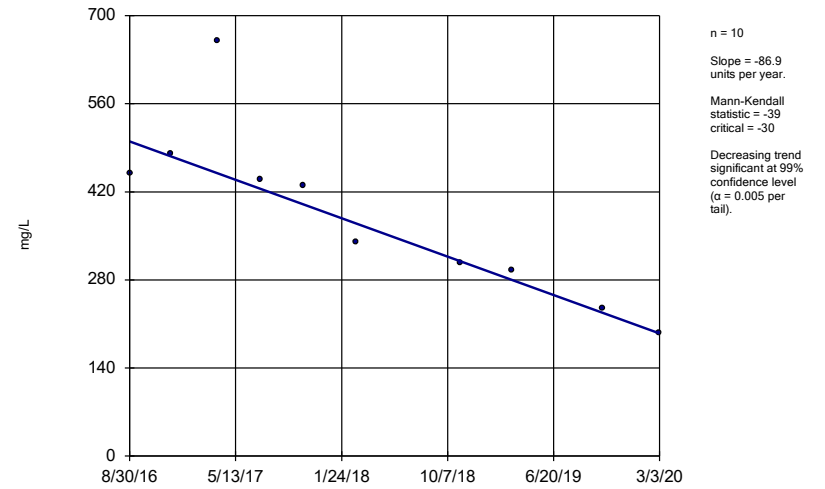
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-5



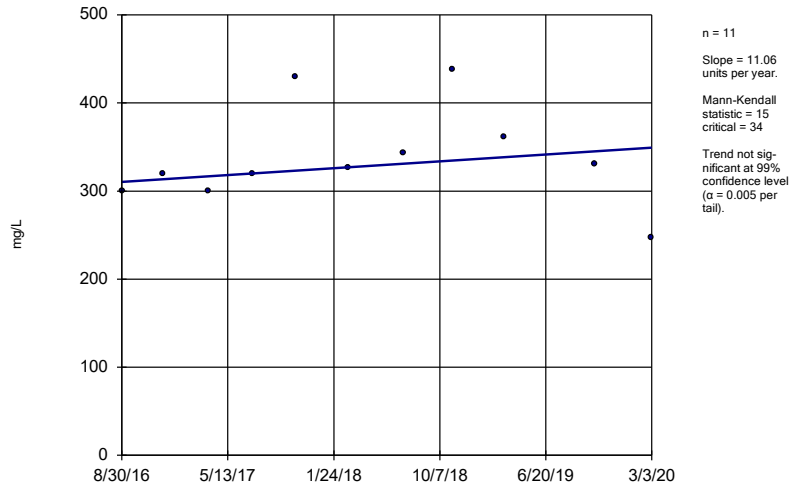
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-8



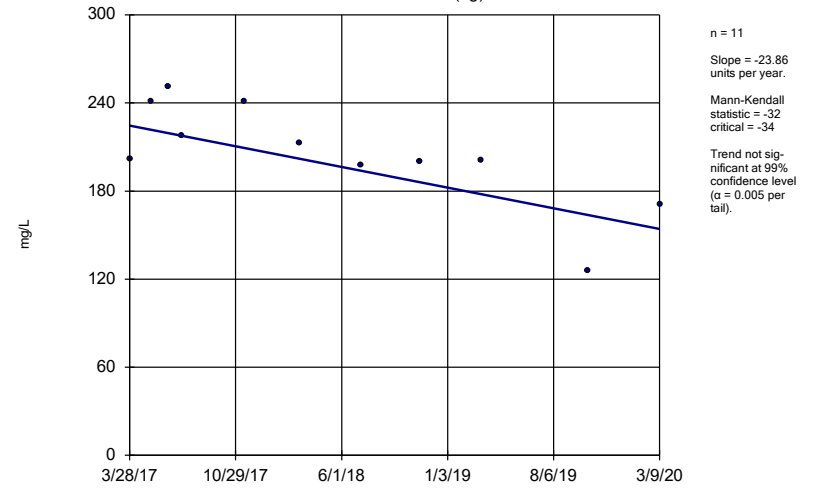
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-9



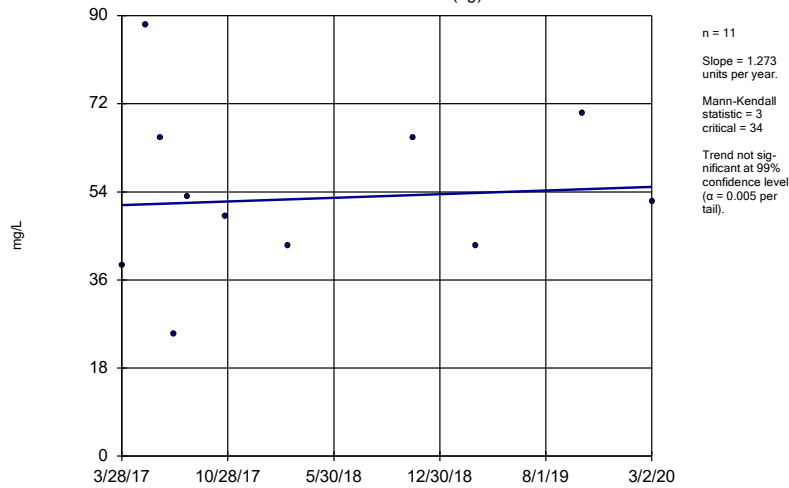
Constituent: Sulfate Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-53 (bg)



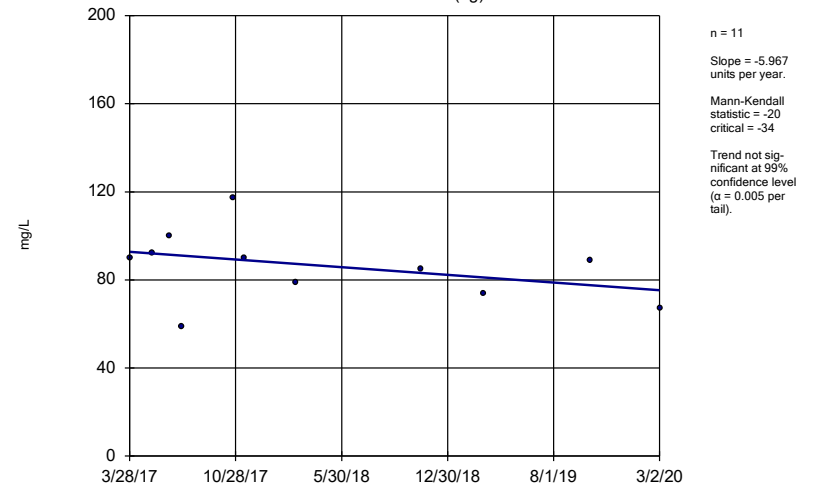
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWA-70A (bg)



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

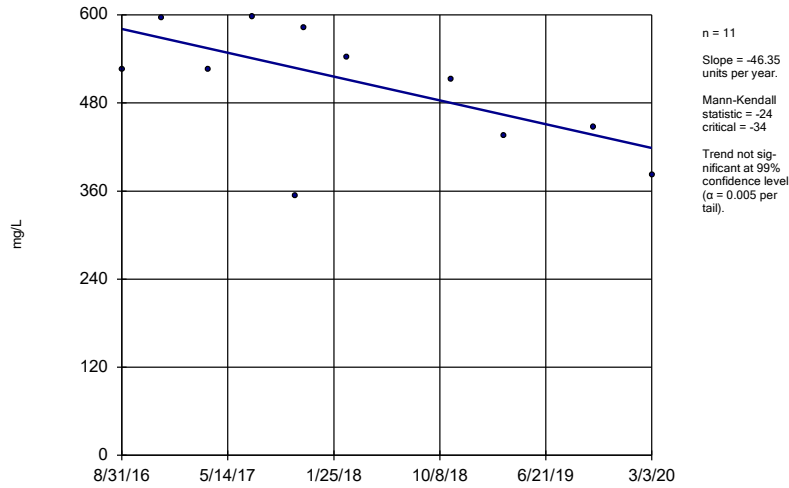
Sen's Slope Estimator
DGWA-71 (bg)



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

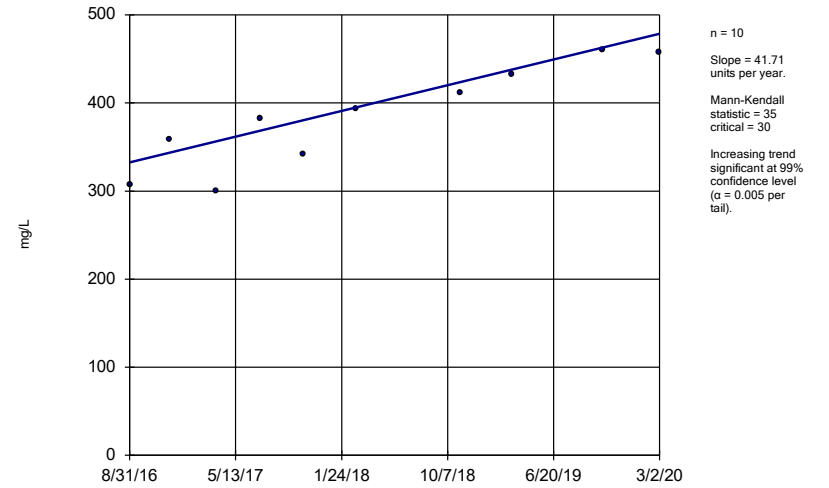
DGWC-10



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

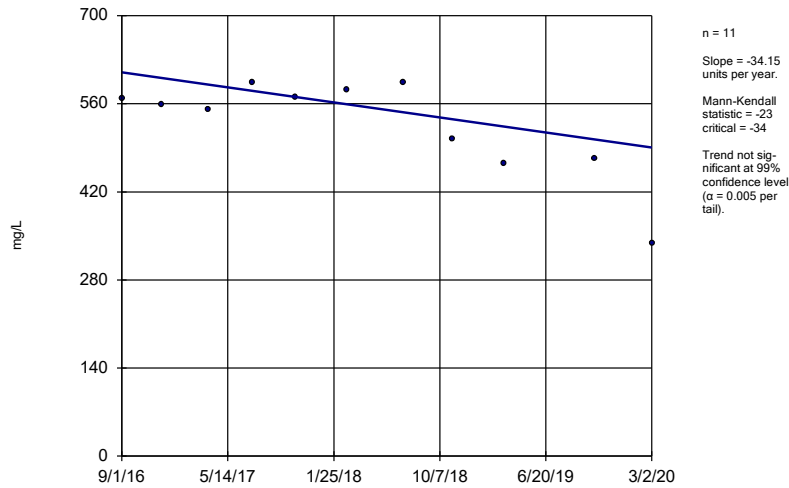
DGWC-11



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

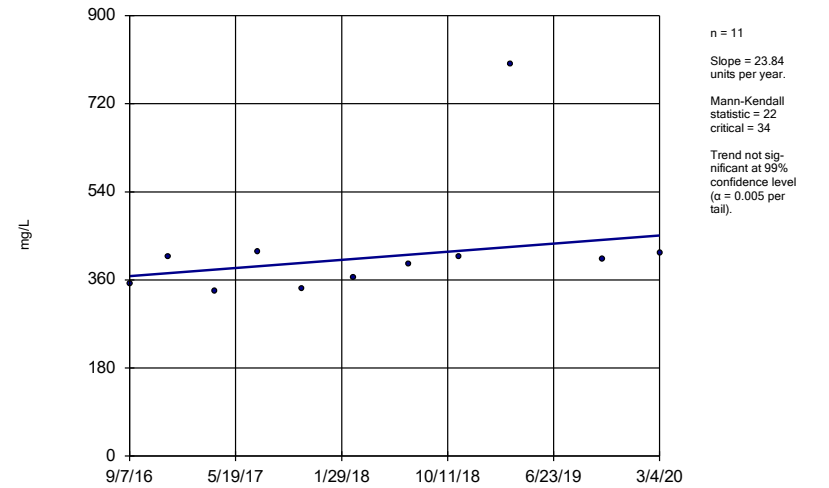
DGWC-12



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

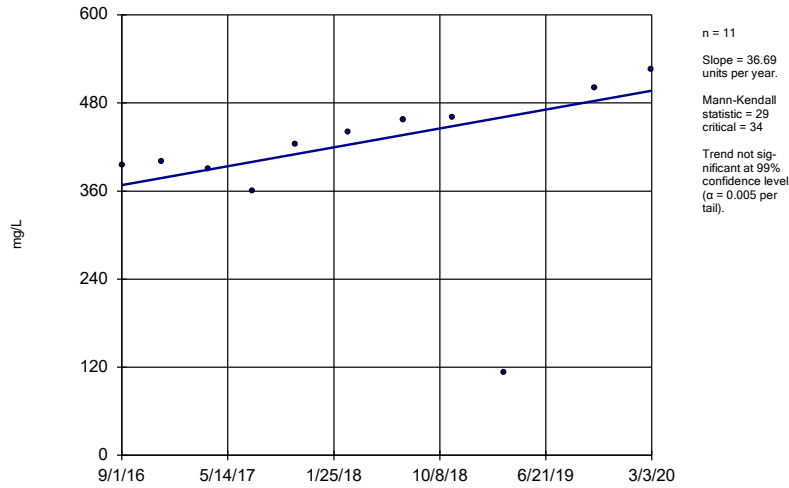
DGWC-17



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

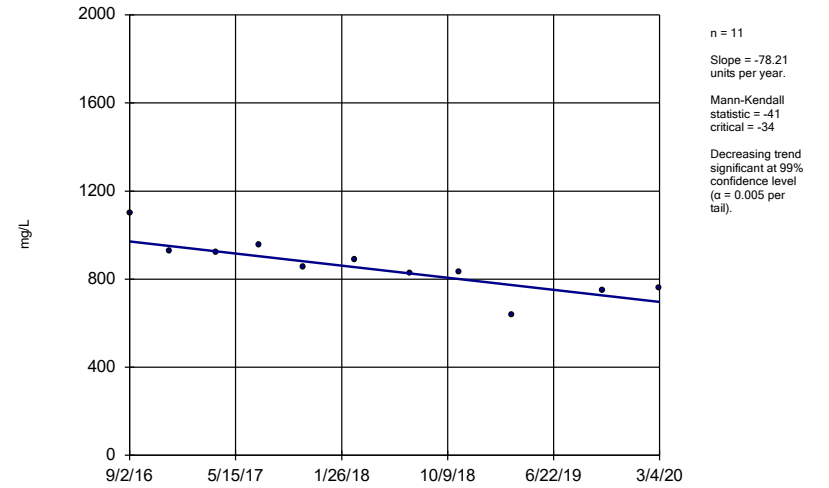
DGWC-19



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

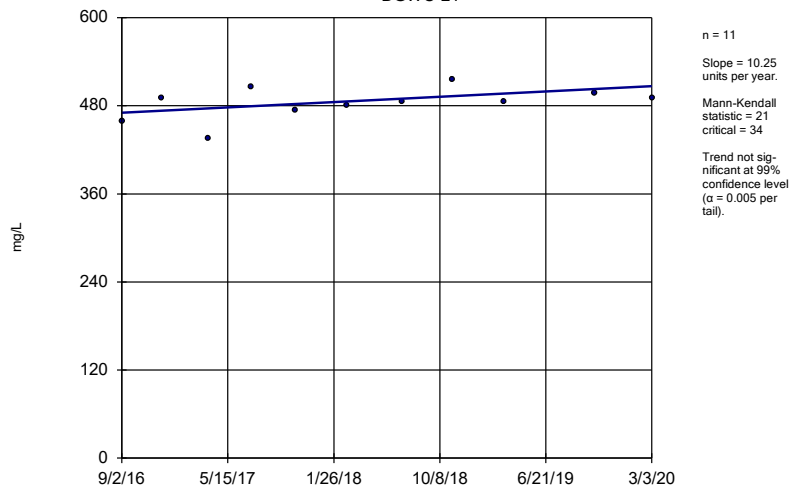
DGWC-20



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator

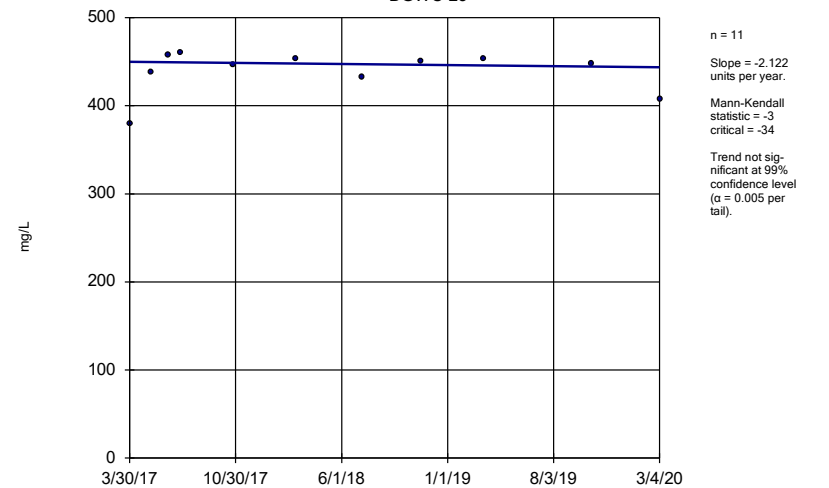
DGWC-21



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

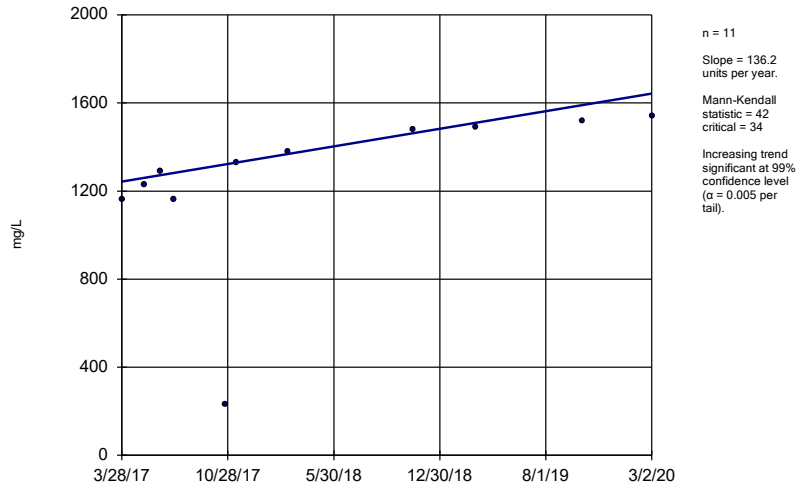
Sen's Slope Estimator

DGWC-23



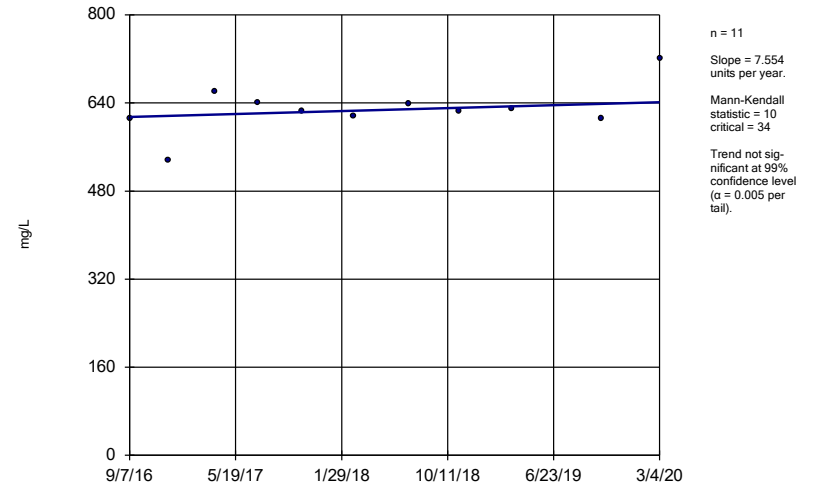
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
 Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-4



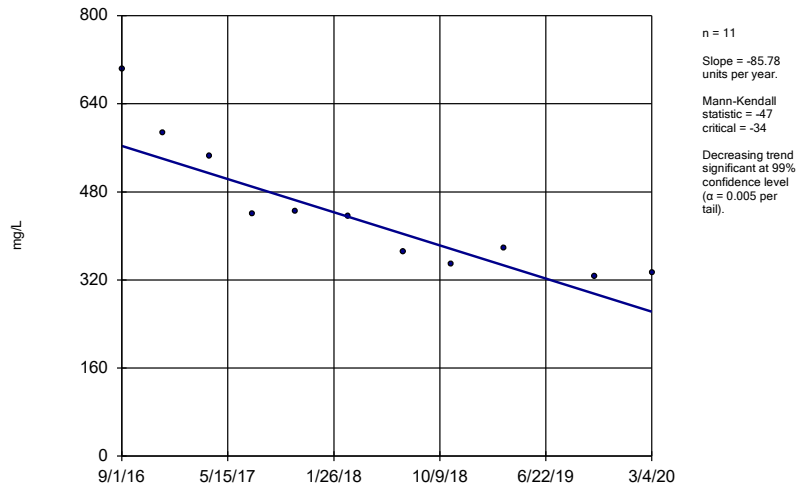
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-42



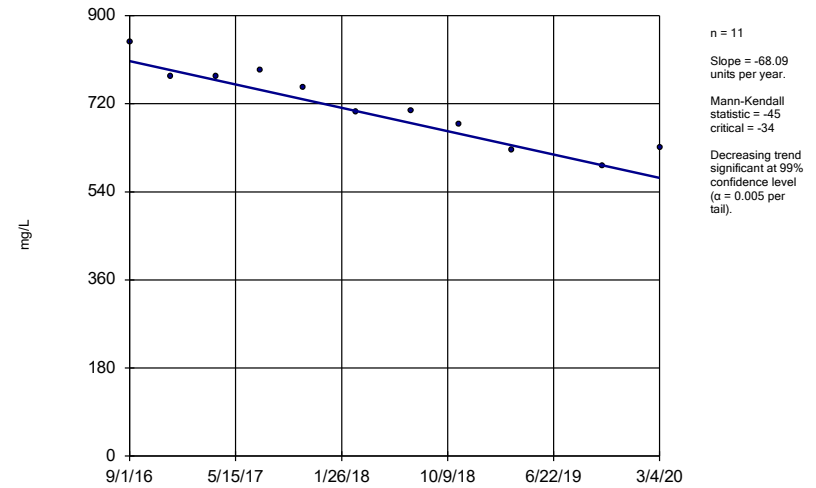
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-47



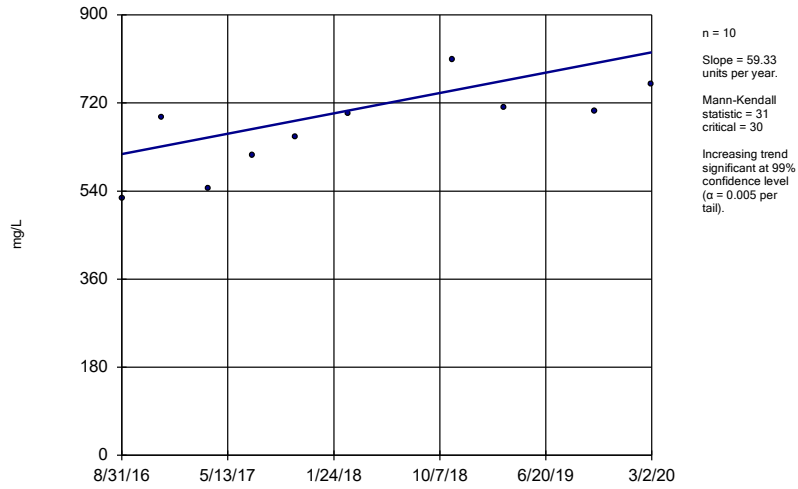
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-48



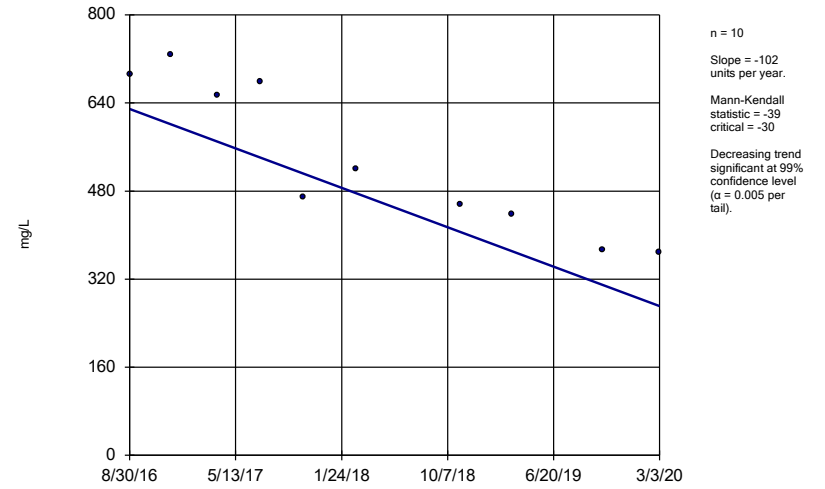
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-5



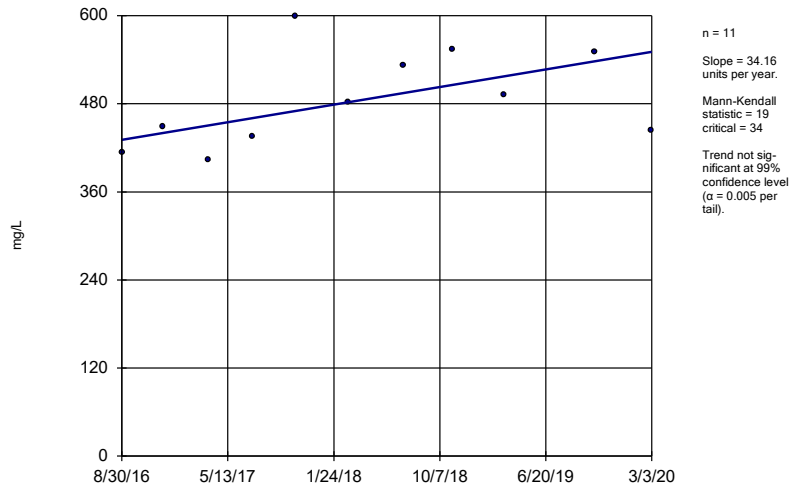
Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-8



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sen's Slope Estimator
DGWC-9



Constituent: TDS Analysis Run 7/2/2020 1:11 PM View: AP - 2, 3-4 Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

Tolerance Limit Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 4/23/2020, 2:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	32	n/a	n/a	78.13	n/a	n/a	0.1937	NP Inter(NDs)
Barium (mg/L)	n/a	0.19	n/a	n/a	n/a	n/a	32	n/a	n/a	0	n/a	n/a	0.1937	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	32	n/a	n/a	81.25	n/a	n/a	0.1937	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	32	n/a	n/a	90.63	n/a	n/a	0.1937	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	31	n/a	n/a	54.84	n/a	n/a	0.2039	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0322	n/a	n/a	n/a	n/a	32	n/a	n/a	28.13	n/a	n/a	0.1937	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	6.04	n/a	n/a	n/a	n/a	34	1.175	0.5892	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	1.2	n/a	n/a	n/a	n/a	37	n/a	n/a	45.95	n/a	n/a	0.1499	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	32	n/a	n/a	78.13	n/a	n/a	0.1937	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	32	n/a	n/a	40.63	n/a	n/a	0.1937	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0409	n/a	n/a	n/a	n/a	32	n/a	n/a	62.5	n/a	n/a	0.1937	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)

FIGURE G.

PLANT MCDONOUGH ASH PONDS 2, 3, 4 GWPS TABLE - FEDERAL				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)		0.006	0.0322	0.0322
Combined Radium, Total (pCi/L)	5		6.04	6.04
Fluoride, Total (mg/L)	4		1.2	4
Lead, Total (mg/L)		0.015	0.005	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)		0.1	0.0409	0.1
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE H.

PLANT MCDONOUGH ASH PONDS 2, 3, 4 GWPS TABLE - STATE				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)		0.006	0.0322	0.0322
Combined Radium, Total (pCi/L)	5		6.04	6.04
Fluoride, Total (mg/L)	4		1.2	4
Lead, Total (mg/L)		0.015	0.005	0.005
Lithium, Total (mg/L)		0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)		0.1	0.0409	0.0409
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Highlighted cells indicated Background is higher than MCLs or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Federal Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes 11	0.02184	0.009422	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes 10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes 11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes 11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes 10	0.00742	0.002055	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes 11	0.005473	0.0007577	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes 10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes 11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes 11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes 11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes 11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes 10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes 11	0.1651	0.04537	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.04	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.04	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 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	12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.003	0.006	No	11	0.002757	0.000805	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.003	0.006	No	11	0.002782	0.0007236	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.003	0.006	No	11	0.002845	0.0005126	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.003	0.006	No	11	0.002791	0.0006935	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No	10	0.002538	0.0009754	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.003	0.006	No	10	0.002732	0.0008475	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.0075	0.00274	0.01	No	10	0.00512	0.002667	10	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No	12	0.004269	0.001707	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.005	0.01	No	11	0.004581	0.00139	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No	11	0.004204	0.001772	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No	11	0.003166	0.002116	54.55	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-19	0.002128	0.0007566	0.01	No	11	0.002514	0.001756	27.27	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No	11	0.004408	0.001359	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01827	0.006019	0.01	No	11	0.01215	0.007352	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No	10	0.00368	0.002127	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No	11	0.004255	0.001661	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003499	0.001408	0.01	No	11	0.002454	0.001255	9.091	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No	11	0.002554	0.001968	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	DGWC-5	0.01441	0.003221	0.01	No	10	0.01056	0.01116	20	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No	10	0.003166	0.001954	50	None	No	0.011	NP (normality)
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes	11	0.02184	0.009422	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-10	0.03177	0.02417	2	No	10	0.02797	0.00426	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06959	0.05669	2	No	10	0.06314	0.007232	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.028	0.02	2	No	12	0.02607	0.005059	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-13	0.03414	0.02591	2	No	10	0.02881	0.008761	10	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06323	0.0567	2	No	11	0.05996	0.00392	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05008	0.04551	2	No	11	0.04779	0.002742	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06031	0.04682	2	No	11	0.05356	0.008098	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02488	0.02055	2	No	11	0.02272	0.002597	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02272	0.02092	2	No	11	0.02182	0.001079	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01444	0.007979	2	No	11	0.01121	0.003876	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No	11	0.02649	0.001052	0	None	No	0.006	NP (normality)
Barium (mg/L)	DGWC-23	0.0243	0.01743	2	No	11	0.02091	0.0044	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.03624	0.03214	2	No	10	0.03416	0.002434	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-42	0.0199	0.01709	2	No	11	0.01849	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.0202	0.0156	2	No	11	0.0179	0.002766	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01477	0.01289	2	No	11	0.01383	0.001128	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01894	0.0167	2	No	9	0.01782	0.001163	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04154	0.02766	2	No	10	0.0346	0.007783	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01637	0.01472	2	No	11	0.01555	0.0009923	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes	10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.003	0.00014	0.004	No	10	0.002142	0.001382	70	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-12	0.003	0.00016	0.004	No	12	0.0006837	0.001086	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.003	0.004	No	10	0.002707	0.0009265	90	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.003	0.0005	0.004	No	11	0.001025	0.000979	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No	11	0.002091	0.00047	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-20	0.005	0.0026	0.004	No	11	0.003682	0.001897	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No	11	0.0006709	0.001152	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-23	0.003	0.00038	0.004	No	11	0.0009009	0.001044	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No	10	0.000751	0.001186	20	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002896	0.002358	0.004	No	11	0.002627	0.0003228	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes	11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes	11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes	10	0.00742	0.002055	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-8	0.003747	0.001893	0.004	No 10	0.00282	0.001039	10	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes 11	0.005473	0.0007577	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-10	0.00132	0.0009536	0.005	No 10	0.001137	0.0002055	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.0025	0.005	No 10	0.002262	0.0007526	90	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0025	0.0003	0.005	No 12	0.0007583	0.0008361	25	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No 10	0.002028	0.0009955	80	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00009	0.005	No 11	0.001709	0.001125	72.73	None	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWC-17	0.0025	0.0002	0.005	No 11	0.0006809	0.0009003	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00034	0.005	No 11	0.00063	0.0006479	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-2	0.0003034	0.0001292	0.005	No 11	0.0005336	0.0006986	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-20	0.002273	0.001818	0.005	No 11	0.002045	0.0002734	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No 11	0.00084	0.0005713	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No 11	0.0005145	0.0006979	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0006	0.005	No 10	0.000887	0.0005858	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-42	0.001264	0.0004132	0.005	No 11	0.00105	0.0007672	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002481	0.001228	0.005	No 11	0.001855	0.0007515	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005143	0.002317	0.005	No 11	0.003773	0.001917	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007357	0.0002751	0.005	No 10	0.00076	0.0006753	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002703	0.002057	0.005	No 10	0.00238	0.0003615	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No 11	0.0007827	0.0005909	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No 10	0.004463	0.004766	40	None	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No 10	0.00812	0.003963	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.0009	0.1	No 10	0.008156	0.003888	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No 11	0.007413	0.004431	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-17	0.01	0.0024	0.1	No 11	0.004	0.002988	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No 11	0.004591	0.003484	27.27	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No 11	0.006533	0.004811	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No 11	0.005564	0.004273	45.45	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No 11	0.006545	0.004794	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No 11	0.004065	0.00471	36.36	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.01	0.1	No 10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No 11	0.005739	0.004898	54.55	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-47	0.01	0.01	0.1	No 11	0.009155	0.002804	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No 11	0.008282	0.003823	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.01	0.1	No 10	0.009045	0.00302	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No 10	0.007231	0.004464	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No 11	0.007063	0.004304	63.64	None	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes 10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.005	0.0006	0.0322	No 10	0.003274	0.002229	60	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-12	0.01	0.002	0.0322	No 12	0.006208	0.007635	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.005	0.0005	0.0322	No 10	0.00409	0.001919	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.005	0.0018	0.0322	No 11	0.004564	0.006868	9.091	None	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02856	0.01924	0.0322	No 11	0.0239	0.00559	9.091	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes 11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03065	0.01321	0.0322	No 11	0.02193	0.01046	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes 11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009515	0.007575	0.0322	No 11	0.008973	0.001517	18.18	Kaplan-Meier	x^5	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.0322	No 11	0.00419	0.002869	72.73	Kaplan-Meier	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-4	0.005	0.0015	0.0322	No 10	0.00287	0.002716	20	None	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-42	0.05354	0.02054	0.0322	No 11	0.03704	0.0198	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes 11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes 11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04156	0.01988	0.0322	No 10	0.03072	0.01215	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes 10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes 11	0.1651	0.04537	0	None	No	0.01	Param.

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.56	0.9967	6.04	No	11	1.278	0.3378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.423	0.6052	6.04	No	11	1.014	0.4904	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.244	0.2554	6.04	No	11	0.7783	0.7164	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.568	0.9755	6.04	No	11	1.272	0.3553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.141	0.6018	6.04	No	11	0.8713	0.3234	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.423	0.4453	6.04	No	11	0.934	0.5864	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.184	0.5405	6.04	No	11	0.8624	0.3863	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.167	0.4521	6.04	No	11	0.8094	0.4287	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.342	0.7359	6.04	No	11	1.039	0.3637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.514	0.725	6.04	No	11	1.12	0.4735	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.295	0.6846	6.04	No	11	0.9898	0.3663	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.472	0.5579	6.04	No	11	1.015	0.5483	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.798	1.098	6.04	No	11	1.448	0.4198	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.203	0.6	6.04	No	11	0.9016	0.362	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.185	1.671	6.04	No	11	2.428	0.9081	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.726	1.561	6.04	No	11	2.144	0.6988	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.093	0.9654	6.04	No	11	1.529	0.6765	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8565	0.3644	6.04	No	11	0.6105	0.2953	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.555	0.8815	6.04	No	11	1.218	0.404	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.899	1.318	4	No	12	1.608	0.3704	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.3	0.04	4	No	11	0.1642	0.1304	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.287	0.04078	4	No	12	0.2297	0.1618	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-13	0.2689	0.1031	4	No	11	0.189	0.1114	9.091	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.3	0.042	4	No	12	0.1978	0.1275	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-15	0.3	0.07	4	No	12	0.2072	0.1092	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3585	0.1249	4	No	12	0.2658	0.1476	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.656	0.1909	4	No	12	0.4405	0.3344	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.042	4	No	12	0.2112	0.185	25	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9776	0.3724	4	No	12	0.675	0.3856	8.333	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.34	0.043	4	No	12	0.2093	0.1221	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.3232	0.1017	4	No	12	0.2201	0.1665	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.79	0.02	4	No	12	0.2652	0.2015	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-42	0.3	0.06	4	No	12	0.2567	0.1016	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.327	0.6799	4	No	12	1.003	0.4122	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.372	0.708	4	No	12	1.04	0.4232	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.3	0.31	4	No	11	0.7218	0.4389	9.091	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-8	0.5583	0.2086	4	No	11	0.3835	0.2099	9.091	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.346	0.9255	4	No	12	1.136	0.268	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00014	0.015	No	10	0.003549	0.002337	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.005	0.00012	0.015	No	10	0.003535	0.00236	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.005	0.0001	0.015	No	12	0.004592	0.001415	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.005	0.015	No	10	0.00452	0.001518	90	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.0001	0.015	No	11	0.003224	0.002465	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-17	0.005	0.00009	0.015	No	11	0.003218	0.002473	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-19	0.005	0.00026	0.015	No	11	0.004121	0.001956	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-2	0.005	0.000086	0.015	No	11	0.002767	0.002566	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-20	0.005	0.00015	0.015	No	11	0.003721	0.002196	72.73	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.015	No	11	0.002375	0.002515	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.005	0.015	No	11	0.004551	0.001488	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.015	No	10	0.003535	0.002359	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.005	0.0002	0.015	No	11	0.001149	0.001908	18.18	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-47	0.005	0.0006	0.015	No	11	0.001962	0.001959	27.27	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-48	0.002249	0.001021	0.015	No	11	0.002268	0.001551	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-5	0.005	0.000051	0.015	No	10	0.002319	0.002409	40	None	No	0.011	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.015	No	10	0.00307	0.002492	60	None	No	0.011	NP (NDs)

Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-9	0.005	0.005	0.015	No 11	0.004561	0.001456	90.91	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-10	0.03	0.002	0.04	No 10	0.00873	0.01129	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-11	0.0027	0.0021	0.04	No 10	0.00503	0.008776	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-12	0.03	0.00097	0.04	No 12	0.02034	0.01427	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-13	0.03	0.0028	0.04	No 10	0.00847	0.01135	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.04	No 11	0.006373	0.007956	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-15	0.006402	0.005958	0.04	No 10	0.00618	0.0002486	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.03	0.00096	0.04	No 11	0.02209	0.01355	72.73	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-19	0.0034	0.0031	0.04	No 11	0.005627	0.008087	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.04	No 11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-20	0.019	0.0019	0.04	No 11	0.007564	0.009084	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.04	No 11	0.008182	0.007245	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-23	0.01827	0.002972	0.04	No 11	0.01436	0.02198	9.091	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.04	No 10	0.00553	0.008607	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-42	0.0122	0.01	0.04	No 11	0.01289	0.00577	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.04	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.04	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.01093	0.003076	0.04	No 10	0.00771	0.008077	10	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.04	No 10	0.00812	0.007765	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-9	0.02991	0.02416	0.04	No 11	0.02704	0.003451	9.091	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0002	0.00008	0.002	No 10	0.000164	0.00005816	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-11	0.0002	0.00006	0.002	No 10	0.000159	0.00006641	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-12	0.0002	0.00006	0.002	No 12	0.0001388	0.00006829	50	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0002	0.00009	0.002	No 10	0.000176	0.00005082	80	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0002	0.00006	0.002	No 11	0.0001627	0.0000642	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0002	0.00005	0.002	No 11	0.0001491	0.0000664	54.55	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-19	0.0002	0.00005	0.002	No 11	0.0001618	0.00006646	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-2	0.0002	0.00008	0.002	No 11	0.0002066	0.0001543	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-20	0.0002	0.00008	0.002	No 11	0.0001782	0.00004854	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0002	0.00006	0.002	No 11	0.00015	0.00006971	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0001976	0.0001282	0.002	No 11	0.0001818	0.00004119	36.36	Kaplan-Meier	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.0002	0.000082	0.002	No 10	0.0002152	0.0001407	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-42	0.0002	0.0002	0.002	No 11	0.0001855	0.00004824	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0002	0.0002	0.002	No 11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002398	0.00009728	0.002	No 10	0.000193	0.0001323	20	Kaplan-Meier	ln(x)	0.01	Param.
Mercury (mg/L)	DGWC-8	0.0002	0.00006	0.002	No 10	0.0001412	0.0000654	50	None	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00021	0.00005	0.002	No 11	0.0001929	0.00009768	63.64	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03102	0.01468	0.1	No 10	0.02285	0.009162	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.01	0.0009	0.1	No 11	0.006164	0.004425	54.55	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-23	0.01158	0.006695	0.1	No 11	0.009136	0.00293	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.008044	0.005016	0.1	No 10	0.00653	0.001697	10	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05397	0.01489	0.05	No 10	0.03443	0.0219	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No 12	0.005917	0.004271	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.004026	0.001244	0.05	No 10	0.00492	0.003808	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No 11	0.006973	0.004202	63.64	Kaplan-Meier	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.007	0.05	No 11	0.008327	0.001271	18.18	None	No	0.006	NP (normality)
Selenium (mg/L)	DGWC-19	0.00882	0.005026	0.05	No 11	0.007564	0.00253	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0047	0.05	No 11	0.008291	0.002446	63.64	None	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-20	0.06747	0.03002	0.05	No 11	0.04875	0.02247	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-4	0.01	0.01	0.05	No 10	0.00914	0.00272	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.0156	0.006688	0.05	No 11	0.01115	0.005349	9.091	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.008794	0.004308	0.05	No 11	0.007555	0.002904	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06842	0.007083	0.05	No 10	0.03878	0.04839	10	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.005058	0.001985	0.05	No 10	0.00614	0.003641	40	Kaplan-Meier	sqrt(x)	0.01	Param.

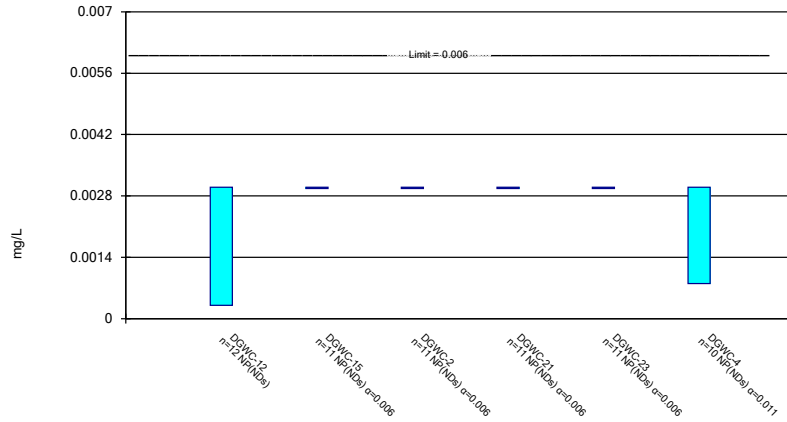
Federal Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Selenium (mg/L)	DGWC-9	0.124	0.04046	0.05	No	11	0.08224	0.05013	0	None	No	0.01	Param.
Thallium (mg/L)	DGWC-10	0.001	0.00039	0.002	No	10	0.000547	0.0002486	20	None	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No	12	0.0004723	0.000466	41.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No	11	0.0004027	0.0003841	27.27	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.0004	0.002	No	11	0.0005409	0.0001623	9.091	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-20	0.001	0.0006	0.002	No	11	0.0009145	0.000501	36.36	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.001	0.002	No	10	0.0009073	0.0002931	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No	11	0.0006672	0.0004618	63.64	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-47	0.001	0.0002	0.002	No	11	0.0003855	0.0003071	18.18	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No	11	0.0005824	0.0004799	54.55	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No	10	0.000734	0.0004298	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-8	0.0003036	0.0001596	0.002	No	10	0.000463	0.0003755	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	DGWC-9	0.0006509	0.0004341	0.002	No	11	0.0007009	0.0002219	27.27	Kaplan-Meier	No	0.01	Param.

Non-Parametric Confidence Interval

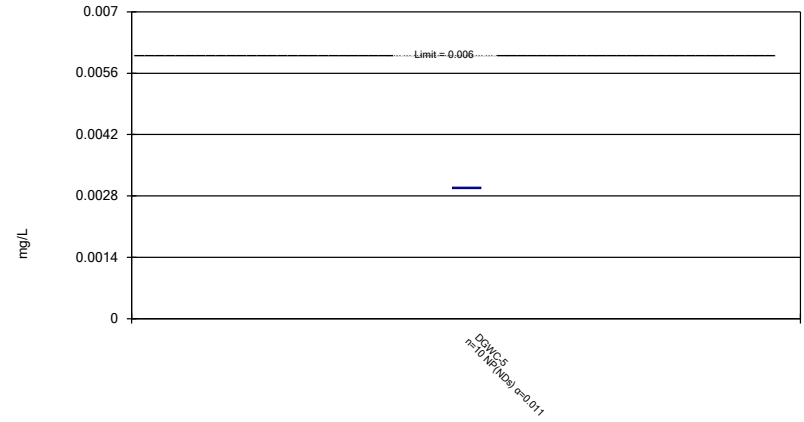
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Antimony Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

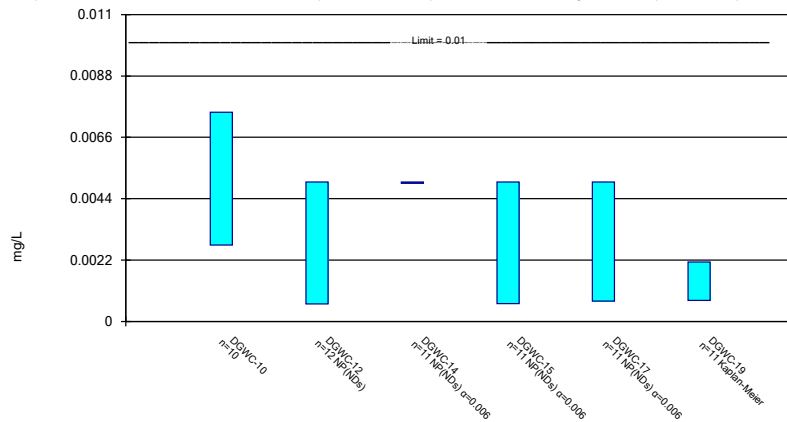
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Constituent: Antimony Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

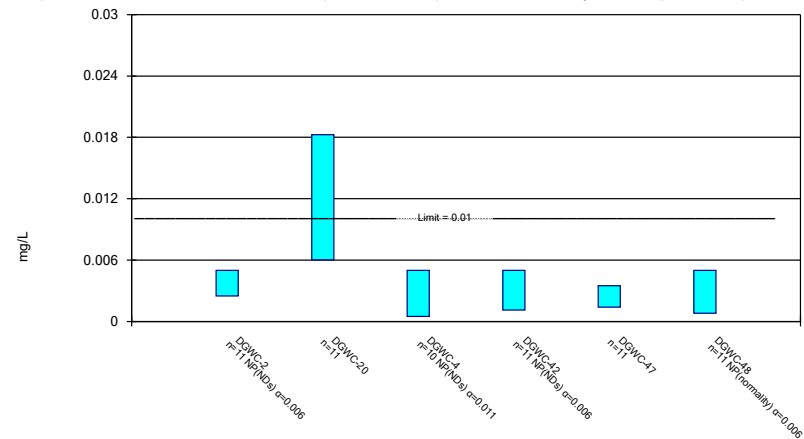
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

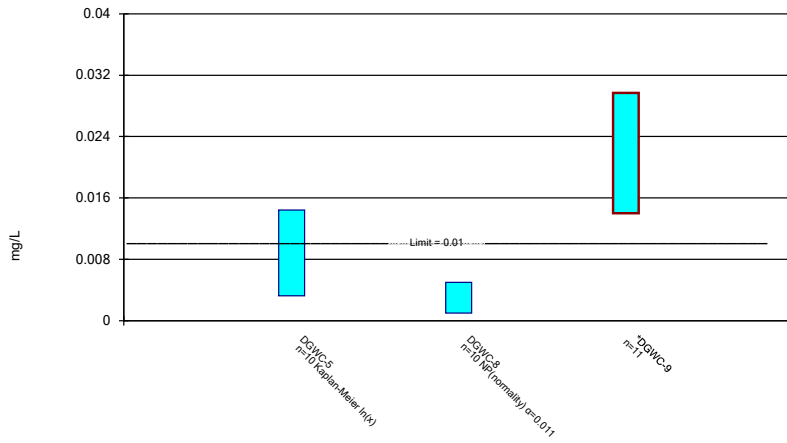
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Constituent: Arsenic Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

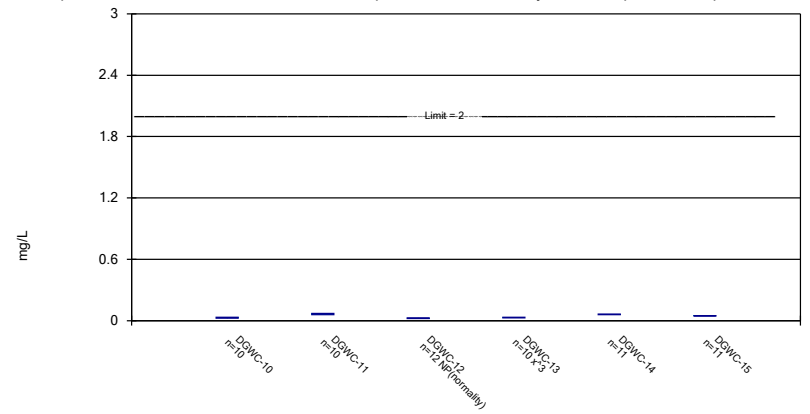
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Constituent: Arsenic Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

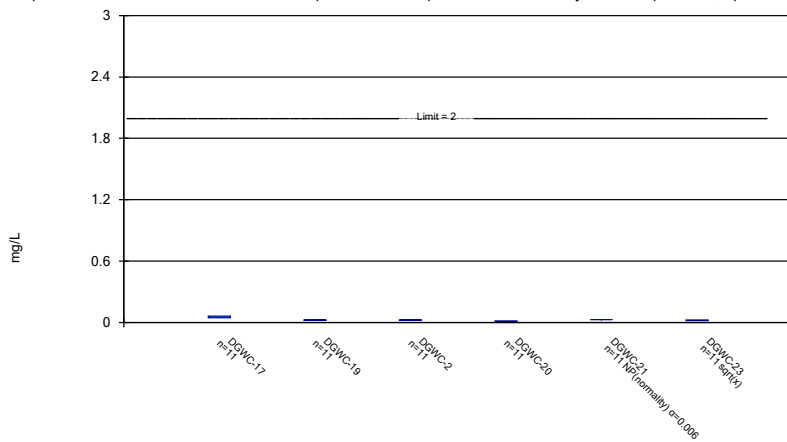
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Constituent: Barium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

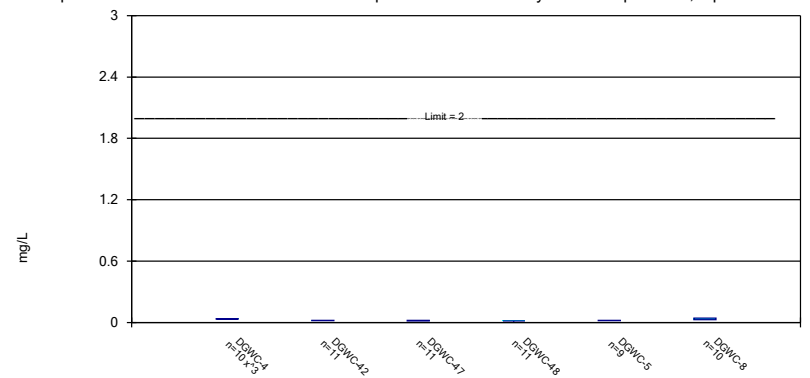
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Constituent: Barium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

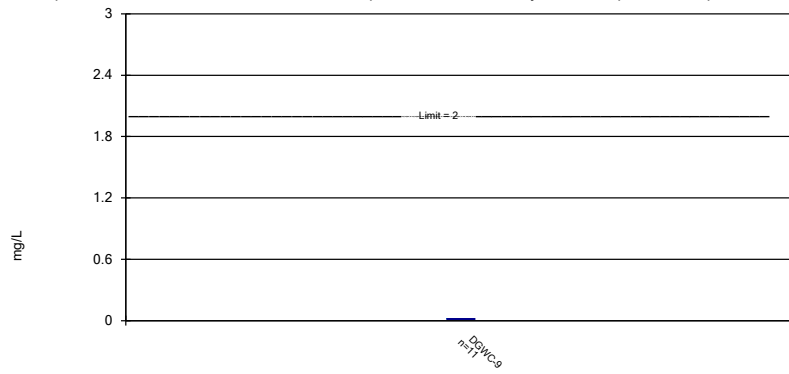
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Constituent: Barium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

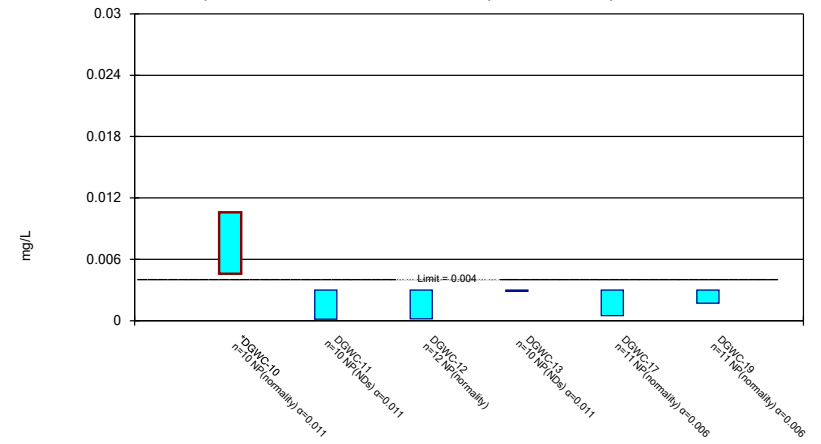
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Constituent: Barium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

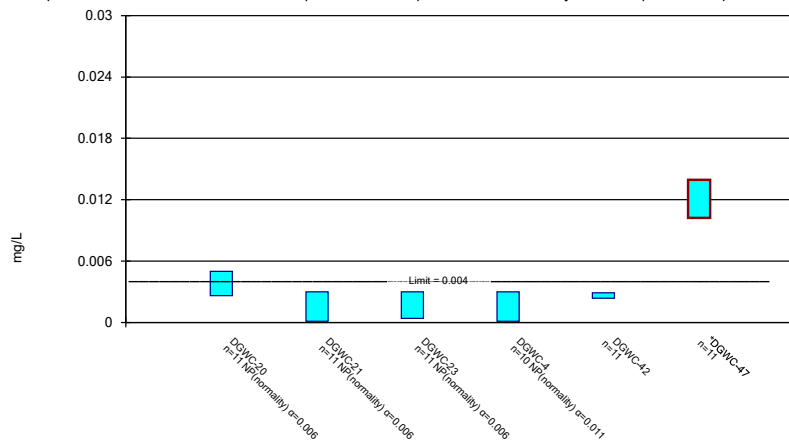
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Constituent: Beryllium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

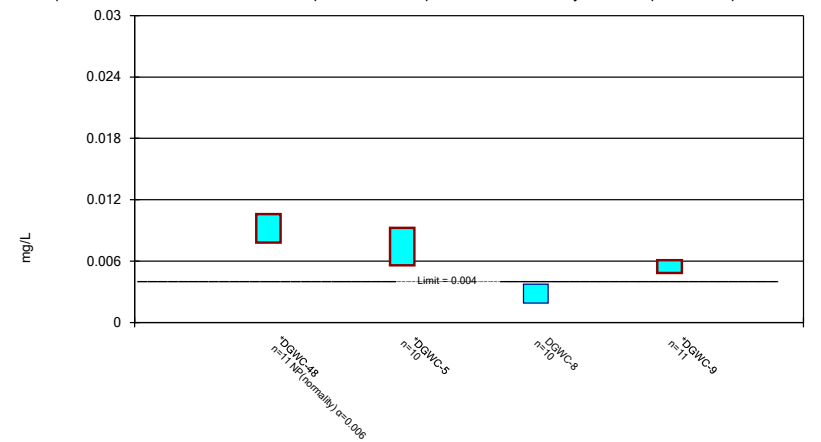
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

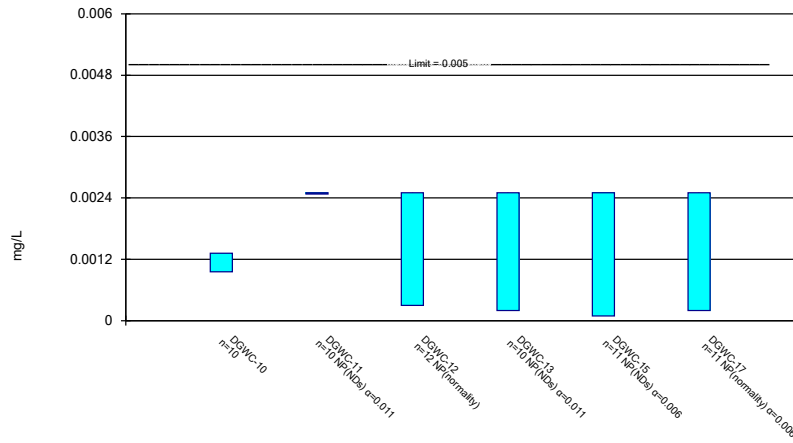
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Constituent: Beryllium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

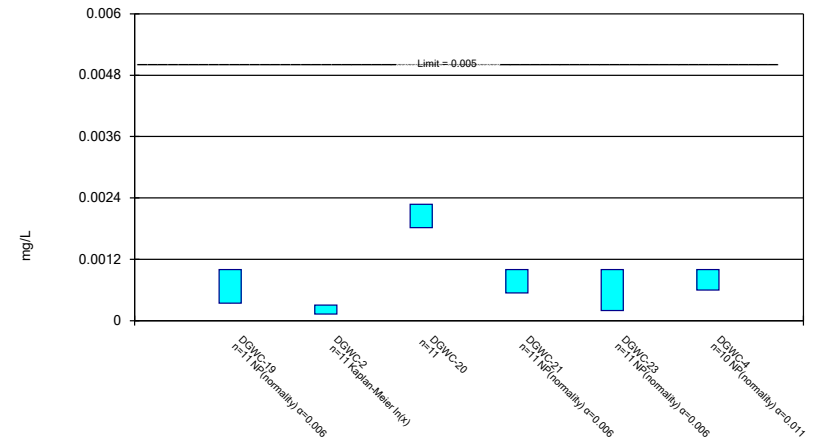
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Constituent: Cadmium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

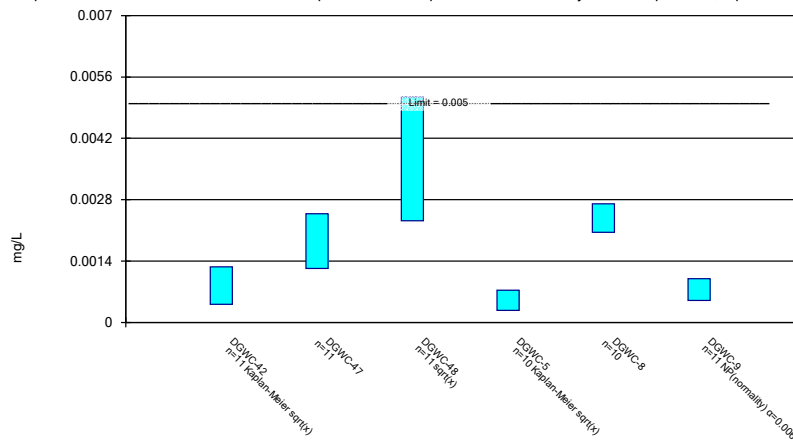
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

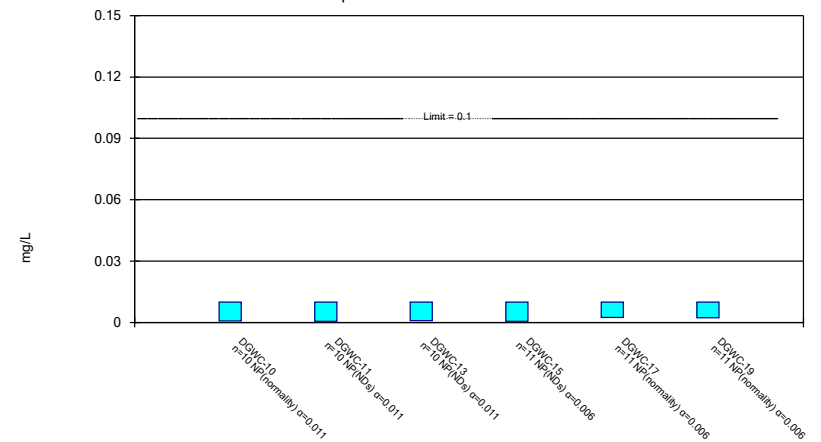
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

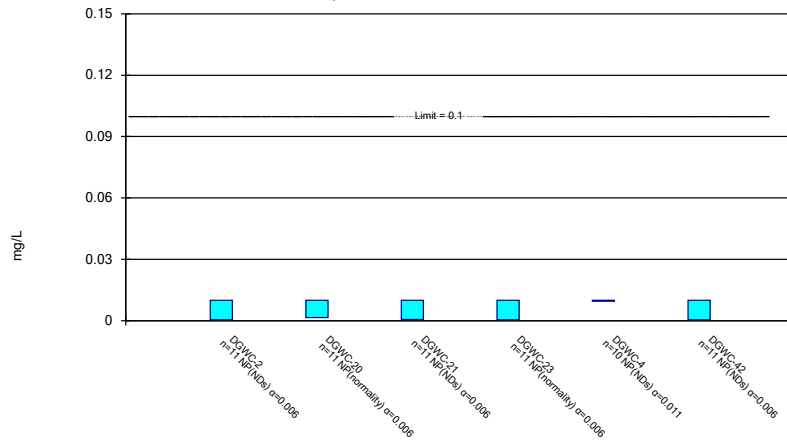
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



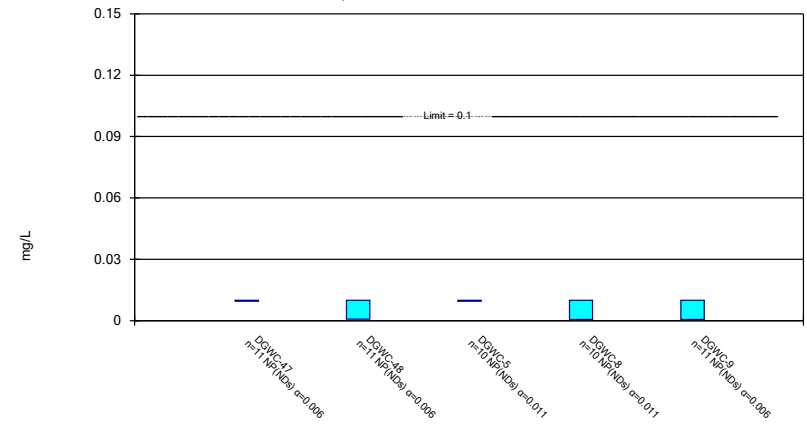
Constituent: Chromium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

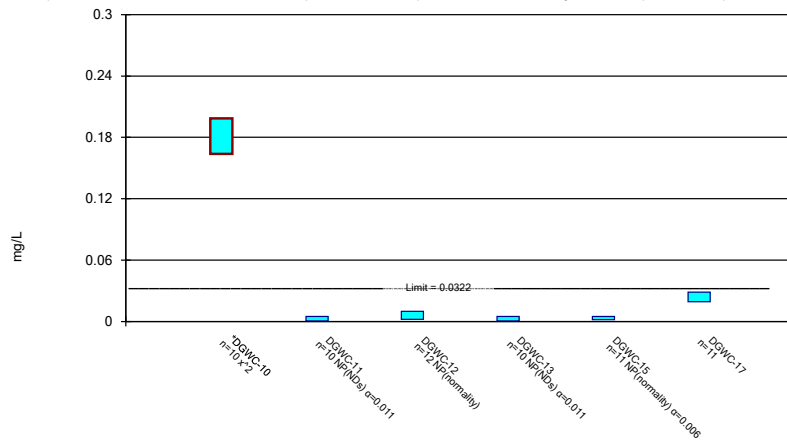
Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

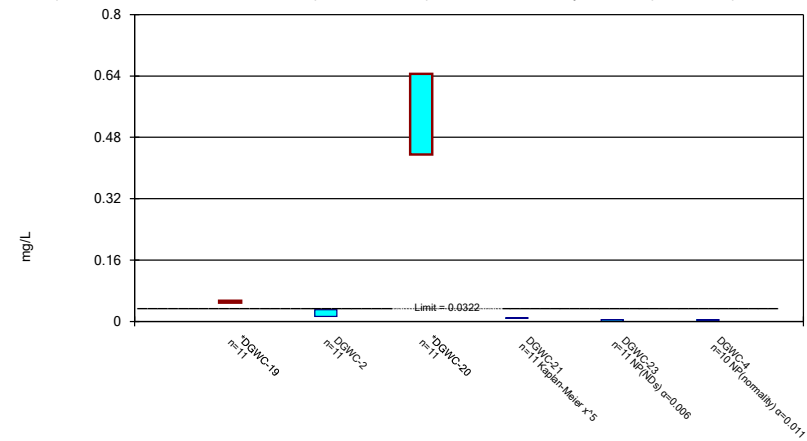
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Constituent: Cobalt Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

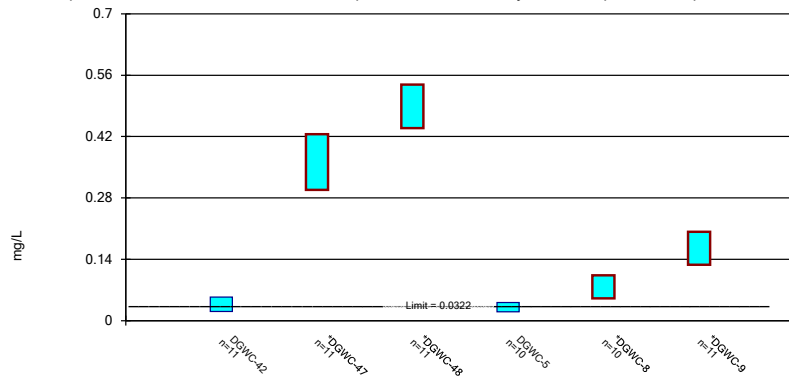
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Constituent: Cobalt Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

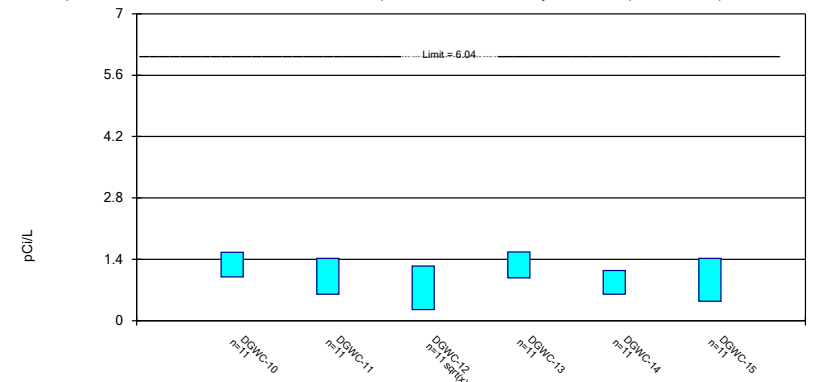
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Constituent: Cobalt Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

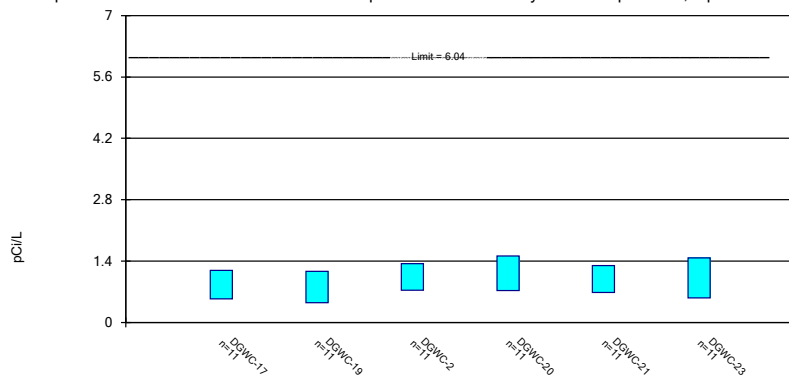
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Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

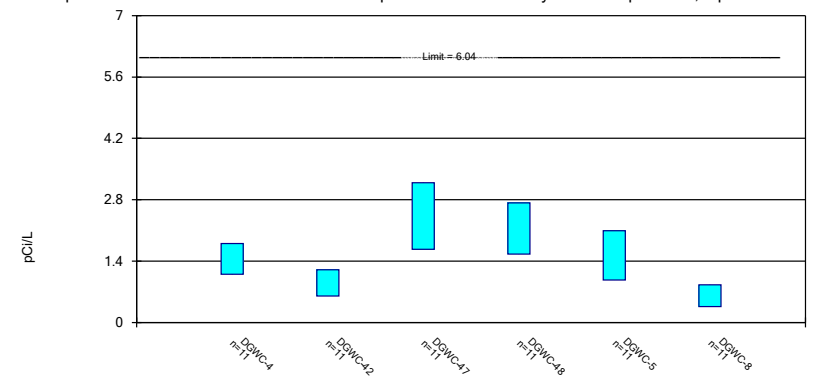
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Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

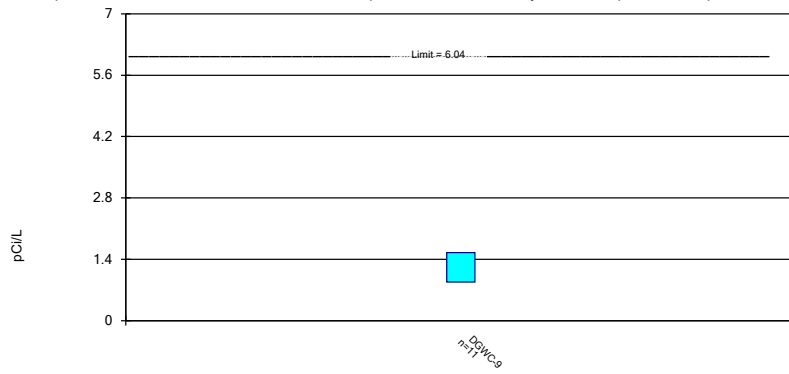
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

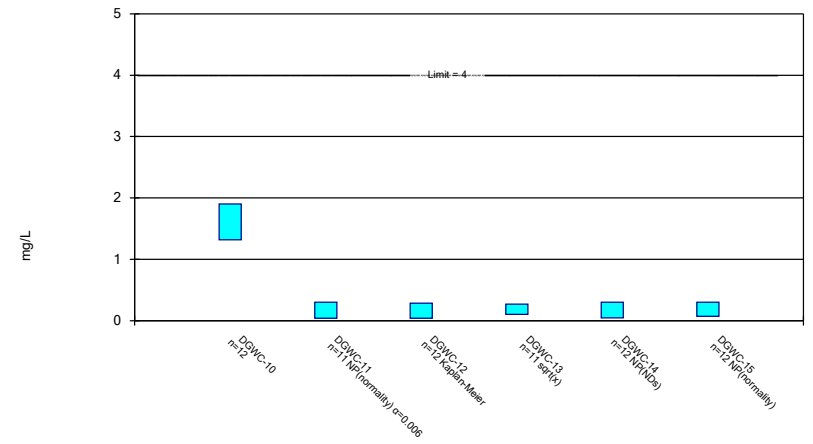
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

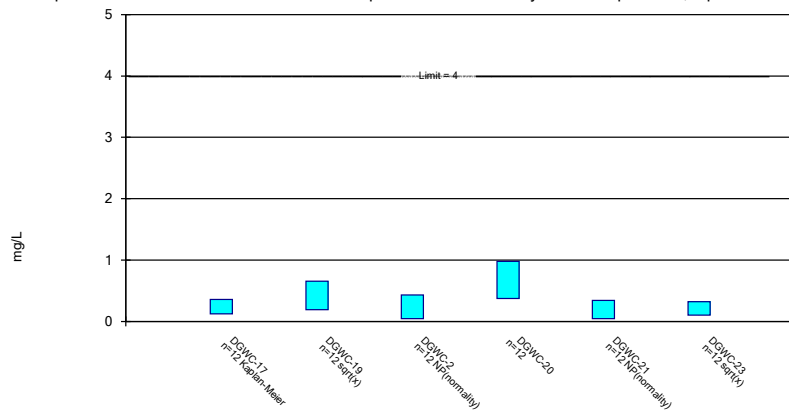
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

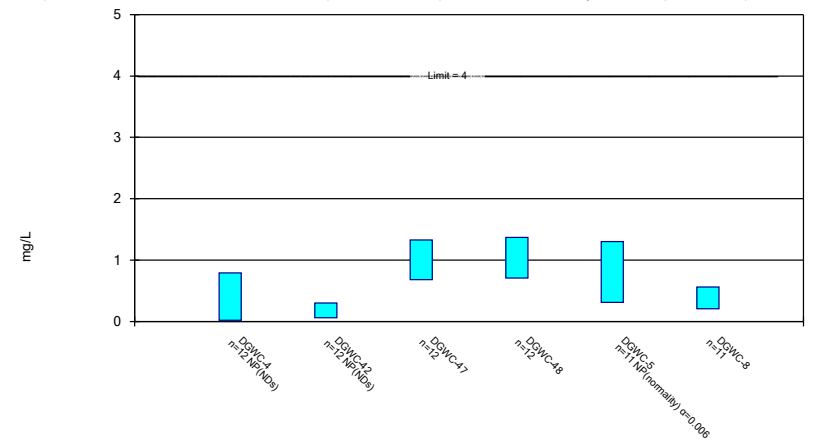
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

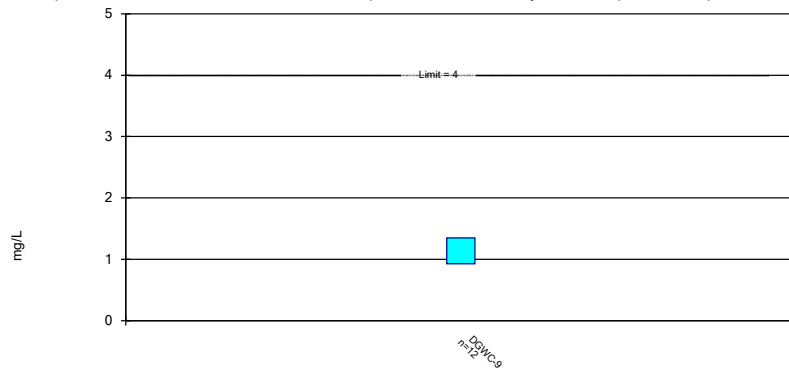
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

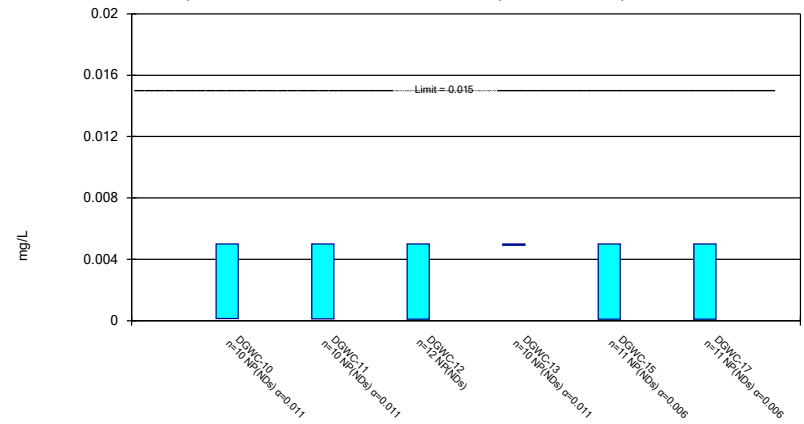
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

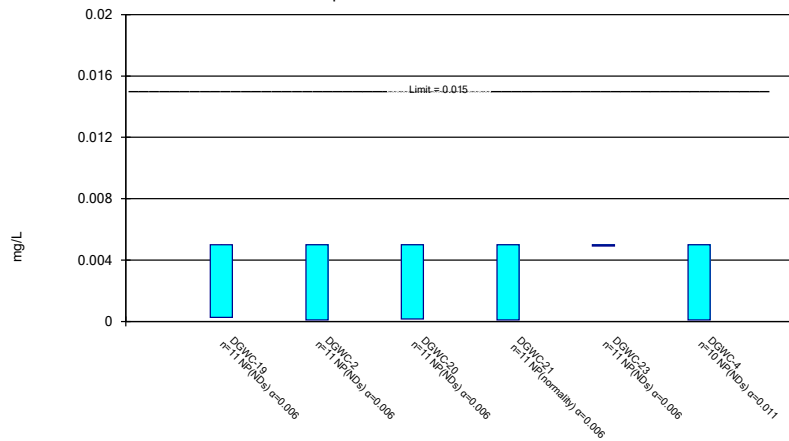
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

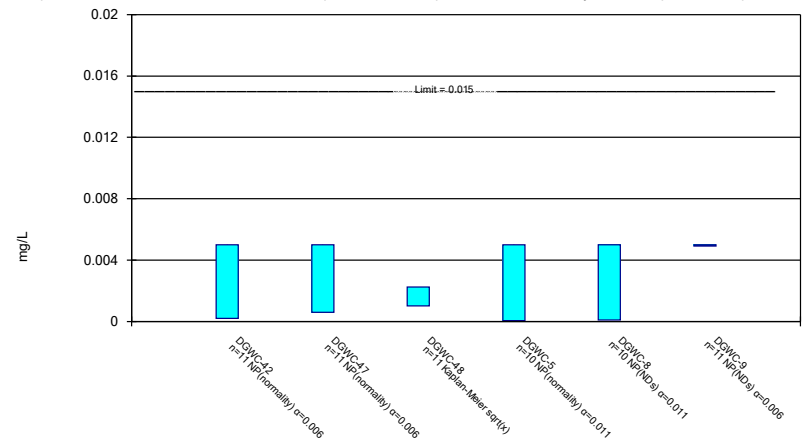
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

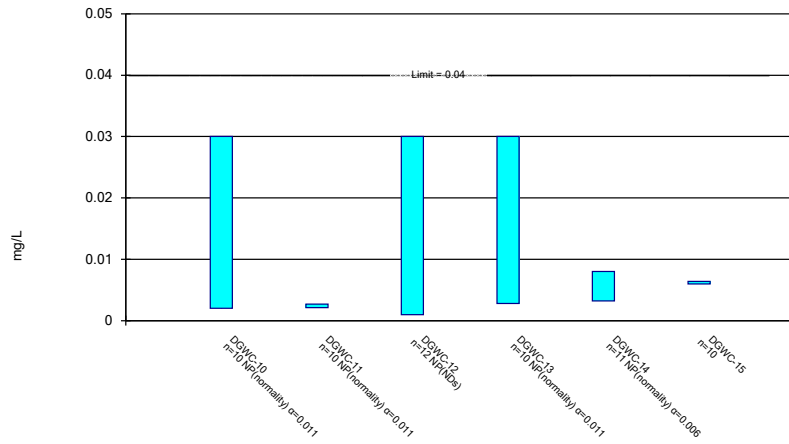
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

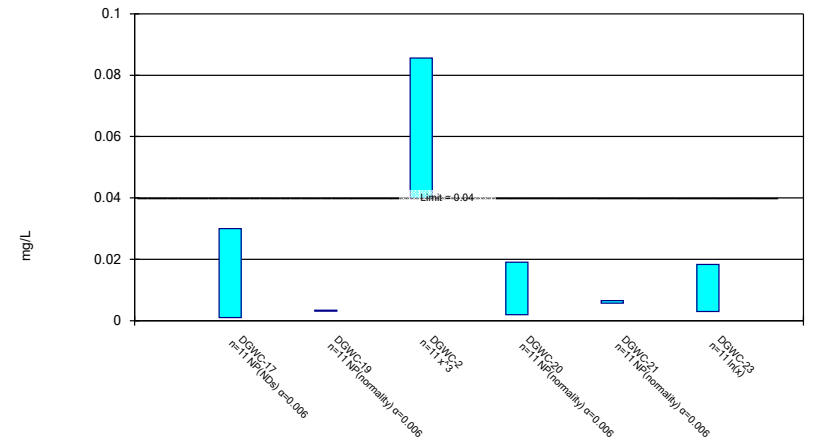
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

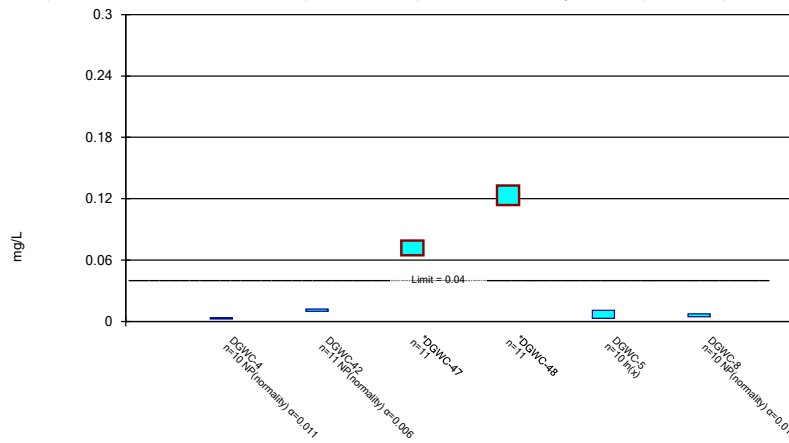
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

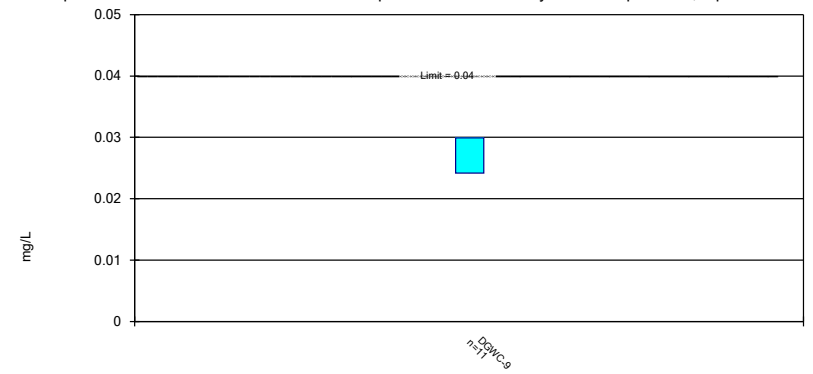
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

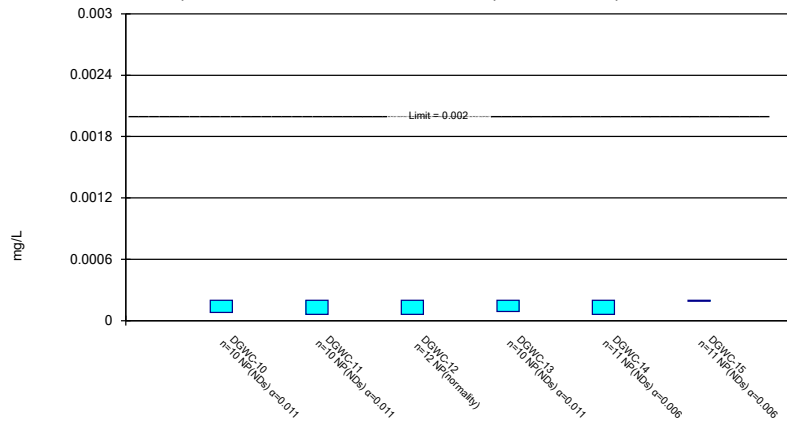
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

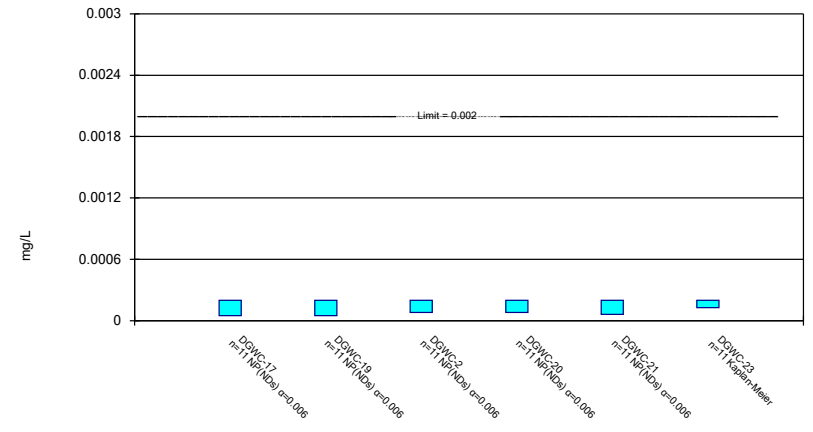
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

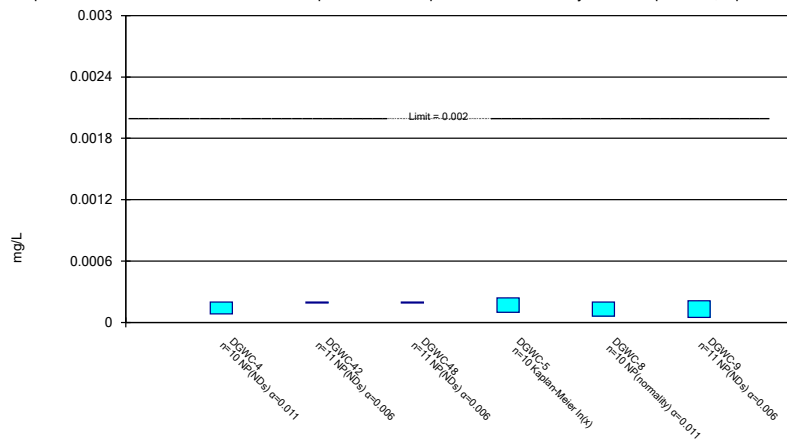
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

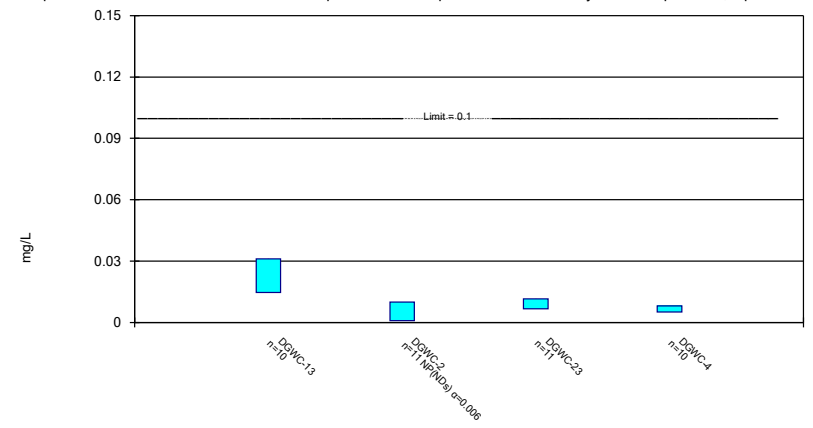
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

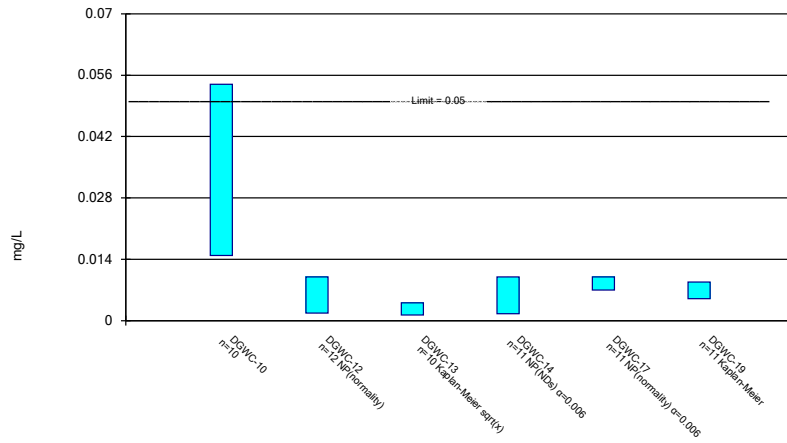
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

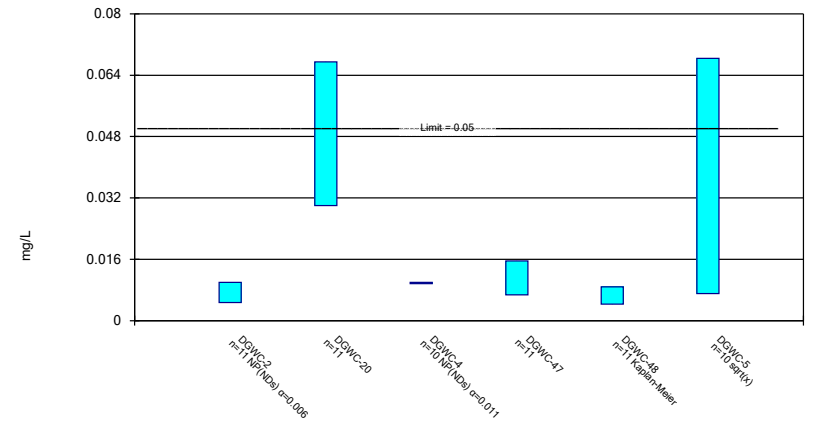
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

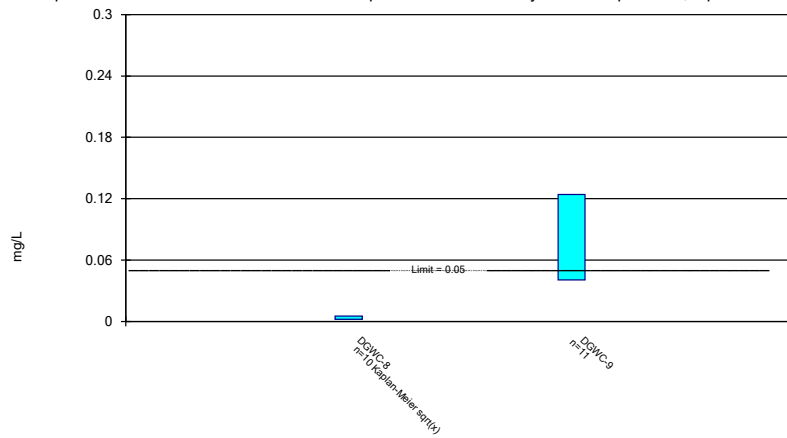
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

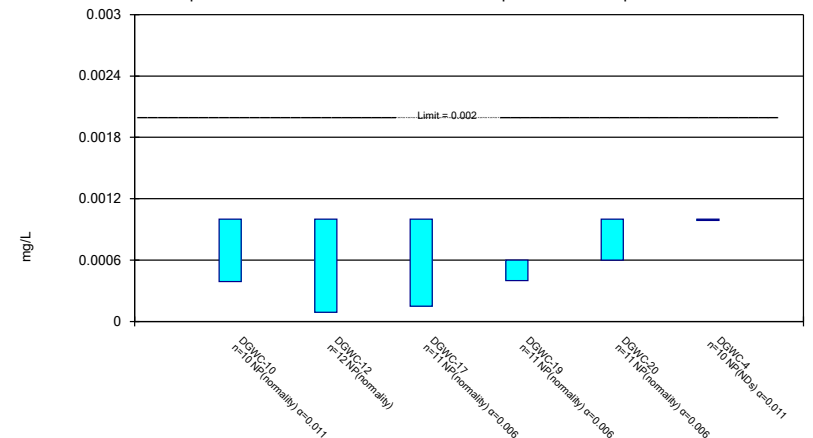
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

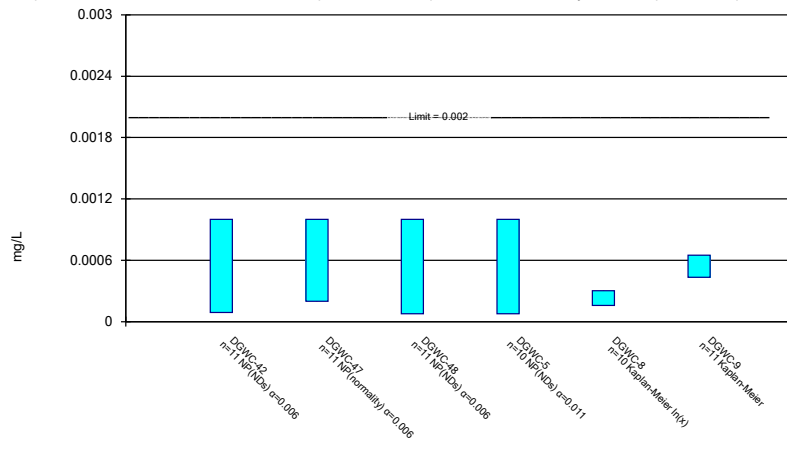
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Thallium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
 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 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 7/2/2020 1:35 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE J.

State Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes 11	0.02184	0.009422	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes 10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes 11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes 11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes 10	0.00742	0.002055	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes 11	0.005473	0.0007577	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes 10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes 11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes 11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes 11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes 11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes 10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes 11	0.1651	0.04537	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.03	Yes 11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.03	Yes 11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.03	Yes 11	0.1235	0.01144	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 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 12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-15	0.003	0.003	0.006	No 11	0.002757	0.000805	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-2	0.003	0.003	0.006	No 11	0.002782	0.0007236	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-21	0.003	0.003	0.006	No 11	0.002845	0.0005126	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-23	0.003	0.003	0.006	No 11	0.002791	0.0006935	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	DGWC-4	0.003	0.0008	0.006	No 10	0.002538	0.0009754	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	DGWC-5	0.003	0.003	0.006	No 10	0.002732	0.0008475	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-10	0.0075	0.00274	0.01	No 10	0.00512	0.002667	10	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-12	0.005	0.00063	0.01	No 12	0.004269	0.001707	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-14	0.005	0.005	0.01	No 11	0.004581	0.00139	90.91	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-15	0.005	0.00064	0.01	No 11	0.004204	0.001772	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-17	0.005	0.00073	0.01	No 11	0.003166	0.002116	54.55	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-19	0.002128	0.0007566	0.01	No 11	0.002514	0.001756	27.27	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	DGWC-2	0.005	0.0025	0.01	No 11	0.004408	0.001359	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-20	0.01827	0.006019	0.01	No 11	0.01215	0.007352	0	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-4	0.005	0.0005	0.01	No 10	0.00368	0.002127	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	DGWC-42	0.005	0.0011	0.01	No 11	0.004255	0.001661	81.82	None	No	0.006	NP (NDs)
Arsenic (mg/L)	DGWC-47	0.003499	0.001408	0.01	No 11	0.002454	0.001255	9.091	None	No	0.01	Param.
Arsenic (mg/L)	DGWC-48	0.005	0.00079	0.01	No 11	0.002554	0.001968	36.36	None	No	0.006	NP (normality)
Arsenic (mg/L)	DGWC-5	0.01441	0.003221	0.01	No 10	0.01056	0.01116	20	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	DGWC-8	0.005	0.001	0.01	No 10	0.003166	0.001954	50	None	No	0.011	NP (normality)
Arsenic (mg/L)	DGWC-9	0.02969	0.01398	0.01	Yes 11	0.02184	0.009422	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-10	0.03177	0.02417	2	No 10	0.02797	0.00426	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-11	0.06959	0.05669	2	No 10	0.06314	0.007232	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-12	0.028	0.02	2	No 12	0.02607	0.005059	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-13	0.03414	0.02591	2	No 10	0.02881	0.008761	10	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-14	0.06323	0.0567	2	No 11	0.05996	0.00392	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-15	0.05008	0.04551	2	No 11	0.04779	0.002742	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-17	0.06031	0.04682	2	No 11	0.05356	0.008098	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-19	0.02488	0.02055	2	No 11	0.02272	0.002597	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-2	0.02272	0.02092	2	No 11	0.02182	0.001079	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-20	0.01444	0.007979	2	No 11	0.01121	0.003876	9.091	None	No	0.01	Param.
Barium (mg/L)	DGWC-21	0.0272	0.0252	2	No 11	0.02649	0.001052	0	None	No	0.006	NP (normality)
Barium (mg/L)	DGWC-23	0.0243	0.01743	2	No 11	0.02091	0.0044	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	DGWC-4	0.03624	0.03214	2	No 10	0.03416	0.002434	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-42	0.0199	0.01709	2	No 11	0.01849	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-47	0.0202	0.0156	2	No 11	0.0179	0.002766	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-48	0.01477	0.01289	2	No 11	0.01383	0.001128	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-5	0.01894	0.0167	2	No 9	0.01782	0.001163	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-8	0.04154	0.02766	2	No 10	0.0346	0.007783	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-9	0.01637	0.01472	2	No 11	0.01555	0.0009923	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-10	0.0106	0.0046	0.004	Yes 10	0.00739	0.002955	0	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-11	0.003	0.00014	0.004	No 10	0.002142	0.001382	70	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-12	0.003	0.00016	0.004	No 12	0.0006837	0.001086	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-13	0.003	0.003	0.004	No 10	0.002707	0.0009265	90	None	No	0.011	NP (NDs)
Beryllium (mg/L)	DGWC-17	0.003	0.0005	0.004	No 11	0.001025	0.000979	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-19	0.003	0.0017	0.004	No 11	0.002091	0.00047	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-20	0.005	0.0026	0.004	No 11	0.003682	0.001897	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-21	0.003	0.0001	0.004	No 11	0.0006709	0.001152	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-23	0.003	0.00038	0.004	No 11	0.0009009	0.001044	18.18	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-4	0.003	0.0001	0.004	No 10	0.000751	0.001186	20	None	No	0.011	NP (normality)
Beryllium (mg/L)	DGWC-42	0.002896	0.002358	0.004	No 11	0.002627	0.0003228	9.091	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-47	0.01394	0.01022	0.004	Yes 11	0.01208	0.002233	0	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-48	0.0106	0.0078	0.004	Yes 11	0.008873	0.001101	0	None	No	0.006	NP (normality)
Beryllium (mg/L)	DGWC-5	0.009254	0.005586	0.004	Yes 10	0.00742	0.002055	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	DGWC-8	0.003747	0.001893	0.004	No	10	0.00282	0.001039	10	None	No	0.01	Param.
Beryllium (mg/L)	DGWC-9	0.006104	0.004841	0.004	Yes	11	0.005473	0.0007577	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-10	0.00132	0.0009536	0.005	No	10	0.001137	0.0002055	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-11	0.0025	0.0025	0.005	No	10	0.002262	0.0007526	90	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-12	0.0025	0.0003	0.005	No	12	0.0007583	0.0008361	25	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-13	0.0025	0.0002	0.005	No	10	0.002028	0.0009955	80	None	No	0.011	NP (NDs)
Cadmium (mg/L)	DGWC-15	0.0025	0.00009	0.005	No	11	0.001709	0.001125	72.73	None	No	0.006	NP (NDs)
Cadmium (mg/L)	DGWC-17	0.0025	0.0002	0.005	No	11	0.0006809	0.0009003	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-19	0.001	0.00034	0.005	No	11	0.00063	0.0006479	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-2	0.0003034	0.0001292	0.005	No	11	0.0005336	0.0006986	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Cadmium (mg/L)	DGWC-20	0.002273	0.001818	0.005	No	11	0.002045	0.0002734	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-21	0.001	0.00054	0.005	No	11	0.00084	0.0005713	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-23	0.001	0.0002	0.005	No	11	0.0005145	0.0006979	18.18	None	No	0.006	NP (normality)
Cadmium (mg/L)	DGWC-4	0.001	0.0006	0.005	No	10	0.000887	0.0005858	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-42	0.001264	0.0004132	0.005	No	11	0.00105	0.0007672	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-47	0.002481	0.001228	0.005	No	11	0.001855	0.0007515	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-48	0.005143	0.002317	0.005	No	11	0.003773	0.001917	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-5	0.0007357	0.0002751	0.005	No	10	0.00076	0.0006753	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-8	0.002703	0.002057	0.005	No	10	0.00238	0.0003615	0	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-9	0.001	0.0005	0.005	No	11	0.0007827	0.0005909	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-10	0.01	0.0007	0.1	No	10	0.004463	0.004766	40	None	No	0.011	NP (normality)
Chromium (mg/L)	DGWC-11	0.01	0.0006	0.1	No	10	0.00812	0.003963	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-13	0.01	0.0009	0.1	No	10	0.008156	0.003888	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-15	0.01	0.0005	0.1	No	11	0.007413	0.004431	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-17	0.01	0.0024	0.1	No	11	0.004	0.002988	18.18	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-19	0.01	0.0023	0.1	No	11	0.004591	0.003484	27.27	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-2	0.01	0.00046	0.1	No	11	0.006533	0.004811	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-20	0.01	0.0015	0.1	No	11	0.005564	0.004273	45.45	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-21	0.01	0.00048	0.1	No	11	0.006545	0.004794	63.64	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-23	0.01	0.00041	0.1	No	11	0.004065	0.00471	36.36	None	No	0.006	NP (normality)
Chromium (mg/L)	DGWC-4	0.01	0.01	0.1	No	10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-42	0.01	0.00042	0.1	No	11	0.005739	0.004898	54.55	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-47	0.01	0.01	0.1	No	11	0.009155	0.002804	90.91	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-48	0.01	0.0007	0.1	No	11	0.008282	0.003823	81.82	None	No	0.006	NP (NDs)
Chromium (mg/L)	DGWC-5	0.01	0.01	0.1	No	10	0.009045	0.00302	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-8	0.01	0.00061	0.1	No	10	0.007231	0.004464	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	DGWC-9	0.01	0.00051	0.1	No	11	0.007063	0.004304	63.64	None	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-10	0.1986	0.1637	0.0322	Yes	10	0.1809	0.02111	0	None	x^2	0.01	Param.
Cobalt (mg/L)	DGWC-11	0.005	0.0006	0.0322	No	10	0.003274	0.002229	60	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-12	0.01	0.002	0.0322	No	12	0.006208	0.007635	16.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-13	0.005	0.0005	0.0322	No	10	0.00409	0.001919	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	DGWC-15	0.005	0.0018	0.0322	No	11	0.004564	0.006868	9.091	None	No	0.006	NP (normality)
Cobalt (mg/L)	DGWC-17	0.02856	0.01924	0.0322	No	11	0.0239	0.00559	9.091	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-19	0.05392	0.04848	0.0322	Yes	11	0.0512	0.003262	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-2	0.03065	0.01321	0.0322	No	11	0.02193	0.01046	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-20	0.6455	0.435	0.0322	Yes	11	0.5403	0.1263	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-21	0.009515	0.007575	0.0322	No	11	0.008973	0.001517	18.18	Kaplan-Meier	x^5	0.01	Param.
Cobalt (mg/L)	DGWC-23	0.005	0.00036	0.0322	No	11	0.00419	0.002869	72.73	Kaplan-Meier	No	0.006	NP (NDs)
Cobalt (mg/L)	DGWC-4	0.005	0.0015	0.0322	No	10	0.00287	0.002716	20	None	No	0.011	NP (normality)
Cobalt (mg/L)	DGWC-42	0.05354	0.02054	0.0322	No	11	0.03704	0.0198	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-47	0.4253	0.2985	0.0322	Yes	11	0.3619	0.07604	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-48	0.5387	0.4395	0.0322	Yes	11	0.4891	0.05954	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-5	0.04156	0.01988	0.0322	No	10	0.03072	0.01215	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-8	0.1032	0.0507	0.0322	Yes	10	0.07694	0.02941	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-9	0.2029	0.1273	0.0322	Yes	11	0.1651	0.04537	0	None	No	0.01	Param.

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	DGWC-10	1.56	0.9967	6.04	No	11	1.278	0.3378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-11	1.423	0.6052	6.04	No	11	1.014	0.4904	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-12	1.244	0.2554	6.04	No	11	0.7783	0.7164	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-13	1.568	0.9755	6.04	No	11	1.272	0.3553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-14	1.141	0.6018	6.04	No	11	0.8713	0.3234	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-15	1.423	0.4453	6.04	No	11	0.934	0.5864	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-17	1.184	0.5405	6.04	No	11	0.8624	0.3863	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-19	1.167	0.4521	6.04	No	11	0.8094	0.4287	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-2	1.342	0.7359	6.04	No	11	1.039	0.3637	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-20	1.514	0.725	6.04	No	11	1.12	0.4735	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-21	1.295	0.6846	6.04	No	11	0.9898	0.3663	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-23	1.472	0.5579	6.04	No	11	1.015	0.5483	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-4	1.798	1.098	6.04	No	11	1.448	0.4198	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-42	1.203	0.6	6.04	No	11	0.9016	0.362	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-47	3.185	1.671	6.04	No	11	2.428	0.9081	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-48	2.726	1.561	6.04	No	11	2.144	0.6988	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-5	2.093	0.9654	6.04	No	11	1.529	0.6765	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-8	0.8565	0.3644	6.04	No	11	0.6105	0.2953	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-9	1.555	0.8815	6.04	No	11	1.218	0.404	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-10	1.899	1.318	4	No	12	1.608	0.3704	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-11	0.3	0.04	4	No	11	0.1642	0.1304	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-12	0.287	0.04078	4	No	12	0.2297	0.1618	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-13	0.2689	0.1031	4	No	11	0.189	0.1114	9.091	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-14	0.3	0.042	4	No	12	0.1978	0.1275	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-15	0.3	0.07	4	No	12	0.2072	0.1092	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-17	0.3585	0.1249	4	No	12	0.2658	0.1476	16.67	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	DGWC-19	0.656	0.1909	4	No	12	0.4405	0.3344	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-2	0.43	0.042	4	No	12	0.2112	0.185	25	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-20	0.9776	0.3724	4	No	12	0.675	0.3856	8.333	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-21	0.34	0.043	4	No	12	0.2093	0.1221	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-23	0.3232	0.1017	4	No	12	0.2201	0.1665	8.333	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	DGWC-4	0.79	0.02	4	No	12	0.2652	0.2015	58.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-42	0.3	0.06	4	No	12	0.2567	0.1016	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	DGWC-47	1.327	0.6799	4	No	12	1.003	0.4122	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-48	1.372	0.708	4	No	12	1.04	0.4232	0	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-5	1.3	0.31	4	No	11	0.7218	0.4389	9.091	None	No	0.006	NP (normality)
Fluoride (mg/L)	DGWC-8	0.5583	0.2086	4	No	11	0.3835	0.2099	9.091	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-9	1.346	0.9255	4	No	12	1.136	0.268	0	None	No	0.01	Param.
Lead (mg/L)	DGWC-10	0.005	0.00014	0.005	No	10	0.003549	0.002337	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-11	0.005	0.00012	0.005	No	10	0.003535	0.00236	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-12	0.005	0.0001	0.005	No	12	0.004592	0.001415	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-13	0.005	0.005	0.005	No	10	0.00452	0.001518	90	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-15	0.005	0.0001	0.005	No	11	0.003224	0.002465	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-17	0.005	0.00009	0.005	No	11	0.003218	0.002473	63.64	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-19	0.005	0.00026	0.005	No	11	0.004121	0.001956	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-2	0.005	0.000086	0.005	No	11	0.002767	0.002566	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-20	0.005	0.00015	0.005	No	11	0.003721	0.002196	72.73	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-21	0.005	0.0001	0.005	No	11	0.002375	0.002515	45.45	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-23	0.005	0.005	0.005	No	11	0.004551	0.001488	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	DGWC-4	0.005	0.0001	0.005	No	10	0.003535	0.002359	70	None	No	0.011	NP (NDs)
Lead (mg/L)	DGWC-42	0.005	0.0002	0.005	No	11	0.001149	0.001908	18.18	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-47	0.005	0.0006	0.005	No	11	0.001962	0.001959	27.27	None	No	0.006	NP (normality)
Lead (mg/L)	DGWC-48	0.002249	0.001021	0.005	No	11	0.002268	0.001551	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	DGWC-5	0.005	0.000051	0.005	No	10	0.002319	0.002409	40	None	No	0.011	NP (normality)
Lead (mg/L)	DGWC-8	0.005	0.0001	0.005	No	10	0.00307	0.002492	60	None	No	0.011	NP (NDs)

State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	DGWC-9	0.005	0.005	0.005	No	11	0.004561	0.001456	90.91	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-10	0.03	0.002	0.03	No	10	0.00873	0.01129	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-11	0.0027	0.0021	0.03	No	10	0.00503	0.008776	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-12	0.03	0.00097	0.03	No	12	0.02034	0.01427	66.67	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-13	0.03	0.0028	0.03	No	10	0.00847	0.01135	20	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-14	0.008	0.0032	0.03	No	11	0.006373	0.007956	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-15	0.006402	0.005958	0.03	No	10	0.00618	0.0002486	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-17	0.03	0.00096	0.03	No	11	0.02209	0.01355	72.73	None	No	0.006	NP (NDs)
Lithium (mg/L)	DGWC-19	0.0034	0.0031	0.03	No	11	0.005627	0.008087	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-2	0.0856	0.03991	0.03	Yes	11	0.05945	0.02898	9.091	None	x^3	0.01	Param.
Lithium (mg/L)	DGWC-20	0.019	0.0019	0.03	No	11	0.007564	0.009084	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-21	0.0065	0.0057	0.03	No	11	0.008182	0.007245	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-23	0.01827	0.002972	0.03	No	11	0.01436	0.02198	9.091	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-4	0.0035	0.0024	0.03	No	10	0.00553	0.008607	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-42	0.0122	0.01	0.03	No	11	0.01289	0.00577	9.091	None	No	0.006	NP (normality)
Lithium (mg/L)	DGWC-47	0.07909	0.06478	0.03	Yes	11	0.07194	0.008585	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-48	0.133	0.1139	0.03	Yes	11	0.1235	0.01144	0	None	No	0.01	Param.
Lithium (mg/L)	DGWC-5	0.01093	0.003076	0.03	No	10	0.00771	0.008077	10	None	ln(x)	0.01	Param.
Lithium (mg/L)	DGWC-8	0.0075	0.0045	0.03	No	10	0.00812	0.007765	10	None	No	0.011	NP (normality)
Lithium (mg/L)	DGWC-9	0.02991	0.02416	0.03	No	11	0.02704	0.003451	9.091	None	No	0.01	Param.
Mercury (mg/L)	DGWC-10	0.0002	0.00008	0.002	No	10	0.000164	0.00005816	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-11	0.0002	0.00006	0.002	No	10	0.000159	0.00006641	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-12	0.0002	0.00006	0.002	No	12	0.0001388	0.00006829	50	None	No	0.01	NP (normality)
Mercury (mg/L)	DGWC-13	0.0002	0.00009	0.002	No	10	0.000176	0.00005082	80	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-14	0.0002	0.00006	0.002	No	11	0.0001627	0.0000642	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-15	0.0002	0.0002	0.002	No	11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-17	0.0002	0.00005	0.002	No	11	0.0001491	0.0000664	54.55	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-19	0.0002	0.00005	0.002	No	11	0.0001618	0.00006646	72.73	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-2	0.0002	0.00008	0.002	No	11	0.0002066	0.0001543	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-20	0.0002	0.00008	0.002	No	11	0.0001782	0.00004854	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-21	0.0002	0.00006	0.002	No	11	0.00015	0.00006971	63.64	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-23	0.0001976	0.0001282	0.002	No	11	0.0001818	0.00004119	36.36	Kaplan-Meier	No	0.01	Param.
Mercury (mg/L)	DGWC-4	0.0002	0.000082	0.002	No	10	0.0002152	0.0001407	70	None	No	0.011	NP (NDs)
Mercury (mg/L)	DGWC-42	0.0002	0.0002	0.002	No	11	0.0001855	0.00004824	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-48	0.0002	0.0002	0.002	No	11	0.0001873	0.00004221	90.91	None	No	0.006	NP (NDs)
Mercury (mg/L)	DGWC-5	0.0002398	0.00009728	0.002	No	10	0.000193	0.0001323	20	Kaplan-Meier	ln(x)	0.01	Param.
Mercury (mg/L)	DGWC-8	0.0002	0.00006	0.002	No	10	0.0001412	0.0000654	50	None	No	0.011	NP (normality)
Mercury (mg/L)	DGWC-9	0.00021	0.00005	0.002	No	11	0.0001929	0.00009768	63.64	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-13	0.03102	0.01468	0.0409	No	10	0.02285	0.009162	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-2	0.01	0.0009	0.0409	No	11	0.006164	0.004425	54.55	None	No	0.006	NP (NDs)
Molybdenum (mg/L)	DGWC-23	0.01158	0.006695	0.0409	No	11	0.009136	0.00293	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-4	0.008044	0.005016	0.0409	No	10	0.00653	0.001697	10	None	No	0.01	Param.
Selenium (mg/L)	DGWC-10	0.05397	0.01489	0.05	No	10	0.03443	0.0219	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-12	0.01	0.0017	0.05	No	12	0.005917	0.004271	50	None	No	0.01	NP (normality)
Selenium (mg/L)	DGWC-13	0.004026	0.001244	0.05	No	10	0.00492	0.003808	30	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-14	0.01	0.0016	0.05	No	11	0.006973	0.004202	63.64	Kaplan-Meier	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-17	0.01	0.007	0.05	No	11	0.008327	0.001271	18.18	None	No	0.006	NP (normality)
Selenium (mg/L)	DGWC-19	0.00882	0.005026	0.05	No	11	0.007564	0.00253	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-2	0.01	0.0047	0.05	No	11	0.008291	0.002446	63.64	None	No	0.006	NP (NDs)
Selenium (mg/L)	DGWC-20	0.06747	0.03002	0.05	No	11	0.04875	0.02247	0	None	No	0.01	Param.
Selenium (mg/L)	DGWC-4	0.01	0.01	0.05	No	10	0.00914	0.00272	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-47	0.0156	0.006688	0.05	No	11	0.01115	0.005349	9.091	None	No	0.01	Param.
Selenium (mg/L)	DGWC-48	0.008794	0.004308	0.05	No	11	0.007555	0.002904	18.18	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	DGWC-5	0.06842	0.007083	0.05	No	10	0.03878	0.04839	10	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-8	0.005058	0.001985	0.05	No	10	0.00614	0.003641	40	Kaplan-Meier	sqrt(x)	0.01	Param.

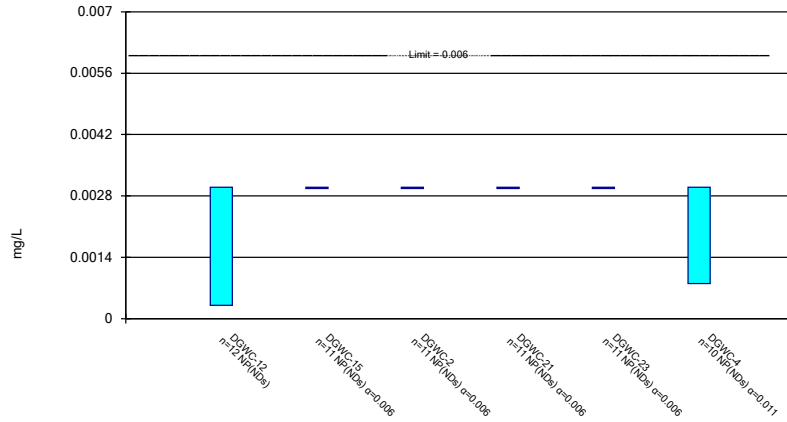
State Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 7/2/2020, 1:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Selenium (mg/L)	DGWC-9	0.124	0.04046	0.05	No	11	0.08224	0.05013	0	None	No	0.01	Param.
Thallium (mg/L)	DGWC-10	0.001	0.00039	0.002	No	10	0.000547	0.0002486	20	None	No	0.011	NP (normality)
Thallium (mg/L)	DGWC-12	0.001	0.000089	0.002	No	12	0.0004723	0.000466	41.67	None	No	0.01	NP (normality)
Thallium (mg/L)	DGWC-17	0.001	0.00015	0.002	No	11	0.0004027	0.0003841	27.27	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-19	0.0006	0.0004	0.002	No	11	0.0005409	0.0001623	9.091	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-20	0.001	0.0006	0.002	No	11	0.0009145	0.000501	36.36	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-4	0.001	0.001	0.002	No	10	0.0009073	0.0002931	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-42	0.001	0.00009	0.002	No	11	0.0006672	0.0004618	63.64	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-47	0.001	0.0002	0.002	No	11	0.0003855	0.0003071	18.18	None	No	0.006	NP (normality)
Thallium (mg/L)	DGWC-48	0.001	0.000078	0.002	No	11	0.0005824	0.0004799	54.55	None	No	0.006	NP (NDs)
Thallium (mg/L)	DGWC-5	0.001	0.000078	0.002	No	10	0.000734	0.0004298	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	DGWC-8	0.0003036	0.0001596	0.002	No	10	0.000463	0.0003755	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	DGWC-9	0.0006509	0.0004341	0.002	No	11	0.0007009	0.0002219	27.27	Kaplan-Meier	No	0.01	Param.

Non-Parametric Confidence Interval

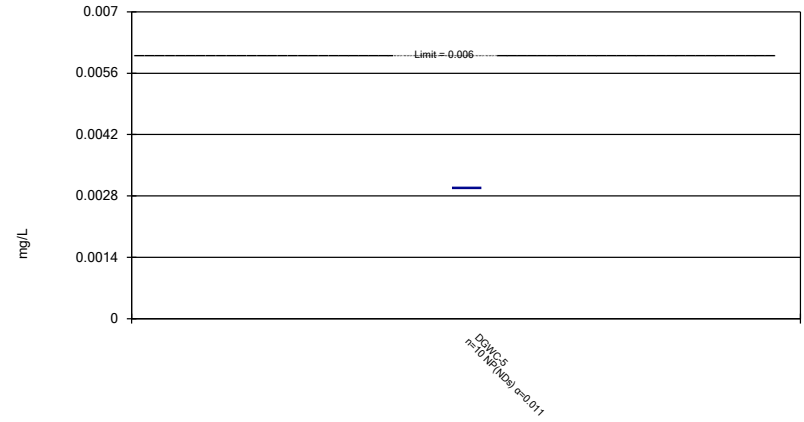
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Antimony Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

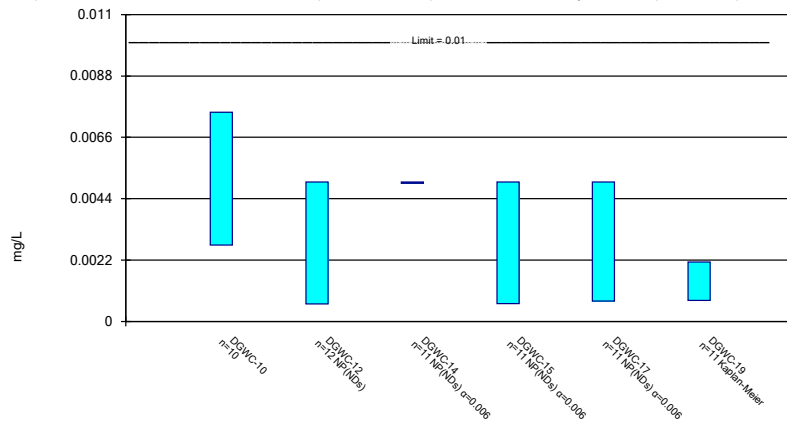
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

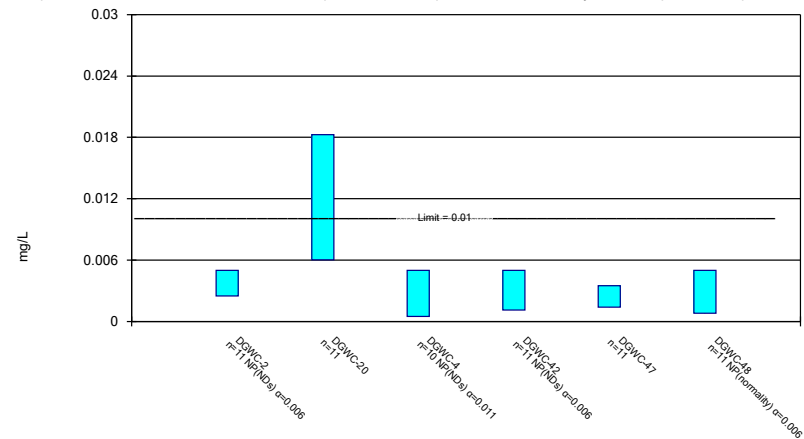
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

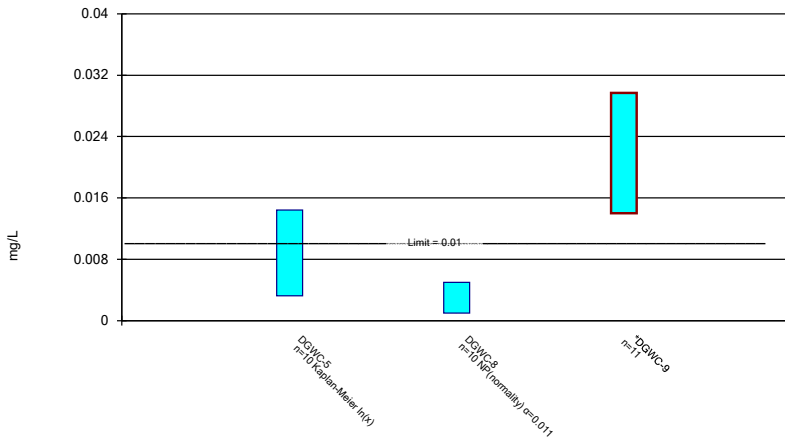
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

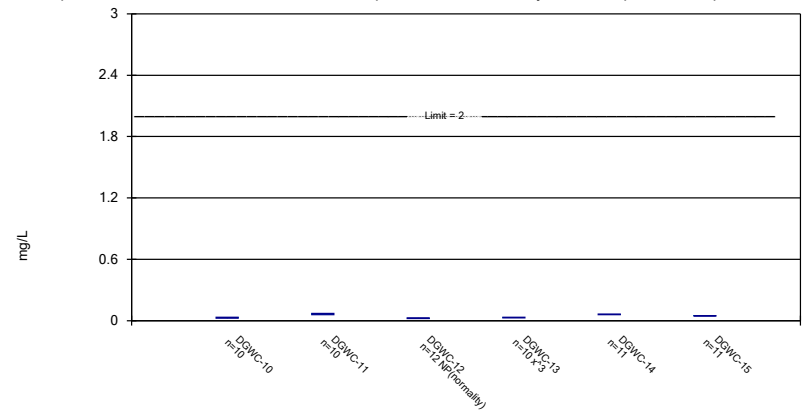
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

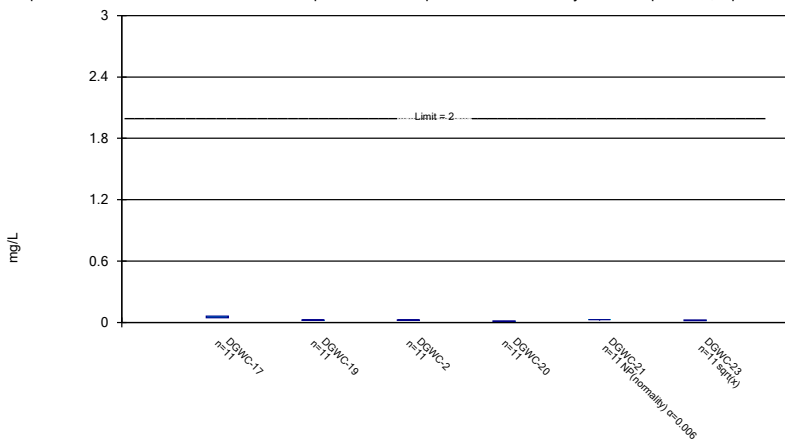
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

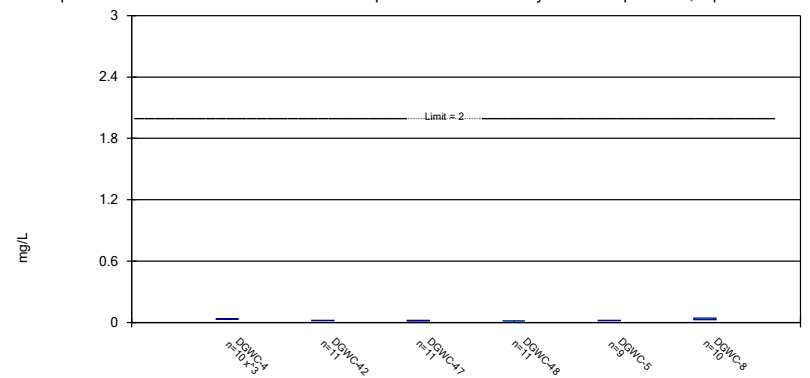
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

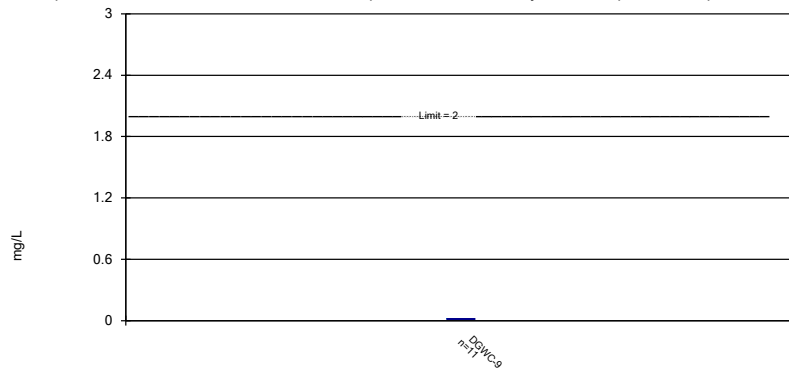
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

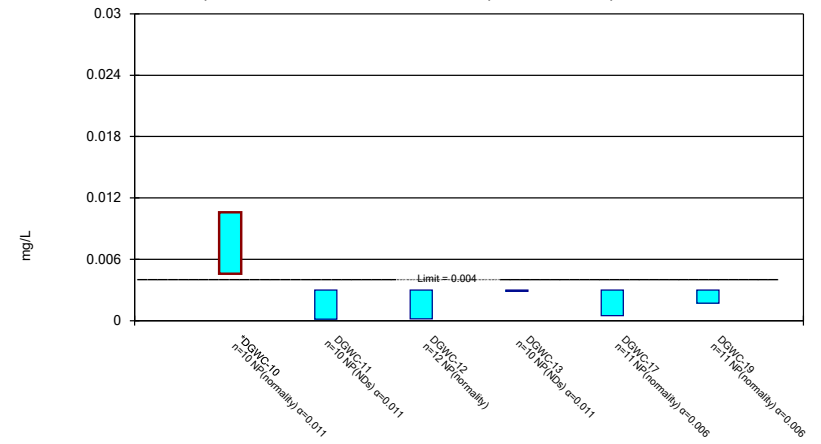
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

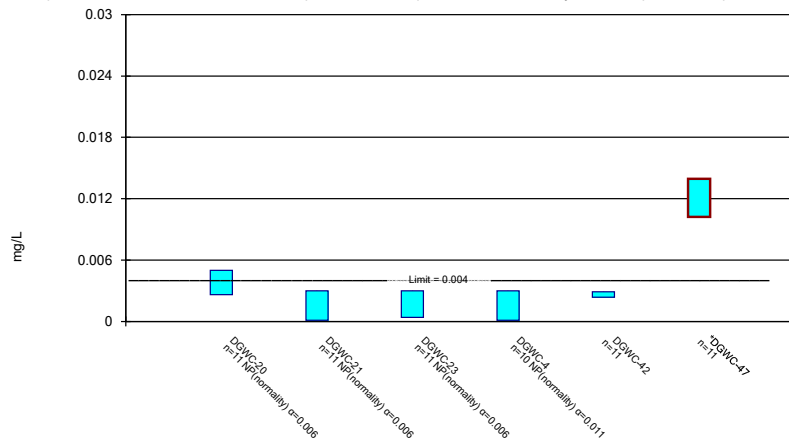
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

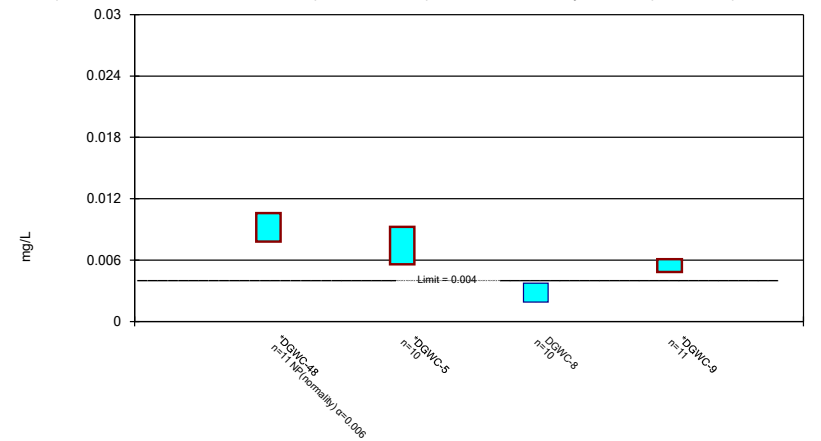
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

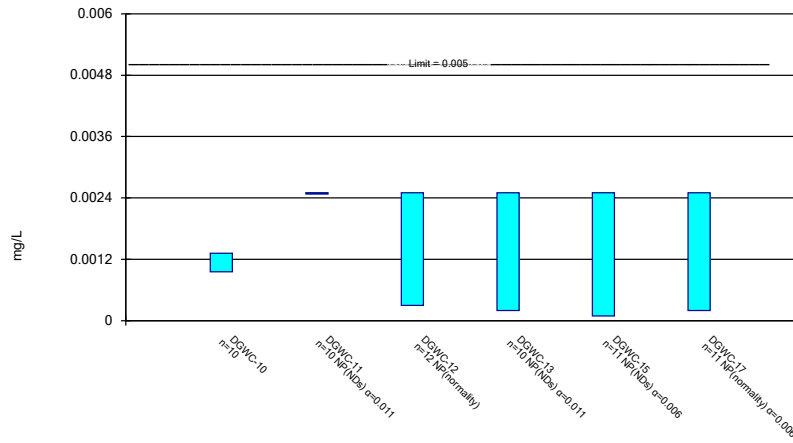
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

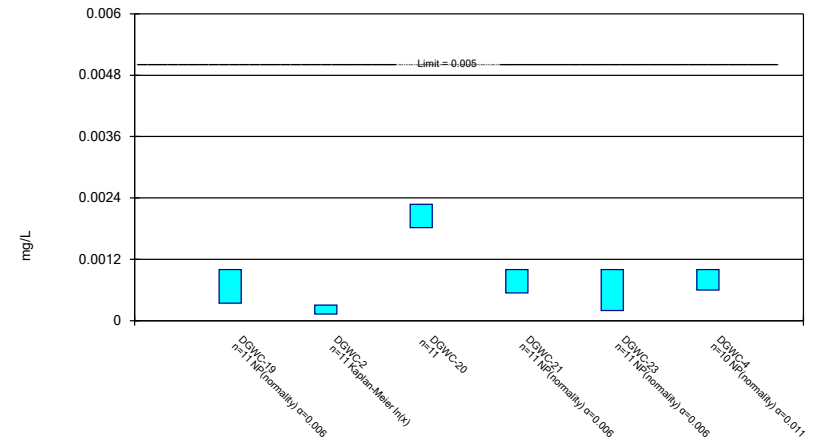
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

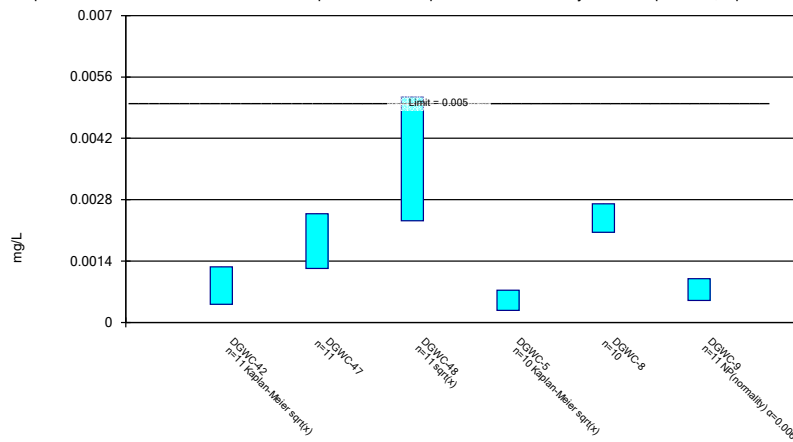
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/2/2020 1:26 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

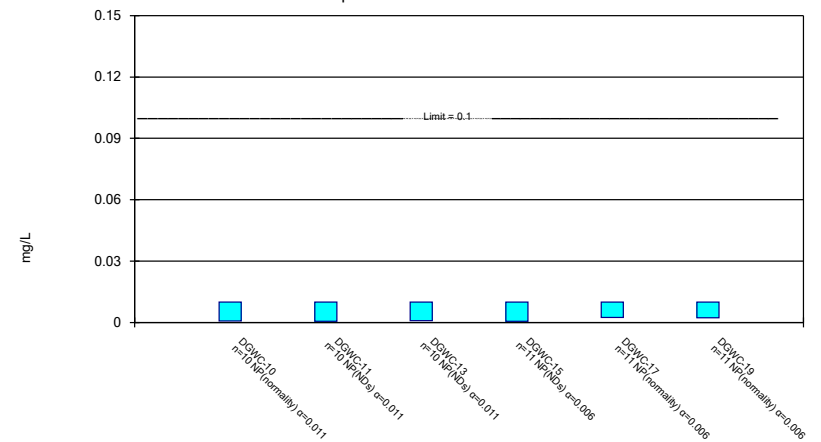
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

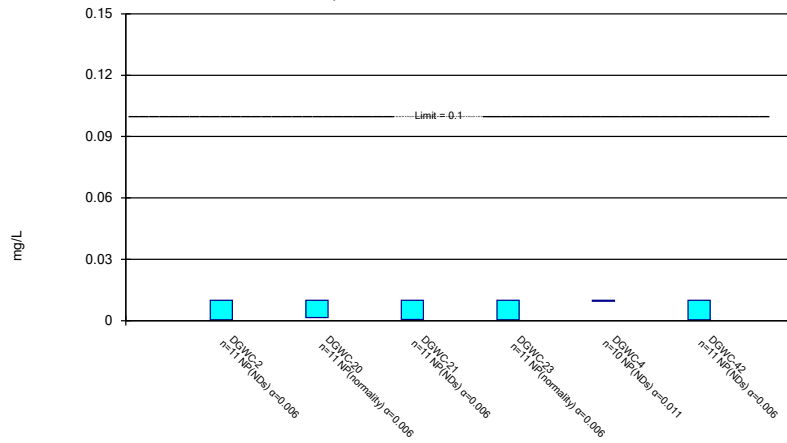
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

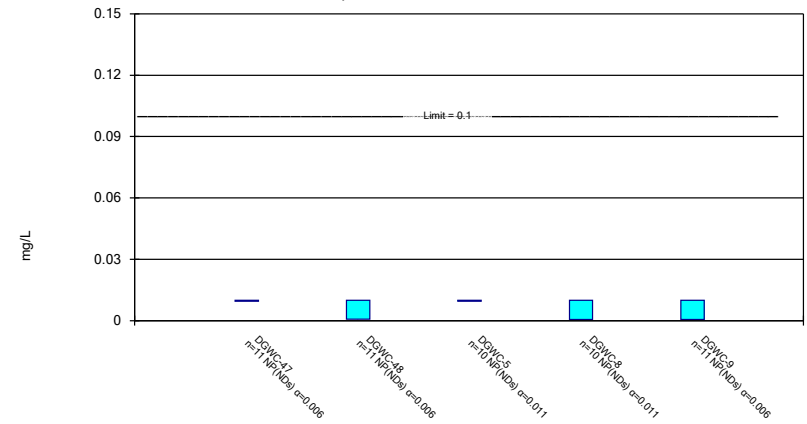
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

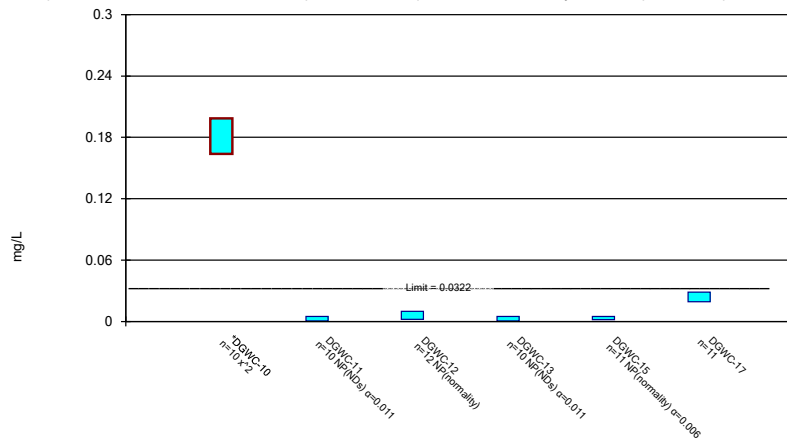
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

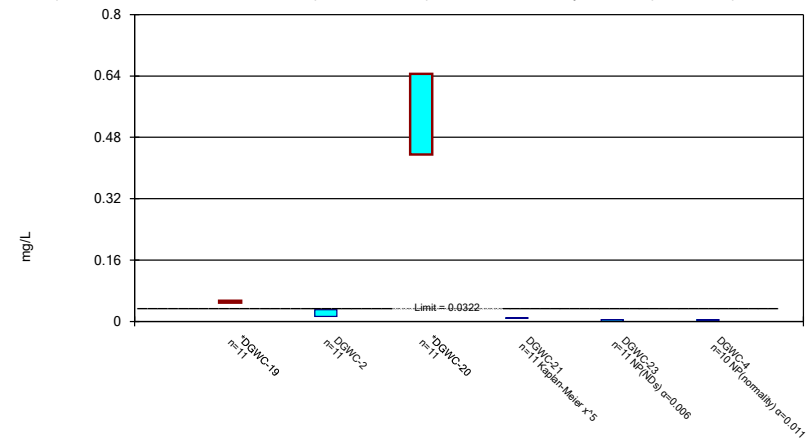
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

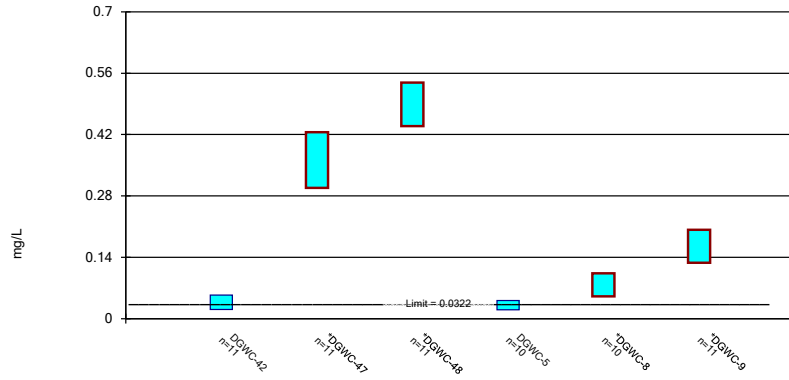
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

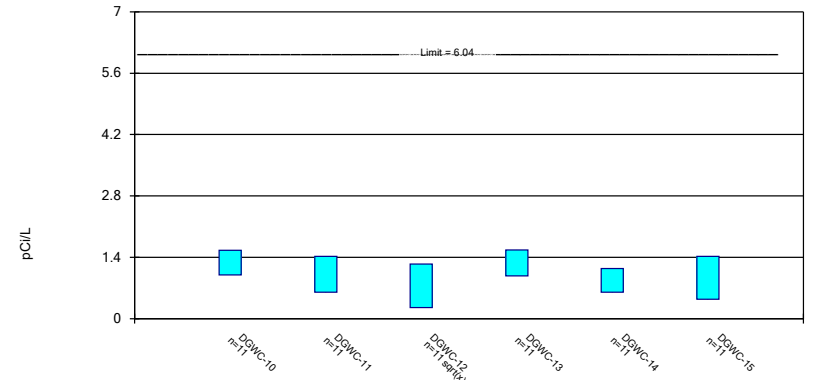
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

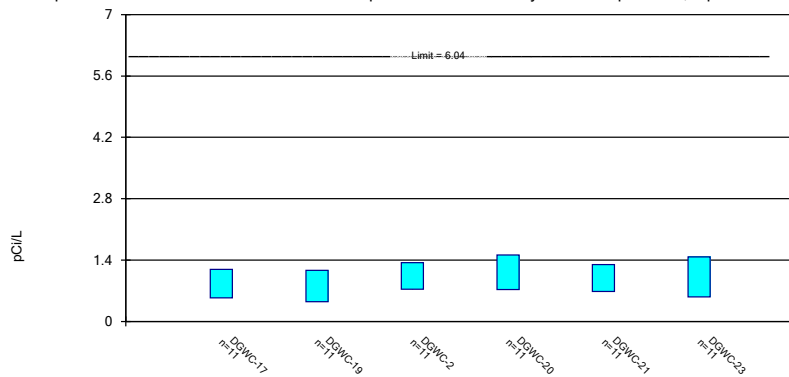
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

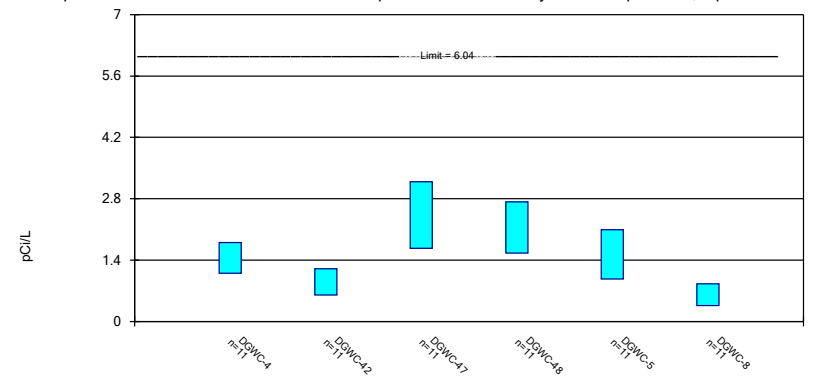
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

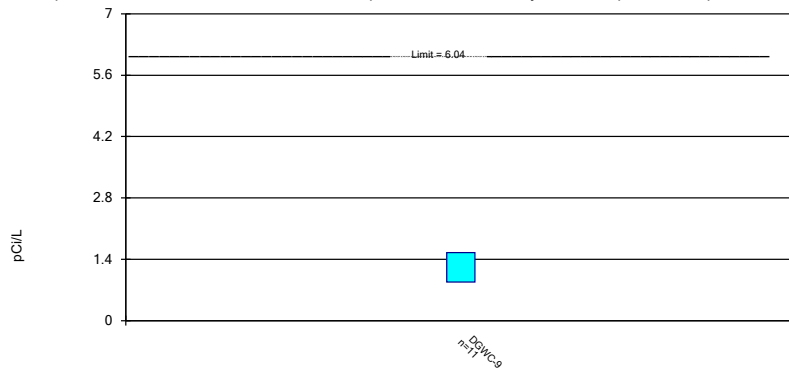
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

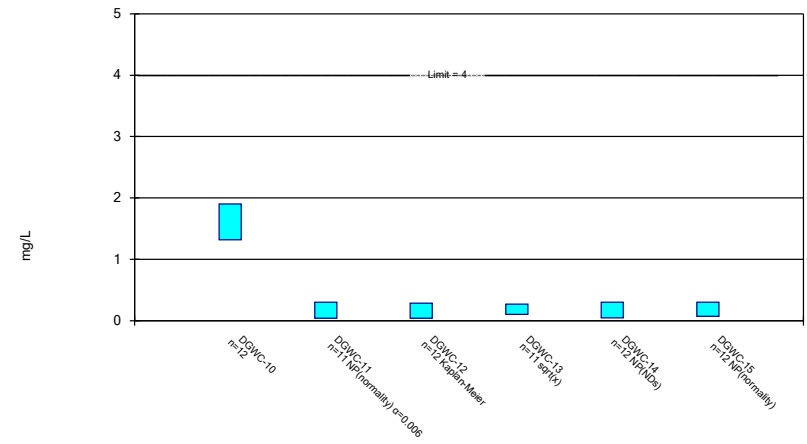
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Constituent: Combined Radium 226 + 228 Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

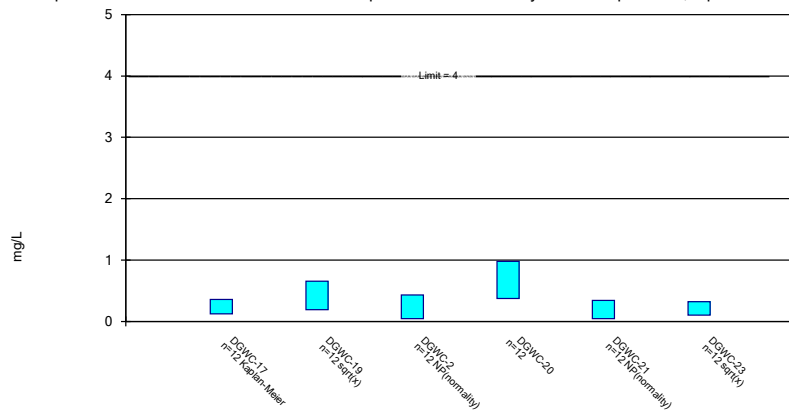
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

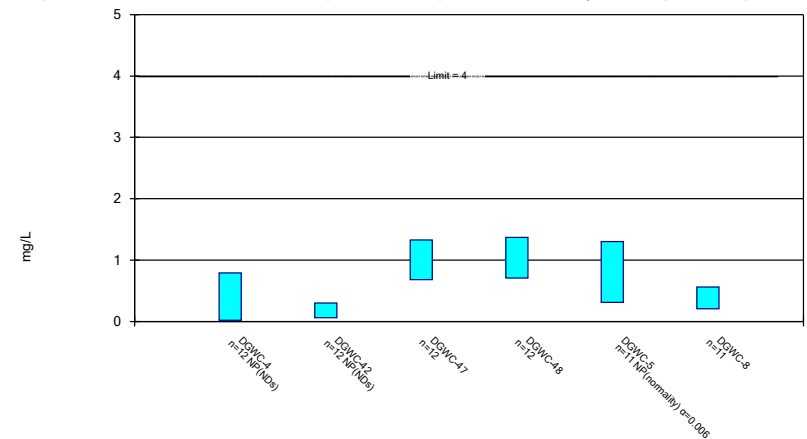
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

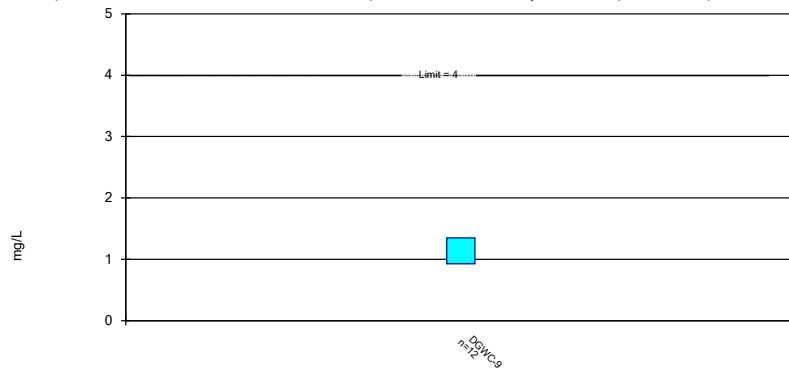
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

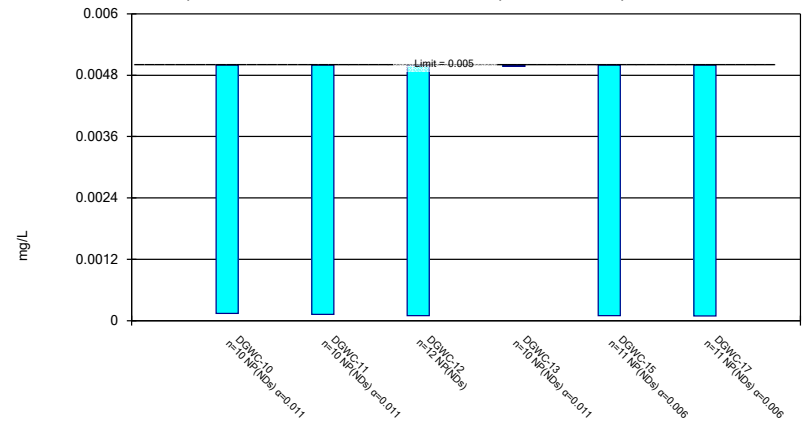
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

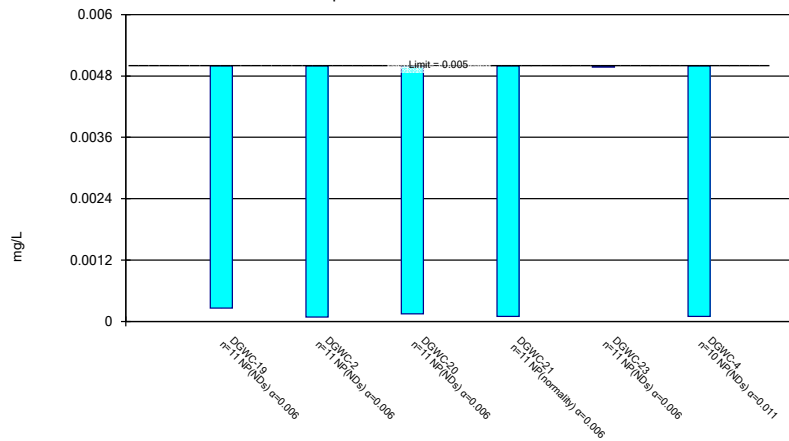
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

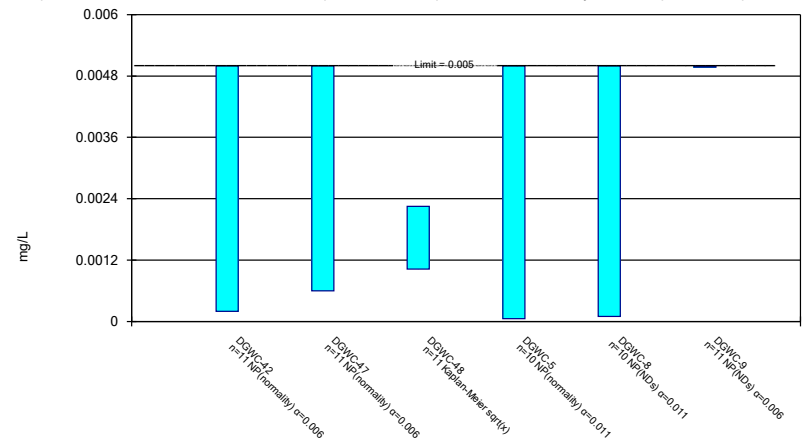
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

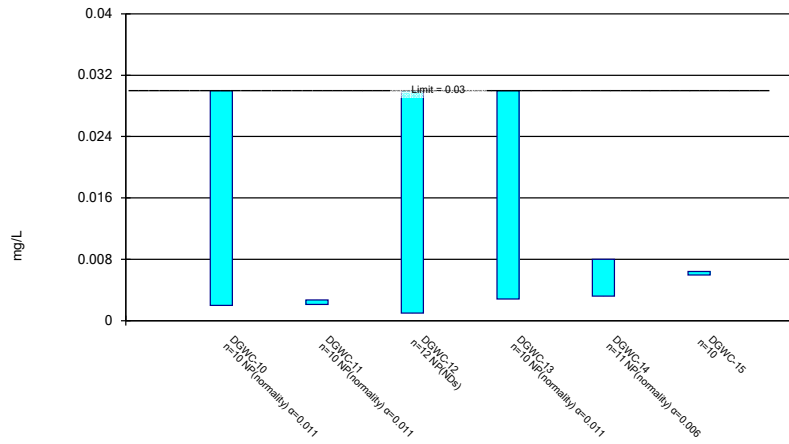
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

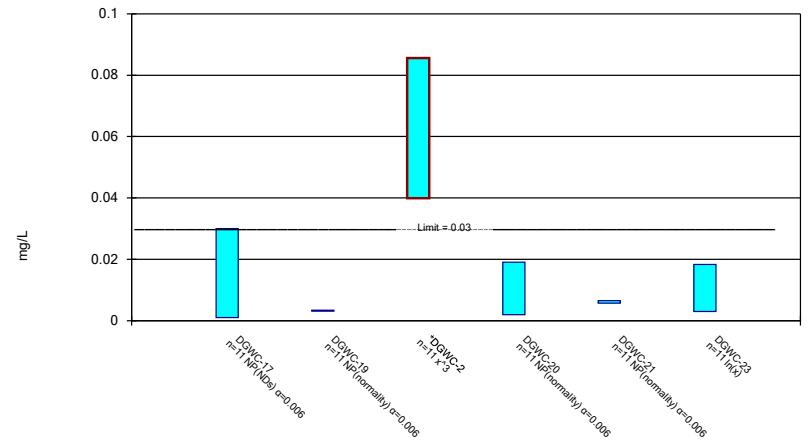
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

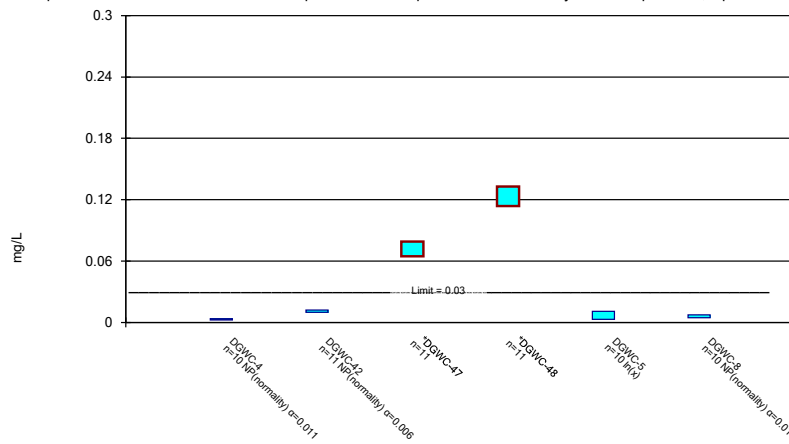
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

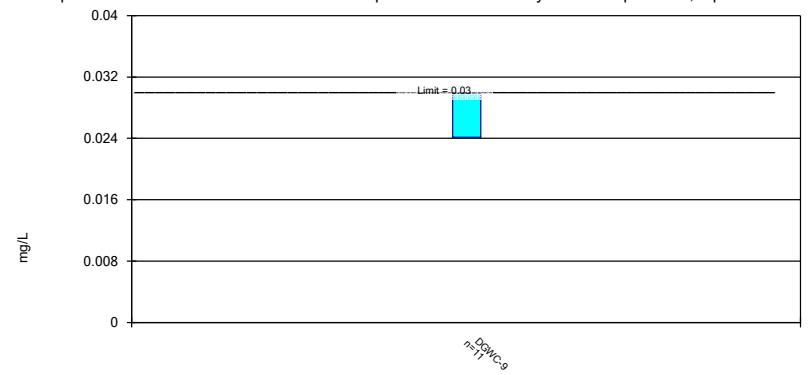
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

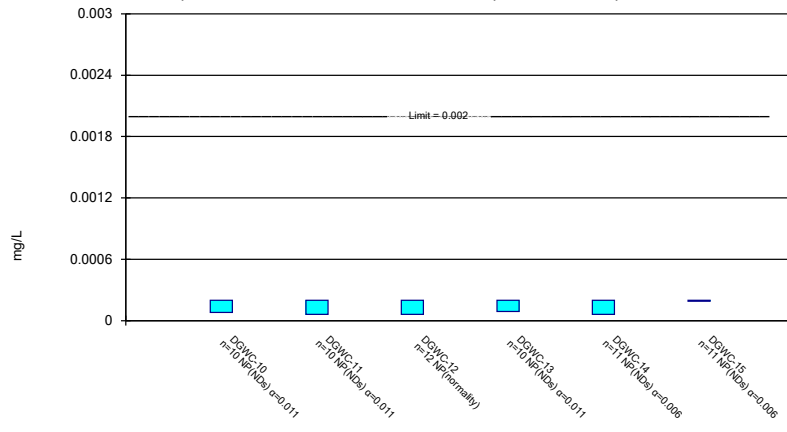
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

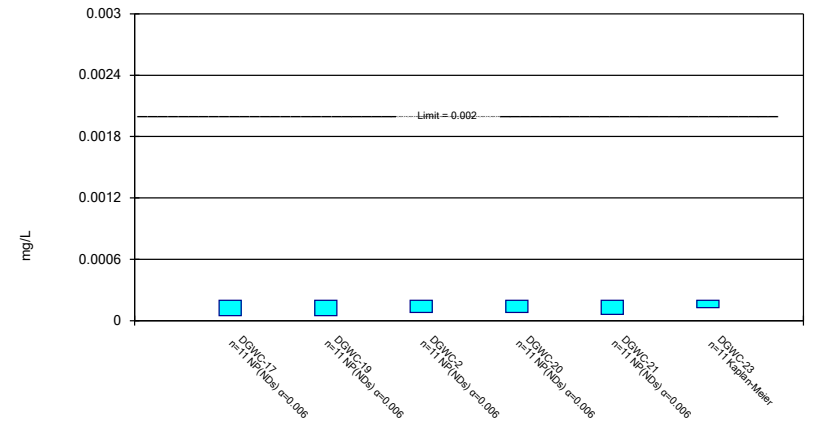
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

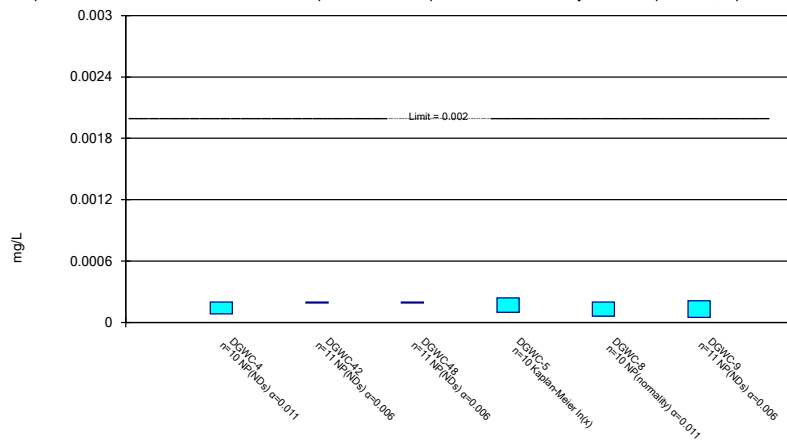
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

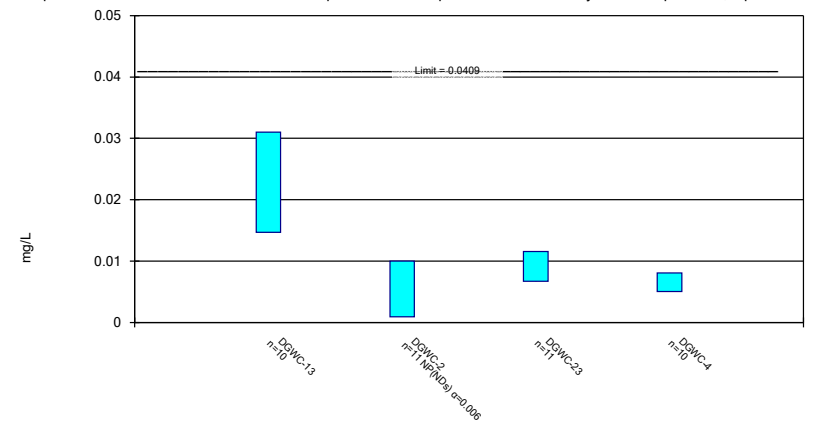
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

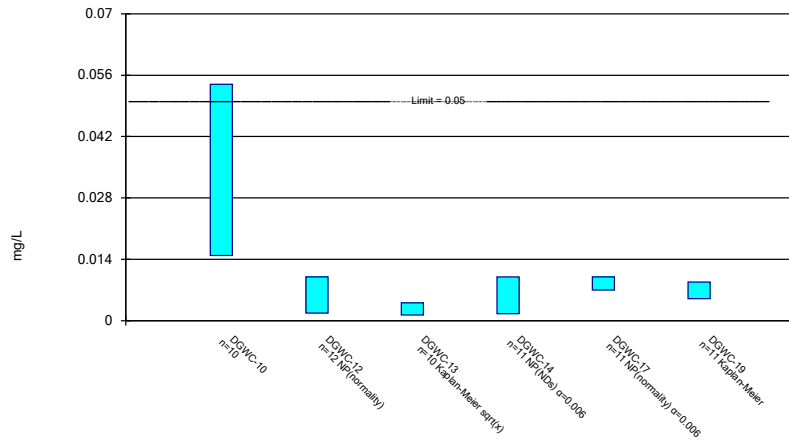
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

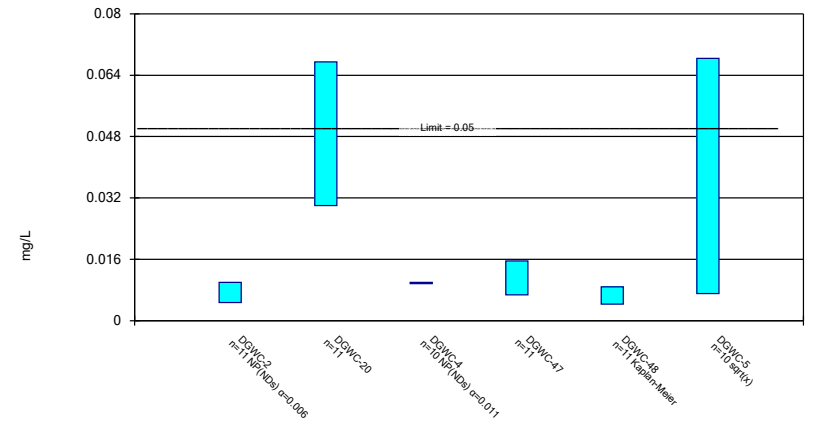
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric and Non-Parametric (NP) Confidence Interval

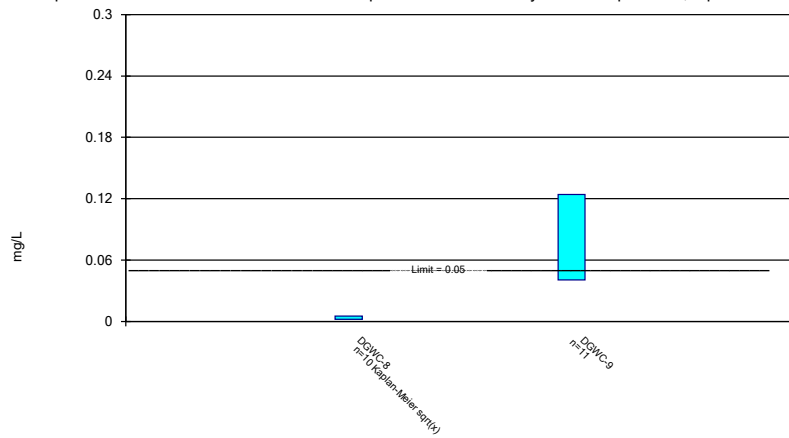
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Parametric Confidence Interval

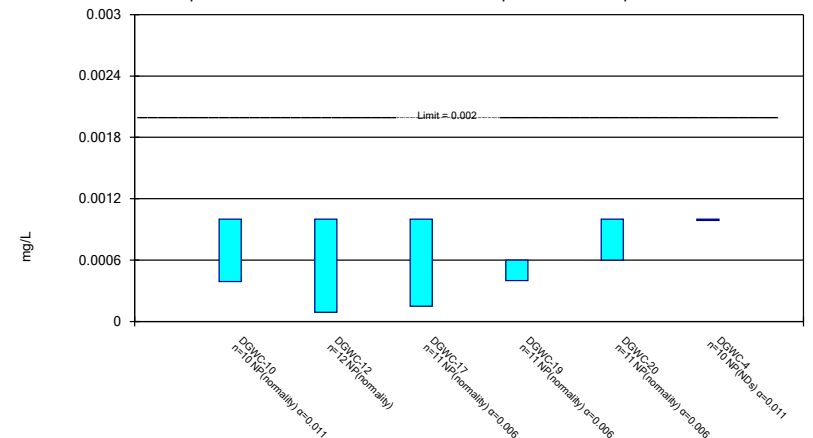
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 Plant McDonough Client: Southern Company Data: McDonough AP

Non-Parametric Confidence Interval

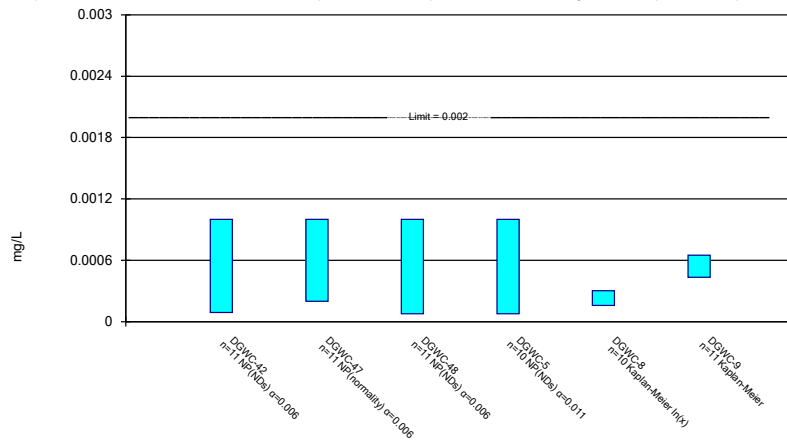
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Thallium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
 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 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 7/2/2020 1:27 PM View: AP - 2, 3-4 Appendix IV
Plant McDonough Client: Southern Company Data: McDonough AP



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