REPORT

2024 Semi-Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company - Plant McDonough-Atkinson Ash Pond 1

Submitted to:

Georgia Power

Georgia Power Company
241 Ralph McGill Boulevard
Atlanta, GA 30308

Submitted by:

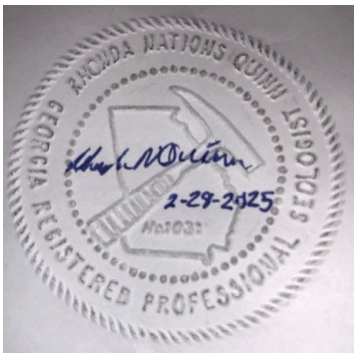
WSP USA Inc.
5170 Peachtree Road, Suite 300 Building 100 Atlanta, Georgia 30341
+1 248 295 0135

February 28, 2025

Certification

This *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company - Plant McDonough - Atkinson–Ash Pond 1 (AP-1) has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residual Rule (40 Code of Federal Regulations [CFR] 257 Subpart D), specifically § 257.90(e), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with WSP USA Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

WSP USA Inc.



Dawn L. Prell, CPG
Senior Hydrogeologist

Rhonda N. Quinn, PG
Senior Geologist
Georgia Professional Geologist No. 1031

Mark T. Prytula, PhD, PE
Senior Environmental Engineer
Georgia Professional Engineer No. 026729

Executive Summary

This summary of the *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective program from July 2024 through December 2024 at Georgia Power Company (Georgia Power)'s Plant McDonough-Atkinson Ash Pond 1 (AP-1). Groundwater monitoring and reporting for AP-1 are performed by WSP USA Inc., in accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule published in the Code of Federal Regulations (CFR) Title 40 Part 257 (40 CFR Part 257, Subpart D) dated April 17, 2015, and revised July 2018, 40 CFR § 257.90 through § 257.98. As required in 40 CFR § 257.90(e), this Semi-Annual Report describes the status of the groundwater monitoring program, summarizes key actions completed, and presents projected key activities for the upcoming reporting period at AP-1. Other CCR units (AP-2 and 3/4) at Plant McDonough-Atkinson (Plant McDonough, Site) are reported separately.

Plant McDonough

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 Drive SE, Smyrna, Georgia 30339), the property occupies approximately 390 acres and is bounded on the southeast by the Chattahoochee River.

Groundwater at AP-1 is monitored using a comprehensive network of upgradient and downgradient wells that meet federal and state monitoring requirements. Routine sampling and reporting for AP-1 began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater quality, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019, and July 9, 2020, respectively. During the 2024 Semi-Annual reporting period, the Site remained in assessment monitoring as corrective measures are evaluated. Groundwater elevation measurements were recorded from the Site monitoring wells prior to each sampling event to confirm the groundwater flow direction. The AP-1 groundwater monitoring well network remains sufficient to monitor groundwater downgradient of the unit. There were no changes to the AP-1 certified monitoring network in the July through December 2024 monitoring period. The second semi-annual groundwater monitoring event for AP-1 was

conducted in September 2024. Groundwater samples were collected and analyzed for Appendix III[1] and Appendix IV[2] required monitoring parameters.

Analytical data from the September 2024 monitoring event have been statistically analyzed in accordance with the Site's certified statistical analysis method. For the September 2024 semi-annual monitoring event, statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents and statistically significant levels (SSLs) of Appendix IV constituents above the GWPS as summarized below.

Appendix III Constituent	September 2024 SSIs[1]
Boron	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69, DGWC-121
Calcium	DGWC-37, DGWC-38, DGWC-39, DGWC-67, DGWC-68A, DGWC-121
Chloride	DGWC-40, DGWC-67
pH	DGWC-40
Sulfate	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-121
TDS	DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-121
Appendix IV Constituent	**September 2024 SSLs[2]**
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum	DGWC-68A[3]

Note:

[1] An SSI is determined by an exceedance of the calculated prediction limit.

[2] An SSL is determined by comparing the confidence interval to the GWPS. Per GA EPD Rule 391-3-4-.10(6)(a), the GWPS is: (i) the MCL or the Federal and State CCR rules specified levels, or (ii) background levels for constituents where the background level is higher than the MCL or the Federal and State CCR rules specified levels.

[3] An Alternate Source Demonstration for molybdenum at DGWC-68A was approved by GA EPD on March 3, 2023.

Appendix IV SSLs of arsenic and cobalt are horizontally delineated by surface water due to close proximity and limited space for installing additional monitoring wells. Surface water samples were collected during the September 2024 sampling event, and arsenic and cobalt were not detected in the surface water bodies downgradient of AP-1. Arsenic and cobalt are vertically delineated by on-Site wells. An Alternate Source Demonstration for molybdenum that documents the natural presence of molybdenum in site soils/rock was approved by GA EPD on March 3, 2023. Based on review of the Appendix III and Appendix IV results noted above, the Site will remain in assessment monitoring. Georgia Power will continue routine groundwater monitoring and evaluation of corrective action alternatives at the Site. Reports will be posted to the website and provided to the GA EPD semi-annually. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on August 31, 2023.

[1] Appendix III: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids

[2] Appendix IV: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, combined radium (226 + 228), selenium, and thallium.

Table of Contents

1.0 INTRODUCTION 1
1.1 Site Description and Background 1
1.2 Regional Geology and Hydrogeologic Setting 1
1.3 Groundwater Monitoring Network 2
2.0 GROUNDWATER MONITORING ACTIVITIES 2
2.1 Monitoring Well Installation and Maintenance 3
2.2 Assessment Monitoring 3
2.3 Additional Sampling 3
2.4 Annual Water Well Survey 4
3.0 SAMPLE METHODOLOGY AND ANALYSIS 4
3.1 Groundwater Elevation Measurement 4
3.2 Groundwater Gradient and Flow Velocity 4
3.3 Groundwater Sampling 5
3.4 Laboratory Analysis 6
3.5 Quality Assurance and Quality Control 6
4.0 STATISTICAL ANALYSIS 7
4.1 Statistical Method 7
4.1.1 Appendix III Detection Monitoring Statistical Methods 7
4.1.2 Appendix IV Assessment Monitoring Statistical Methods 7
4.2 Statistical Analysis Results 8
4.2.1 September 2024 Appendix III Statistical Results 8
4.2.2 September 2024 Appendix IV Statistical Results 8
5.0 ASSESSMENT MONITORING AND DELINEATION STATUS 9
6.0 ASSESSMENT OF CORRECTIVE MEASURES 9
7.0 MONITORING PROGRAM STATUS 10
8.0 CONCLUSIONS AND FUTURE ACTIONS 10
9.0 REFERENCES 11

Tables

Table 1: Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Table 2: Groundwater Event Summary
Table 3: Summary of Groundwater Elevations
Table 4: Groundwater Flow Velocity Calculations – September 2024
Table 5: Groundwater Analytical Data Summary – September 2024
Table 6: Surface Water Analytical Data Summary – September 2024
Table 7: Summary of Background Levels and GWPS

Figures

Figure 1: Site Location Map
Figure 2: Plant McDonough CCR Removal Area
Figure 3: Monitoring Well, Piezometer and Surface Water Location Map
Figure 4: Site Potentiometric Map – September 3, 2024
Figure 5: Arsenic Isoconcentration Contour Map – September 2024
Figure 6: Cobalt Isoconcentration Contour Map – September 2024

Appendices

Appendix A: Field Data Forms and Instrument Calibration Records
Appendix B: Analytical Results, Data Validation Summary, and Laboratory Accreditation
Appendix C: Well Condition Assessment Table and Well Maintenance and Repair Documentation
Appendix D: Annual Water Well Survey
Appendix E: Statistical Analyses
Appendix F: Plant McDonough Ash Pond Pre-Design Investigation Technical Memorandum
Appendix G: Batch and Column Treatability Studies

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia (GA) Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, this *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report* was prepared to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power)'s Plant McDonough-Atkinson Ash Pond 1 (AP-1) 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 US EPA CCR rule (40 CFR 257 Subpart D). For ease of reference, the US EPA CCR rules are cited within this report.

This semi-annual report documents groundwater monitoring activity from the semi-annual monitoring event conducted in September 2024 at AP-1. Activities completed at Plant McDonough's Ash Ponds 2, and 3/4 are reported under separate cover.

1.1 Site Description and Background

Plant McDonough-Atkinson (Plant McDonough, Site), 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, Smyrna, GA 30339), the property comprises 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). A notification of intent to initiate closure of the inactive CCR surface impoundment for AP-1 was certified on December 7, 2015 and posted to Georgia Power's website. A permit application package was submitted to GA EPD in November 2018 and is pending approval. Groundwater monitoring and reporting for AP-1 are being performed to meet the alternate schedule in § 257.100(e)(5) of the revised US EPA CCR rule (August 5, 2016).

The AP-1 surface impoundment at Plant McDonough has been closed in place. The closure process included placement of a permanent cover system designed to minimize infiltration and erosion and to meet or exceed the requirements of 257.102(d)(3)(ii). To further enhance the in-place closure of AP-1, a subsurface perimeter barrier wall (barrier wall) is included in the Closure Plan as an Advanced Engineering Measure (AEM). The term AEM refers to engineering controls that are technologies or measures designed to enhance the protection of groundwater and closure effectiveness, and/or further minimize future maintenance of the unit. The proposed barrier wall will fully encircle the AP-1 footprint (as a laterally continuous feature); however, the target installation depth is under review and approval by GA EPD. AP-3 and AP-4 have historically operated together and are being closed as a Combined Unit (AP-3/4). AP-2 and 3/4 are reported separately from AP-1. CCR removal and consolidation at Plant McDonough AP-2, and 3/4 is substantially complete, pending certification. Areas of certified CCR removal are shown on Figure 2.

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 (WSP 2023a).

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 referred to as the overburden, range between approximately 9 to 65 feet in thickness across the Site, with an average thickness of approximately 43 feet. Saprolitic rock is considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR). Where TWR is a qualitative description based on visual observations, 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.

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 considered part of the uppermost aquifer. The overlying silt/clay-rich overburden may act to retard recharge into the bedrock aquifer system. In addition, deeper bedrock (i.e., greater than approximately 30 feet into the bedrock) is unweathered with few discontinuities (e.g., fractures) available to store or transmit groundwater.

1.3 Groundwater Monitoring Network

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at AP-1 to monitor groundwater passing the waste boundary. Wells were located to monitor upgradient and downgradient groundwater conditions based on groundwater flow direction. AP-1 monitoring well and piezometer locations are shown on Figure 3.

A comprehensive network of monitoring wells was installed for groundwater monitoring around AP-1. A separate well network for AP-2 and 3/4 as well as a series of piezometers are also installed at the Site. Construction details are presented in Table 1 for each well in the current Site groundwater monitoring network, including detection monitoring wells, assessment monitoring wells, and piezometers for AP-1; and the separate multi-unit monitoring network wells for AP-2 and 3/4.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes monitoring-related activities for sampling performed at the Site from July through December 2024. Routine groundwater sampling was performed in September 2024 in accordance with 40 CFR § 257.93. Field sampling forms for the monitoring event are provided in Appendix A and the laboratory analytical results are provided in Appendix B.

2.1 Monitoring Well Installation and Maintenance

September 2024 field activities included visual inspection of well conditions prior to sampling, recording conditions around each well, and performing exterior maintenance to provide safe access for sampling. The well condition inspection table is included in Appendix C.

Monitoring wells are inspected semi-annually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). Monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix C. This documentation was performed under the direction of a professional geologist or engineer registered in the State of Georgia.

Newly installed injection wells INW-01 and INW-01A were installed near DGWC-69. The injection wells were installed to collect data for evaluation of injectable materials to address arsenic at this location. Well INW-01 was installed in November 2024 and sampled in December 2024 while INW-01A was installed and sampled in January 2025. Both wells were drilled and constructed to the top of bedrock. A well installation report for the temporary piezometers will be submitted under a separate cover.

A temporary piezometer, B-129, was installed in January 2025 to the east of DGWC-47 to collect additional delineation data for cobalt. The temporary piezometer was installed into shallow bedrock and sampled in January 2025. The approximate field location of the piezometer is shown on Figure 6. A well installation report for the temporary piezometer will be submitted under a separate cover.

2.2 Assessment Monitoring

Pursuant to § 257.94(e)(1), an assessment monitoring program has been established for AP-1 based on identified statistically significant increases (SSIs). A notice of assessment monitoring was placed in the operating record on November 13, 2019. Following the requirements of § 257.96, an assessment of corrective measures is ongoing, and a *Draft Remedy Selection Report* was submitted to GA EPD on August 31, 2023.

Groundwater sampling was conducted for AP-1 in September 2024 in accordance with § 257.93 and GA EPD rule 391-3-4-.10(6)(a). Samples were collected from each well in the certified detection monitoring network and the established assessment monitoring network for AP-1 (Table 1). The location of each of these monitoring wells is shown on Figure 3. Table 2 presents a summary of the groundwater sampling event completed for AP-1 and the status of the monitoring network.

During the September 2024 semi-annual sampling event, groundwater samples were collected and analyzed for Appendix III and Appendix IV constituents. Results of sampling activities conducted in September 2024 are presented in Appendix B.

2.3 Additional Sampling

The installation of additional wells to characterize groundwater downgradient of the existing AP-1 network wells exhibiting SSLs of arsenic and cobalt is infeasible due to the proximity of the engineered stream channel (also referred to as the unnamed tributary [UT]) to the west and the Chattahoochee River to the southeast. Therefore, Georgia Power, collected surface water samples from the engineered stream channel and the Chattahoochee River. Surface water samples were collected on September 10, 2024 at the locations shown on Figure 3. These samples were analyzed for Appendix III parameters, selected Appendix IV parameters (i.e., arsenic and cobalt),

and major ions (i.e., magnesium, potassium, sodium, and total and bicarbonate alkalinity) as shown on Table 6. Surface water samples were collected in accordance with Region 4 U.S. Environmental Protection Agency Laboratory Services and Applied Science Division, Operating Procedure: *Surface Water Sampling* (US EPA 2023a). Laboratory reports associated with September 2024 surface water sampling event are provided in Appendix B. Georgia Power will continue collecting surface water samples semi-annually as needed for site delineation.

Additional data collection and evaluation are on-going to support the selected corrective measure (i.e., in-situ injections and monitored natural attenuation). Groundwater samples collected from the detection and assessment monitoring well networks in September 2024 were analyzed for major ions (magnesium, potassium, sodium, and total and bicarbonate alkalinity) and minor ions (iron and sulfide).

Newly installed injection wells INW-01 and INW-01A, near DGWC-69, were sampled in December 2024 and January 2025, respectively. Groundwater from both wells were analyzed for arsenic. The laboratory reports are provided in Appendix B.

Temporary piezometer B-129, to the east of DGWC-47, was sampled in January 2025. The groundwater sample from B-129 was analyzed for boron and cobalt. The laboratory report is provided in Appendix B.

2.4 Annual Water Well Survey

A potable well survey of potential groundwater wells within a two-mile radius of AP-1 was conducted in October 2024 and consisted of reviewing Federal, State, and county records, and online resources. A survey conducted by Environmental Data Resources (EDR) is included in Appendix D. Additional Federal, State, and county records, and online sources outside of the EDR survey were also reviewed by WSP. The Cobb County Environmental Health Department responded October 10, 2024 that they did not have records of approved water wells within a 2-mile radius of AP-1. The updated EDR report is in Appendix D and no new wells were identified from the EDR report.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

The following sections describe methods used to conduct the September 2024 semi-annual AP-1 groundwater assessment monitoring. Groundwater analytical data and chain of custody records are presented in Appendix B.

3.1 Groundwater Elevation Measurement

Site-wide groundwater levels were measured at the start of the September 2024 sampling event. Measured groundwater level data are listed in Table 3. These data were used to calculate water level elevations and develop the Site groundwater potentiometric surface map (Figure 4). The potentiometric surface map indicates that groundwater generally flows southeast across the Site and west/southwest in the northeast corner of the Site due to ongoing dewatering in that area, consistent with historical observations.

3.2 Groundwater Gradient and Flow Velocity

Hydraulic gradient is calculated as the difference in groundwater elevation (in feet) divided by the distance between two piezometers or wells (in feet). Groundwater elevation data recorded in September 2024 from three piezometer and/or well pairings were used to calculate hydraulic gradients for AP-1. These pairings (B-29/DGWC-68A, B-28/DGWC-37, and B-50/DGWC-39) located along the inferred groundwater flow paths (i.e., perpendicular to the potentiometric contours) were used to calculate hydraulic gradients for AP-1.

The Site hydraulic conductivity data set was enhanced with new field measurements of the hydraulic conductivity data by groundwater zone, namely, residual soils, saprolite, TWR/PWR (collectively the overburden), and upper bedrock. Based on the new dataset, the estimated average hydraulic conductivity in the uppermost aquifer (overburden plus upper bedrock) at the Site is 2.4 x 10^{-4} centimeters/second (cm/sec) (0.69 feet/day) (WSP, 2024). The updated hydraulic conductivity value is lower than that previously used to calculate site groundwater flow velocities This hydraulic conductivity value is within the range of values expected for silty sand and weathered/fractured metamorphic rocks (Freeze and Cherry, 1979).

Average groundwater flow velocities at the Site were calculated using September 2024 hydraulic gradient data, the updated hydraulic conductivity data (WSP, 2024), and an estimated effective porosity of the screened portion of the uppermost aquifer. The updated average hydraulic conductivity of the uppermost aquifer of 0.69 feet/day (ft/day) (WSP, 2024) was used in the velocity calculations. An effective porosity of 0.2 (20%) was used based on the default values for effective porosity recommended by US EPA for a silty-sand type soil (US EPA 1996).

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

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

Where:

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

K = Average hydraulic conductivity of the aquifer $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient $\left(\frac{feet}{feet}\right)$

n_e = Effective porosity

Using this equation, groundwater flow velocities were calculated for AP-1 using September 2024 groundwater elevation data as presented in Table 4.

Calculated (horizontal) flow velocities range from approximately 24 feet per year (ft/yr) to 43 feet/year in September 2024 for AP-1 (Table 4). These estimated flow velocities are lower than past results and are also generally consistent with other published velocities for overburden-upper bedrock aquifers of the Piedmont (Heath, 1982 and 1984)

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with § 257.93(a) and 391-3-4-.10(6) and using *Groundwater Sampling* (US EPA 2023b) as a guide. Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated and 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 the *Field Equipment Cleaning and Decontamination* (US EPA 2020a). Aqua TROLL® 400 meters were 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 LaMotte or Hach turbidimeters. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- pH within ±0.1 standard units (S.U.)
- specific conductance within ±5%

- DO within ±10% or ±0.2 milligrams per liter (mg/L) (whichever is greater) for DO where DO>0.5 mg/L; if DO<0.5 mg/L, the DO stabilization criterion does not apply
- Turbidity less than 5 nephelometric turbidity units (NTU)

Upon achieving stabilization, unfiltered samples were collected directly in appropriately preserved laboratory-supplied sample containers, placed in ice-packed coolers, and submitted to the laboratory following standard chain-of-custody protocol.

Field data and sampling notes for each monitoring well are recorded on field information forms generated by the Aqua TROLL® 400. These forms include a description of the sampling equipment, sampling method, test notes, field observations, and purge logs (purge rate, stabilization parameters, and depth to water measurements) at each monitoring location. Deviations from the sample plan and stabilization criteria are noted on the field information forms. Field data sheets and daily field instrument calibration forms are included in Appendix A.

3.4 Laboratory Analysis

September 2024 groundwater samples from wells in the detection and assessment monitoring network were analyzed for Appendix III and Appendix IV monitoring parameters per 40 CFR § 257.93 and § 257.95(d)(2). Analytical methods used for monitoring parameters are listed in the analytical data reports in Appendix B. Table 5 presents a tabulated summary of the September 2024 detection and assessment sample results. Results of surface water samples collected in September 2024 are presented in Table 6. Analytical methods used for monitoring parameters are listed in the analytical data reports in Appendix B.

Laboratory analyses were performed by Pace Analytical Services, LLC (Pace) in Peachtree Corners, Georgia, Asheville, North Carolina, and Greensburg, Pennsylvania. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains NELAP certification for the parameters analyzed for this project. Analytical data reports including chain-of-custody records for the monitoring events and laboratory NELAP certifications are presented in Appendix B.

3.5 Quality Assurance and Quality Control

Quality assurance/quality control (QA/QC) samples were collected at a minimum rate of one sample per every 10 samples during the semi-annual sampling event. QA/QC samples included equipment blanks (where non-dedicated sampling equipment was used), field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation as described below, and are included in Appendix B.

Groundwater quality data in this report were independently validated in accordance with *Data Validation Standard Operating Procedures* (US EPA 2016), *National Functional Guidelines for Inorganic Superfund Method Data Review* (US EPA 2020b), *US Department of Energy, Evaluation of Radiochemical Data Usability* (Paar 1997) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries, relative percent differences (RPDs), laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data per US EPA procedures and guidance. The data validation summary report is provided in Appendix B, along with laboratory reports. The validated data summarized in Tables 5 and 6 meet project objectives.

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.

Total radium concentration (Radium 226+228) is a combination of isotopes 226 and 228. When radium data are reported below the Minimum Detectable Concentration (MDC), the values are followed by a "U" flag in tables.

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-1 (Groundwater Stats Consulting 2019). The statistical analysis reports prepared by Groundwater Stats Consulting, LLC. are presented in Appendix E.

4.1 Statistical Method

The selected statistical method for AP-1 was developed in accordance with 40 CFR § 257.93(f), using methodology presented in *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*, March 2009, (US EPA 2009). 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 US EPA regulations and guidance as recommended in the US EPA Unified Guidance document (US EPA 2009).

4.1.1 Appendix III Detection Monitoring Statistical Methods

Groundwater monitoring data for Appendix III parameters were statistically analyzed for comparison against background concentrations and to identify trends. Upgradient well data were pooled to establish background statistical limits. Data from September 2024 assessment monitoring event were analyzed using interwell prediction limits applying an optional 1-of-2 verification resample plan and compared to the background statistical limits to evaluate whether concentrations exceed background levels. The Sen's Slope/Mann Kendall trend test was performed to evaluate whether concentrations in individual wells are statistically increasing, decreasing, or stabilizing over time. The results of the background comparisons and trend analyses are presented in Appendix E.

4.1.2 Appendix IV Assessment Monitoring Statistical Methods

Statistical analysis for assessment monitoring is performed by comparing confidence intervals against groundwater protection standards (GWPS). Parametric tolerance limits are 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 GA EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR § 257.95(h)(1-3) adopted by reference in the State rule, the GWPS is:

- The maximum contaminant level (MCL) established under 40 CFR §§ 141.62 and 141.66.
- Where an MCL has not been established, Federal and State CCR rules specified levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), or molybdenum (0.100 mg/L).
- The respective background level for a constituent when the background level is higher than the MCL or Rule-identified GWPS.

Following the rule requirements, background concentrations were evaluated to establish site-specific GWPS for statistical comparison of Appendix IV constituents. Table 7 summarizes the background limit established at each monitoring well and the applicable GWPS established under the State and Federal rules.

Confidence intervals were calculated for each of the Appendix IV parameters in each downgradient well for comparison to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard, and thus an SSL exceedance identified.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix E. The background period for statistical analyses included historical data through the current event. Tolerance limits for confidence interval calculations have been updated to include current data. Due to varying reporting limits for background over time, the most recent reporting limit is used when analytes are reported as non-detects. This process results in a more appropriate statistical test for the data set.

Based on a recent evaluation conducted by Groundwater Stats Consulting, the background data period for cobalt at DGWA-53 has been truncated to eliminate historically elevated concentrations that are no longer representative of current background conditions. The revised background period for statistical analyses of cobalt at DGWA-53 includes data from July 12, 2018, through the most recent event (September 2024). Excluding the historical elevated concentrations of cobalt at DGWA-53 from background analysis has resulted in a lower GWPS for cobalt.

4.2 Statistical Analysis Results

Analytical data from September 2024 at AP-1 have been statistically analyzed in accordance with the Site's certified Statistical Analysis Plan (Groundwater Stats Consulting 2019). The statistical results are included in Appendix E.

4.2.1 September 2024 Appendix III Statistical Results

The statistical analysis of the Appendix III parameters identified SSIs of boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS) for the September 2024 assessment monitoring event. A detailed list of the noted exceedances is presented in Appendix E.

4.2.2 September 2024 Appendix IV Statistical Results

The statistical analysis of the Appendix IV analytes identified SSLs of the following parameters for the September 2024 monitoring event using the GWPS established according to both 40 CFR § 257.95(h) and 391-3-4-.10(6)(a):

AP-1 Confidence Interval Statistically Significant Level Exceedances, September 2024	
Appendix IV Parameter	**AP-1 Detection Monitoring Well**
Arsenic	DGWC-69
Cobalt	DGWC-40
Molybdenum[1]	DGWC-68A

Note:

[1] An ASD for Molybdenum at DGWC-68A was approved by GA EPD on March 3, 2023 (Golder 2022).

Molybdenum will continue to be analyzed and the statistical results reported semi-annually. Because molybdenum occurs naturally at DGWC-68A groundwater, additional delineation or corrective action is not required at this site location.

Potential trends in SSL concentrations were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall test (Appendix E). No statistically significant trend was noted for monitoring wells DGWC-69 (arsenic) and DGWC-40 (cobalt).

5.0 ASSESSMENT MONITORING AND DELINEATION STATUS

A network of assessment monitoring wells has been installed at the Site, and several of these wells have been sampled to characterize the nature and extent of arsenic and cobalt SSLs. Assessment wells were installed to delineate the vertical and horizontal extent of SSLs. In addition, Georgia Power conservatively elected to sample surface water at multiple locations to complete horizontal delineation where proximity to surface water prevented installation of additional wells downgradient of the detection monitoring wells exhibiting SSLs (Section 2.3). The table below summarizes each of the constituents exhibiting SSLs and their associated assessment wells. Data from a newly installed injection wells, INW-01 and INW-01A, has further constrained the spatial extent of arsenic in well DGWC-69 to a smaller distance. Delineation on the eastern side of the cobalt impacts has been completed with the sampling results from temporary piezometer B-129 (Figure 6). Horizontal and vertical delineation of the arsenic and cobalt is complete based on review of the analytical results and statistical analyses. Figures 5 and 6 present isoconcentration contour maps for arsenic and cobalt, the two constituents with an exceedance of the GWPS.

Constituent of Concern	Detection Monitoring Well with SSL	Vertical Delineation Well	Horizontal Delineation Well/ Surface Water Monitoring Location	Status of Delineation
Arsenic	DGWC-69	B-112D	UT02, INW-01	Delineation complete with data less than GWMP
Cobalt	DGWC-40	B-105D	B-62 / CR-0.1, B-129	Delineation complete with data less than GWMP

Based on data collected to date, there are no impacts to surface water by constituents with SSLs at AP-1. The horizontal and vertical delineation of target SSL constituents is complete. Horizontal and vertical delineation based on review of analytical results, statistical analyses and the isoconcentration contours is presented in more detail in Figures 5 and 6.

6.0 ASSESSMENT OF CORRECTIVE MEASURES

Following the requirements of 40 CFR § 257.96, Plant McDonough documented an Assessment of Corrective Measures (ACM) on December 4, 2020 for arsenic, cobalt, and molybdenum (Golder 2020).

In accordance with 40 CFR § 257.97(a), remedy selection progress reports have previously been prepared and submitted concurrent with each semi-annual groundwater monitoring report to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy. A *Draft Remedy Selection Report* was submitted to GA EPD on August 31, 2023. The *Draft Remedy Selection Report* (WSP 2023c) includes the following:

- The current groundwater conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Golder 2020).
- An assessment of corrective action investigations completed.
- An evaluation of each corrective measure retained for further consideration following the completed investigations.
- A comparison of corrective measure options using the comparative criteria such as long- and short-term effectiveness and protectiveness, source control effectiveness and ease of implementation; and
- A summary of the proposed corrective measure, or measures for AP-1.

The *Draft Remedy Selection Report* is currently under review by GA EPD. Since submission of the *Draft Remedy Selection Report*, a treatability study has been completed to evaluate injectate materials and dosages and the pre-design investigation (PDI) has also been completed. Georgia Power is moving towards a pilot study work plan to evaluate the effectiveness of in-situ injections for corrective action.

PDI activities were conducted from March 20 through 21, 2024. Cascade Technical Services (Cascade) advanced three direct push technology (DPT) Waterloo Aquifer Profiling System (Waterloo^{APS}) borings. Depth-discrete groundwater screening samples were also collected using stainless-steel Waterloo^{APS} tooling and a peristaltic pump. Attempts were made to collect groundwater samples for chemical analyses from each of the PDI boring locations, but insufficient yield precluded sample collection at two of the three locations. The description of the PDI and the results are presented in the Plant McDonough Ash Pond Pre-Design Investigation Technical Memorandum in Appendix F. These data will be used to prepare a future pilot study workplan.

Terra Systems, Inc. (TSI) was subcontracted to perform a bench-scale treatability study to evaluate potential in-situ remediation approaches for reducing SSL constituents in AP-1 groundwater. Groundwater samples from monitoring well DGWC-69 and soil samples from soil borings drilled adjacent to the well were collected in November 2023 and submitted to TSI for testing. The treatability study evaluated reagents to neutralize or precipitate detected SSL constituents. The treatability study showed reductions in arsenic and cobalt concentrations with the application of selected reagents. TSI's June 14, 2024 bench study report is presented in Appendix G.

7.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-1 confirm (1) SSIs of Appendix III groundwater monitoring parameters above background and (2) SSLs of Appendix IV groundwater monitoring parameters above the established GWPS. AP-1 will continue to be monitored in accordance with the assessment monitoring program pursuant to 40 CFR § 257.95. An assessment of corrective measures was initiated following the provisions of 40 CFR § 257.96. Pursuant to 40 CFR 257.95(g)(1)(iv), the additional delineation wells may continue to be sampled as part of the ongoing semi-annual assessment monitoring program.

8.0 CONCLUSIONS AND FUTURE ACTIONS

This *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant McDonough-Atkinson - Ash Pond 1* was prepared to fulfill the requirements of US EPA CCR Rule 40 CFR 257 Subpart D and GA EPD Rule 391-3-4-.10.

The groundwater flow directions interpreted during the most recent sampling events are consistent with historical evaluations, and based on our review, the monitoring well network continues to effectively monitor the uppermost aquifer in the vicinity of AP-1.

Review of analytical results and statistical analyses developed for the Site indicates confirmed SSIs of Appendix III above background and SSLs of Appendix IV above the established GWPS. In accordance with 40 CFR § 257.96, Georgia Power has initiated an ACM study for the identified SSLs. Data collected to date have delineated the horizonal and vertical extent of arsenic and cobalt for AP-1. An ASD for the occurrence of molybdenum in groundwater was approved by GA EPD on March 3, 2023. Results from rock analyses completed near DGWC-68A indicate naturally occurring molybdenum is present in the rock in the form of molybdenite.

Based on the findings presented herein, Plant McDonough will continue with assessment groundwater monitoring and reporting. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of corrective measures was submitted to GA EPD on August 31, 2023 and is pending GA EPD review. A high-resolution site characterization has been completed and data will be used to prepare a pilot study workplan which will be submitted for GA EPD review and approval following concurrence with the *Draft Remedy Selection Report*. The next sampling event is tentatively scheduled for February 2025.

9.0 REFERENCES

Daniel, C.C., P.R Dahlen, Preliminary Hydrogeologic Assessment and Study Plan for a Regional Ground-Water Resource Investigation of the Blue Ridge and Piedmont Provinces of North Carolina, U.S. Geological Survey Water-Resource Investigation Report 02-4105. 2002

Dowd, J.F. and Marshall, J.E., Recharge to High Yield Wells in the Piedmont. Proceeding of the 1995 Georgia Water Resources Conference held April 11-12, 1995, at The University of Georgia, Athens. 1995.

Freeze, R.A. and Cherry, J.A., 1979. *Groundwater*, Prentice-Hall, Inc. Englewood Cliffs, New Jersey. 624pp.

Golder, 2020, *Assessment of Corrective Measures*, Georgia Power Company, Plant McDonough-Atkinson Ash Pond 1, December 4, 2020

Golder, 2022. *Alternate Source Demonstration for Molybdenum*, Plant McDonough-Atkinson Ash Pond 1, Golder Associates USA Inc., July 29, 2022.

Groundwater Stats Consulting, 2019, *Georgia Power Company's Plant McDonough Ash Pond 1 (AP-1) Statistical Analysis Plan*, April 2019.

Heath, R.C., 1982, *Basic Ground-Water Hydrology*. Water Supply Paper 2220. U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado.

Heath, R.C., 1984. *Ground-Water Regions of the United States*, U.S. Geological Survey Water-Supply Paper 2242, 78 p.

Paar, 1997. *Evaluation of Radiochemical Data Usability*, Paar J.G. and Porterfield D.R., US Department of Energy, April 1997.

US EPA, 1989, U.S. Environmental Protection Agency, Office of Waste Management Division, Interim Final RCRA Facility Investigation (RFI) Guidance Volume II of IV. EPA 530/SW-89-031, May 1989.

US EPA, 1996, *Soil Guidance Manual*.

US EPA, 2009, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery – Program Implementation and Information Division, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. EPA 530/R-09-007, March 2009.

US EPA, 2016, U.S. Environmental Protection Agency Region 4, Science and Ecosystem Support Division, *Data Validation Standard Operating Procedures*, (QAS-SOP-0025), February 16, 2016.

US EPA, 2020a, U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Field Equipment Cleaning and Decontamination,* (LSASDPROC-205-R4), June 22, 2020.

US EPA, 2020b. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Method Data Review,* EPA 542-R-20-006, November 2020.

US EPA, 2023a. U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Surface Water Sampling*, (LSASDPROC-201-R6), April 22, 2023.

US EPA, 2023b. U.S. Environmental Protection Agency Region 4, Laboratory Services and Applied Science Division, Operating Procedure: *Groundwater Sampling* (LSASDPROC-301-R6), April 22, 2023.

WSP, 2023a. *Hydrogeologic Assessment Report*, Georgia Power Company – Plant McDonough-Atkinson CCR Surface Impoundment (CCR Unit AP-1), March 20, 2023.

WSP, 2023b, *Groundwater Monitoring Plan*, Georgia Power Company – Plant McDonough-Atkinson CCR Surface Impoundment (CCR Unit AP-1) March 2023.

WSP, 2023c, *Draft Remedy Selection Report*, Georgia Power Company – Plant McDonough-Atkinson Ash Pond 1, August 31, 2023.

WSP, 2024. *Hydrogeologic Assessment Report*, Georgia Power Company – Plant McDonough-Atkinson CCR Surface Impoundment (CCR Unit AP-2 and AP-3/4), December 2024.

TABLES

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK										
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.37	28.9	823.8	813.8	9/24/2016
DGWA-70A	Upgradient	Saprolite/PWR	1390481.4	2200591.6	808.52	805.67	59.3	756.8	746.8	5/10/2017
DGWA-71	Upgradient	Saprolite/PWR	1393963.3	2201714.8	863.84	861.22	43.8	827.8	817.8	2/28/2017
DGWC-37	Downgradient	Saprolite/PWR	1390482.2	2200919.8	766.21	763.64	39.7	734.3	724.3	11/28/2012
DGWC-38	Downgradient	Residual Soils	1390362.7	2201148.6	757.43	754.67	25.0	740.0	730.0	11/29/2012
DGWC-39	Downgradient	Residual Soils/Saprolite	1390303.6	2201540.1	759.89	756.93	21.2	746.1	736.1	11/6/2012
DGWC-40	Downgradient	Saprolite	1390625.7	2201825.9	779.06	776.12	34.9	751.6	741.6	11/5/2012
DGWC-67	Downgradient	Saprolite/PWR	1390953.8	2200830.7	766.70	766.80	56.3	720.5	710.5	3/14/2017
DGWC-68A	Downgradient	Saprolite	1391301.2	2200734.9	765.33	765.06	29.8	745.7	735.7	4/20/2017
DGWC-69	Downgradient	Saprolite/PWR	1391585.0	2200657.1	763.75	763.99	24.3	749.7	739.7	3/16/2017
DGWC-121	Downgradient	PWR/Upper Bedrock	1390739.7	2200849.4	764.16	764.52	50.0	724.8	714.8	3/22/2022
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK										
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.40	39.9	730.7	720.7	10/4/2016
B-100	Downgradient	Saprolite	1390254.8	2202242.1	777.95	775.32	44.8	740.5	730.5	7/8/2020
B-105D	Downgradient	Upper Bedrock	1390634.5	2201831.9	779.01	776.03	70.0	716.0	706.0	10/19/2020
B-112D	Downgradient	Upper Bedrock	1391564.2	2200664.1	765.58	765.98	55.0	721.3	711.3	3/22/2021

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) DETECTION MONITORING WELL NETWORK										
DGWA-53	Upgradient	Upper Bedrock	1393472.8	2201668.8	844.26	841.37	28.9	823.8	813.8	9/24/2016
DGWA-70A	Upgradient	Saprolite/PWR	1390481.4	2200591.6	808.52	805.67	59.3	756.8	746.8	5/10/2017
DGWA-71	Upgradient	Saprolite/PWR	1393963.3	2201714.8	863.84	861.22	43.8	827.8	817.8	2/28/2017
DGWC-2	Downgradient	PWR/Upper Bedrock	1393958.0	2202119.5	850.88	848.17	49.0	809.5	799.5	10/2/2012
DGWC-4	Downgradient	Saprolite	1394171.5	2202662.4	814.85	812.06	45.0	777.4	767.4	10/3/2012
DGWC-5	Downgradient	Saprolite/PWR/Upper Bedrock	1394306.3	2202965.1	791.75	788.64	30.0	768.9	758.9	10/4/2012
DGWC-8	Downgradient	Saprolite/PWR	1394322.2	2203882.1	826.38	824.02	49.1	785.3	775.3	10/10/2012
DGWC-9	Downgradient	Saprolite/PWR	1394055.9	2204170.0	824.35	821.86	30.0	802.3	792.3	10/10/2012
DGWC-10	Downgradient	Saprolite	1393818.3	2204201.1	823.55	820.82	45.4	785.8	775.8	10/11/2012
DGWC-11	Downgradient	Saprolite/PWR	1393547.1	2204166.2	800.57	797.99	49.1	759.2	749.2	10/15/2012
DGWC-12	Downgradient	Residual Soils/Saprolite	1393149.4	2204128.3	773.86	771.10	25.1	756.4	746.4	10/15/2012
DGWC-13	Downgradient	Saprolite/PWR	1392881.1	2204084.6	794.10	791.20	43.8	757.8	747.8	11/29/2012
DGWC-14	Downgradient	PWR/Upper Bedrock	1392574.2	2204013.3	792.40	789.69	34.3	765.8	755.8	12/18/2012
DGWC-15	Downgradient	PWR	1392544.1	2203679.0	824.50	821.43	67.1	764.7	754.7	11/29/2012
DGWC-17	Downgradient	Saprolite	1392645.6	2203051.0	837.05	834.14	44.5	799.9	789.9	1/9/2013
DGWC-19	Downgradient	Saprolite	1392342.6	2202601.0	825.46	822.87	39.8	793.5	783.5	3/12/2013
DGWC-20	Downgradient	Saprolite	1392164.5	2202315.6	822.14	819.66	39.7	790.6	780.6	3/5/2013
DGWC-21	Downgradient	PWR/Upper Bedrock	1392067.5	2202063.5	816.28	813.47	69.0	754.9	744.9	10/31/2012
DGWC-22	Downgradient	Upper Bedrock	1392126.3	2201791.9	816.59	813.69	60.0	764.0	754.0	10/25/2012
DGWC-23	Downgradient	Upper Bedrock	1392239.7	2201582.0	818.37	815.63	60.1	765.8	755.8	10/25/2012
DGWC-42	Downgradient	Saprolite	1391327.8	2201870.2	804.68	801.98	50.4	762.1	752.1	11/12/2012
DGWC-47	Downgradient	PWR/Upper Bedrock	1391553.8	2202610.5	797.45	794.35	28.8	776.0	766.0	6/23/2016
DGWC-48	Downgradient	Saprolite/PWR/Upper Bedrock	1391314.6	2202290.2	788.33	785.21	30.0	765.6	755.6	6/22/2016

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
ASH POND 2 and ASH PONDS 3/4 (AP-2 and AP-3/4) ASSESSMENT MONITORING WELL NETWORK										
B-56	Downgradient	Saprolite	1393957.9	2204187.8	823.59	820.95	45.0	786.4	776.4	10/3/2016
B-62	Downgradient	Upper Bedrock	1389828.1	2201811.2	760.08	760.40	39.9	730.7	720.7	10/4/2016
B-63	Downgradient	Saprolite/PWR	1390999.1	2202978.1	777.10	777.37	46.0	741.9	731.9	10/6/2016
B-66	Downgradient	Saprolite	1393858.2	2204277.5	815.90	813.33	55.3	768.3	758.3	11/16/2016
B-77	Downgradient	Residual Soils	1390948.7	2202942.0	776.86	777.12	42.0	745.1	735.1	9/17/2019
B-82	Downgradient	Saprolite	1393750.0	2204258.1	810.07	807.55	45.0	773.1	763.1	9/21/2019
B-83	Downgradient	Residual Soils/Saprolite	1390735.5	2202695.6	776.98	777.17	48.6	738.6	728.6	9/30/2019
B-88	Downgradient	Saprolite/PWR	1394401.1	2203738.3	820.07	816.80	72.0	754.8	744.8	11/15/2019
B-92	Downgradient	Residual Soils/Saprolite	1394392.7	2203026.7	785.08	785.30	25.0	770.7	760.7	12/11/2019
B-93	Downgradient	Residual Soils/Saprolite	1394348.7	2202946.7	789.07	789.19	29.2	770.3	760.3	12/12/2019
B-97	Downgradient	Upper Bedrock	1394430.0	2203008.3	786.29	786.50	31.7	765.2	755.2	2/11/2020
B-98	Downgradient	Saprolite/Upper Bedrock	1394392.5	2202934.0	789.67	789.81	19.4	780.8	770.8	2/10/2020
B-100	Downgradient	Saprolite	1390254.8	2202242.1	777.95	775.32	44.8	740.5	730.5	7/8/2020
B-101D	Downgradient	PWR/Upper Bedrock	1394063.6	2204168.2	824.29	821.24	75.0	756.3	746.3	11/12/2020
B-102D	Downgradient	Upper Bedrock	1393828.4	2204200.4	823.42	820.64	85.0	746.2	736.2	11/10/2020
B-104D	Downgradient	Upper Bedrock	1391318.3	2202298.5	787.90	785.31	60.0	735.3	725.3	10/20/2020
B-106D	Downgradient	Upper Bedrock	1394327.1	2203869.2	826.21	823.39	80.0	754.0	744.0	11/13/2020
B-107D	Downgradient	Upper Bedrock	1392334.5	2202596.4	823.38	820.44	85.8	745.3	735.3	10/28/2020
B-108D	Downgradient	Upper Bedrock	1392156.1	2202312.5	821.13	818.33	80.0	749.3	739.3	10/27/2020
B-111D	Downgradient	Upper Bedrock	1394303.6	2202956.4	791.84	788.99	85.0	714.8	704.8	11/3/2020
B-120D	Downgradient	Upper Bedrock	1394047.2	2202436.4	836.42	834.03	69.3	775.0	765.0	3/6/2021
B-122D	Downgradient	Lower Bedrock	1390992.8	2202975.4	777.03	777.32	79.8	707.5	697.5	3/24/2022
B-125D	Downgradient	Lower Bedrock	1394111.6	2202580.7	821.70	819.15	145.4	684.1	674.1	3/31/2023

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
PIEZOMETERS										
B-3	Downgradient	Saprolite/Upper Bedrock	1394045.1	2202411.5	837.78	834.86	37.0	808.2	798.2	10/3/2012
B-6	Downgradient	Saprolite/PWR	1394419.5	2203266.5	789.47	786.45	35.4	761.5	751.5	10/9/2012
B-7	Downgradient	Residual Soils	1394374.6	2203596.1	809.16	806.04	25.2	791.2	781.2	10/9/2012
B-16	Downgradient	Saprolite	1392595.1	2203315.4	826.47	823.54	43.7	790.1	780.1	12/19/2012
B-18	Downgradient	Residual Soils/Saprolite	1392521.0	2202875.5	826.56	823.89	32.6	801.5	791.5	1/10/2013
B-24	Downgradient	Upper Bedrock	1392479.9	2201450.0	822.11	819.19	79.1	750.9	740.9	10/24/2012
B-25	Downgradient	Upper Bedrock	1392813.3	2201502.7	836.54	833.41	54.8	789.0	779.0	10/24/2012
B-26	Downgradient	Upper Bedrock	1393105.6	2201550.4	853.60	850.61	49.3	811.7	801.7	10/23/2012
B-28	Downgradient	PWR/Upper Bedrock	1391967.4	2201679.2	816.08	813.28	69.4	754.3	744.3	10/31/2012
B-29	Downgradient	Saprolite/PWR	1391890.0	2201422.0	816.43	813.47	54.4	769.4	759.4	1/11/2013
B-41	Downgradient	Saprolite	1390920.8	2201751.9	795.20	792.40	60.0	743.0	733.0	11/14/2012
B-50	Downgradient	Saprolite	1391657.1	2201841.0	809.67	809.20	35.2	784.4	774.4	6/24/2016
B-51	Downgradient	Saprolite/PWR	1390501.2	2200906.5	765.92	763.29	65.0	708.3	698.3	6/27/2016
B-52	Downgradient	PWR	1392308.3	2201314.8	822.89	820.18	50.0	781.3	771.3	9/28/2016
B-54	Downgradient	Saprolite/PWR/Upper Bedrock	1394423.5	2203140.7	785.46	782.54	34.2	758.7	748.7	9/26/2016
B-55	Downgradient	Saprolite	1394142.6	2204147.9	825.12	822.86	52.0	781.9	771.9	9/22/2016
B-57	Downgradient	Upper Bedrock	1391396.3	2202736.9	789.04	786.03	50.5	746.0	736.0	9/24/2016
B-58	Downgradient	Saprolite	1391125.7	2202426.5	788.17	785.20	45.0	750.7	740.7	9/23/2016
B-59	Downgradient	Saprolite/PWR/Upper Bedrock	1394349.1	2203001.1	788.00	785.41	30.3	765.2	755.2	9/23/2016
B-60	Downgradient	Saprolite/PWR	1391100.7	2202881.6	782.13	779.25	49.8	740.0	730.0	9/29/2016
B-61	Downgradient	Saprolite/PWR	1390957.8	2202505.8	782.09	778.95	51.9	737.5	727.5	9/29/2016
B-64	Downgradient	Saprolite	1394381.9	2203031.3	785.83	785.98	30.4	766.0	756.0	11/2/2016

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
PIEZOMETERS										
B-65	Downgradient	Saprolite/PWR/Upper Bedrock	1394381.2	2204050.8	821.95	822.30	45.4	787.9	777.9	11/15/2016
B-68	Downgradient	Saprolite/PWR	1391298.2	2200714.2	758.68	759.05	18.0	751.1	741.1	3/16/2017
B-72	Downgradient	Saprolite	1391241.4	2200725.9	758.46	758.45	21.9	747.0	737.0	4/19/2017
B-73	Downgradient	Saprolite	1391351.8	2200699.4	759.21	759.16	15.8	753.8	743.8	4/19/2017
B-76	Downgradient	Saprolite	1390717.4	2202756.9	760.53	760.87	38.5	732.4	722.4	9/18/2019
B-78	Downgradient	Saprolite/Upper Bedrock	1394328.2	2202958.2	790.75	787.79	30.0	767.8	758.3	9/22/2019
B-79	Downgradient	Saprolite/PWR	1394458.6	2203223.0	788.66	785.84	34.9	760.9	751.4	9/21/2019
B-80	Downgradient	Saprolite/PWR	1394372.6	2203533.9	804.47	801.73	30.0	781.9	772.4	9/20/2019
B-81	Downgradient	Saprolite/PWR	1394364.9	2203741.1	820.56	817.64	50.0	778.5	768.5	9/22/2019
B-85	Downgradient	Saprolite/PWR/Upper Bedrock	1394433.4	2203134.5	782.54	782.71	34.5	758.5	748.5	11/18/2019
B-86	Downgradient	Saprolite/Upper Bedrock	1394480.0	2203206.6	784.29	784.52	34.1	760.4	750.4	11/18/2019
B-87	Downgradient	Saprolite/PWR	1394401.9	2203531.3	803.37	800.32	42.0	768.6	758.6	11/17/2019
B-89	Downgradient	Upper Bedrock	1394398.4	2204049.4	822.36	822.53	49.5	783.0	773.0	11/19/2019
B-90	Downgradient	Residual Soils/Saprolite	1394501.0	2203212.6	784.00	784.16	33.4	760.8	750.8	12/10/2019
B-91	Downgradient	Residual Soils/Saprolite	1394447.1	2203123.9	782.98	783.10	35.0	758.5	748.5	12/11/2019
B-94	Downgradient	Saprolite/PWR	1394402.0	2203513.7	801.74	799.12	45.2	764.5	754.5	1/23/2020
B-95	Downgradient	Saprolite	1394518.6	2203167.7	784.00	784.18	33.3	761.2	751.2	2/11/2020
B-96	Downgradient	Saprolite/PWR	1394478.7	2203099.3	784.92	785.19	33.1	762.1	752.1	2/10/2020
B-99	Downgradient	Fill	1394524.2	2203084.5	782.39	782.57	12.3	775.3	770.3	7/7/2020
B-103D	Downgradient	Lower Bedrock	1391543.5	2202614.4	795.96	793.77	70.0	733.8	723.8	10/15/2020

Table 1
Summary of Monitoring Well, Assessment Well and Piezometer Construction Data
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Screened Lithology	NAD 83 Northing	NAD 83 Easting	Top of Casing Elevation (feet NAVD 88)	Ground Surface Elevation (feet NAVD 88)	Total Well Depth (feet bgs)	Top of Screen Elevation (feet NAVD 88)	Bottom of Screen Elevation (feet NAVD 88)	Date of Installation
PIEZOMETERS										
B-109D	Downgradient	Upper Bedrock	1393957.5	2202127.0	850.73	847.78	100.0	758.4	748.4	10/31/2020
B-110D	Downgradient	Upper Bedrock	1391294.4	2200736.0	764.61	764.55	65.0	711.6	701.6	11/17/2020
B-113D	Downgradient	Lower Bedrock	1391264.6	2200719.2	758.22	758.87	84.7	684.5	674.5	3/30/2021
B-115D	Downgradient	Lower Bedrock	1391265.3	2202580.7	789.17	786.43	79.5	717.2	707.2	3/20/2021
B-116D	Upgradient	Upper Bedrock	1390483.7	2200611.0	807.82	805.31	89.5	726.1	716.1	3/8/2021
B-117D	Upgradient	Upper Bedrock	1393963.8	2201727.3	863.82	861.23	75.0	796.5	786.5	3/17/2021
B-118	Upgradient	Upper Bedrock	1391219.3	2200449.7	807.70	804.99	75.2	740.1	730.1	3/9/2021
B-119D	Upgradient	Lower Bedrock	1391236.4	2200446.6	807.15	804.53	105.0	709.8	699.8	3/16/2021
B-123D	Downgradient	Lower Bedrock	1391234.4	2202608.4	781.80	778.85	160.0	668.9	618.9	4/4/2022

Notes:

1. Coordinate System: NAD 1983 State Plane Georgia West (U.S. feet)
2. bgs - Below Ground Surface; NAD 83 - North American Datum of 1983; NAVD 88 - North American Vertical Datum of 1988; PWR - Partially Weathered Rock
3. The Certified Well Survey data has been incorporated into this construction summary.
4. Ground surface elevations shown are the elevation of the survey nail.
5. Well screen elevations are calculated by subtracting the depths to top and bottom of the well screen from the ground surface elevation.
6. Well DGWC-9 was decommissioned and abandoned on November 19, 2024.

Table 2
Groundwater Event Summary
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Well ID	Hydraulic Location	Well Designation	September 04 2024 - September 11 2024
			Assessment Event
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK			
DGWA-53	Upgradient	Detection	X
DGWA-70A	Upgradient	Detection	X
DGWA-71	Upgradient	Detection	X
DGWC-37	Downgradient	Detection	X
DGWC-38	Downgradient	Detection	X
DGWC-39	Downgradient	Detection	X
DGWC-40	Downgradient	Detection	X
DGWC-67	Downgradient	Detection	X
DGWC-68A	Downgradient	Detection	X
DGWC-69	Downgradient	Detection	X
DGWC-121	Downgradient	Detection	X
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK			
B-62	Downgradient	Assessment	X
B-100	Downgradient	Assessment	X
B-105D	Downgradient	Assessment	X
B-112D	Downgradient	Assessment	X

Notes:

X - indicates well sampled during event

Table 3
Summary of Groundwater Elevations
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

		September 2024	
Well ID	**Top of Casing Elevation (feet NAVD 88)**	**Depth to Water (feet, BTOC)**	**Groundwater Elevation (feet NAVD 88)**
ASH POND 1 (AP-1) DETECTION MONITORING WELL NETWORK			
DGWA-53	844.26	18.82	825.44
DGWA-70A	808.52	43.18	765.34
DGWA-71	863.84	34.84	829.00
DGWC-37	766.21	14.57	751.64
DGWC-38	757.43	7.15	750.28
DGWC-39	759.89	9.30	750.59
DGWC-40	779.06	20.48	758.58
DGWC-67	766.70	11.37	755.33
DGWC-68A	765.33	10.95	754.38
DGWC-69	763.75	6.80	756.95
DGWC-121	764.16	10.21	753.95
ASH POND 1 (AP-1) ASSESSMENT MONITORING WELL NETWORK			
B-62	760.08	17.41	742.67
B-100	777.95	35.49	742.46
B-105D	779.01	20.09	758.92
B-112D	765.58	7.95	757.63

Table 3
Summary of Groundwater Elevations
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

		September 2024	
Well ID	**Top of Casing Elevation (feet NAVD 88)**	**Depth to Water (feet, BTOC)**	**Groundwater Elevation (feet NAVD 88)**
PIEZOMETERS			
B-3	837.78	37.96	799.82
B-6	789.47	12.37	777.10
B-7	809.16	Dry	Dry
B-16	826.47	38.49	787.98
B-18	826.56	26.71	799.85
B-24	822.11	25.15	796.96
B-25	836.54	19.58	816.96
B-26	853.60	29.46	824.14
B-28	816.08	32.89	783.19
B-29	816.43	31.50	784.93
B-41	795.20	26.91	768.29
B-50	809.67	24.46	785.21
B-51	765.92	13.95	751.97
B-52	822.89	32.79	790.10
B-54	785.46	7.89	777.57
B-55	825.12	27.24	797.88
B-57	789.04	20.87	768.17
B-58	788.17	21.66	766.51
B-59	788.00	10.85	777.15
B-60	782.13	32.66	749.47
B-61	782.09	21.29	760.80
B-64	785.83	8.02	777.81
B-65	821.95	14.20	807.75
B-68	758.68	4.52	754.16
B-72	758.46	2.26	756.20
B-73	759.21	5.10	754.11
B-76	760.53	16.58	743.95
B-78	790.75	12.63	778.12
B-79	788.66	9.82	778.84
B-80	804.47	24.73	779.74
B-81	820.56	45.86	774.70
B-85	782.54	4.58	777.96
B-86	784.29	4.71	779.58
B-87	803.37	23.32	780.05
B-89	822.36	11.75	810.61
B-90	784.00	4.15	779.85
B-91	782.98	4.88	778.10
B-94	801.74	22.02	779.72
B-95	784.00	3.92	780.08

Table 3
Summary of Groundwater Elevations
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

		September 2024	
Well ID	**Top of Casing Elevation (feet NAVD 88)**	**Depth to Water (feet, BTOC)**	**Groundwater Elevation (feet NAVD 88)**
PIEZOMETERS			
B-96	784.92	6.94	777.98
B-99	782.39	5.16	777.23
B-103D	795.96	15.14	780.82
B-109D	850.73	41.63	809.10
B-110D	764.61	9.81	754.80
B-113D	758.22	1.91	756.31
B-115D	789.17	23.03	766.14
B-116D	807.82	45.35	762.47
B-117D	863.82	34.47	829.35
B-118	807.70	52.56	755.14
B-119D	807.15	48.74	758.41
B-123D	781.80	13.95	767.85

Notes:

1. Elevation data recorded in feet referenced to the North American Vertical Datum 1988 (NAVD 88)
2. Survey data for monitoring wells and piezometers provided by Metro Engineering.
3. BTOC indicates below top of casing.

Table 4
Groundwater Flow Velocity Calculations - September 2024
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Gauging Event	Well Pair	Groundwater Elevations in Well Pairs (ft)		Change in Elevation (Δ h) (ft)	Distance Between Well 1 and Well 2 (Δ l) (ft)	Hydraulic Gradient (Δ h / Δ l) (ft/ft)	Estimated Hydraulic Conductivity for Uppermost Aquifer (K) (ft/day)[5]	Estimated Effective Porosity (ne)	Calculated Groundwater Flow Velocity (ft/day)	Calculated Groundwater Flow Velocity (ft/year)
September 2024	B-28 to DGWC-37	783.19	751.64	31.55	1668	0.019	0.69	0.2	0.07	24
September 2024	B-29 to DGWC-68A	784.93	754.38	30.55	905	0.034	0.69	0.2	0.12	43
September 2024	B-50 to DGWC-39	785.21	750.59	34.62	1387	0.025	0.69	0.2	0.09	31

Notes:
ft = feet, ft/ft = feet/foot, ne = effective porosity
1. Δ h = Change in groundwater elevation
2. Δ l = Distance between wells in direction of flow path
3. i = Δ h / Δ l Hydraulic Gradient
4. Velocity = (i * K)/ne
5. Hydraulic conductivity based on historic aquifer performance tests (updated October 2024)
6. Assumed effective porosities for overburden was based on the default values recommended by US EPA 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 5
Groundwater Analytical Data Summary - September 2024
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

	Sample Location	DGWA-53	DGWA-70A	DGWA-71	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67
	Sample Date	09/11/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/05/2024	09/05/2024
ANALYTE	**UNITS**								
APPENDIX III									
Boron	mg/L	0.042	< 0.012	< 0.012	1.5	2.6	2.7	0.64	3.7
Calcium	mg/L	10.6	6.3	6.5	58.1	83.2	92.0	38.8	44.6
Chloride	mg/L	1.8	2.2	9.4	6.0	9.0	8.2	14.4	10.4
Fluoride	mg/L	0.060 J	0.059 J	0.060 J	0.10	0.12	0.14	0.14	0.071 J
pH, Field	SU	6.10	5.51	5.85	6.24	6.01	6.45	4.60	6.19
Sulfate	mg/L	11.5	< 0.50	9.9	95.2	214	142	160	107
TDS	mg/L	122	61.0	97.0	348	503	466	374	314
APPENDIX IV									
Antimony	mg/L	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	0.00088 J	< 0.00054	< 0.00054
Arsenic	mg/L	0.00091 J	< 0.00084	< 0.00084	0.00093 J	< 0.00084	0.00091 J	< 0.00084	< 0.00084
Barium	mg/L	0.084	0.039	0.027	0.067	0.025	0.11	0.016	0.068
Beryllium	mg/L	< 0.000094	< 0.000094	0.00010 J	< 0.000094	< 0.000094	< 0.000094	0.0029	< 0.000094
Cadmium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00012 J	< 0.00010	0.00069	0.00029 J
Chromium	mg/L	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019
Cobalt	mg/L	0.0052	< 0.00032	< 0.00032	< 0.00032	0.0015 J	0.0065	0.035	0.0011 J
Lead	mg/L	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016
Lithium	mg/L	0.0078 J	< 0.0016	< 0.0016	0.0019 J	0.0029 J	< 0.0016	0.0020 J	0.0045 J
Mercury	mg/L	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013
Molybdenum	mg/L	0.010	< 0.00062	< 0.00062	< 0.00062	0.0012 J	< 0.00062	< 0.00062	< 0.00062
Combined Radium 226 + 228	pCi/L	1.58	0.174 U	0.593 U	0.461 U	0.546 U	0.203 U	0.217 U	0.547 U
Selenium	mg/L	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096
Thallium	mg/L	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038
Fluoride	mg/L	0.060 J	0.059 J	0.060 J	0.10	0.12	0.14	0.14	0.071 J
ADDITIONAL PARAMETERS									
Bicarbonate Alkalinity as CaCO3	mg/L	54.4	28.9	15.3	138	92.2	250	< 5.0	93.2
Carbonate Alkalinity as CaCO3	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Alkalinity as CaCO3	mg/L	54.4	28.9	15.3	138	92.2	250	< 5.0	93.2
Iron	mg/L	1.7	< 0.025	0.027 J	0.033 J	< 0.025	11.6	0.038 J	0.053
Ferrous (II) Iron	mg/L	1.5	0.0	0.0	0.0	0.0	6.5	0.0	0.0
Magnesium	mg/L	3.8	2.6	0.97	13.5	25.9	27.0	16.1	16.8
Potassium	mg/L	3.5	1.7	0.74	3.7	4.1	3.0	5.9	3.8
Sodium	mg/L	7.9	3.3	8.0	10.3	12.3	13.8	20.1	11.2
Sulfide	mg/L	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022

Notes:
1. mg/L - milligrams per liter
2. pCi/L - picocuries per liter
3. SU - Standard Units
4. TDS - Total Dissolved Solids
5. NA - Substance not analyzed
6. < indicates the substance was not detected above the method detection limit (MDL). The value displayed is the MDL.
7. J - The result is an estimated concentration. “J” qualifiers are applied by the laboratory when the concentration reported is above the method detection limit, but below the laboratory reporting limit.
8. Radium data are 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.
9. B-129 is a temporary piezometer.

Table 5
Groundwater Analytical Data Summary - September 2024
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

	Sample Location	DGWC-68A	DGWC-69	DGWC-121	B-62	B-100	B-105D	B-112D	B-129
	Sample Date	09/05/2024	09/05/2024	09/04/2024	09/09/2024	09/05/2024	09/05/2024	09/09/2024	1/27/2025
ANALYTE	**UNITS**								
APPENDIX III									
Boron	mg/L	1.7	0.24	1.6	0.059	0.19	0.72	0.22	0.10
Calcium	mg/L	52.7	13.6	41.0	30.8	41.6	71.3	21.9	NA
Chloride	mg/L	4.4	5.0	4.7	5.5	9.1	16.2	3.2	NA
Fluoride	mg/L	0.11	0.11	0.082 J	0.18	0.069 J	0.13	0.34	NA
pH, Field	SU	6.53	6.17	6.11	6.35	5.20	6.46	6.70	7.26
Sulfate	mg/L	35.9	14.9	87.8	44.2	322	236	13.8	NA
TDS	mg/L	278	125	276	187	581	511	162	NA
APPENDIX IV									
Antimony	mg/L	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	0.00062 J	< 0.00054	NA
Arsenic	mg/L	< 0.00084	0.020	< 0.00084	< 0.00084	< 0.00084	< 0.00084	< 0.00084	NA
Barium	mg/L	0.10	0.062	0.045	0.017	0.021	0.038	0.0036 J	NA
Beryllium	mg/L	< 0.000094	< 0.000094	< 0.000094	0.00018 J	0.00053	< 0.000094	< 0.000094	NA
Cadmium	mg/L	0.00025 J	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	NA
Chromium	mg/L	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.0019	NA
Cobalt	mg/L	< 0.00032	< 0.00032	0.0011 J	< 0.00032	0.031	0.0020 J	< 0.00032	0.00076 J
Lead	mg/L	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	< 0.00016	NA
Lithium	mg/L	< 0.0016	0.0021 J	0.0046 J	0.0093 J	0.0019 J	0.011 J	0.0042 J	NA
Mercury	mg/L	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	NA
Molybdenum	mg/L	0.19	0.0076 J	< 0.00062	< 0.00062	< 0.00062	< 0.00062	0.026	NA
Combined Radium 226 + 228	pCi/L	1.15	1.60	0.563 U	2.14	0.440 U	3.88	1.51	NA
Selenium	mg/L	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096	NA
Thallium	mg/L	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.00038	NA
Fluoride	mg/L	0.11	0.11	0.082 J	0.18	0.069 J	0.13	0.34	NA
ADDITIONAL PARAMETERS									
Bicarbonate Alkalinity as CaCO3	mg/L	218	59.0	93.6	79.8	< 5.0	56.9	104	NA
Carbonate Alkalinity as CaCO3	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
Total Alkalinity as CaCO3	mg/L	218	59.0	93.6	79.8	< 5.0	56.9	104	NA
Iron	mg/L	0.16	0.10	1.4	6.2	20.2	2.8	0.14	NA
Ferrous (II) Iron	mg/L	0.0	0.0	0.0	5.0	7.0	2.0	0.0	NA
Magnesium	mg/L	17.0	3.6	12.5	5.3	41.9	22.8	6.3	NA
Potassium	mg/L	4.0	2.8	4.1	2.6	1.1	8.2	3.2	NA
Sodium	mg/L	10.3	11.0	10.2	10.6	26.9	24.8	14.0	NA
Sulfide	mg/L	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	0.55	< 0.022	NA

Notes:
1. mg/L - milligrams per liter
2. pCi/L - picocuries per liter
3. SU - Standard Units
4. TDS - Total Dissolved Solids
5. NA - Substance not analyzed
6. < indicates the substance was not detected above the method detection limit (MDL). The value displayed is the MDL.
7. J - The result is an estimated concentration. “J” qualifiers are applied by the laboratory when the concentration reported is above the method detection limit, but below the laboratory reporting limit.
8. Radium data are 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.
9. B-129 is a temporary piezometer.

Table 6
Surface Water Analytical Data Summary - September 2024
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Sample Location		UT01_DS	UT01_US	UT02	UT03	CR+0.4	CR+0.2	CR-0.1
Sample Date		09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024
ANALYTE	UNITS							
APPENDIX III								
Boron	mg/L	0.17	0.043	0.087	0.081	0.051	0.059	< 0.040
Calcium	mg/L	15.4	13.5	14.3	14.4	7.4	7.5	6.4
Chloride	mg/L	13.5	14.7	13.9	13.8	15.7	15.8	14.9
Fluoride	mg/L	0.48	0.54	0.50	0.50	0.14	0.14	0.13
pH, Field	SU	7.11	7.02	6.89	6.93	7.29	7.14	7.15
Sulfate	mg/L	20.4	15.8	18.4	18.4	12.0	12.7	9.1
TDS	mg/L	123	104	114	115	89.0	94.0	85.0
APPENDIX IV								
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	NA
Cobalt	mg/L	NA	NA	NA	NA	< 0.0050	< 0.0050	< 0.0050
ADDITIONAL PARAMETERS								
Alkalinity Total as CaCO3	mg/L	46.5	41.8	44.3	44.6	28.3	29.0	27.0
Bicarbonate Alkalinity as CaCO3	mg/L	46.5	41.8	44.3	44.6	28.3	29.0	27.0
Magnesium	mg/L	3.5	2.7	3.0	2.9	3.3	3.2	2.9
Potassium	mg/L	4.0	3.1	3.5	3.5	5.1	4.9	4.8
Sodium	mg/L	13.6	13.1	14.1	14.1	15.0	15.4	14.7

Notes:

mg/L - milligrams per liter, SU - standard units

NA - Indicates substance not analyzed

TDS - Total Dissolved Solids

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

Surface water samples were collected by Arcadis, on behalf of Georgia Power.

TABLE 7
Summary of Background Levels and GWPS
Georgia Power Company
Plant McDonough - Ash Pond 1
Cobb County, GA

Analyte	Units	US EPA MCL	Federal CCR Rules Specified GWPS	AP-1 Background September 2024[1]	AP-1 GWPS September 2024
Antimony	mg/L	0.006		0.0045[2]	0.006
Arsenic	mg/L	0.01		0.0054[2]	0.01
Barium	mg/L	2		0.19	2
Beryllium	mg/L	0.004		0.0009[2]	0.004
Cadmium	mg/L	0.005		0.0005[2]	0.005
Chromium	mg/L	0.1		0.005[2]	0.1
Cobalt	mg/L	NA	0.006	0.024[2]	0.024
Fluoride	mg/L	4		0.42	4
Lead	mg/L	NA	0.015	0.001[2]	0.015
Lithium	mg/L	NA	0.04	0.03	0.04
Mercury	mg/L	0.002		0.0002[2]	0.002
Molybdenum	mg/L	NA	0.1	0.0409[2]	0.1
Radium (226 + 228)	pCi/L	5		4.62	5
Selenium	mg/L	0.05		0.005[2]	0.05
Thallium	mg/L	0.002		0.001[2]	0.002

Notes:

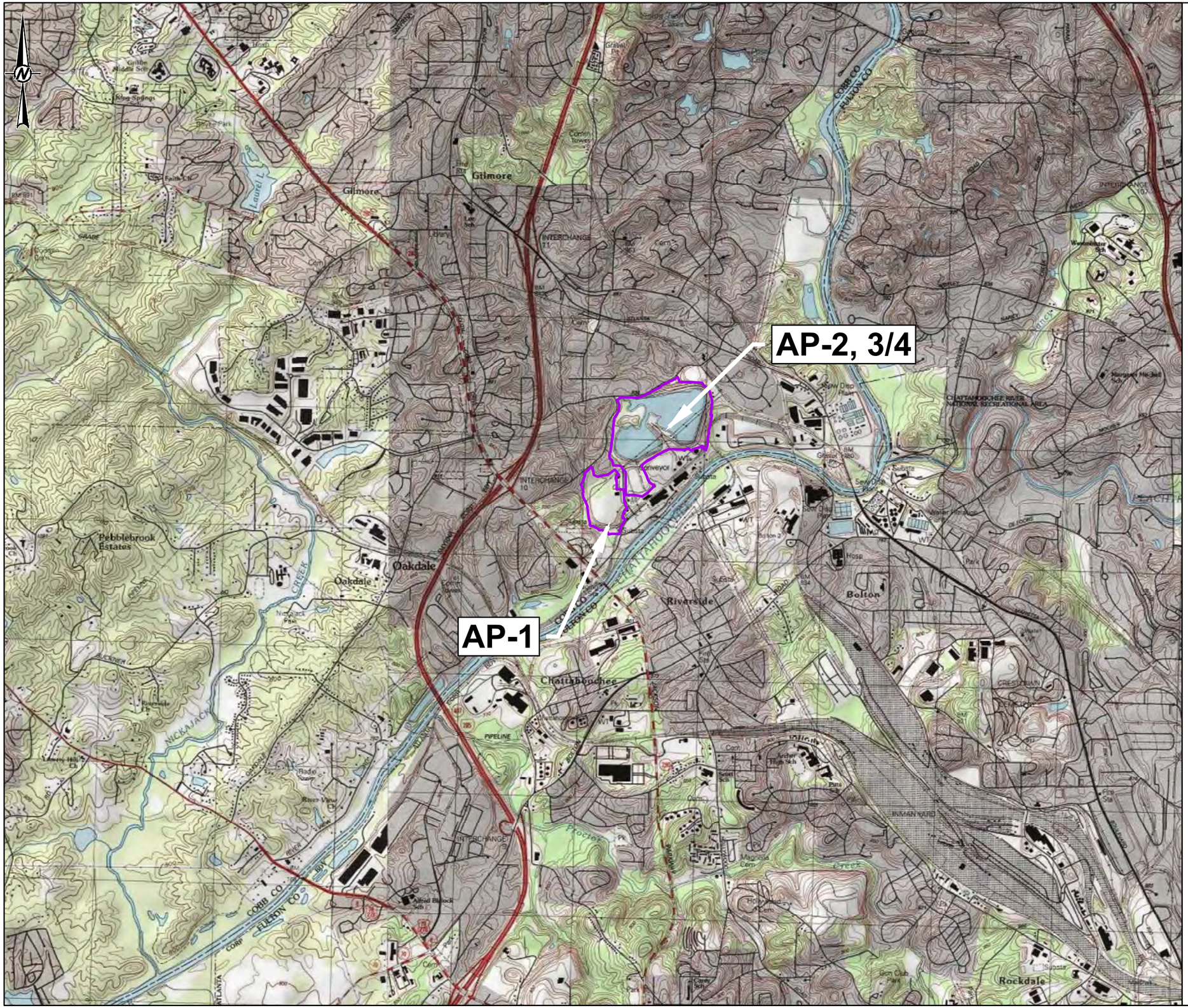
mg/L = milligrams per liter; pCi/L = picocuries per liter; NA = Not Available

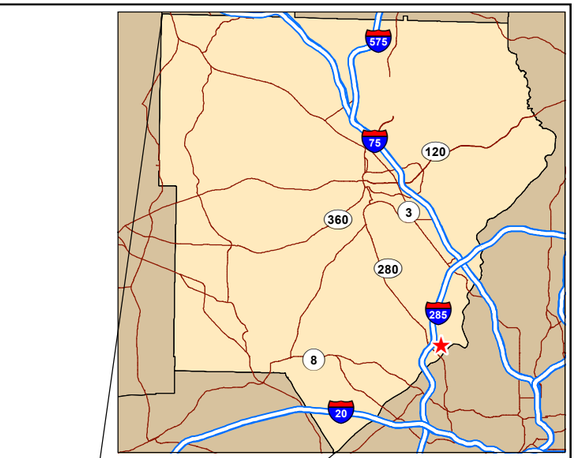
GWPS = Groundwater Protection Standard; US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level

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

[2] The background tolerance limit (TL) used to evaluate GWPS for this analyte equals the laboratory specified reporting limit (RL). Per the Statistical Analysis Plan, and in accordance with the Unified Guidance, a non-parametric limit approach was used when 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.

FIGURES





REFERENCE

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

0 0.5 1

1 INCH=0.5 MILES

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE LOCATION MAP

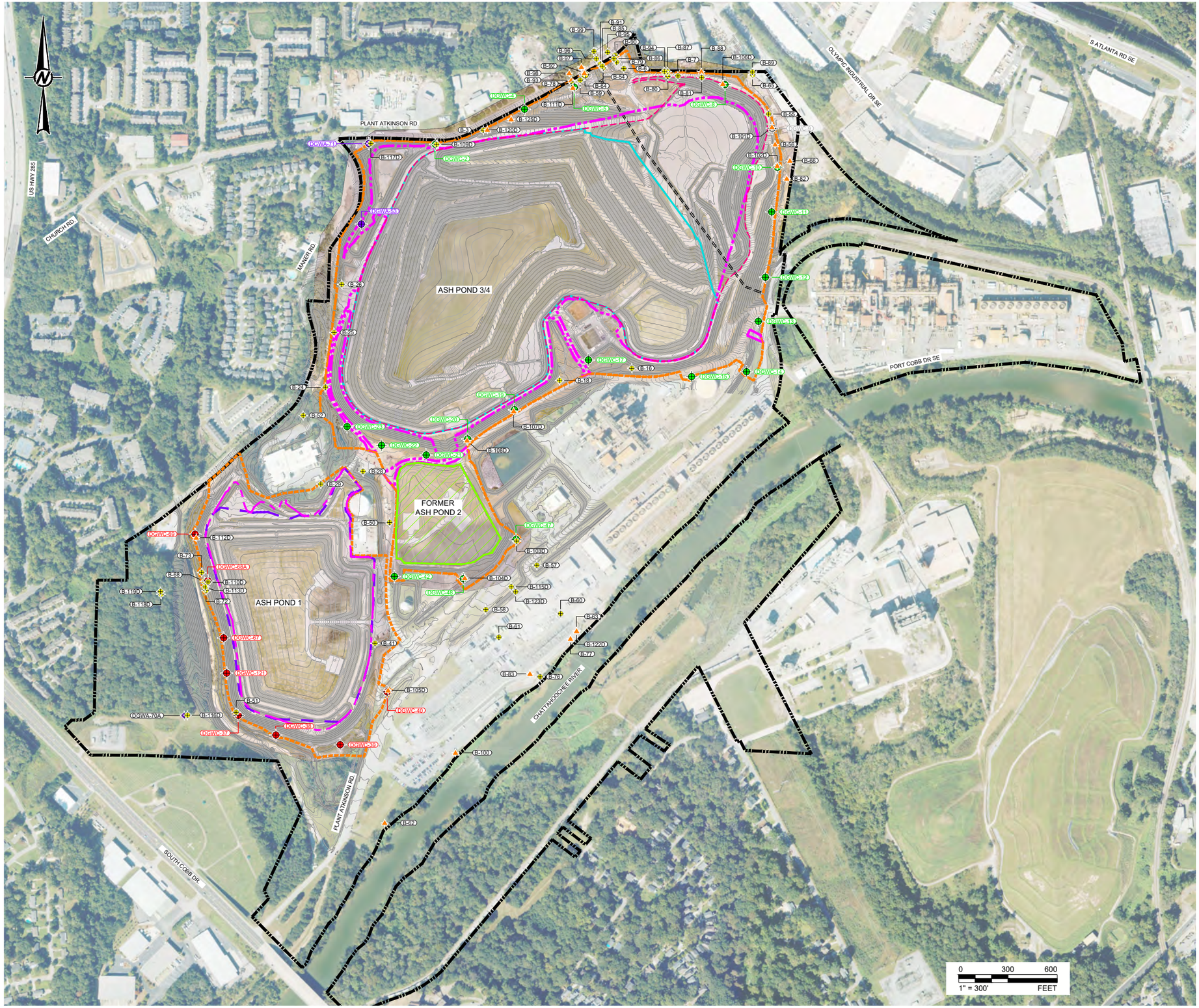
CONSULTANT
wsp

YYYY-MM-DD	2022-4-26
PREPARED	SEB
DESIGN	SEB
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 1

FIGURE 1



LEGEND

- EXISTING CONTOURS (SEE REFERENCE 2)
- PROPERTY BOUNDARY (SEE REFERENCE 1)
- APPROXIMATE PRE-CLOSURE CCR LIMITS
- FINAL CLOSURE CCR LIMITS
- PERMIT BOUNDARY
- FINAL COVER SYSTEM LIMITS
- POST CLOSURE CCR LIMITS
- DGWA-X — UPGRADIENT WELL
- DGWC-X — AP-1 MONITORING WELL
- DGWC-X — AP-2, 3/4 MONITORING WELL
- B-XX — ASSESSMENT WELLS
- B-XX — PIEZOMETER
- DGWC-9 — ABANDONED MONITORING WELL (NOV. 2024)
- AREA WHERE ASH HAS BEEN CERTIFIED REMOVED AS OF 2/28/2024

NOTES

1. EXISTING TOPOGRAPHIC CONTOUR INTERVAL – 1 FOOT.
2. CLOSURE ACTIVITIES FOR AP-1 WERE INITIATED IN JANUARY 2016 AND FINAL COVER CONSTRUCTION ACTIVITIES WERE COMPLETED IN 2017. COMPLETION OF FINAL POST COVER CONSTRUCTION ACTIVITIES AND IMPROVEMENTS AT AP-1 ARE SUBSTANTIALLY COMPLETE. A PLANNED BARRIER WALL INSTALLATION IS CURRENTLY UNDER REVIEW WITH EPD.
3. CLOSURE ACTIVITIES FOR AP-2 WERE INITIATED IN JANUARY 2016. AP-2 CLOSURE ACTIVITIES CONSISTED OF CLOSURE BY REMOVAL OF CCR, WHERE CCR REMOVED FROM AP-2 WAS PLACED IN THE ADJACENT UNITS AP-1 AND AP-3. CLOSURE CONSTRUCTION ACTIVITIES AT AP-2 WERE COMPLETED IN 2017. BACKFILLING OF THE AP-2 FOOTPRINT WAS COMPLETE IN Q4 2023.
4. CLOSURE ACTIVITIES FOR AP-3 AND AP-4 WERE INITIATED IN JANUARY 2016. AP-3 AND AP-4 ARE CURRENTLY UNDERGOING CLOSURE AS A COMBINED UNIT AP-3/4.
5. DATA PRESENTED FOR CCR UNITS AP-2 AND AP-3/4 IS INCLUDED FOR REFERENCE ONLY. THIS DATA SHOULD NOT BE CONSIDERED FOR PERMITTING OF CCR UNIT AP-1.

REFERENCES

1. APPROXIMATE PROPERTY BOUNDARY PROVIDED BY SOUTHERN COMPANY SERVICES (2017).
2. EXISTING TOPOGRAPHY, AND CONTOUR ELEVATIONS FOR ASH PONDS 1 THROUGH 4 AREAS WERE PROVIDED BY GEORGIA POWER. THE DATE OF THE SURVEY, PROVIDED AND SHOWN ON THIS SET OF PLANS, FOR AP-1 IS AUGUST 31, 2022, AND AP-2, AP-3/4 IS NOVEMBER 2, 2022. AERIAL IMAGERY FOR AP-1, AP-2, AND AP-3/4, PROVIDED BY GEORGIA POWER, IMAGE DATED JUNE 20, 2024; SURROUNDING AREAS SOURCE BY Earthexplorer.USGS.GOV IMAGE DATED OCTOBER 7, 2023. THE TOPOGRAPHIC CONTOUR INTERVALS IS 1 FOOT.
3. SELECT BORING/PIEZOMETER LOCATIONS AND ELEVATIONS RESURVEYED BY METRO ENGINEERING & SURVEYING CO., INC., 2020-2023.
4. COORDINATES SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET); ELEVATIONS DISPLAY IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (FEET NAVD88).

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH - ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTIONS REPORT - ASH POND 1

TITLE
PLANT MCDONOUGH CCR REMOVAL AREA

CONSULTANT
wsp

YYYY-MM-DD	2025-02-14
DESIGNED	YCS
PREPARED	CRP
CHECKED	RNQ
REVIEWED / APPROVED	DLP

PROJECT NO. 31406440.MCD23
REV.
FIGURE 2

0 1 in
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- DEWATERING WELL
- SURFACE WATER MONITORING LOCATION
- ABANDONED WELL
- STAFF GAUGE
- SURFACE WATER STREAM
- PERMIT BOUNDARY
- PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JUNE 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.

2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).

3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, MAY 2023, AND JANUARY 2025.

0 600 1,200

1 IN= 600 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
MONITORING WELL, PIEZOMETER AND SURFACE WATER LOCATION MAP

CONSULTANT

wsp

YYYY-MM-DD	2025-02-11
PREPARED	YCS
DESIGN	DLP
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 3

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

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- DEWATERING WELL
- ABANDONED WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR (FT-NAVD88)
- SURFACE WATER STREAM
- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY 10-FOOT CONTOUR
- EXISTING TOPOGRAPHY 2-FOOT CONTOUR

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

2. GROUNDWATER ELEVATION MEAUSREMENTS OBTAINED SEPTEMBER 3, 2024 BY WSP.

3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM (FT-NAVD88).

4. WELLS AND PIEZOMETERS THAT CONTAIN A "D" DESIGNATION FOLLOWING THE NUMBER ARE DEEP WELLS AND THEIR GROUNDWATER ELEVATIONS ARE NOT USED FOR CONTOURING.

5. GROUNDWATER ELEVATIONS FROM PIEZOMETERS B-89, B-95, B-96, B-99 AND DEWATERING WELLS (DW-D1, DW-D2, DW-D3, AND DW-D4) ARE NOT USED FOR CONTOURING.

6. WELL DGWC-9 WAS DECOMMISSIONED AND ABANDONED IN NOVEMBER 2024.

REFERENCE

1. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JUNE 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.

2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).

3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, MAY 2023, AND JANUARY 2025.

0 600 1,200

1 IN= 600 FT

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

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-ASH POND 1

TITLE
SITE POTENTIOMETRIC MAP – SEPTEMBER 3, 2024

CONSULTANT
wsp

YYYY-MM-DD	2025-02-11
PREPARED	YCS
DESIGN	SEB
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23

Rev. 0

FIGURE 4

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- SURFACE WATER MONITORING LOCATION
- 0.01 ARSENIC GWPS ISOCONCENTRATION CONTOUR
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPTEMBER 2024)
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD.

3. DATA SHOWN REPRESENT THE SEPTEMBER 2024 SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA.

4. GWPS IS EQUAL TO THE MCL.

5. DEEP WELL DATA IS NOT USED FOR ISOCONCENTRATION CONTOURING.

6. POTENTIOMETRIC SURFACE DETERMINED USING SEPTEMBER 2024 WATER LEVELS.

Analyte	Units	GWPS
Arsenic	mg/L	0.01

REFERENCE

1. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JUNE 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.

2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).

3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, MAY 2023, AND JANUARY 2025.

0 200 400

1 IN= 200 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - ASH POND 1

TITLE
ARSENIC ISOCONCENTRATION CONTOUR MAP - SEPTEMBER 2024

CONSULTANT
wsp

YYYY-MM-DD	2025-02-19
PREPARED	YCS
DESIGN	DLP
CHECKED	RPK
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23
Rev. 0
FIGURE 5

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

LEGEND

- AP-1 MONITORING WELL
- AP-2,3/4 MONITORING WELL
- UPGRADIENT WELL
- ASSESSMENT MONITORING WELL
- PIEZOMETER
- SURFACE WATER MONITORING LOCATION
- TEMPORARY WELL WITH PRELIMINARY COBALT DATA
- 0.024 COBALT GWPS ISOCONCENTRATION CONTOUR
- INFERRED POTENTIOMETRIC SURFACE CONTOUR (SEPTEMBER 2024)
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD. RSL = (FEDERAL REGIONAL SCREENING LEVEL)
3. DATA SHOWN REPRESENT THE SEPTEMBER 2024 SEMI-ANNUAL MONITORING EVENT RESULTS AS WELL AS APPLICABLE DELINEATION WELL DATA. DATA FOR B-129 IS FROM JANUARY 27, 2025.
4. GWPS IS EQUAL TO SITE SPECIFIC BACKGROUND CONCENTRATION AS THERE IS NO MCL AND THE RSL IS BELOW SITE SPECIFIC BACKGROUND CONCENTRATION.
5. DEEP WELL ANALYTICAL RESULTS NOT USED FOR ISOCONCENTRATION CONTOURING.
6. POTENTIOMETRIC SURFACE DETERMINED USING SEPTEMBER 2024 WATER LEVELS.
7. ISOCONCENTRATION CONTOURS ARE APPROXIMATE BASED ON AVAILABLE SITE DATA FROM THE SPECIFIED TIME PERIOD.

Analyte	Units	GWPS
Cobalt	mg/L	0.024

REFERENCE

1. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JUNE 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.
2. COORDINATE SYSTEM: NAD 1983 STATE PLANE GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS AND ELEVATIONS SURVEYED BY METRO ENGINEERING AND SURVEYING COMPANY IN AUGUST 2020 WITH ADDITIONAL SURVEY PROVIDED IN JANUARY 2021, APRIL 2021, MAY 2022, MAY 2023, AND JANUARY 2025.

0 300 600

1 IN= 300 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
2024 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - ASH POND 1

TITLE
COBALT ISOCONCENTRATION CONTOUR MAP - SEPTEMBER 2024

CONSULTANT
wsp

YYYY-MM-DD	2025-02-20
PREPARED	YCS
DESIGN	DLP
CHECKED	DLP
REVIEWED/APPROVED	RNQ

PROJECT No. 31406440.MCD23
Rev. 0
FIGURE 6

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

APPENDIX A

Field Data Forms and Instrument Calibration Records

APPENDIX A

Field Data Forms
September 2024

Low-Flow Test Report:

Test Date / Time: 9/4/2024 2:31:18 PM
Project: Plant McDonough
Operator Name: Ever Guillen

Location Name: MCD-DGWC-37 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 33.08 ft** **Total Depth: 43.08 ft** **Initial Depth to Water: 14.59 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 38 ft** **Estimated Total Volume Pumped: 7000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.32 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 989630**

Test Notes:
Sample time 1510

Weather Conditions:
Hot,humid

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
9/4/2024 2:31 PM	00:00	6.58 pH	23.02 °C	463.37 µS/cm	2.12 mg/L	1.67 NTU	114.6 mV	14.59 ft	200.00 ml/min
9/4/2024 2:36 PM	05:00	6.23 pH	21.06 °C	497.41 µS/cm	0.54 mg/L	1.00 NTU	138.5 mV	14.96 ft	200.00 ml/min
9/4/2024 2:41 PM	10:00	6.23 pH	20.83 °C	490.50 µS/cm	0.44 mg/L	1.23 NTU	185.4 mV	14.91 ft	200.00 ml/min
9/4/2024 2:46 PM	15:00	6.24 pH	20.70 °C	477.93 µS/cm	0.55 mg/L	0.74 NTU	192.6 mV	14.91 ft	200.00 ml/min
9/4/2024 2:51 PM	20:00	6.24 pH	20.42 °C	471.90 µS/cm	0.62 mg/L	1.08 NTU	190.8 mV	14.91 ft	200.00 ml/min
9/4/2024 2:56 PM	25:00	6.24 pH	20.45 °C	470.37 µS/cm	0.64 mg/L	1.29 NTU	186.7 mV	14.91 ft	200.00 ml/min
9/4/2024 3:01 PM	30:00	6.24 pH	20.46 °C	468.26 µS/cm	0.65 mg/L	1.13 NTU	186.3 mV	14.91 ft	200.00 ml/min
9/4/2024 3:06 PM	35:00	6.24 pH	20.45 °C	469.54 µS/cm	0.66 mg/L	1.18 NTU	185.0 mV	14.91 ft	200.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 9/4/2024 3:06:41 PM
Project: Plant McDonough (3)
Operator Name: Daniel Howard

Location Name: MCD-DGWC-38 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.08 ft** **Total Depth: 28.08 ft** **Initial Depth to Water: 7.19 ft**	**Pump Type: Dedicated bladder** **Tubing Type: HDPE** **Pump Intake From TOC: 23 ft** **Estimated Total Volume Pumped: 5000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.39 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:

Weather Conditions:
Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/4/2024 3:06 PM	00:00	6.06 pH	22.07 °C	655.07 µS/cm	1.19 mg/L	2.23 NTU	84.9 mV	7.19 ft	200.00 ml/min
9/4/2024 3:11 PM	05:00	6.02 pH	20.57 °C	669.86 µS/cm	0.27 mg/L	1.52 NTU	111.3 mV	7.58 ft	200.00 ml/min
9/4/2024 3:16 PM	10:00	6.01 pH	20.75 °C	670.65 µS/cm	0.19 mg/L	1.40 NTU	104.2 mV	7.58 ft	200.00 ml/min
9/4/2024 3:21 PM	15:00	6.01 pH	20.71 °C	668.36 µS/cm	0.12 mg/L	1.23 NTU	100.5 mV	7.58 ft	200.00 ml/min
9/4/2024 3:26 PM	20:00	6.01 pH	20.93 °C	667.13 µS/cm	0.09 mg/L	0.72 NTU	75.0 mV	7.58 ft	200.00 ml/min
9/4/2024 3:31 PM	25:00	6.01 pH	20.96 °C	666.47 µS/cm	0.08 mg/L	0.80 NTU	91.2 mV	7.58 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-38	

Low-Flow Test Report:

Test Date / Time: 9/4/2024 1:23:24 PM
Project: Plant McDonough (2)
Operator Name: Daniel Howard

Location Name: MCD-DGWC-39 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.65 ft** **Total Depth: 24.65 ft** **Initial Depth to Water: 9.35 ft**	**Pump Type: Dedicated bladder** **Tubing Type: HDPE** **Pump Intake From TOC: 19.6 ft** **Estimated Total Volume Pumped: 5000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.6 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1348.

Weather Conditions:
Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/4/2024 1:23 PM	00:00	6.40 pH	24.15 °C	721.86 µS/cm	1.31 mg/L	6.22 NTU	-15.3 mV	9.35 ft	200.00 ml/min
9/4/2024 1:28 PM	05:00	6.43 pH	21.72 °C	770.16 µS/cm	0.38 mg/L	4.46 NTU	-33.1 mV	9.92 ft	200.00 ml/min
9/4/2024 1:33 PM	10:00	6.44 pH	21.34 °C	770.21 µS/cm	0.24 mg/L	2.97 NTU	-60.0 mV	9.92 ft	200.00 ml/min
9/4/2024 1:38 PM	15:00	6.45 pH	21.28 °C	768.80 µS/cm	0.18 mg/L	2.10 NTU	-40.2 mV	9.94 ft	200.00 ml/min
9/4/2024 1:43 PM	20:00	6.45 pH	21.33 °C	769.45 µS/cm	0.16 mg/L	1.93 NTU	-41.8 mV	9.95 ft	200.00 ml/min
9/4/2024 1:48 PM	25:00	6.45 pH	21.18 °C	771.00 µS/cm	0.15 mg/L	0.94 NTU	-69.4 mV	9.95 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-39	

Low-Flow Test Report:

Test Date / Time: 9/5/2024 10:40:02 AM
Project: Plant McDonough (3)
Operator Name: Ever Guillen

Location Name: MCD-DGWC-40 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 28.4 ft** **Total Depth: 38.4 ft** **Initial Depth to Water: 20.26 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 33 ft** **Estimated Total Volume Pumped: 10923.333 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.45 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 989630**

Test Notes:
Sample time 1140

Weather Conditions:
Hot,

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
9/5/2024 10:40 AM	00:00	4.66 pH	23.54 °C	477.60 µS/cm	2.91 mg/L	18.90 NTU	203.5 mV	20.60 ft	200.00 ml/min
9/5/2024 10:41 AM	01:27	4.61 pH	22.54 °C	507.16 µS/cm	3.01 mg/L	14.20 NTU	198.1 mV	20.71 ft	200.00 ml/min
9/5/2024 10:46 AM	06:27	4.63 pH	21.68 °C	501.26 µS/cm	2.74 mg/L	10.60 NTU	270.3 mV	20.71 ft	200.00 ml/min
9/5/2024 10:51 AM	11:27	4.64 pH	21.43 °C	505.48 µS/cm	2.74 mg/L	7.15 NTU	311.2 mV	20.71 ft	200.00 ml/min
9/5/2024 10:56 AM	16:27	4.65 pH	20.88 °C	503.45 µS/cm	2.69 mg/L	6.30 NTU	258.8 mV	20.71 ft	200.00 ml/min
9/5/2024 11:02 AM	22:29	4.63 pH	20.75 °C	509.07 µS/cm	2.78 mg/L	5.20 NTU	254.7 mV	20.71 ft	200.00 ml/min
9/5/2024 11:07 AM	27:29	4.61 pH	20.65 °C	503.12 µS/cm	2.83 mg/L	4.86 NTU	281.3 mV	20.71 ft	200.00 ml/min
9/5/2024 11:12 AM	32:29	4.61 pH	20.57 °C	500.09 µS/cm	2.82 mg/L	4.69 NTU	411.9 mV	20.71 ft	200.00 ml/min
9/5/2024 11:17 AM	37:29	4.60 pH	20.59 °C	498.57 µS/cm	2.87 mg/L	3.97 NTU	427.9 mV	20.71 ft	200.00 ml/min
9/5/2024 11:22 AM	42:29	4.60 pH	20.67 °C	499.89 µS/cm	2.88 mg/L	2.27 NTU	439.7 mV	20.71 ft	200.00 ml/min
9/5/2024 11:27 AM	47:29	4.59 pH	20.90 °C	499.88 µS/cm	2.89 mg/L	2.19 NTU	452.9 mV	20.71 ft	200.00 ml/min
9/5/2024 11:29 AM	49:37	4.60 pH	21.01 °C	512.68 µS/cm	2.83 mg/L	2.13 NTU	318.6 mV	20.71 ft	200.00 ml/min
9/5/2024 11:34 AM	54:37	4.60 pH	20.93 °C	499.04 µS/cm	2.85 mg/L	2.01 NTU	464.4 mV	20.71 ft	200.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 9/5/2024 3:44:44 PM
Project: Plant McDonough (6)
Operator Name: Daniel Howard

Location Name: MCD-DGWC-67 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 45.5 ft** **Total Depth: 55.5 ft** **Initial Depth to Water: 11.31 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 50.5 ft** **Estimated Total Volume Pumped: 3750 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.31 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1609.

Weather Conditions:
Partly Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/5/2024 3:44 PM	00:00	6.20 pH	23.65 °C	445.23 µS/cm	0.72 mg/L	4.78 NTU	48.5 mV	11.31 ft	150.00 ml/min
9/5/2024 3:49 PM	05:00	6.19 pH	21.92 °C	456.72 µS/cm	0.33 mg/L	4.15 NTU	35.8 mV	11.61 ft	150.00 ml/min
9/5/2024 3:54 PM	10:00	6.19 pH	21.64 °C	458.51 µS/cm	0.25 mg/L	2.94 NTU	32.3 mV	11.62 ft	150.00 ml/min
9/5/2024 3:59 PM	15:00	6.19 pH	21.42 °C	458.16 µS/cm	0.21 mg/L	2.44 NTU	30.1 mV	11.62 ft	150.00 ml/min
9/5/2024 4:04 PM	20:00	6.19 pH	21.37 °C	458.30 µS/cm	0.18 mg/L	1.58 NTU	27.6 mV	11.62 ft	150.00 ml/min
9/5/2024 4:09 PM	25:00	6.19 pH	21.42 °C	457.33 µS/cm	0.17 mg/L	1.35 NTU	29.2 mV	11.62 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-67	

Low-Flow Test Report:

Test Date / Time: 9/5/2024 1:50:17 PM
Project: Plant McDonough (5)
Operator Name: Daniel Howard

Location Name: MCD-DGWC-68A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 19.79 ft** **Total Depth: 29.79 ft** **Initial Depth to Water: 10.98 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 24.8 ft** **Estimated Total Volume Pumped: 3750 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.19 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1415.

Weather Conditions:
Partly Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/5/2024 1:50 PM	00:00	6.53 pH	23.18 °C	452.04 µS/cm	0.38 mg/L	1.42 NTU	64.3 mV	10.98 ft	150.00 ml/min
9/5/2024 1:55 PM	05:00	6.53 pH	21.86 °C	458.14 µS/cm	0.21 mg/L	1.51 NTU	57.5 mV	11.16 ft	150.00 ml/min
9/5/2024 2:00 PM	10:00	6.54 pH	21.68 °C	458.47 µS/cm	0.17 mg/L	1.62 NTU	44.5 mV	11.17 ft	150.00 ml/min
9/5/2024 2:05 PM	15:00	6.54 pH	21.64 °C	462.45 µS/cm	0.16 mg/L	1.48 NTU	47.5 mV	11.17 ft	150.00 ml/min
9/5/2024 2:10 PM	20:00	6.54 pH	21.77 °C	460.22 µS/cm	0.15 mg/L	0.81 NTU	41.7 mV	11.17 ft	150.00 ml/min
9/5/2024 2:15 PM	25:00	6.53 pH	21.64 °C	463.48 µS/cm	0.13 mg/L	0.74 NTU	40.2 mV	11.17 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-68A	

Low-Flow Test Report:

Test Date / Time: 9/5/2024 10:43:02 AM
Project: Plant McDonough (4)
Operator Name: Daniel Howard

Location Name: MCD-DGWC-69 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.06 ft** **Total Depth: 24.06 ft** **Initial Depth to Water: 6.85 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 6500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 1.66 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1148.

Weather Conditions:
Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/5/2024 10:43 AM	00:00	6.26 pH	23.30 °C	140.54 µS/cm	1.16 mg/L	54.90 NTU	124.6 mV	6.85 ft	100.00 ml/min
9/5/2024 10:48 AM	05:00	6.19 pH	22.68 °C	143.98 µS/cm	1.08 mg/L	53.70 NTU	111.6 mV	8.26 ft	100.00 ml/min
9/5/2024 10:53 AM	10:00	6.18 pH	22.34 °C	145.66 µS/cm	0.99 mg/L	33.30 NTU	106.2 mV	8.26 ft	100.00 ml/min
9/5/2024 10:58 AM	15:00	6.18 pH	22.16 °C	151.03 µS/cm	0.86 mg/L	19.80 NTU	132.6 mV	8.29 ft	100.00 ml/min
9/5/2024 11:03 AM	20:00	6.17 pH	21.95 °C	151.23 µS/cm	0.82 mg/L	18.20 NTU	99.3 mV	8.38 ft	100.00 ml/min
9/5/2024 11:08 AM	25:00	6.17 pH	21.81 °C	152.61 µS/cm	0.79 mg/L	13.00 NTU	95.1 mV	8.39 ft	100.00 ml/min
9/5/2024 11:13 AM	30:00	6.18 pH	21.63 °C	152.12 µS/cm	0.77 mg/L	12.30 NTU	121.4 mV	8.44 ft	100.00 ml/min
9/5/2024 11:18 AM	35:00	6.18 pH	21.67 °C	154.05 µS/cm	1.04 mg/L	9.86 NTU	98.1 mV	8.46 ft	100.00 ml/min
9/5/2024 11:23 AM	40:00	6.17 pH	21.77 °C	153.84 µS/cm	0.78 mg/L	9.09 NTU	117.7 mV	8.51 ft	100.00 ml/min
9/5/2024 11:28 AM	45:00	6.17 pH	22.26 °C	158.25 µS/cm	0.68 mg/L	6.85 NTU	88.6 mV	8.46 ft	100.00 ml/min
9/5/2024 11:33 AM	50:00	6.17 pH	21.91 °C	158.13 µS/cm	0.67 mg/L	6.50 NTU	111.8 mV	8.48 ft	100.00 ml/min
9/5/2024 11:38 AM	55:00	6.16 pH	22.34 °C	161.48 µS/cm	0.61 mg/L	5.00 NTU	86.3 mV	8.47 ft	100.00 ml/min
9/5/2024 11:43 AM	01:00:00	6.17 pH	22.13 °C	159.80 µS/cm	0.68 mg/L	4.33 NTU	110.1 mV	8.49 ft	100.00 ml/min

9/5/2024 11:48 AM	01:05:00	6.17 pH	22.37 °C	162.15 µS/cm	0.61 mg/L	4.02 NTU	109.7 mV	8.51 ft	100.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWC-69	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/4/2024 12:16:56 PM
Project: Plant McDonough
Operator Name: Ever Guillen

Location Name: MCD-DGWC-121 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 39.4 ft** **Total Depth: 49.4 ft** **Initial Depth to Water: 10.21 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 45 ft** **Estimated Total Volume Pumped: 7800 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 120 ml/min** **Final Draw Down: 2.74 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 989630**

Test Notes:
Sample time =1325

Weather Conditions:
Hot,humid

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
9/4/2024 12:16 PM	00:00	6.54 pH	24.78 °C	155.46 µS/cm	4.04 mg/L	8.39 NTU	200.5 mV	10.21 ft	120.00 ml/min
9/4/2024 12:21 PM	05:00	6.20 pH	22.31 °C	156.74 µS/cm	2.60 mg/L	7.26 NTU	255.5 mV	11.09 ft	120.00 ml/min
9/4/2024 12:26 PM	10:00	6.21 pH	22.67 °C	155.27 µS/cm	2.44 mg/L	6.31 NTU	286.4 mV	11.72 ft	120.00 ml/min
9/4/2024 12:31 PM	15:00	6.22 pH	22.53 °C	155.25 µS/cm	2.32 mg/L	5.12 NTU	286.5 mV	11.93 ft	120.00 ml/min
9/4/2024 12:36 PM	20:00	6.22 pH	22.62 °C	155.20 µS/cm	2.24 mg/L	4.29 NTU	205.4 mV	12.32 ft	120.00 ml/min
9/4/2024 12:41 PM	25:00	6.22 pH	22.40 °C	158.78 µS/cm	2.09 mg/L	3.38 NTU	271.3 mV	12.41 ft	120.00 ml/min
9/4/2024 12:46 PM	30:00	6.22 pH	22.54 °C	167.73 µS/cm	1.69 mg/L	2.95 NTU	271.3 mV	12.50 ft	120.00 ml/min
9/4/2024 12:51 PM	35:00	6.20 pH	22.54 °C	199.58 µS/cm	1.19 mg/L	2.78 NTU	249.7 mV	12.65 ft	120.00 ml/min
9/4/2024 12:56 PM	40:00	6.18 pH	22.73 °C	257.23 µS/cm	0.86 mg/L	2.84 NTU	206.2 mV	12.73 ft	120.00 ml/min
9/4/2024 1:01 PM	45:00	6.17 pH	22.79 °C	314.60 µS/cm	0.66 mg/L	2.59 NTU	118.2 mV	12.81 ft	120.00 ml/min
9/4/2024 1:06 PM	50:00	6.15 pH	22.80 °C	351.02 µS/cm	0.55 mg/L	2.49 NTU	85.3 mV	12.87 ft	120.00 ml/min
9/4/2024 1:11 PM	55:00	6.12 pH	22.98 °C	371.23 µS/cm	0.53 mg/L	2.37 NTU	32.8 mV	12.90 ft	120.00 ml/min
9/4/2024 1:16 PM	01:00:00	6.12 pH	23.11 °C	377.89 µS/cm	0.47 mg/L	2.26 NTU	28.5 mV	12.92 ft	120.00 ml/min

9/4/2024 1:21 PM	01:05:00	6.11 pH	23.28 °C	384.30 µS/cm	0.36 mg/L	2.17 NTU	31.4 mV	12.95 ft	120.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 9/5/2024 12:28:45 PM
Project: Plant McDonough
Operator Name: Ever Guillen

Location Name: MCD-B-105D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 60 ft** **Total Depth: 70 ft** **Initial Depth to Water: 20.26 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 65 ft** **Estimated Total Volume Pumped: 7057.5 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.37 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 989630**

Test Notes:

Weather Conditions:
Hot, humid

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
9/5/2024 12:28 PM	00:00	6.45 pH	32.55 °C	628.64 µS/cm	4.14 mg/L	9.87 NTU	-65.3 mV	20.26 ft	200.00 ml/min
9/5/2024 12:33 PM	05:00	6.59 pH	27.88 °C	656.92 µS/cm	1.23 mg/L	8.15 NTU	-101.3 mV	20.63 ft	200.00 ml/min
9/5/2024 12:38 PM	10:00	6.54 pH	27.75 °C	663.93 µS/cm	0.87 mg/L	7.36 NTU	-105.5 mV	20.63 ft	150.00 ml/min
9/5/2024 12:43 PM	15:00	6.53 pH	28.25 °C	661.15 µS/cm	0.75 mg/L	6.78 NTU	-146.1 mV	20.63 ft	150.00 ml/min
9/5/2024 12:48 PM	20:00	6.52 pH	27.92 °C	665.96 µS/cm	0.66 mg/L	5.64 NTU	-146.3 mV	20.63 ft	150.00 ml/min
9/5/2024 12:53 PM	25:00	6.51 pH	28.44 °C	663.21 µS/cm	0.55 mg/L	4.78 NTU	-147.1 mV	20.63 ft	150.00 ml/min
9/5/2024 12:58 PM	30:00	6.49 pH	27.65 °C	663.85 µS/cm	0.47 mg/L	4.12 NTU	-141.4 mV	20.63 ft	150.00 ml/min
9/5/2024 1:03 PM	35:00	6.48 pH	26.51 °C	660.50 µS/cm	0.38 mg/L	3.87 NTU	-130.2 mV	20.63 ft	150.00 ml/min
9/5/2024 1:07 PM	38:43	6.47 pH	26.15 °C	656.73 µS/cm	0.34 mg/L	3.55 NTU	-116.2 mV	20.63 ft	150.00 ml/min
9/5/2024 1:12 PM	43:43	6.46 pH	26.60 °C	664.35 µS/cm	0.31 mg/L	3.30 NTU	-86.2 mV	20.63 ft	150.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 9/9/2024 10:22:05 AM
Project: Plant McDonough
Operator Name: Daniel Howard

Location Name: MCD-B-112D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 45 ft** **Total Depth: 55 ft** **Initial Depth to Water: 8.13 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 50 ft** **Estimated Total Volume Pumped: 6000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1102.

Weather Conditions:
Clear and Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2024 10:22 AM	00:00	6.85 pH	24.54 °C	235.50 µS/cm	0.76 mg/L	2.37 NTU	95.0 mV	8.13 ft	150.00 ml/min
9/9/2024 10:27 AM	05:00	6.75 pH	22.36 °C	242.84 µS/cm	0.26 mg/L	2.32 NTU	72.1 mV	8.23 ft	150.00 ml/min
9/9/2024 10:32 AM	10:00	6.73 pH	22.12 °C	244.52 µS/cm	0.22 mg/L	4.32 NTU	81.5 mV	8.24 ft	150.00 ml/min
9/9/2024 10:37 AM	15:00	6.73 pH	22.08 °C	244.37 µS/cm	0.18 mg/L	4.80 NTU	64.3 mV	8.26 ft	150.00 ml/min
9/9/2024 10:42 AM	20:00	6.72 pH	22.00 °C	243.95 µS/cm	0.16 mg/L	4.49 NTU	74.6 mV	8.26 ft	150.00 ml/min
9/9/2024 10:47 AM	25:00	6.72 pH	21.77 °C	245.22 µS/cm	0.18 mg/L	4.00 NTU	85.7 mV	8.26 ft	150.00 ml/min
9/9/2024 10:52 AM	30:00	6.71 pH	21.62 °C	244.00 µS/cm	0.13 mg/L	4.15 NTU	61.5 mV	8.26 ft	150.00 ml/min
9/9/2024 10:57 AM	35:00	6.71 pH	21.57 °C	241.49 µS/cm	0.12 mg/L	3.46 NTU	57.5 mV	8.26 ft	150.00 ml/min
9/9/2024 11:02 AM	40:00	6.70 pH	21.67 °C	241.08 µS/cm	0.11 mg/L	2.17 NTU	67.1 mV	8.26 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-B-112D	

Low-Flow Test Report:

Test Date / Time: 9/9/2024 1:17:46 PM
Project: Plant McDonough (9)
Operator Name: Daniel Howard

Location Name: MCD-B-62 **Latitude: 33.82641877556422** **Longitude: -84.48241639463635** **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 29.62 ft** **Total Depth: 39.62 ft** **Initial Depth to Water: 17.83 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 34.6 ft** **Estimated Total Volume Pumped: 12000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 150 ml/min** **Final Draw Down: 0.18 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1437.

Weather Conditions:
Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/9/2024 1:17 PM	00:00	6.69 pH	23.91 °C	498.81 µS/cm	0.68 mg/L	35.00 NTU	1.2 mV	17.83 ft	150.00 ml/min
9/9/2024 1:22 PM	05:00	6.71 pH	22.15 °C	511.25 µS/cm	0.33 mg/L	26.50 NTU	-16.9 mV	18.01 ft	150.00 ml/min
9/9/2024 1:27 PM	10:00	6.72 pH	21.78 °C	510.32 µS/cm	0.30 mg/L	20.20 NTU	-5.6 mV	18.01 ft	150.00 ml/min
9/9/2024 1:32 PM	15:00	6.73 pH	21.77 °C	508.91 µS/cm	0.30 mg/L	21.90 NTU	-15.4 mV	18.01 ft	150.00 ml/min
9/9/2024 1:37 PM	20:00	6.71 pH	21.71 °C	477.02 µS/cm	0.39 mg/L	33.10 NTU	-1.3 mV	18.01 ft	150.00 ml/min
9/9/2024 1:42 PM	25:00	6.63 pH	21.86 °C	425.83 µS/cm	0.27 mg/L	27.70 NTU	-11.9 mV	18.01 ft	150.00 ml/min
9/9/2024 1:47 PM	30:00	6.55 pH	21.76 °C	381.20 µS/cm	0.26 mg/L	20.20 NTU	-12.6 mV	18.01 ft	150.00 ml/min
9/9/2024 1:52 PM	35:00	6.50 pH	21.89 °C	353.53 µS/cm	0.24 mg/L	16.10 NTU	-2.5 mV	18.01 ft	150.00 ml/min
9/9/2024 1:57 PM	40:00	6.45 pH	22.04 °C	336.71 µS/cm	0.23 mg/L	14.70 NTU	-9.6 mV	18.01 ft	150.00 ml/min
9/9/2024 2:02 PM	45:00	6.43 pH	21.77 °C	320.38 µS/cm	0.18 mg/L	11.10 NTU	0.4 mV	18.01 ft	150.00 ml/min
9/9/2024 2:07 PM	50:00	6.41 pH	21.19 °C	311.93 µS/cm	0.17 mg/L	9.54 NTU	2.8 mV	18.01 ft	150.00 ml/min
9/9/2024 2:12 PM	55:00	6.40 pH	20.78 °C	307.29 µS/cm	0.17 mg/L	9.76 NTU	-2.3 mV	18.01 ft	150.00 ml/min
9/9/2024 2:17 PM	01:00:00	6.38 pH	20.88 °C	304.87 µS/cm	0.17 mg/L	8.12 NTU	-2.5 mV	18.01 ft	150.00 ml/min

9/9/2024 2:22 PM	01:05:00	6.37 pH	21.23 °C	298.76 µS/cm	0.17 mg/L	7.42 NTU	4.6 mV	18.01 ft	150.00 ml/min
9/9/2024 2:27 PM	01:10:00	6.36 pH	21.06 °C	294.28 µS/cm	0.17 mg/L	5.87 NTU	-1.5 mV	18.01 ft	150.00 ml/min
9/9/2024 2:32 PM	01:15:00	6.36 pH	20.69 °C	291.70 µS/cm	0.15 mg/L	4.50 NTU	5.1 mV	18.01 ft	150.00 ml/min
9/9/2024 2:37 PM	01:20:00	6.35 pH	20.66 °C	290.25 µS/cm	0.16 mg/L	4.61 NTU	-0.2 mV	18.01 ft	150.00 ml/min

Samples

Sample ID:	Description:
MCD-B-62	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/5/2024 2:28:08 PM
Project: Plant McDonough (5)
Operator Name: Ever Guillen

Location Name: MCD-B-100 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 37.93 ft** **Total Depth: 47.93 ft** **Initial Depth to Water: 35.82 ft**	**Pump Type: Bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 43 ft** **Estimated Total Volume Pumped: 9000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 989630**

Test Notes:
Sample time 1515

Weather Conditions:
Hot, humid

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
9/5/2024 2:28 PM	00:00	5.41 pH	29.69 °C	529.01 µS/cm	3.03 mg/L	87.60 NTU	57.0 mV	35.82 ft	200.00 ml/min
9/5/2024 2:33 PM	05:00	5.20 pH	23.34 °C	636.69 µS/cm	1.13 mg/L	77.80 NTU	123.2 mV	35.85 ft	200.00 ml/min
9/5/2024 2:38 PM	10:00	5.10 pH	22.73 °C	688.49 µS/cm	1.10 mg/L	17.80 NTU	127.7 mV	35.85 ft	200.00 ml/min
9/5/2024 2:43 PM	15:00	5.10 pH	22.67 °C	704.06 µS/cm	1.01 mg/L	9.24 NTU	108.7 mV	35.85 ft	200.00 ml/min
9/5/2024 2:48 PM	20:00	5.13 pH	22.64 °C	721.36 µS/cm	0.73 mg/L	7.57 NTU	79.7 mV	35.85 ft	200.00 ml/min
9/5/2024 2:53 PM	25:00	5.17 pH	22.62 °C	744.29 µS/cm	0.93 mg/L	5.21 NTU	76.7 mV	35.85 ft	200.00 ml/min
9/5/2024 2:58 PM	30:00	5.18 pH	22.68 °C	759.52 µS/cm	0.88 mg/L	3.92 NTU	75.5 mV	35.85 ft	200.00 ml/min
9/5/2024 3:03 PM	35:00	5.19 pH	22.61 °C	753.96 µS/cm	1.13 mg/L	3.28 NTU	72.7 mV	35.85 ft	200.00 ml/min
9/5/2024 3:08 PM	40:00	5.20 pH	22.62 °C	774.27 µS/cm	0.96 mg/L	2.95 NTU	87.5 mV	35.85 ft	200.00 ml/min
9/5/2024 3:13 PM	45:00	5.20 pH	22.58 °C	778.26 µS/cm	0.95 mg/L	2.52 NTU	68.2 mV	35.85 ft	200.00 ml/min

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 9/11/2024 9:58:38 AM
Project: Plant McDonough (12)
Operator Name: Daniel Howard

Location Name: MCD-DGWA-53 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 26.89 ft** **Total Depth: 36.89 ft** **Initial Depth to Water: 19.6 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 31.9 ft** **Estimated Total Volume Pumped: 8000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 6.3 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1058.

Weather Conditions:
Partly cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/11/2024 9:58 AM	00:00	6.33 pH	20.07 °C	154.30 µS/cm	0.44 mg/L	18.90 NTU	82.0 mV	19.60 ft	150.00 ml/min
9/11/2024 10:03 AM	05:00	6.14 pH	19.65 °C	143.41 µS/cm	0.31 mg/L	15.60 NTU	107.3 mV	21.45 ft	150.00 ml/min
9/11/2024 10:08 AM	10:00	6.10 pH	19.46 °C	142.43 µS/cm	0.26 mg/L	13.80 NTU	107.8 mV	22.39 ft	150.00 ml/min
9/11/2024 10:13 AM	15:00	6.08 pH	19.50 °C	142.88 µS/cm	0.25 mg/L	12.70 NTU	104.7 mV	22.91 ft	150.00 ml/min
9/11/2024 10:18 AM	20:00	6.08 pH	19.52 °C	142.98 µS/cm	0.25 mg/L	10.80 NTU	102.0 mV	23.56 ft	150.00 ml/min
9/11/2024 10:23 AM	25:00	6.08 pH	19.60 °C	143.35 µS/cm	0.27 mg/L	9.84 NTU	99.8 mV	24.04 ft	150.00 ml/min
9/11/2024 10:28 AM	30:00	6.08 pH	19.63 °C	143.25 µS/cm	0.26 mg/L	8.82 NTU	98.0 mV	24.65 ft	150.00 ml/min
9/11/2024 10:33 AM	35:00	6.08 pH	19.55 °C	143.34 µS/cm	0.27 mg/L	7.86 NTU	96.8 mV	25.13 ft	150.00 ml/min
9/11/2024 10:38 AM	40:00	6.07 pH	19.96 °C	145.36 µS/cm	0.34 mg/L	6.99 NTU	95.6 mV	25.38 ft	100.00 ml/min
9/11/2024 10:43 AM	45:00	6.09 pH	20.27 °C	146.33 µS/cm	0.33 mg/L	6.30 NTU	88.0 mV	25.56 ft	100.00 ml/min
9/11/2024 10:48 AM	50:00	6.09 pH	20.38 °C	147.08 µS/cm	0.35 mg/L	5.74 NTU	87.4 mV	25.72 ft	100.00 ml/min
9/11/2024 10:53 AM	55:00	6.09 pH	20.66 °C	147.78 µS/cm	0.36 mg/L	5.09 NTU	96.0 mV	25.82 ft	100.00 ml/min
9/11/2024 10:58 AM	01:00:00	6.10 pH	21.01 °C	149.71 µS/cm	0.39 mg/L	4.85 NTU	92.0 mV	25.90 ft	100.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-53	

Low-Flow Test Report:

Test Date / Time: 9/4/2024 11:00:25 AM
Project: Plant McDonough
Operator Name: Daniel Howard

Location Name: MCD-DGWA-70A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.54 ft** **Total Depth: 62.54 ft** **Initial Depth to Water: 43.26 ft**	**Pump Type: Dedicated bladder** **Tubing Type: HDPE** **Pump Intake From TOC: 57.5 ft** **Estimated Total Volume Pumped: 5000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.42 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 952637**

Test Notes:
Sample time 1125.

Weather Conditions:
Partly Sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/4/2024 11:00 AM	00:00	5.55 pH	20.17 °C	74.12 µS/cm	5.47 mg/L	0.31 NTU	161.7 mV	43.26 ft	200.00 ml/min
9/4/2024 11:05 AM	05:00	5.52 pH	19.94 °C	74.43 µS/cm	5.06 mg/L	0.16 NTU	137.2 mV	43.64 ft	200.00 ml/min
9/4/2024 11:10 AM	10:00	5.51 pH	19.83 °C	75.02 µS/cm	4.95 mg/L	0.14 NTU	135.1 mV	43.66 ft	200.00 ml/min
9/4/2024 11:15 AM	15:00	5.51 pH	19.99 °C	75.25 µS/cm	4.90 mg/L	0.27 NTU	133.8 mV	43.68 ft	200.00 ml/min
9/4/2024 11:20 AM	20:00	5.51 pH	19.99 °C	75.65 µS/cm	4.88 mg/L	0.12 NTU	132.8 mV	43.68 ft	200.00 ml/min
9/4/2024 11:25 AM	25:00	5.51 pH	19.90 °C	75.82 µS/cm	4.85 mg/L	0.14 NTU	131.9 mV	43.68 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-70A	

Low-Flow Test Report:

Test Date / Time: 9/4/2024 9:42:31 AM
Project: SCS Plant McDonough
Operator Name: DCB

Location Name: MCD-DGWA-71 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 37.71 ft** **Total Depth: 47.71 ft** **Initial Depth to Water: 33.85 ft**	**Pump Type: Dedicated bladder** **Tubing Type: LDPE** **Pump Intake From TOC: 42.71 m** **Estimated Total Volume Pumped: 5000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.32 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 980712**

Test Notes:

Weather Conditions:
Sunny 75

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 0.2	+/- 5	+/- 50	+/- 0.3	
9/4/2024 9:42 AM	00:00	6.56 pH	26.37 °C	89.00 µS/cm	7.04 mg/L	0.34 NTU	138.9 mV	33.85 ft	250.00 ml/min
9/4/2024 9:46 AM	04:00	5.93 pH	21.30 °C	89.56 µS/cm	3.20 mg/L	2.38 NTU	135.2 mV	34.14 ft	200.00 ml/min
9/4/2024 9:50 AM	08:00	5.85 pH	19.86 °C	90.32 µS/cm	2.35 mg/L	2.29 NTU	186.9 mV	34.17 ft	200.00 ml/min
9/4/2024 9:54 AM	12:00	5.85 pH	19.57 °C	78.21 µS/cm	2.22 mg/L	1.22 NTU	203.2 mV	34.17 ft	200.00 ml/min
9/4/2024 9:58 AM	16:00	5.86 pH	19.41 °C	89.50 µS/cm	2.22 mg/L	2.95 NTU	211.6 mV	34.17 ft	200.00 ml/min
9/4/2024 10:02 AM	20:00	5.85 pH	19.59 °C	90.23 µS/cm	2.14 mg/L	1.95 NTU	222.7 mV	34.17 ft	200.00 ml/min
9/4/2024 10:06 AM	24:00	5.85 pH	19.78 °C	89.73 µS/cm	2.10 mg/L	1.89 NTU	210.2 mV	34.17 ft	200.00 ml/min

Samples

Sample ID:	Description:
MCD-DGWA-71	

PLANT MCDONOUGH SURFACE WATER SAMPLES (AP-1)

Sample ID	Date	Time	Temp (°C)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
MCD-UT01_US	9/10/2024	1250	20.70	7.02	45.3	8.12	4.31	0.180	**33.825727, -84.482406**
MCD-UT02	9/10/2024	1240	20.60	6.89	42.9	7.96	2.31	0.188	**33.825039, -84.482618**
MCD-UT03	9/10/2024	1235	20.80	6.93	63.6	8.21	2.98	0.188	**33.824350, -84.482458**
MCD-UT01_DS	9/10/2024	1224	20.80	7.11	73.2	7.86	3.32	0.193	**33.822484, -84.482007**
MCD-CR-0.1	9/10/2024	1127	19.50	7.15	70.9	8.42	1.65	0.150	**33.824437, -84.473293**
MCD-CR+0.2	9/10/2024	1129	19.50	7.14	71.0	8.42	1.30	0.150	**33.819924, -84.478340**
MCD-CR+0.4	9/10/2024	1030	19.70	7.29	26.7	8.27	2.69	0.163	**33.818131, -84.479768**

PLANT MCDONOUGH SURFACE WATER SAMPLES (AP-2 3/4)

Sample ID	Date	Time	Temp (^{o}C)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
MCD-DW_DS	9/10/2024	1106	20.1	7.29	68.0	8.34	3.92	0.197	**33.821684, -84.476360**
MCD-DW_US	9/10/2024	1045	19.6	7.21	60.4	8.42	2.30	0.171	**33.823208, -84.474698**
MCD-CR-0.2	9/10/2024	1040	19.7	7.26	49.5	8.32	3.15	0.165	**33.824437, -84.473293**
MCD-CR-0.5	9/10/2024	1136	19.5	7.31	70.8	8.40	1.48	0.150	**33.827315, -84.469092**

Low-Flow Test Report:

Test Date / Time: 12/11/2024 11:10:19 AM
Project: McDonough
Operator Name: Mark Mann

Location Name: INW-01 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.2 ft** **Total Depth: 23.2 ft** **Initial Depth to Water: 10.61 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 20 ft** **Estimated Total Volume Pumped: 7500 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.29 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 1080302**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
12/11/2024 11:10 AM	00:00	6.47 pH	16.06 °C	421.13 µS/cm	0.52 mg/L	43.70 NTU	-66.5 mV	10.61 ft	250.00 ml/min
12/11/2024 11:15 AM	05:00	6.44 pH	17.56 °C	408.78 µS/cm	0.31 mg/L	33.60 NTU	-74.4 mV	10.84 ft	250.00 ml/min
12/11/2024 11:20 AM	10:00	6.45 pH	17.85 °C	404.45 µS/cm	0.28 mg/L	12.20 NTU	-100.6 mV	10.86 ft	250.00 ml/min
12/11/2024 11:25 AM	15:00	6.45 pH	17.85 °C	401.20 µS/cm	0.25 mg/L	7.27 NTU	-102.0 mV	10.86 ft	250.00 ml/min
12/11/2024 11:30 AM	20:00	6.45 pH	17.99 °C	401.01 µS/cm	0.24 mg/L	5.65 NTU	-76.3 mV	10.88 ft	250.00 ml/min
12/11/2024 11:35 AM	25:00	6.45 pH	18.02 °C	397.86 µS/cm	0.23 mg/L	4.57 NTU	-101.2 mV	10.89 ft	250.00 ml/min
12/11/2024 11:40 AM	30:00	6.44 pH	17.87 °C	402.15 µS/cm	0.23 mg/L	4.44 NTU	-103.7 mV	10.90 ft	250.00 ml/min

Samples

Sample ID:	Description:
MCD-INW-01-TEMP-15	

Low-Flow Test Report:

Test Date / Time: 1/27/2025 4:33:42 PM
Project: McDonough Development
Operator Name: Dana Bloomfield

Location Name: MCD-B-129 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 20.3 ft** **Total Depth: 30.3 ft** **Initial Depth to Water: 14.61 ft**	**Pump Type: Reclaimer** **Tubing Type: LDPE** **Pump Intake From TOC: 25 m** **Estimated Total Volume Pumped: 2.752 gal** **Flow Cell Volume: 90 ml** **Final Flow Rate: 0.05 gal/min** **Final Draw Down: 12.89 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 1080300**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.3	
1/27/2025 4:33 PM	00:00	7.04 pH	18.10 °C	682.53 µS/cm	7.00 mg/L	2.27 NTU	67.3 mV	14.61 ft	0.10 gal/min
1/27/2025 4:43 PM	10:00	7.10 pH	19.17 °C	666.19 µS/cm	6.39 mg/L	2.40 NTU	73.9 mV	24.15 ft	0.10 gal/min
1/27/2025 4:53 PM	20:00	7.03 pH	19.05 °C	684.16 µS/cm	6.07 mg/L	3.61 NTU	64.6 mV	26.60 ft	0.10 gal/min
1/27/2025 4:55 PM	21:31	7.05 pH	19.05 °C	695.70 µS/cm	6.16 mg/L	3.69 NTU	72.9 mV	26.70 ft	0.05 gal/min
1/27/2025 4:58 PM	24:31	7.11 pH	19.01 °C	672.07 µS/cm	6.29 mg/L	2.52 NTU	63.9 mV	27.00 ft	0.05 gal/min
1/27/2025 5:01 PM	27:31	7.20 pH	18.82 °C	676.88 µS/cm	6.53 mg/L	2.45 NTU	62.1 mV	27.30 ft	0.05 gal/min
1/27/2025 5:04 PM	30:31	7.22 pH	18.25 °C	694.67 µS/cm	6.59 mg/L	3.45 NTU	61.3 mV	27.45 ft	0.05 gal/min
1/27/2025 5:07 PM	33:31	7.26 pH	18.58 °C	676.56 µS/cm	6.54 mg/L	3.43 NTU	60.5 mV	27.50 ft	0.05 gal/min

Samples

Sample ID:	Description:
MCD-B-129-TEMP	Sample time: 17:07

Low-Flow Test Report:

Test Date / Time: 1/28/2025 10:53:26 AM
Project: McDonough Development
Operator Name: Dana Bloomfield

Location Name: MCD-INW-01A **Latitude: 33.82658878794899** **Longitude: -84.48265798892093** **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.19 ft** **Total Depth: 23.19 ft** **Initial Depth to Water: 10.6 ft**	**Pump Type: Peristaltic** **Tubing Type: LDPE** **Pump Intake From TOC: 23.19 m** **Estimated Total Volume Pumped: 6450 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.37 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 1080300**

Test Notes:

Weather Conditions:
Sunny 45

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 20	+/- 0.3	
1/28/2025 10:53 AM	00:00	6.42 pH	15.93 °C	224.15 µS/cm	3.90 mg/L	34.30 NTU	20.6 mV	10.60 ft	200.00 ml/min
1/28/2025 10:56 AM	03:00	6.34 pH	16.11 °C	224.09 µS/cm	0.46 mg/L	33.90 NTU	4.9 mV	10.97 ft	200.00 ml/min
1/28/2025 10:59 AM	06:00	6.38 pH	16.06 °C	230.31 µS/cm	0.22 mg/L	25.00 NTU	-5.2 mV	10.97 ft	250.00 ml/min
1/28/2025 11:02 AM	09:00	6.40 pH	15.81 °C	237.97 µS/cm	0.18 mg/L	14.60 NTU	-12.5 mV	10.97 ft	250.00 ml/min
1/28/2025 11:05 AM	12:00	6.42 pH	15.88 °C	239.51 µS/cm	0.16 mg/L	11.50 NTU	-17.2 mV	10.97 ft	250.00 ml/min
1/28/2025 11:08 AM	15:00	6.42 pH	16.03 °C	238.23 µS/cm	0.13 mg/L	7.94 NTU	-19.5 mV	10.97 ft	250.00 ml/min
1/28/2025 11:11 AM	18:00	6.43 pH	15.95 °C	241.93 µS/cm	0.12 mg/L	6.66 NTU	-22.5 mV	10.97 ft	250.00 ml/min
1/28/2025 11:14 AM	21:00	6.44 pH	16.25 °C	241.11 µS/cm	0.12 mg/L	5.60 NTU	-25.2 mV	10.97 ft	250.00 ml/min
1/28/2025 11:17 AM	24:00	6.45 pH	16.29 °C	241.69 µS/cm	0.11 mg/L	5.70 NTU	-27.2 mV	10.97 ft	250.00 ml/min
1/28/2025 11:20 AM	27:00	6.45 pH	15.96 °C	240.17 µS/cm	0.10 mg/L	4.57 NTU	-27.4 mV	10.97 ft	250.00 ml/min

Samples

Sample ID:	Description:

MCD-INW-01A-TEMP	Sample time: 1121

Created using VuSitu from In-Situ, Inc.

APPENDIX A

Instrument Calibration Records
September 2024

Site Name: Plant McDonough **Field Instrumentation Calibration Form**

Date: 9/9/24

Calibrated By: OCB

Field Conditions: Sunny, 75°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquaread	980712
Turbidity Meter	HACH	11888C00#9931

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24050593	11/24	AR
pH (SU)	4.00	↓	↓	↓
pH (SU)	7.00	24004577	12/24	AR
pH (SU)	10.00	24004996	11/24	AR
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24004953	12/24	AR

Calibration					
Time Start 0810		Time Finish 0830			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4494.4	22.97	± 10% of standard	EPA 2023
pH (SU)	4.00	3.97	23.07	± 0.1	GWMP
pH (SU)	7.00	7.03	23.22	± 0.1	GWMP
pH (SU)	10.00	10.03	23.29	± 0.1	GWMP
D.O. (%)	N/A	~~90.1~~ 100.3	~~22.84~~	21.08 ± 10%	NA
ORP (mV)	228.0	223.2	22.82	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.4	± 10% of standard	EPA 2023
	100	97		
	800	800		
	10	10.1		

Calibration Check					
Time Start 1610		Time Finish 1610			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4493.2	26.87	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	24.89	± 0.1	GWMP
pH (SU)	7.00	7.01	24.81	± 0.1	GWMP
pH (SU)	10.00	10.00	24.82	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.7	± 10% of standard	EPA 2023
	100	99		
	800	805		
	10	9.8		

Notes:

Site Name: SCS Plant McD

Field Instrumentation Calibration Form

Date: 9/4/24

Calibrated By: LND

Field Conditions: Sunny, Clear

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	aquaread 400	851413
Turbidity Meter	HACH 2100 Q	14080C03444 7

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/2024	
pH (SU)	4.00	24005593	12/2024	
pH (SU)	7.00	24008587	08/2025	
pH (SU)	10.00	24000085	12/2024	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24006903	12/2024	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	2597.5	~~25.8~~ 26.5	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	26.40	± 0.1	GWMP
pH (SU)	7.00	7.29	25.78	± 0.1	GWMP
pH (SU)	10.00	10.01	25.17	± 0.1	GWMP
D.O. (%)	N/A	8.01	28.17	± 10%	NA
ORP (mV)	228.0	233.9	24.98	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.0	± 10% of standard	EPA 2023
	20	21.0		
	100	103.0		
	800	770		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: McDonough

Field Instrumentation Calibration Form

Date: 9-4-24

Calibrated By: Ever Guillen

Field Conditions: Hot - Humid

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	YSI/EXO 2	23B7630
Turbidity Meter	HACH/2100Q	23060034

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/24	AIR
pH (SU)	4.00	"	"	"
pH (SU)	7.00	24004517	12/24	AIR
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	—
ORP (mV)	228.0	24004903	12/24	AIR

Calibration					
Time Start 1050		Time Finish 1130			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,410.4	23.56	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	23.43	± 0.1	GWMP
pH (SU)	7.00	7.03	23.41	± 0.1	GWMP
pH (SU)	10.00	9.89	23.34	± 0.1	GWMP
D.O. (%)	N/A	99.78	23.23	± 10%	NA
ORP (mV)	228.0	224.0	23.45	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.96	± 10% of standard	EPA 2023
	20	20.4		
	100	101		
	800	818		

Calibration Check					
Time Start 1400		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4651.5	26.41	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	26.41	± 0.1	GWMP
pH (SU)	7.00	6.96	27.14	± 0.1	GWMP
pH (SU)	10.00	9.93	27.85	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.1	± 10% of standard	EPA 2023
	20	20.3		
	100	100		
	800	807		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/4/24

Calibrated By: Daniel Howard

Field Conditions: Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter AquaTroll	AquaTroll	952637
Turbidity Meter	Hach 2100Q	22090D003337

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	5/25	AH Instruments
pH (SU)	4.00	24010943	5/25	↓
pH (SU)	7.00	24008558	6/25	↓
pH (SU)	10.00	24004996	6/25	↓
D.O. (%)	N/A	NA	—	—
ORP (mV)	228.0	24011792	6/25	AH Instruments

Calibration					
Time Start 0510		Time Finish 0540			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	24.87	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	23.45	± 0.1	GWMP
pH (SU)	7.00	7.00	23.41	± 0.1	GWMP
pH (SU)	10.00	10.00	23.05	± 0.1	GWMP
D.O. (%)	N/A	6.87	24.49	± 10%	NA
ORP (mV)	228.0	232.0	22.68	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	101		
	800	80.3		
	10	9.72		

Calibration Check					
Time Start 1230		Time Finish 1245			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4433	26.23	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	26.22	± 0.1	GWMP
pH (SU)	7.00	7.02	25.44	± 0.1	GWMP
pH (SU)	10.00	9.99	24.65	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	98.8		
	800	783		
	10	9.78		

Notes:

Site Name: MCDONOUGH

Field Instrumentation Calibration Form

Date: 09/04/24

Calibrated By: M. MANN

Field Conditions: SUNNY 64/84°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUATROLL	1087817
Turbidity Meter	HACH 2100Q	23060D000290

Calibration Standard Information

Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010443	05/25	AIR
pH (SU)	4.00	" "	↓	↓
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24011797	06/25	

Calibration

Time Start: 0830 Time Finish: 0850

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4494.4 9MA	~~22.68~~ 22.40	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00/4.00	23.15	± 0.1	GWMP
pH (SU)	7.00	7.00/7.00	22.72	± 0.1	GWMP
pH (SU)	10.00	10.01/10.00	22.80	± 0.1	GWMP
D.O. (%)	N/A	118.40	25.58	± 10%	NA
ORP (mV)	228.0	227.4	22.44	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.72	± 10% of standard	EPA 2023
	20	19.9		
	100	95.8		
	800	816		

Calibration Check

Time Start: 1425 Time Finish: 1435

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4470.0	32.72	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	32.72	± 0.1	GWMP
pH (SU)	7.00	6.91	31.53	± 0.1	GWMP
pH (SU)	10.00	9.91	~~31.53~~ 31.31	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.97	± 10% of standard	EPA 2023
	20	18.3		
	100	92.3		
	800	774		

Notes:

Site Name: Plant McDonough **Field Instrumentation Calibration Form**

Date: 9/5/24

Calibrated By: DCB

Field Conditions: Sunny, East

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter		
Turbidity Meter		

Same as previous

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration

Time Start 0910 Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4446.6	23.03	± 10% of standard	EPA 2023
pH (SU)	4.00	4.10	23.88	± 0.1	GWMP
pH (SU)	7.00	7.02	23.33	± 0.1	GWMP
pH (SU)	10.00	10.01	23.39	± 0.1	GWMP
D.O. (%)	N/A	98.56	23.06	± 10%	NA
ORP (mV)	228.0	228.4	23.18	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.4	± 10% of standard	EPA 2023
	100	99.9		
	800	793		
	10	9.48		

Calibration Check

Time Start Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4453.2	25.07	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	25.09	± 0.1	GWMP
pH (SU)	7.00	6.99	24.25	± 0.1	GWMP
pH (SU)	10.00	10.05	26.20	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.2	± 10% of standard	EPA 2023
	100	98.1		
	800	795		
	10	9.97		

Notes:

Site Name: SCS plant MCD

Field Instrumentation Calibration Form

Date: 9/5/24

Calibrated By: LMD

Field Conditions: Sunny clear

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquatrol 400	851413
Turbidity Meter	HACH 2100Q	14080C 0 34447

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/24	
pH (SU)	4.00	24005593	12/24	
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24006903	12/24	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4586.8	20.82	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	21.15	± 0.1	GWMP
pH (SU)	7.00	7.07	21.55	± 0.1	GWMP
pH (SU)	10.00	10.08	21.50	± 0.1	GWMP
D.O. (%)	N/A	9.02	19.65	± 10%	NA
ORP (mV)	228.0	233.7	21.46	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.8	± 10% of standard	EPA 2023
	20	21.5		
	100	102		
	800	823		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4412.2	30.38	± 10% of standard	EPA 2023
pH (SU)	4.00	4.07	30.33	± 0.1	GWMP
pH (SU)	7.00	9.02	29.12	± 0.1	GWMP
pH (SU)	10.00	9.91	28.24	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.24	± 10% of standard	EPA 2023
	20	18.9		
	100	99.3		
	800	781.0		

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 9-5-24

Calibrated By: EVER GUILLEN

Field Conditions: HOT - HUMID

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	INSITU/AT400	989630
Turbidity Meter	HACH/2100Q	23060034

Calibration Standard Information

Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2400 5593	12/24	AIR
pH (SU)	4.00	2400 5593	↓	↓
pH (SU)	7.00	2400 4519		
pH (SU)	10.00	2400 0085		
D.O. (%)	N/A	—		
ORP (mV)	228.0	2400 6903		

Calibration

Time Start 950 Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4562.0	23.92	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	23.81	± 0.1	GWMP
pH (SU)	7.00	6.93	23.88	± 0.1	GWMP
pH (SU)	10.00	9.97	23.98	± 0.1	GWMP
D.O. (%)	N/A	8.16	24.26	± 10%	NA
ORP (mV)	228.0	231.5	24.13	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.1	± 10% of standard	EPA 2023
	20	19.8		
	100	101		
	800	803		

Calibration Check

Time Start Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4651.9	23.71	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	23.73	± 0.1	GWMP
pH (SU)	7.00	6.96	23.81	± 0.1	GWMP
pH (SU)	10.00	9.95	23.86	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	20.2		
	100	99.7		
	800	792		

Notes:

Site Name: Plant McDonough

Calibrated By: Daniel Howard

Field Instrumentation Calibration Form

Date: 9/5/24

Field Conditions: Sunny

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ	AquaTroll	952637
Turbidity Meter		Hach 2100Q	22090000337

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	6/25	Atl Instruments
pH (SU)	4.00	24010943	6/25	↓
pH (SU)	7.00	24000858	6/25	
pH (SU)	10.00	24004996	6/25	↓
D.O. (%)	N/A	NA	-	
ORP (mV)	228.0	24011792	6/25	Atl Instruments

Calibration					
Time Start 0520			Time Finish 0545		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	25.24	± 10% of standard	EPA 2023
pH (SU)	4.00	4.0	25.38	± 0.1	GWMP
pH (SU)	7.00	7.0	25.47	± 0.1	GWMP
pH (SU)	10.00	10.0	25.58	± 0.1	GWMP
D.O. (%)	N/A	6.90	24.42	± 10%	NA
ORP (mV)	228.0	228.2	25.69	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.2	± 10% of standard	EPA 2023
	100	100		
	800	798		
	10	9.60		

Calibration Check					
Time Start 1230 1225			Time Finish 1231		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4564	30.45	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	30.47	± 0.1	GWMP
pH (SU)	7.00	7.02	28.92	± 0.1	GWMP
pH (SU)	10.00	9.96	28.14	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.0	± 10% of standard	EPA 2023
	100	99.1		
	800	785		
	10	9.66		

Notes:

Site Name: PLANT McDONOUGH **Field Instrumentation Calibration Form** Date: 09/05/24

Calibrated By: M. MANN Field Conditions: CLOUDY 66°/89°

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUATROLL	1082817
Turbidity Meter	HACH 2100Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	05/25	AJR
pH (SU)	4.00	"	"	
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000885	12/24	
D.O. (%)	N/A			
ORP (mV)	228.0	24011792	06/25	

Calibration					
Time Start 0400		Time Finish 0415			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4498.3	23.83	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06/4.00	23.36	± 0.1	GWMP
pH (SU)	7.00	6.90/7.00	23.83	± 0.1	GWMP
pH (SU)	10.00	9.91/10.00	24.24	± 0.1	GWMP
D.O. (%)	N/A	94.96	23.76	± 10%	NA
ORP (mV)	228.0	226.7	24.29	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.91	± 10% of standard	EPA 2023
	20	19.9		
	100	101		
	800	792		

Calibration Check					
Time Start 1245		Time Finish 1250			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4366.5	27.73	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	27.73	± 0.1	GWMP
pH (SU)	7.00	7.01	27.08	± 0.1	GWMP
pH (SU)	10.00	10.05	26.90	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	20.6		
	100	98.9		
	800	815		

Notes:

Site Name: SCS Plant MOD

Field Instrumentation Calibration Form

Date: 9/16/24

Calibrated By: LMD

Field Conditions: Sunny clear

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	aquatroll 400	857413
Turbidity Meter	HACH 2100Q	14080C03 4447

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/24	
pH (SU)	4.00	24005393	12/24	
pH (SU)	7.00	24008527	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24006903	12/24	

Calibration

Time Start: Time Finish:

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4343.5	21.01	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	21.32	± 0.1	GWMP
pH (SU)	7.00	7.02	21.55	± 0.1	GWMP
pH (SU)	10.00	10.04	21.64	± 0.1	GWMP
D.O. (%)	N/A	8.86	19.86	± 10%	NA
ORP (mV)	228.0	233	21.64	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.31	± 10% of standard	EPA 2023
	20	19.9		
	100	101		
	800	798		

Calibration Check

Time Start: Time Finish:

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: McDonough

Field Instrumentation Calibration Form

Date: 9-6-24

Calibrated By: Evel Guillen

Field Conditions: Hot-Dry-Cloudy

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	INSITU/AT400	989630
Turbidity Meter	HACH/2100Q	23060034

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2400 5593	12-24	AIR
pH (SU)	4.00	2400 5593	↓	↓
pH (SU)	7.00	2400 4517		
pH (SU)	10.00	2400 0085		
D.O. (%)	N/A	–		
ORP (mV)	228.0	2400 6903		

Calibration					
Time Start 530		Time Finish 600			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4588.2	25.05	± 10% of standard	EPA 2023
pH (SU)	4.00	3.99	25.14	± 0.1	GWMP
pH (SU)	7.00	6.99	25.69	± 0.1	GWMP
pH (SU)	10.00	9.99	25.40	± 0.1	GWMP
D.O. (%)	N/A	8.29	23.43	± 10%	NA
ORP (mV)	228.0	225.0	25.44	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.0	± 10% of standard	EPA 2023
	20	20.5		
	100	98.9		
	800	794		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/6/24

Calibrated By: Daniel Howard

Field Conditions: Partly Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	In Situ	AquaTroll 952637
Turbidity Meter	Hach 2100Q	22090D04837

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	5/25	AtI Instruments
pH (SU)	4.00	24010943	5/25	↓
pH (SU)	7.00	24008558	6/25	↓
pH (SU)	10.00	24004996	6/25	↓
D.O. (%)	N/A	NA	—	—
ORP (mV)	228.0	24011792	6/25	AtI Instruments

Calibration					
Time Start: 0510		Time Finish: 0525			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	25.30	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	25.42	± 0.1	GWMP
pH (SU)	7.00	7.00	25.52	± 0.1	GWMP
pH (SU)	10.00	10.00	25.55	± 0.1	GWMP
D.O. (%)	N/A	6.88	24.54	± 10%	NA
ORP (mV)	228.0	228.4	25.51	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	99.8		
	800	803		
	10	9.49		

Calibration Check					
Time Start: 1100		Time Finish: 1115			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4408	26.77	± 10% of standard	EPA 2023
pH (SU)	4.00	4.05	26.97	± 0.1	GWMP
pH (SU)	7.00	7.02	25.53	± 0.1	GWMP
pH (SU)	10.00	9.98	25.19	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.2	± 10% of standard	EPA 2023
	100	99.3		
	800	787		
	10	10.1		

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 09/06/24

Calibrated By: M. MANN

Field Conditions:

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUAPLUS	1082817
Turbidity Meter	HACH 2100Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration

Time Start 0835 Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	44389	23.02	± 10% of standard	EPA 2023
pH (SU)	4.00	3.97	23.07	± 0.1	GWMP
pH (SU)	7.00	7.01	23.62	± 0.1	GWMP
pH (SU)	10.00	9.99	24.11	± 0.1	GWMP
D.O. (%)	N/A	100.82	24.02	± 10%	NA
ORP (mV)	228.0	220.1	24.87	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.2	± 10% of standard	EPA 2023
	100	101		
	800	806		
	10	10.0		

Calibration Check

Time Start Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: Plant McD

Field Instrumentation Calibration Form

Date: 9/9/24

Calibrated By: DCB

Field Conditions: Sunny 80°F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter		
Turbidity Meter		

Calibration Standard Information

Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration

Time Start 0950 Time Finish 1005

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4613.4	22.37	± 10% of standard	EPA 2023
pH (SU)	4.00	3.96	22.35	± 0.1	GWMP
pH (SU)	7.00	6.98	23.00	± 0.1	GWMP
pH (SU)	10.00	9.98	23.60	± 0.1	GWMP
D.O. (%)	N/A	101.34	23.78	± 10%	NA
ORP (mV)	228.0	224.2	23.69	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	103		
	800	801		
	10	9.95		

Calibration Check

Time Start 1045 Time Finish 1100

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4562.2	23.56	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	23.57	± 0.1	GWMP
pH (SU)	7.00	7.05	23.05	± 0.1	GWMP
pH (SU)	10.00	9.99	23.42	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.4	± 10% of standard	EPA 2023
	100	102		
	800	800		
	10	9.95		

Notes:

Site Name: SCS Plant MED

Field Instrumentation Calibration Form

Date: 9/9/24

Calibrated By: LND

Field Conditions: Sunny clear.

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	Aquatroll 400	851413
Turbidity Meter	HACH 2100Q	14080C034447

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/24	
pH (SU)	4.00	24005593	12/24	
pH (SU)	7.00	24008587	9/6/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24056903	12/24	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4389.2	18.88	± 10% of standard	EPA 2023
pH (SU)	4.00	3.98	19.19	± 0.1	GWMP
pH (SU)	7.00	7.00	19.32	± 0.1	GWMP
pH (SU)	10.00	10.07	19.37	± 0.1	GWMP
D.O. (%)	N/A	9.47	18.16	± 10%	NA
ORP (mV)	228.0	237.9	19.80	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	~~9.64~~ 9.51	± 10% of standard	EPA 2023
	20	20.3		
	100	101		
	800	799		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4752.2	32.98	± 10% of standard	EPA 2023
pH (SU)	4.00	4.13	33.33	± 0.1	GWMP
pH (SU)	7.00	7.05	32.97	± 0.1	GWMP
pH (SU)	10.00	9.96	32.83	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.28	± 10% of standard	EPA 2023
	20	19.2		
	100	96.8		
	800	801		

Notes:

Site Name: MC DONOUGH

Field Instrumentation Calibration Form

Date: 9-9-24

Calibrated By: EVER GUILLEN

Field Conditions: HOT - DRY - CLOUDY

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	INSITU/AT400	989630
Turbidity Meter	HACH/2100Q	23060034

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	Z400 5593	12-24	AIR
pH (SU)	4.00	Z400 5593		
pH (SU)	7.00	Z400 4517		
pH (SU)	10.00	Z400 0085		
D.O. (%)	N/A	—		
ORP (mV)	228.0	Z400 6903		

Calibration					
Time Start 0800		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4601.6	20.16	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	20.39	± 0.1	GWMP
pH (SU)	7.00	7.02	20.72	± 0.1	GWMP
pH (SU)	10.00	10.04	20.77	± 0.1	GWMP
D.O. (%)	N/A	9.03	18.79	± 10%	NA
ORP (mV)	228.0			± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.96	± 10% of standard	EPA 2023
	20	19.7		
	100	102		
	800	807		

Calibration Check					
Time Start 1330		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4653.7	22.91	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	22.91	± 0.1	GWMP
pH (SU)	7.00	6.97	22.78	± 0.1	GWMP
pH (SU)	10.00	9.96	22.83	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.1	± 10% of standard	EPA 2023
	20	20.2		
	100	101		
	800	811		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/9/24

Calibrated By: Daniel Howard

Field Conditions: Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll	952637
Turbidity Meter	Hach 2100Q	22090C008337

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	5/25	Atl Instruments
pH (SU)	4.00	24010943	5/25	↓
pH (SU)	7.00	24008558	6/25	
pH (SU)	10.00	24004996	6/25	
D.O. (%)	N/A	NA	-	-
ORP (mV)	228.0	24011792	6/25	Atl Instruments

Calibration					
Time Start 0510		Time Finish 0540			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	23.69	± 10% of standard	EPA 2023
pH (SU)	4.00	4.0	23.75	± 0.1	GWMP
pH (SU)	7.00	7.0	23.65	± 0.1	GWMP
pH (SU)	10.00	10.0	23.74	± 0.1	GWMP
D.O. (%)	N/A	6.95	23.79	± 10%	NA
ORP (mV)	228.0	230.7	23.75	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.8	± 10% of standard	EPA 2023
	100	99.7		
	800	798		
	10	9.56		

Calibration Check					
Time Start 1221		Time Finish 1235			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4352	29.19	± 10% of standard	EPA 2023
pH (SU)	4.00	4.05	29.19	± 0.1	GWMP
pH (SU)	7.00	7.05	27.16	± 0.1	GWMP
pH (SU)	10.00	9.97	27.30	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.7	± 10% of standard	EPA 2023
	100	99.6		
	800	789		
	10	9.96		

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 9/9/24

Calibrated By: M. MANN

Field Conditions: _____

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUAROLL	1082817
Turbidity Meter	HACH 2100Q	23060D000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	05/25	AIR
pH (SU)	4.00	〃	〃	〃
pH (SU)	7.00	24008587	06/25	〃
pH (SU)	10.00	24000084	12/24	〃
D.O. (%)	N/A	—	—	〃
ORP (mV)	228.0	24011792	06/25	〃

Calibration					
Time Start	0820	Time Finish	0840		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4404.1	23.02	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	23.70	± 0.1	GWMP
pH (SU)	7.00	7.04	23.77	± 0.1	GWMP
pH (SU)	10.00	10.01	23.63	± 0.1	GWMP
D.O. (%)	N/A	99.55	22.47	± 10%	NA
ORP (mV)	228.0	226.5	23.83	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.3	± 10% of standard	EPA 2023
	100	99.3		
	800	796		
	10	9.72		

Calibration Check					
Time Start	1530	Time Finish	1540		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4393.2	28.39	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	28.29	± 0.1	GWMP
pH (SU)	7.00	7.08	29.17	± 0.1	GWMP
pH (SU)	10.00	10.06	30.55	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.0	± 10% of standard	EPA 2023
	20	19.8		
	100	99.5		
	800	784		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/10

Calibrated By: DCB

Field Conditions: Sunny 80s F

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter		
Turbidity Meter		

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration					
Time Start 0915		Time Finish 0930			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4403.0	20.59	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	20.59	± 0.1	GWMP
pH (SU)	7.00	6.99	21.36	± 0.1	GWMP
pH (SU)	10.00	9.94	21.77	± 0.1	GWMP
D.O. (%)	N/A	98.73	21.74	± 10%	NA
ORP (mV)	228.0	230.4	21.62	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.4	± 10% of standard	EPA 2023
	100	107		
	800	815		
	10	10.0		

Calibration Check					
Time Start 1600		Time Finish 1615			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4496.5	23.52	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	23.54	± 0.1	GWMP
pH (SU)	7.00	7.00	22.05	± 0.1	GWMP
pH (SU)	10.00	10.01	23.10	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.7	± 10% of standard	EPA 2023
	100	102		
	800	805		
	10	9.98		

Notes:

Site Name: SCS plant ~~SCS~~ MCD

Field Instrumentation Calibration Form

Date: 9/10/24

Calibrated By: LNP

Field Conditions: Sunny clear.

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	aquaread 400	851413
Turbidity Meter	HACH 2100Q	14080C03 4447

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24002593	12/24	
pH (SU)	4.00	24005593	12/24	
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A			
ORP (mV)	228.0	24006903	12/24	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4515.5	18.78	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	19.41	± 0.1	GWMP
pH (SU)	7.00	7.04	20.04	± 0.1	GWMP
pH (SU)	10.00	10.07	20.06	± 0.1	GWMP
D.O. (%)	N/A	9.34	17.24	± 10%	NA
ORP (mV)	228.0	232.4	20.91	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	~~19.4~~ 10.4	± 10% of standard	EPA 2023
	20	19.1		
	100	98		
	800	799		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4487.2	32.15	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	32.06	± 0.1	GWMP
pH (SU)	7.00	6.96	30.78	± 0.1	GWMP
pH (SU)	10.00	9.86	29.97	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.38	20.6 ± 10% of standard	EPA 2023
	20	~~20.6~~		
	100	94.2		
	800	785		

Notes:

Field Instrumentation Calibration Form

Site Name: MC DONOUGH

Date: 9-10-24

Calibrated By: EVER GUILLEN

Field Conditions: HOT-HUMID-CLOUDY

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IPSITU/AT400	989630
Turbidity Meter	HACH/2100Q	23060034

Calibration Standard Information

Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2400 5593	12/24	AIR
pH (SU)	4.00	2400 5593	↓	↓
pH (SU)	7.00	2400 4517		
pH (SU)	10.00	2400 0085		
D.O. (%)	N/A	—		
ORP (mV)	228.0	2400 6903		

Calibration

Time Start 830 Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4995.3	21.59	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	21.73	± 0.1	GWMP
pH (SU)	7.00	6.89	22.90	± 0.1	GWMP
pH (SU)	10.00	10.11	22.68	± 0.1	GWMP
D.O. (%)	N/A	8.86	20.57	± 10%	NA
ORP (mV)	228.0	222.4	22.57	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.90	± 10% of standard	EPA 2023
	20	20.9		
	100	100		
	800	794		

Calibration Check

Time Start Time Finish

Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4479.1	22.03	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	22.17	± 0.1	GWMP
pH (SU)	7.00	6.93	22.34	± 0.1	GWMP
pH (SU)	10.00	9.96	21.98	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	21.0		
	100	99		
	800	806		

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/10/24

Calibrated By: Daniel Howard

Field Conditions: Sunny

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter Inst.n	AquaTroll	952637
Turbidity Meter	Hach2100Q	22090D000337

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	5/25	AtI Instruments
pH (SU)	4.00	24010943	5/25	↓
pH (SU)	7.00	24008558	6/25	↓
pH (SU)	10.00	24004996	6/25	↓
D.O. (%)	N/A	NA	NA	—
ORP (mV)	228.0	24011792	6/25	AtI Instruments

Calibration					
Time Start 0510		Time Finish 0545			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	24.56	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	24.63	± 0.1	GWMP
pH (SU)	7.00	7.06	25.02	± 0.1	GWMP
pH (SU)	10.00	10.10	24.85	± 0.1	GWMP
D.O. (%)	N/A	6.97	23.88	± 10%	NA
ORP (mV)	228.0	229.1	25.02	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	20.1	± 10% of standard	EPA 2023
	100	100		
	800	807		
	10	9.57		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4462	26.13	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	26.15	± 0.1	GWMP
pH (SU)	7.00	7.00	26.11	± 0.1	GWMP
pH (SU)	10.00	9.99	26.09	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.9	± 10% of standard	EPA 2023
	100	100		
	800	788		
	10	9.76		

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 9/10/24

Calibrated By: M. MANN

Field Conditions: 70°F SUNNY

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUATROLL	1082817
Turbidity Meter	HACH 2100Q	22[illegible]

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	05/25	AIR
pH (SU)	4.00	"	↓	↓
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000065	12/24	
D.O. (%)	N/A	-	-	
ORP (mV)	228.0	24011742	06/25	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4363.8	21.86	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	21.91	± 0.1	GWMP
pH (SU)	7.00	7.32	22.43	± 0.1	GWMP
pH (SU)	10.00	10.03	22.71	± 0.1	GWMP
D.O. (%)	N/A	100.6	23.00	± 10%	NA
ORP (mV)	228.0	224.0	22.64	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.94	± 10% of standard	EPA 2023
	20	19.7		
	100	100		
	800	803		

Calibration Check					
Time Start	1405	Time Finish	1417		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4470.1	33.00	± 10% of standard	EPA 2023
pH (SU)	4.00	4.09	32.93	± 0.1	GWMP
pH (SU)	7.00	7.10	33.96	± 0.1	GWMP
pH (SU)	10.00	10.00	37.33	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.1	± 10% of standard	EPA 2023
	20	20.3		
	100	105		
	800	810		

Notes:

Site Name: Plant McD

Field Instrumentation Calibration Form

Date: 9/4/24

Calibrated By: DLB

Field Conditions: Cloudy 78

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter		
Turbidity Meter		

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490			
pH (SU)	4.00			
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration					
Time Start 0915		Time Finish 0935			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4522.9	22.08	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	22.08	± 0.1	GWMP
pH (SU)	7.00	6.98	22.66	± 0.1	GWMP
pH (SU)	10.00	10.08	23.02	± 0.1	GWMP
D.O. (%)	N/A	~~98.0~~ 100.27	~~23.95~~ 22.13	± 10%	NA
ORP (mV)	228.0	224.0	23.19	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	23.1	± 10% of standard	EPA 2023
	100	103		
	800	813		
	10	9.25		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Done @ 12pm, no cal check

Site Name: SCS Plant MCD

Field Instrumentation Calibration Form

Date: 9/11/24

Calibrated By: LND

Field Conditions: cloudy

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	aquaprobe 400	851413
Turbidity Meter	HACH 2100 Q	14080C0 34447

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	12/24	
pH (SU)	4.00	24005593	12/24	
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A			
ORP (mV)	228.0	24006903	12/24	

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4378.0	20.35	± 10% of standard	EPA 2023
pH (SU)	4.00	3.96	20.67	± 0.1	GWMP
pH (SU)	7.00	6.97	20.61	± 0.1	GWMP
pH (SU)	10.00	10.01	20.48	± 0.1	GWMP
D.O. (%)	N/A	8.77	20.13	± 10%	NA
ORP (mV)	228.0			± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.66	± 10% of standard	EPA 2023
	20	21.0		
	100	104		
	800	813		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: EVER GLADES

Field Instrumentation Calibration Form

Date: 9-11-24

Calibrated By:

Field Conditions: WARM - HUMID - CLOU

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	INSITU / PT400	989630
Turbidity Meter	HACH / 2100Q	23060034

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	2400 5593	12/24	AIR
pH (SU)	4.00	2400 5593		
pH (SU)	7.00	2400 4517		
pH (SU)	10.00	2400 0085		
D.O. (%)	N/A	~~2400~~		
ORP (mV)	228.0	2400 6903		

Calibration					
Time Start 845		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4467.8	20.68	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	22.76	± 0.1	GWMP
pH (SU)	7.00	7.01	22.91	± 0.1	GWMP
pH (SU)	10.00	9.95	22.98	± 0.1	GWMP
D.O. (%)	N/A	8.87	20.66	± 10%	NA
ORP (mV)	228.0	230.08	22.87	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.2	± 10% of standard	EPA 2023
	20	19.6		
	100	99.0		
	800	810		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: Plant McDonough

Field Instrumentation Calibration Form

Date: 9/11/24

Calibrated By: Daniel Howard

Field Conditions: Partly Sunny

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll	952637
Turbidity Meter	Hach 2100Q	22090[illegible]0337

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	5/25	AtI Instruments
pH (SU)	4.00	24010943	5/25	↓
pH (SU)	7.00	24010858	6/25	↓
pH (SU)	10.00	24010996	6/25	↓
D.O. (%)	N/A	NA	NA	=
ORP (mV)	228.0	24011792	6/25	AtI Instruments

Calibration					
Time Start 0520		Time Finish 0535			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,490	25.30	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	25.87	± 0.1	GWMP
pH (SU)	7.00	7.00	25.98	± 0.1	GWMP
pH (SU)	10.00	10.08	25.88	± 0.1	GWMP
D.O. (%)	N/A	6.72	25.51	± 10%	NA
ORP (mV)	228.0	228.1	25.78	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	19.8	± 10% of standard	EPA 2023
	100	99.9		
	800	798		
	10	9.76		

Calibration Check					
Time Start 1150		Time Finish 1210			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,516	25.62	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	25.70	± 0.1	GWMP
pH (SU)	7.00	7.01	25.49	± 0.1	GWMP
pH (SU)	10.00	9.98	25.32	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	20	21.0	± 10% of standard	EPA 2023
	100	99.4		
	800	795		
	10	10.1		

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 9/11/24

Calibrated By: M. MANN

Field Conditions:

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	IN-SITU AQUAROLL	1082817
Turbidity Meter	HACH 2100Q	22060000290

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	05/25	AIR
pH (SU)	4.00	" "	↓	↓
pH (SU)	7.00	24008587	06/25	
pH (SU)	10.00	24000085	12/24	
D.O. (%)	N/A	—	—	
ORP (mV)	228.0	24011792	06/25	↓

Calibration					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4444.2	22.17	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	22.08	± 0.1	GWMP
pH (SU)	7.00	7.00	22.80	± 0.1	GWMP
pH (SU)	10.00	9.98	23.05	± 0.1	GWMP
D.O. (%)	N/A	98.68	21.77	± 10%	NA
ORP (mV)	228.0	226.0	22.40	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	9.76	± 10% of standard	EPA 2023
	20	20.4		
	100	100		
	800	796		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes:

Site Name: McDONOUGH

Field Instrumentation Calibration Form

Date: 12/11/24

Calibrated By: M. MANN

Field Conditions: 42°F WINDY

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AQUATROLL 200	1080302
Turbidity Meter	HACH 2100Q	24090D000397

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	05/2025	ADI
pH (SU)	4.00	24010943	05/2025	
pH (SU)	7.00	24009597	06/2025	
pH (SU)	10.00	24004996	06/2025	
D.O. (%)	N/A			
ORP (mV)	228.0	24011792	06/2025	

Calibration					
Time Start 1015		Time Finish 1030			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4364.0	14.49	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	14.30	± 0.1	GWMP
pH (SU)	7.00	7.01	14.40	± 0.1	GWMP
pH (SU)	10.00	10.09	13.94	± 0.1	GWMP
D.O. (%)	N/A	97.06	11.09	± 10%	NA
ORP (mV)	228.0	232.4	13.82	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)	10	10.4	± 10% of standard	EPA 2023
	20	21.6		
	100	108		
	800	814		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490			± 10% of standard	EPA 2023
pH (SU)	4.00			± 0.1	GWMP
pH (SU)	7.00			± 0.1	GWMP
pH (SU)	10.00			± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
Turbidity (NTU)			± 10% of standard	EPA 2023

Notes

APPENDIX B

Analytical Results, Data Validation Summary and Laboratory Accreditation

APPENDIX B

Analytical Results September 2024

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 26, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD Background
Pace Project No.: 92751673

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 05, 2024 and September 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD Background
Pace Project No.: 92751673

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD Background
Pace Project No.: 92751673

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92751673001	**MCD-DGWA-70A**	Water	09/04/24 11:25	09/05/24 10:00
92751673002	**MCD-DGWA-71**	Water	09/04/24 10:06	09/05/24 10:00
92751673003	**MCD-DGWA-53**	Water	09/11/24 10:58	09/11/24 15:55

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD Background
Pace Project No.: 92751673

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92751673001	**MCD-DGWA-70A**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751673002	**MCD-DGWA-71**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751673003	**MCD-DGWA-53**	EPA 6010D	AJM	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2320B-2011	SMS	3
		SM 2540C-2015	CMW1	1
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-70A **Lab ID: 92751673001** Collected: 09/04/24 11:25 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 20:47	7439-89-6	
Potassium	**1.7**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 20:47	7440-09-7	
Sodium	**3.3**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 20:47	7440-23-5	
Calcium	**6.3**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 20:47	7440-70-2	
Magnesium	**2.6**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 14:26	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 17:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 17:04	7440-38-2	
Barium	**0.039**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 17:04	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 17:04	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 17:04	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 17:04	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 17:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 17:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 17:04	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 17:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 17:04	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 17:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 17:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/12/24 09:00	09/12/24 12:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**61.0**	mg/L	25.0	25.0	1		09/10/24 12:52		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**28.9**	mg/L	5.0	5.0	1		09/10/24 20:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 20:19		
Alkalinity, Total as CaCO3	**28.9**	mg/L	5.0	5.0	1		09/10/24 20:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:16	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.2**	mg/L	1.0	0.60	1		09/07/24 21:20	16887-00-6	
Fluoride	**0.059J**	mg/L	0.10	0.050	1		09/07/24 21:20	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-70A **Lab ID: 92751673001** Collected: 09/04/24 11:25 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	ND	mg/L	1.0	0.50	1		09/07/24 21:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-71 **Lab ID: 92751673002** Collected: 09/04/24 10:06 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Magnesium	**0.97**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 14:31	7439-95-4	
Iron	**0.027J**	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 20:52	7439-89-6	
Potassium	**0.74**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 20:52	7440-09-7	
Sodium	**8.0**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 20:52	7440-23-5	
Calcium	**6.5**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 20:52	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 17:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 17:08	7440-38-2	
Barium	**0.027**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 17:08	7440-39-3	
Beryllium	**0.00010J**	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 17:08	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 17:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 17:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 17:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 17:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 17:08	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 17:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 17:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 17:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 17:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/12/24 09:00	09/12/24 12:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**97.0**	mg/L	25.0	25.0	1		09/10/24 12:53		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**15.3**	mg/L	5.0	5.0	1		09/10/24 20:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 20:25		
Alkalinity, Total as CaCO3	**15.3**	mg/L	5.0	5.0	1		09/10/24 20:25		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:16	18496-25-8	
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		09/07/24 22:07	16887-00-6	
Fluoride	**0.060J**	mg/L	0.10	0.050	1		09/07/24 22:07	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-71 **Lab ID: 92751673002** Collected: 09/04/24 10:06 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**9.9**	mg/L	1.0	0.50	1		09/07/24 22:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-53 **Lab ID: 92751673003** Collected: 09/11/24 10:58 Received: 09/11/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	**3.5**	mg/L	0.50	0.15	1	09/13/24 18:33	09/17/24 00:44	7440-09-7	
Sodium	**7.9**	mg/L	1.0	0.58	1	09/13/24 18:33	09/17/24 00:44	7440-23-5	
Calcium	**10.6**	mg/L	1.0	0.12	1	09/13/24 18:33	09/17/24 00:44	7440-70-2	
Iron	**1.7**	mg/L	0.040	0.025	1	09/13/24 18:33	09/17/24 23:10	7439-89-6	
Magnesium	**3.8**	mg/L	0.050	0.012	1	09/13/24 18:33	09/17/24 23:10	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/13/24 13:55	09/17/24 18:54	7440-36-0	
Arsenic	**0.00091J**	mg/L	0.0050	0.00084	1	09/13/24 13:55	09/17/24 18:54	7440-38-2	
Barium	**0.084**	mg/L	0.0050	0.00047	1	09/13/24 13:55	09/17/24 18:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/13/24 13:55	09/19/24 16:39	7440-41-7	
Boron	**0.042**	mg/L	0.040	0.012	1	09/13/24 13:55	09/17/24 18:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/13/24 13:55	09/19/24 16:39	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/13/24 13:55	09/19/24 16:39	7440-47-3	
Cobalt	**0.0052**	mg/L	0.0050	0.00032	1	09/13/24 13:55	09/19/24 16:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/13/24 13:55	09/17/24 18:54	7439-92-1	
Lithium	**0.0078J**	mg/L	0.030	0.0016	1	09/13/24 13:55	09/19/24 16:39	7439-93-2	
Molybdenum	**0.010**	mg/L	0.010	0.00062	1	09/13/24 13:55	09/17/24 18:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/13/24 13:55	09/17/24 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/13/24 13:55	09/17/24 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:47	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**54.4**	mg/L	5.0	5.0	1		09/17/24 20:35		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/17/24 20:35		
Alkalinity, Total as CaCO3	**54.4**	mg/L	5.0	5.0	1		09/17/24 20:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	**122**	mg/L	25.0	25.0	1		09/16/24 17:34		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/14/24 03:55	18496-25-8	
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		09/13/24 18:45	16887-00-6	
Fluoride	**0.060J**	mg/L	0.10	0.050	1		09/13/24 18:45	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD Background
Pace Project No.: 92751673

Sample: MCD-DGWA-53 **Lab ID: 92751673003** Collected: 09/11/24 10:58 Received: 09/11/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**11.5**	mg/L	1.0	0.50	1		09/13/24 18:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 880838
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4536493 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/10/24 18:00	
Iron	mg/L	ND	0.040	0.025	09/10/24 18:00	
Magnesium	mg/L	ND	0.050	0.012	09/11/24 13:17	
Potassium	mg/L	ND	0.50	0.15	09/10/24 18:00	
Sodium	mg/L	ND	1.0	0.58	09/10/24 18:00	

LABORATORY CONTROL SAMPLE: 4536494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.94J	94	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	0.95J	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536495 4536496

Parameter	Units	92751658002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	92.0	1	1	90.7	89.9	-130	-209	75-125	1	20	M1
Iron	mg/L	11.6	1	1	12.3	12.2	63	58	75-125	0	20	M1
Magnesium	mg/L	27.0	1	1	23.9	24.3	-314	-271	75-125	2	20	M1
Potassium	mg/L	3.0	1	1	3.8	3.9	87	93	75-125	2	20	
Sodium	mg/L	13.8	1	1	14.3	14.6	50	81	75-125	2	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882611
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673003

METHOD BLANK: 4545809 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/16/24 23:10	
Iron	mg/L	ND	0.040	0.025	09/17/24 21:44	
Magnesium	mg/L	ND	0.050	0.012	09/17/24 21:44	
Potassium	mg/L	ND	0.50	0.15	09/16/24 23:10	
Sodium	mg/L	ND	1.0	0.58	09/16/24 23:10	

LABORATORY CONTROL SAMPLE: 4545810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.93J	93	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	0.94	94	80-120	
Potassium	mg/L	1	1.2	119	80-120	
Sodium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545811 4545812

Parameter	Units	92751692012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	26.3	1	1	27.7	27.6	140	131	75-125	0	20	M1
Iron	mg/L	ND	1	1	0.97	0.97	97	97	75-125	0	20	
Magnesium	mg/L	12.2	1	1	13.4	13.6	120	140	75-125	2	20	M1
Potassium	mg/L	3.7	1	1	4.8	4.8	117	109	75-125	2	20	
Sodium	mg/L	13.2	1	1	14.5	14.6	123	139	75-125	1	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 880813
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4536258 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/09/24 15:53	
Arsenic	mg/L	0.0014J	0.0050	0.00084	09/09/24 15:53	
Barium	mg/L	ND	0.0050	0.00047	09/09/24 15:53	
Beryllium	mg/L	ND	0.00050	0.000094	09/09/24 15:53	
Boron	mg/L	ND	0.040	0.012	09/09/24 15:53	
Cadmium	mg/L	ND	0.00050	0.00010	09/09/24 15:53	
Chromium	mg/L	ND	0.0050	0.0019	09/09/24 15:53	
Cobalt	mg/L	ND	0.0050	0.00032	09/09/24 15:53	
Lead	mg/L	ND	0.0010	0.00016	09/09/24 15:53	
Lithium	mg/L	ND	0.030	0.0016	09/09/24 15:53	
Molybdenum	mg/L	ND	0.010	0.00062	09/09/24 15:53	
Selenium	mg/L	ND	0.0050	0.00096	09/09/24 15:53	
Thallium	mg/L	ND	0.0010	0.00038	09/09/24 15:53	

LABORATORY CONTROL SAMPLE: 4536259

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	0.094	94	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.095	95	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536260 4536261

Parameter	Units	92751658001 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	0.096	0.097	95	97	75-125	2	20	
Arsenic	mg/L	0.00093J	0.1	0.1	0.096	0.095	95	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536260 4536261

Parameter	Units	92751658001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.067	0.1	0.1	0.16	0.16	91	92	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.091	0.092	91	92	75-125	1	20	
Boron	mg/L	1.5	1	1	2.4	2.4	89	89	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Lithium	mg/L	0.0019J	0.1	0.1	0.095	0.095	93	93	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.093	94	93	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882511
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673003

METHOD BLANK: 4545096 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/17/24 16:08	
Arsenic	mg/L	ND	0.0050	0.00084	09/17/24 16:08	
Barium	mg/L	ND	0.0050	0.00047	09/17/24 16:08	
Beryllium	mg/L	ND	0.00050	0.000094	09/17/24 16:08	
Boron	mg/L	ND	0.040	0.012	09/17/24 16:08	
Cadmium	mg/L	ND	0.00050	0.00010	09/17/24 16:08	
Chromium	mg/L	ND	0.0050	0.0019	09/17/24 16:08	
Cobalt	mg/L	ND	0.0050	0.00032	09/17/24 16:08	
Lead	mg/L	ND	0.0010	0.00016	09/17/24 16:08	
Lithium	mg/L	ND	0.030	0.0016	09/17/24 16:08	
Molybdenum	mg/L	ND	0.010	0.00062	09/17/24 16:08	
Selenium	mg/L	ND	0.0050	0.00096	09/17/24 16:08	
Thallium	mg/L	ND	0.0010	0.00038	09/17/24 16:08	

LABORATORY CONTROL SAMPLE: 4545097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.10	101	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	1.1	109	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 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	0.097	0.099	97	99	75-125	2	20	
Arsenic	mg/L	0.0027J	0.1	0.1	0.10	0.10	99	100	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.023	0.1	0.1	0.12	0.13	101	104	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Boron	mg/L	0.34	1	1	1.3	1.4	97	101	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	99	97	75-125	2	20	
Cobalt	mg/L	0.0021J	0.1	0.1	0.10	0.098	99	96	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.092	96	92	75-125	3	20	
Lithium	mg/L	0.016J	0.1	0.1	0.11	0.11	97	97	75-125	0	20	
Molybdenum	mg/L	0.0023J	0.1	0.1	0.098	0.10	96	99	75-125	3	20	
Selenium	mg/L	0.0015J	0.1	0.1	0.10	0.098	98	97	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.091	94	91	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882023
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4542505 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/12/24 12:37	

LABORATORY CONTROL SAMPLE: 4542506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542507 4542508

Parameter	Units	92752079001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	1.3 ug/L	0.0025	0.0025	0.0036	0.0038	91	99	75-125	5	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 883894
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673003

METHOD BLANK: 4551831 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/20/24 08:16	

LABORATORY CONTROL SAMPLE: 4551832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4551833 4551834

Parameter	Units	92751692001 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	0.0023	93	88	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 881518
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4539487 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/10/24 12:49	

LABORATORY CONTROL SAMPLE: 4539488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	393	98	80-120	

SAMPLE DUPLICATE: 4539489

Parameter	Units	92745448001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	9160	9160	0	10	H1

SAMPLE DUPLICATE: 4539490

Parameter	Units	92751692003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1320	1310	0	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 881044
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4537672 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/10/24 17:39	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/10/24 17:39	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/10/24 17:39	

LABORATORY CONTROL SAMPLE: 4537673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

LABORATORY CONTROL SAMPLE: 4537674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.8	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537677 4537678

Parameter	Units	92751341004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	123	50	50	175	180	104	113	80-120	2	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540803 4540804

Parameter	Units	92751673002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	15.3	50	50	66.8	67.6	103	105	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 883222
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673003

METHOD BLANK: 4548387 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/17/24 17:45	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/17/24 17:45	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/17/24 17:45	

LABORATORY CONTROL SAMPLE: 4548388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.9	102	80-120	

LABORATORY CONTROL SAMPLE: 4548389

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.7	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4548390 4548391

Parameter	Units	92753035001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	44.4	50	50	93.1	92.5	97	96	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4548392 4548393

Parameter	Units	92753035002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	43.9	50	50	93.9	92.9	100	98	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882932
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673003

METHOD BLANK: 4547081 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/16/24 17:33	

LABORATORY CONTROL SAMPLE: 4547082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 4547083

Parameter	Units	92752529001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	646	650	1	25	

SAMPLE DUPLICATE: 4547084

Parameter	Units	92751673003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	122	126	3	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 881393
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4539188 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/10/24 04:08	

LABORATORY CONTROL SAMPLE: 4539189

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539190 4539191

Parameter	Units	92750994002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.50	108	96	80-120	11	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539192 4539193

Parameter	Units	92751658005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	106	109	80-120	3	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882377
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673003

METHOD BLANK: 4544517 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/14/24 03:45	

LABORATORY CONTROL SAMPLE: 4544518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544519 4544520

Parameter	Units	92752833004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.46	0.51	93	102	80-120	9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544521 4544522

Parameter	Units	92751692025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.49	0.54	99	107	80-120	8	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 881039
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673001, 92751673002

METHOD BLANK: 4537646 Matrix: Water
Associated Lab Samples: 92751673001, 92751673002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/07/24 15:48	
Fluoride	mg/L	ND	0.10	0.050	09/07/24 15:48	
Sulfate	mg/L	ND	1.0	0.50	09/07/24 15:48	

LABORATORY CONTROL SAMPLE: 4537647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.6	106	90-110	
Sulfate	mg/L	50	50.3	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537648 4537649

Parameter	Units	92752003007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.5	50	50	66.7	67.3	100	101	90-110	1	10	H3
Fluoride	mg/L	ND	2.5	2.5	1.3	1.3	51	52	90-110	2	10	H3,M1
Sulfate	mg/L	50.7	50	50	87.5	87.2	74	73	90-110	0	10	H3,M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537650 4537651

Parameter	Units	92751658003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.7	50	50	55.7	55.6	102	102	90-110	0	10	
Fluoride	mg/L	0.082J	2.5	2.5	2.8	2.8	110	110	90-110	0	10	
Sulfate	mg/L	87.8	50	50	121	118	66	60	90-110	3	10	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD Background
Pace Project No.: 92751673

QC Batch: 882401
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751673003

METHOD BLANK: 4544585 Matrix: Water
Associated Lab Samples: 92751673003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/13/24 12:42	
Fluoride	mg/L	ND	0.10	0.050	09/13/24 12:42	
Sulfate	mg/L	ND	1.0	0.50	09/13/24 12:42	

LABORATORY CONTROL SAMPLE: 4544586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.9	104	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	52.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544587 4544588

Parameter	Units	92753032003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	34.3	50	50	83.3	86.5	98	104	90-110	4	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	102	108	90-110	6	10	
Sulfate	mg/L	4.7	50	50	56.3	59.7	103	110	90-110	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544589 4544590

Parameter	Units	92753032014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	19.3	50	50	70.0	70.6	101	103	90-110	1	10	
Fluoride	mg/L	0.15	2.5	2.5	2.8	2.9	108	109	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.2	52.8	104	105	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD Background
Pace Project No.: 92751673

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD Background
Pace Project No.: 92751673

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92751673001	**MCD-DGWA-70A**	EPA 3010A	880838	EPA 6010D	880939
92751673002	**MCD-DGWA-71**	EPA 3010A	880838	EPA 6010D	880939
92751673003	**MCD-DGWA-53**	EPA 3010A	882611	EPA 6010D	882633
92751673001	**MCD-DGWA-70A**	EPA 3005A	880813	EPA 6020B	880958
92751673002	**MCD-DGWA-71**	EPA 3005A	880813	EPA 6020B	880958
92751673003	**MCD-DGWA-53**	EPA 3005A	882511	EPA 6020B	882626
92751673001	**MCD-DGWA-70A**	EPA 7470A	882023	EPA 7470A	882103
92751673002	**MCD-DGWA-71**	EPA 7470A	882023	EPA 7470A	882103
92751673003	**MCD-DGWA-53**	EPA 7470A	883894	EPA 7470A	884113
92751673001	**MCD-DGWA-70A**	SM 2540C-2015	881518		
92751673002	**MCD-DGWA-71**	SM 2540C-2015	881518		
92751673001	**MCD-DGWA-70A**	SM 2320B-2011	881044		
92751673002	**MCD-DGWA-71**	SM 2320B-2011	881044		
92751673003	**MCD-DGWA-53**	SM 2320B-2011	883222		
92751673003	**MCD-DGWA-53**	SM 2540C-2015	882932		
92751673001	**MCD-DGWA-70A**	SM 4500-S2D-2011	881393		
92751673002	**MCD-DGWA-71**	SM 4500-S2D-2011	881393		
92751673003	**MCD-DGWA-53**	SM 4500-S2D-2011	882377		
92751673001	**MCD-DGWA-70A**	EPA 300.0 Rev 2.1 1993	881039		
92751673002	**MCD-DGWA-71**	EPA 300.0 Rev 2.1 1993	881039		
92751673003	**MCD-DGWA-53**	EPA 300.0 Rev 2.1 1993	882401		

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

WO# : 92751673

92751673

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docu

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

1 Of 1

Section A
Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(470) 620-5175 Fax:
Requested Due Date:	10 Day TAT

Section B
Required Project Information:

Report To:	Joju Abraham
Copy To	WSP
Purchase Order #:	
Project Name:	Plant McD Background
Project #:	31406440.McD23

Section C
Invoice Information:

Attention:	scsinvoices@scsenergy.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	Bonnie Wang
Pace Profile #:	

Regulatory Agency

State / Location
GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Acp Ill/V + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)
1	MCD-DGWA-70A	WG	G	9/4/24	11:25		7	3		3		1					X	X	X	X	X	X	
2	MCD-DGWA-71	WG	G	9/4/24	10:06		7	3		3		1					X	X	X	X	X	X	
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE
Task Code = MCD-CCR-ASSMT-2024S2	Mark Mann / [illegible]	09/05/24	0944	Conn - S34 / CURTERNOW	09/05/24
	Conn S34 9/05/24			9/5/24	1000

DATE Signed:

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

Pace

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92751673**

PM: BV Due Date: 09/19/24
CLIENT: 92-GA Power

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other: ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: SC 9/5/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

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

Cooler Temp: 4.9 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.9

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92751673

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

PM: BV Due Date: 09/19/24
CLIENT: 92-GA Power

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1 ✓		1 ✓																					
2		2	1		2		1 ✓		1 ✓																					
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD Background	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	*App III/IV metals + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Mercury			Residual Chlorine (Y/N)	92751673
	MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS															Requested Analysis Filtered (Y/N)	N	N	N	N	N	N	N				
1	MCD-DGWA-53	WG	G	9/11/24	10:58		7	3		3		1					X	X	X	X	X	X	X				
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MARK MANN / WSP	9/11/24	1555		9/11/24	9/11
*App III/IV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl						

DATE Signed:

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

Pace	DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt
	Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☑ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No ☑ N/A

Date/Initials Person Examining Contents: SG 9/1/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

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

Cooler Temp: 4.7 **Correction Factor:** Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 4.6

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1 ✓	1 ✓																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 22, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD Background-RADs
Pace Project No.: 92751664

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 05, 2024 and September 11, 2024. 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

(Greensburg, PA) - Revision #1 - This report replaces the October 3rd, 2024, report. This project was revised on October 21st, 2024, to update the H-3 collection year.

(Greensburg, PA) - Revision #1 - This report replaces the October 21st, 2024, report. This project was revised on October 21st, 2024, to remove H-3 from Radium-226

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

Sincerely,

Bonnie Vang

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92751664001	**MCD-DGWA-70A**	Water	09/04/24 11:25	09/05/24 10:00
92751664002	**MCD-DGWA-71**	Water	09/04/24 10:06	09/05/24 10:00
92751664003	**MCD-DGWA-53**	Water	09/11/24 10:58	09/11/24 15:55

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92751664001	**MCD-DGWA-70A**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751664002	**MCD-DGWA-71**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751664003	**MCD-DGWA-53**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Sample: MCD-DGWA-70A **Lab ID: 92751664001** Collected: 09/04/24 11:25 Received: 09/05/24 10:00 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	**0.107U ± 0.122 (0.254) C:91% T:NA**	pCi/L	09/30/24 09:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0666U ± 0.289 (0.660) C:85% T:91%**	pCi/L	09/23/24 15:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.174U ± 0.411 (0.914)**	pCi/L	10/21/24 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Sample: MCD-DGWA-71 **Lab ID: 92751664002** Collected: 09/04/24 10:06 Received: 09/05/24 10:00 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	**0.209 ± 0.129 (0.206) C:93% T:NA**	pCi/L	09/30/24 09:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.384U ± 0.358 (0.730) C:82% T:89%**	pCi/L	09/23/24 15:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.593U ± 0.487 (0.936)**	pCi/L	10/21/24 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Sample: MCD-DGWA-53 **Lab ID: 92751664003** Collected: 09/11/24 10:58 Received: 09/11/24 15:55 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	**1.17 ± 0.299 (0.227) C:95% T:NA**	pCi/L	10/02/24 08:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.408U ± 0.414 (0.859) C:79% T:87%**	pCi/L	10/01/24 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.58 ± 0.713 (1.09)**	pCi/L	10/21/24 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

QC Batch: 696334
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751664003

METHOD BLANK: 3391001 Matrix: Water
Associated Lab Samples: 92751664003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0966 ± 0.111 (0.228) C:89% T:NA	pCi/L	10/02/24 08:40	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

QC Batch: 698259
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751664003

METHOD BLANK: 3399971 Matrix: Water
Associated Lab Samples: 92751664003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.177 ± 0.323 (0.708) C:79% T:89%	pCi/L	10/01/24 14:25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

QC Batch: 695548
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751664001, 92751664002

METHOD BLANK: 3387259
Matrix: Water
Associated Lab Samples: 92751664001, 92751664002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.175 ± 0.297 (0.647) C:85% T:86%	pCi/L	09/23/24 15:11	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD Background-RADs
Pace Project No.: 92751664

QC Batch: 695870
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751664001, 92751664002

METHOD BLANK: 3388999 Matrix: Water
Associated Lab Samples: 92751664001, 92751664002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0274 ± 0.0932 (0.274) C:73% T:NA	pCi/L	09/30/24 09:02	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD Background-RADs
Pace Project No.: 92751664

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD Background-RADs
Pace Project No.: 92751664

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92751664001	**MCD-DGWA-70A**	EPA 9315	695870		
92751664002	**MCD-DGWA-71**	EPA 9315	695870		
92751664003	**MCD-DGWA-53**	EPA 9315	696334		
92751664001	**MCD-DGWA-70A**	EPA 9320	695548		
92751664002	**MCD-DGWA-71**	EPA 9320	695548		
92751664003	**MCD-DGWA-53**	EPA 9320	698259		
92751664001	**MCD-DGWA-70A**	Total Radium Calculation	704206		
92751664002	**MCD-DGWA-71**	Total Radium Calculation	704206		
92751664003	**MCD-DGWA-53**	Total Radium Calculation	704206		

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

WO# : 92751664

92751664

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	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD Background	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency
State / Location
GA

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	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Y/N	Analyses Test: Acp III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Residual Chlorine (Y/N)
																Requested Analysis Filtered (Y/N)	N	N	N	N	N	N	
1	MCD-DGWA-70A	WG	G	9/4/24	11:25		7	3		3		1					X	X	X	X	X	X	
2	MCD-DGWA-71	WG	G	9/4/24	10:06		7	3		3		1					X	X	X	X	X	X	
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MACK MANN / [illegible]	09/05/24	0945	Cinn - 434 / COURIER NOW	09/05/24	
	Cinn R34C/NOW	09/05/24		9/5/24	10:00	

DATE Signed:

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

Pace

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: 92751664

PM: BV Due Date: 09/26/24

CLIENT: 92-GA Power

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other:____ ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: SC 4/5/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

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

Cooler Temp: 4.9 Correction Factor: Add/Subtract (°C): 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.9

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

WO# : 92751664

PM: BV Due Date: 09/26/24

CLIENT: 92-GA Power

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

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

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

***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per MH-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																															
1		2	1		2		1 ✓		1 ✓																						
2		2	1		2		1 ✓		1 ✓																						
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD Background	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency	
State / Location	
GA	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	
																	N	N	N	N	N	N	N			92751664
																	*App III/IV metals + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Mercury			
1	MCD-DGWA-53	WG	G	9/11/24	10:58		7	3		3		1					X	X	X	X	X	X	X			
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MARK MANN / [illegible]	9/11/24	1555	[signature]	9/11/24	9/11
*App III/IV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl						

DATE Signed:

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

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt
	Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No ☑ N/A

Date/Initials Person Examining Contents: SG 9/11/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 083

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.7 **Correction Factor:** Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 4.6

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1	1																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	9/26/2024
Worklist:	81486
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3399971
MB concentration:	0.177
M/B 2 Sigma CSU:	0.323
MB MDC:	0.708
MB Numerical Performance Indicator:	1.07
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81486	**LCSD81486**
Count Date:	10/1/2024	10/1/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	35.097	35.097
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.816	0.815
Target Conc. (pCi/L, g, F):	4.301	4.305
Uncertainty (Calculated):	0.211	0.211
Result (pCi/L, g, F):	3.154	3.325
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.825	0.820
Numerical Performance Indicator:	-2.64	-2.27
Percent Recovery:	73.33%	77.23%
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.:	LCS81486	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD81486	
Sample Result (pCi/L, g, F):	3.154	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.825	
Sample Duplicate Result (pCi/L, g, F):	3.325	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.820	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.288	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.19%	
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:

LAL
10/2/24

JLW
10/2/24

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/19/2024
Worklist:	81293
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3388999
MB concentration:	-0.027
M/B 2 Sigma CSU:	0.093
MB MDC:	0.274
MB Numerical Performance Indicator:	-0.58
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81293	LCSD81293
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.501
Target Conc. (pCi/L, g, F):	4.970	4.994
Uncertainty (Calculated):	0.234	0.235
Result (pCi/L, g, F):	5.287	5.017
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.932	0.881
Numerical Performance Indicator:	0.65	0.05
Percent Recovery:	106.37%	100.45%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81293	92752186001
Duplicate Sample I.D.	LCSD81293	92752186001DUP
Sample Result (pCi/L, g, F):	5.287	1.064
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.932	0.283
Sample Duplicate Result (pCi/L, g, F):	5.017	0.961
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	0.261
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.413	0.527
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.73%	10.24%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

vsm 9/30/24

SLC 9/30/24

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/19/2024
Worklist:	81332
Matrix:	W

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3391001
MB concentration:	0.097
M/B 2 Sigma CSU:	0.111
MB MDC:	0.228
MB Numerical Performance Indicator:	1.71
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81332	LCSD81332
Count Date:	10/2/2024	10/2/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.503
Target Conc. (pCi/L, g, F):	4.976	4.972
Uncertainty (Calculated):	0.234	0.234
Result (pCi/L, g, F):	4.582	5.011
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.809	0.881
Numerical Performance Indicator:	-0.92	0.09
Percent Recovery:	92.08%	100.80%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81332	92751679027
Duplicate Sample I.D.	LCSD81332	92751679027DUP
Sample Result (pCi/L, g, F):	4.582	0.266
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.809	0.149
Sample Duplicate Result (pCi/L, g, F):	5.011	0.191
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	0.135
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.704	0.727
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.04%	32.58%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

VAL
10/3/24

VAM 10/3/24

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	9/18/2024
Worklist:	81266
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3387259
MB concentration:	0.175
M/B 2 Sigma CSU:	0.297
MB MDC:	0.647
MB Numerical Performance Indicator:	1.16
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81266	LCSD81266
Count Date:	9/26/2024	9/26/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	35.156	35.156
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.819	0.817
Target Conc. (pCi/L, g, F):	4.291	4.302
Uncertainty (Calculated):	0.210	0.211
Result (pCi/L, g, F):	4.710	4.548
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.053	1.013
Numerical Performance Indicator:	0.76	0.47
Percent Recovery:	109.76%	105.73%
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.:	LCS81266	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD81266	
Sample Result (pCi/L, g, F):	4.710	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.053	
Sample Duplicate Result (pCi/L, g, F):	4.548	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.013	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.217	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.74%	
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:

SLC 9/27/24

VAL
9/27/24

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 20, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 05, 2024 and September 06, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92751658001	**MCD-DGWC-37**	Water	09/04/24 15:10	09/05/24 10:00
92751658002	**MCD-DGWC-39**	Water	09/04/24 13:48	09/05/24 10:00
92751658003	**MCD-DGWC-121**	Water	09/04/24 13:25	09/05/24 10:00
92751658004	**MCD-DGWC-38**	Water	09/04/24 15:31	09/05/24 10:00
92751658005	**MCD-AP1-FD-1**	Water	09/04/24 00:00	09/05/24 10:00
92751658006	**MCD-DGWC-40**	Water	09/05/24 11:40	09/06/24 15:55
92751658007	**MCD-DGWC-67**	Water	09/05/24 16:09	09/06/24 15:55
92751658008	**MCD-DGWC-68A**	Water	09/05/24 14:15	09/06/24 15:55
92751658009	**MCD-DGWC-69**	Water	09/05/24 11:48	09/06/24 15:55
92751658010	**MCD-AP1-EB-1**	Water	09/05/24 14:30	09/06/24 15:55

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92751658001	**MCD-DGWC-37**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658002	**MCD-DGWC-39**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658003	**MCD-DGWC-121**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658004	**MCD-DGWC-38**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658005	**MCD-AP1-FD-1**	EPA 6010D	AJM, DRB	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658006	**MCD-DGWC-40**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92751658007	**MCD-DGWC-67**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658008	**MCD-DGWC-68A**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658009	**MCD-DGWC-69**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92751658010	**MCD-AP1-EB-1**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-37 **Lab ID: 92751658001** Collected: 09/04/24 15:10 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Magnesium	**13.5**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 13:41	7439-95-4	
Iron	**0.033J**	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 19:30	7439-89-6	
Potassium	**3.7**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 19:30	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 19:30	7440-23-5	
Calcium	**58.1**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 19:30	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 16:00	7440-36-0	
Arsenic	**0.00093J**	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 16:00	7440-38-2	B
Barium	**0.067**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 16:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 16:00	7440-41-7	
Boron	**1.5**	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 16:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 16:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 16:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 16:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 16:00	7439-92-1	
Lithium	**0.0019J**	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 16:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 16:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 16:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 16:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 10:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**348**	mg/L	25.0	25.0	1		09/10/24 12:50		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**138**	mg/L	5.0	5.0	1		09/10/24 19:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 19:33		
Alkalinity, Total as CaCO3	**138**	mg/L	5.0	5.0	1		09/10/24 19:33		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:13	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.0**	mg/L	1.0	0.60	1		09/07/24 19:29	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.050	1		09/07/24 19:29	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-37 **Lab ID: 92751658001** Collected: 09/04/24 15:10 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**95.2**	mg/L	1.0	0.50	1		09/07/24 19:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-39 **Lab ID: 92751658002** Collected: 09/04/24 13:48 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**92.0**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 19:35	7440-70-2	M1
Iron	**11.6**	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 19:35	7439-89-6	M1
Magnesium	**27.0**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 13:46	7439-95-4	M1
Potassium	**3.0**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 19:35	7440-09-7	
Sodium	**13.8**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 19:35	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00088J**	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 16:15	7440-36-0	
Arsenic	**0.00091J**	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 16:15	7440-38-2	B
Barium	**0.11**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 16:15	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 16:15	7440-41-7	
Boron	**2.7**	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 16:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 16:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 16:15	7440-47-3	
Cobalt	**0.0065**	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 16:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 16:15	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 16:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 16:15	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 16:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 16:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 10:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**466**	mg/L	25.0	25.0	1		09/10/24 12:50		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**250**	mg/L	5.0	5.0	1		09/11/24 11:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 11:06		
Alkalinity, Total as CaCO3	**250**	mg/L	5.0	5.0	1		09/11/24 11:06		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:13	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.2**	mg/L	1.0	0.60	1		09/07/24 19:45	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		09/07/24 19:45	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-39 **Lab ID: 92751658002** Collected: 09/04/24 13:48 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**142**	mg/L	3.0	1.5	3		09/08/24 08:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-121 **Lab ID: 92751658003** Collected: 09/04/24 13:25 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**1.4**	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 20:33	7439-89-6	
Potassium	**4.1**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 20:33	7440-09-7	
Sodium	**10.2**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 20:33	7440-23-5	
Calcium	**41.0**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 20:33	7440-70-2	
Magnesium	**12.5**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 14:01	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 16:19	7440-38-2	
Barium	**0.045**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 16:19	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 16:19	7440-41-7	
Boron	**1.6**	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 16:19	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 16:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 16:19	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 16:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 16:19	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 16:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 16:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 10:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**276**	mg/L	25.0	25.0	1		09/10/24 12:50		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**93.6**	mg/L	5.0	5.0	1		09/10/24 19:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 19:54		
Alkalinity, Total as CaCO3	**93.6**	mg/L	5.0	5.0	1		09/10/24 19:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:14	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.7**	mg/L	1.0	0.60	1		09/07/24 20:01	16887-00-6	
Fluoride	**0.082J**	mg/L	0.10	0.050	1		09/07/24 20:01	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-121 **Lab ID: 92751658003** Collected: 09/04/24 13:25 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**87.8**	mg/L	1.0	0.50	1		09/07/24 20:01	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-38 **Lab ID: 92751658004** Collected: 09/04/24 15:31 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Magnesium	**25.9**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 14:17	7439-95-4	
Iron	ND	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 20:38	7439-89-6	
Potassium	**4.1**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 20:38	7440-09-7	
Sodium	**12.3**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 20:38	7440-23-5	
Calcium	**83.2**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 20:38	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 16:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 16:22	7440-38-2	
Barium	**0.025**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 16:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 16:22	7440-41-7	
Boron	**2.6**	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 16:22	7440-42-8	
Cadmium	**0.00012J**	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 16:22	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 16:22	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 16:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 16:22	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 16:22	7439-93-2	
Molybdenum	**0.0012J**	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 16:22	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 16:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 16:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 10:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**503**	mg/L	25.0	25.0	1		09/10/24 12:51		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**92.2**	mg/L	5.0	5.0	1		09/10/24 20:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 20:02		
Alkalinity, Total as CaCO3	**92.2**	mg/L	5.0	5.0	1		09/10/24 20:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:14	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.0**	mg/L	1.0	0.60	1		09/07/24 20:48	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/07/24 20:48	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-38 **Lab ID: 92751658004** Collected: 09/04/24 15:31 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**214**	mg/L	5.0	2.5	5		09/08/24 09:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-AP1-FD-1 **Lab ID: 92751658005** Collected: 09/04/24 00:00 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Magnesium	**25.1**	mg/L	0.050	0.012	1	09/06/24 13:14	09/11/24 14:21	7439-95-4	
Iron	ND	mg/L	0.040	0.025	1	09/06/24 13:14	09/10/24 20:43	7439-89-6	
Potassium	**4.0**	mg/L	0.50	0.15	1	09/06/24 13:14	09/10/24 20:43	7440-09-7	
Sodium	**11.9**	mg/L	1.0	0.58	1	09/06/24 13:14	09/10/24 20:43	7440-23-5	
Calcium	**79.2**	mg/L	1.0	0.12	1	09/06/24 13:14	09/10/24 20:43	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/06/24 12:12	09/09/24 16:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/06/24 12:12	09/09/24 16:26	7440-38-2	
Barium	**0.025**	mg/L	0.0050	0.00047	1	09/06/24 12:12	09/09/24 16:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/06/24 12:12	09/09/24 16:26	7440-41-7	
Boron	**2.6**	mg/L	0.040	0.012	1	09/06/24 12:12	09/09/24 16:26	7440-42-8	
Cadmium	**0.00012J**	mg/L	0.00050	0.00010	1	09/06/24 12:12	09/09/24 16:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/06/24 12:12	09/09/24 16:26	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00032	1	09/06/24 12:12	09/09/24 16:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/06/24 12:12	09/09/24 16:26	7439-92-1	
Lithium	**0.0028J**	mg/L	0.030	0.0016	1	09/06/24 12:12	09/09/24 16:26	7439-93-2	
Molybdenum	**0.0013J**	mg/L	0.010	0.00062	1	09/06/24 12:12	09/09/24 16:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/06/24 12:12	09/09/24 16:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/06/24 12:12	09/09/24 16:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 10:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**484**	mg/L	25.0	25.0	1		09/10/24 12:52		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**92.7**	mg/L	5.0	5.0	1		09/10/24 20:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/10/24 20:11		
Alkalinity, Total as CaCO3	**92.7**	mg/L	5.0	5.0	1		09/10/24 20:11		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:14	18496-25-8	
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		09/07/24 21:04	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.050	1		09/07/24 21:04	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-AP1-FD-1 **Lab ID: 92751658005** Collected: 09/04/24 00:00 Received: 09/05/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**212**	mg/L	5.0	2.5	5		09/08/24 09:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-40 **Lab ID: 92751658006** Collected: 09/05/24 11:40 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.038J**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:30	7439-89-6	
Potassium	**5.9**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:30	7440-09-7	
Sodium	**20.1**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:30	7440-23-5	
Calcium	**38.8**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:30	7440-70-2	
Magnesium	**16.1**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:30	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:03	7440-38-2	
Barium	**0.016**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:03	7440-39-3	
Beryllium	**0.0029**	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:03	7440-41-7	
Boron	**0.64**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:03	7440-42-8	
Cadmium	**0.00069**	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:03	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:03	7440-47-3	
Cobalt	**0.035**	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:03	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 11:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**374**	mg/L	25.0	25.0	1		09/11/24 14:05		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:20		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/11/24 18:20		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.4**	mg/L	1.0	0.60	1		09/10/24 16:49	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		09/10/24 16:49	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-40 **Lab ID: 92751658006** Collected: 09/05/24 11:40 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**160**	mg/L	4.0	2.0	4		09/10/24 19:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-67 **Lab ID: 92751658007** Collected: 09/05/24 16:09 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.053**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:35	7439-89-6	
Potassium	**3.8**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:35	7440-09-7	
Sodium	**11.2**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:35	7440-23-5	
Calcium	**44.6**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:35	7440-70-2	
Magnesium	**16.8**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:35	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:06	7440-38-2	
Barium	**0.068**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:06	7440-41-7	
Boron	**3.7**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:06	7440-42-8	
Cadmium	**0.00029J**	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:06	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:06	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:06	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:06	7439-92-1	
Lithium	**0.0045J**	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 11:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**314**	mg/L	25.0	25.0	1		09/11/24 14:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**93.2**	mg/L	5.0	5.0	1		09/11/24 18:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:33		
Alkalinity, Total as CaCO3	**93.2**	mg/L	5.0	5.0	1		09/11/24 18:33		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**10.4**	mg/L	1.0	0.60	1		09/10/24 11:54	16887-00-6	
Fluoride	**0.071J**	mg/L	0.10	0.050	1		09/10/24 11:54	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-67 **Lab ID: 92751658007** Collected: 09/05/24 16:09 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**107**	mg/L	2.0	1.0	2		09/10/24 21:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-68A **Lab ID: 92751658008** Collected: 09/05/24 14:15 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.16**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:40	7439-89-6	
Potassium	**4.0**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:40	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:40	7440-23-5	
Calcium	**52.7**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:40	7440-70-2	
Magnesium	**17.0**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:40	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:10	7440-38-2	
Barium	**0.10**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:10	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:10	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:10	7440-42-8	
Cadmium	**0.00025J**	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:10	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:10	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:10	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:10	7439-93-2	
Molybdenum	**0.19**	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:10	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:10	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/17/24 07:00	09/17/24 11:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**278**	mg/L	25.0	25.0	1		09/11/24 14:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**218**	mg/L	5.0	5.0	1		09/11/24 18:41		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:41		
Alkalinity, Total as CaCO3	**218**	mg/L	5.0	5.0	1		09/11/24 18:41		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:43	18496-25-8	
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		09/10/24 12:10	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.050	1		09/10/24 12:10	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-68A **Lab ID: 92751658008** Collected: 09/05/24 14:15 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**35.9**	mg/L	1.0	0.50	1		09/10/24 12:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-69 **Lab ID: 92751658009** Collected: 09/05/24 11:48 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.10**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:44	7439-89-6	
Potassium	**2.8**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:44	7440-09-7	
Sodium	**11.0**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:44	7440-23-5	
Calcium	**13.6**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:44	7440-70-2	
Magnesium	**3.6**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:44	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:21	7440-36-0	
Arsenic	**0.020**	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:21	7440-38-2	
Barium	**0.062**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:21	7440-41-7	
Boron	**0.24**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:21	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:21	7439-93-2	
Molybdenum	**0.0076J**	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:18	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**125**	mg/L	25.0	25.0	1		09/11/24 14:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**59.0**	mg/L	5.0	5.0	1		09/11/24 18:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:51		
Alkalinity, Total as CaCO3	**59.0**	mg/L	5.0	5.0	1		09/11/24 18:51		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:44	18496-25-8	R1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.0**	mg/L	1.0	0.60	1		09/10/24 12:57	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.050	1		09/10/24 12:57	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-DGWC-69 **Lab ID: 92751658009** Collected: 09/05/24 11:48 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**14.9**	mg/L	1.0	0.50	1		09/10/24 12:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-AP1-EB-1 **Lab ID: 92751658010** Collected: 09/05/24 14:30 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 20:09	7439-89-6	
Potassium	ND	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 20:09	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 20:09	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 20:09	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 20:09	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:25	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:25	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:25	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:25	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:25	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:25	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:25	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:25	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		09/11/24 14:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:58		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:58		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/11/24 18:58		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:46	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/09/24 23:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/24 23:13	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Sample: MCD-AP1-EB-1 **Lab ID: 92751658010** Collected: 09/05/24 14:30 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	ND	mg/L	1.0	0.50	1		09/09/24 23:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 880838
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4536493 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/10/24 18:00	
Iron	mg/L	ND	0.040	0.025	09/10/24 18:00	
Magnesium	mg/L	ND	0.050	0.012	09/11/24 13:17	
Potassium	mg/L	ND	0.50	0.15	09/10/24 18:00	
Sodium	mg/L	ND	1.0	0.58	09/10/24 18:00	

LABORATORY CONTROL SAMPLE: 4536494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.94J	94	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	0.95J	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536495 4536496

Parameter	Units	92751658002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	92.0	1	1	90.7	89.9	-130	-209	75-125	1	20	M1
Iron	mg/L	11.6	1	1	12.3	12.2	63	58	75-125	0	20	M1
Magnesium	mg/L	27.0	1	1	23.9	24.3	-314	-271	75-125	2	20	M1
Potassium	mg/L	3.0	1	1	3.8	3.9	87	93	75-125	2	20	
Sodium	mg/L	13.8	1	1	14.3	14.6	50	81	75-125	2	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 882148
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4542901 Matrix: Water
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/24 17:48	
Iron	mg/L	ND	0.040	0.025	09/13/24 17:48	
Magnesium	mg/L	ND	0.050	0.012	09/13/24 17:48	
Potassium	mg/L	ND	0.50	0.15	09/13/24 17:48	
Sodium	mg/L	ND	1.0	0.58	09/13/24 17:48	

LABORATORY CONTROL SAMPLE: 4542902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	112	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542903 4542904

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	33.0	1	1	32.5	33.5	-49	47	75-125	3	20	M1
Iron	mg/L	0.042	1	1	0.96	0.96	92	92	75-125	0	20	
Magnesium	mg/L	20.4	1	1	20.4	21.1	-3	67	75-125	3	20	M1
Potassium	mg/L	5.7	1	1	6.5	6.7	77	96	75-125	3	20	
Sodium	mg/L	75.7	1	1	73.6	76.3	-204	57	75-125	3	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 880813
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4536258 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/09/24 15:53	
Arsenic	mg/L	0.0014J	0.0050	0.00084	09/09/24 15:53	
Barium	mg/L	ND	0.0050	0.00047	09/09/24 15:53	
Beryllium	mg/L	ND	0.00050	0.000094	09/09/24 15:53	
Boron	mg/L	ND	0.040	0.012	09/09/24 15:53	
Cadmium	mg/L	ND	0.00050	0.00010	09/09/24 15:53	
Chromium	mg/L	ND	0.0050	0.0019	09/09/24 15:53	
Cobalt	mg/L	ND	0.0050	0.00032	09/09/24 15:53	
Lead	mg/L	ND	0.0010	0.00016	09/09/24 15:53	
Lithium	mg/L	ND	0.030	0.0016	09/09/24 15:53	
Molybdenum	mg/L	ND	0.010	0.00062	09/09/24 15:53	
Selenium	mg/L	ND	0.0050	0.00096	09/09/24 15:53	
Thallium	mg/L	ND	0.0010	0.00038	09/09/24 15:53	

LABORATORY CONTROL SAMPLE: 4536259

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	0.094	94	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.095	95	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536260 4536261

Parameter	Units	92751658001 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	0.096	0.097	95	97	75-125	2	20	
Arsenic	mg/L	0.00093J	0.1	0.1	0.096	0.095	95	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4536260 4536261

Parameter	Units	92751658001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.067	0.1	0.1	0.16	0.16	91	92	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.091	0.092	91	92	75-125	1	20	
Boron	mg/L	1.5	1	1	2.4	2.4	89	89	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Lithium	mg/L	0.0019J	0.1	0.1	0.095	0.095	93	93	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.093	94	93	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881825
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4541064 Matrix: Water
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/16/24 18:53	
Arsenic	mg/L	ND	0.0050	0.00084	09/16/24 18:53	
Barium	mg/L	ND	0.0050	0.00047	09/16/24 18:53	
Beryllium	mg/L	ND	0.00050	0.000094	09/16/24 18:53	
Boron	mg/L	ND	0.040	0.012	09/16/24 18:53	
Cadmium	mg/L	ND	0.00050	0.00010	09/16/24 18:53	
Chromium	mg/L	ND	0.0050	0.0019	09/16/24 18:53	
Cobalt	mg/L	ND	0.0050	0.00032	09/16/24 18:53	
Lead	mg/L	ND	0.0010	0.00016	09/16/24 18:53	
Lithium	mg/L	ND	0.030	0.0016	09/16/24 18:53	
Molybdenum	mg/L	ND	0.010	0.00062	09/16/24 18:53	
Selenium	mg/L	ND	0.0050	0.00096	09/16/24 18:53	
Thallium	mg/L	ND	0.0010	0.00038	09/16/24 18:53	

LABORATORY CONTROL SAMPLE: 4541065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 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	0.097	0.097	97	97	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.094	0.096	94	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.014	0.1	0.1	0.11	0.11	94	95	75-125	1	20	
Beryllium	mg/L	0.0027	0.1	0.1	0.089	0.091	86	88	75-125	2	20	
Boron	mg/L	1.1	1	1	1.9	1.9	76	78	75-125	1	20	
Cadmium	mg/L	0.00098	0.1	0.1	0.094	0.095	93	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cobalt	mg/L	0.010	0.1	0.1	0.10	0.10	92	93	75-125	1	20	
Lead	mg/L	0.00021J	0.1	0.1	0.093	0.093	93	92	75-125	0	20	
Lithium	mg/L	0.0099J	0.1	0.1	0.098	0.10	88	90	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.093	93	93	75-125	0	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 882891
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005, 92751658006, 92751658007, 92751658008

METHOD BLANK: 4546909 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005, 92751658006, 92751658007, 92751658008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/17/24 10:11	

LABORATORY CONTROL SAMPLE: 4546910

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4546911 4546912

Parameter	Units	92752167003 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	0.0028	0.0025	110	99	75-125	11	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 883894
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658009, 92751658010

METHOD BLANK: 4551831 Matrix: Water
Associated Lab Samples: 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/20/24 08:16	

LABORATORY CONTROL SAMPLE: 4551832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4551833 4551834

Parameter	Units	92751692001 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	0.0023	93	88	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881518 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4539487 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/10/24 12:49	

LABORATORY CONTROL SAMPLE: 4539488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	393	98	80-120	

SAMPLE DUPLICATE: 4539489

Parameter	Units	92745448001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	9160	9160	0	10	H1

SAMPLE DUPLICATE: 4539490

Parameter	Units	92751692003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1320	1310	0	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881824 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4541058 Matrix: Water
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/24 14:03	

LABORATORY CONTROL SAMPLE: 4541059

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	422	106	80-120	

SAMPLE DUPLICATE: 4541060

Parameter	Units	92752185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	511	532	4	10	

SAMPLE DUPLICATE: 4541061

Parameter	Units	92751700004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1290	1270	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881044
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4537672 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/10/24 17:39	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/10/24 17:39	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/10/24 17:39	

LABORATORY CONTROL SAMPLE: 4537673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.4	105	80-120	

LABORATORY CONTROL SAMPLE: 4537674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.8	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537677 4537678

Parameter	Units	92751341004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	123	50	50	175	180	104	113	80-120	2	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540803 4540804

Parameter	Units	92751673002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	15.3	50	50	66.8	67.6	103	105	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881617 | Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4540224 Matrix: Water
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	

LABORATORY CONTROL SAMPLE: 4540225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

LABORATORY CONTROL SAMPLE: 4540226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.1	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540227 4540228

Parameter	Units	92752128010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	68.8	50	50	84.8	84.3	32	31	80-120	1	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540229 4540230

Parameter	Units	92752128011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	37.0	50	50	71.7	72.0	69	70	80-120	0	25	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881393 | Analysis Method: SM 4500-S2D-2011
QC Batch Method: SM 4500-S2D-2011 | Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4539188 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/10/24 04:08	

LABORATORY CONTROL SAMPLE: 4539189

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539190 4539191

Parameter	Units	92750994002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.56	0.50	108	96	80-120	11	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539192 4539193

Parameter	Units	92751658005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.54	0.55	106	109	80-120	3	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881395
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4539200 Matrix: Water
Associated Lab Samples: 92751658006, 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/10/24 04:35	

LABORATORY CONTROL SAMPLE: 4539201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539210 4539211

Parameter	Units	92751658009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.56	99	111	80-120	11	10	R1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881039
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

METHOD BLANK: 4537646 Matrix: Water
Associated Lab Samples: 92751658001, 92751658002, 92751658003, 92751658004, 92751658005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/07/24 15:48	
Fluoride	mg/L	ND	0.10	0.050	09/07/24 15:48	
Sulfate	mg/L	ND	1.0	0.50	09/07/24 15:48	

LABORATORY CONTROL SAMPLE: 4537647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.6	106	90-110	
Sulfate	mg/L	50	50.3	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537648 4537649

Parameter	Units	92752003007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.5	50	50	66.7	67.3	100	101	90-110	1	10	H3
Fluoride	mg/L	ND	2.5	2.5	1.3	1.3	51	52	90-110	2	10	H3,M1
Sulfate	mg/L	50.7	50	50	87.5	87.2	74	73	90-110	0	10	H3,M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4537650 4537651

Parameter	Units	92751658003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.7	50	50	55.7	55.6	102	102	90-110	0	10	
Fluoride	mg/L	0.082J	2.5	2.5	2.8	2.8	110	110	90-110	0	10	
Sulfate	mg/L	87.8	50	50	121	118	66	60	90-110	3	10	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881369
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92751658007, 92751658008, 92751658009, 92751658010

METHOD BLANK: 4539017 Matrix: Water
Associated Lab Samples: 92751658007, 92751658008, 92751658009, 92751658010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/24 21:38	
Fluoride	mg/L	ND	0.10	0.050	09/09/24 21:38	
Sulfate	mg/L	ND	1.0	0.50	09/09/24 21:38	

LABORATORY CONTROL SAMPLE: 4539018

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	107	90-110	
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539019 4539020

Parameter	Units	92752167002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	19.3	50	50	69.0	73.0	99	107	90-110	6	10	
Fluoride	mg/L	0.16	2.5	2.5	2.7	3.0	103	112	90-110	8	10	M1
Sulfate	mg/L	193	50	50	237	237	89	89	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539021 4539022

Parameter	Units	92751692006 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	50	50	55.1	59.2	99	108	90-110	7	10	
Fluoride	mg/L	0.12	2.5	2.5	2.8	3.0	106	116	90-110	9	10	M1
Sulfate	mg/L	155	50	50	195	195	80	80	90-110	0	10	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

QC Batch: 881544
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92751658006

METHOD BLANK: 4539722 Matrix: Water
Associated Lab Samples: 92751658006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/10/24 14:58	
Fluoride	mg/L	ND	0.10	0.050	09/10/24 14:58	
Sulfate	mg/L	ND	1.0	0.50	09/10/24 14:58	

LABORATORY CONTROL SAMPLE: 4539723

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539724 4539725

Parameter	Units	92751585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	54.2	50	50	83.3	77.1	58	46	90-110	8	10	M1
Fluoride	mg/L		2.5	2.5	2.4	2.6	97	102	90-110	5	10	
Sulfate	mg/L	30.4	50	50	79.4	81.7	98	103	90-110	3	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92751658001	**MCD-DGWC-37**	EPA 3010A	880838	EPA 6010D	880939
92751658002	**MCD-DGWC-39**	EPA 3010A	880838	EPA 6010D	880939
92751658003	**MCD-DGWC-121**	EPA 3010A	880838	EPA 6010D	880939
92751658004	**MCD-DGWC-38**	EPA 3010A	880838	EPA 6010D	880939
92751658005	**MCD-AP1-FD-1**	EPA 3010A	880838	EPA 6010D	880939
92751658006	**MCD-DGWC-40**	EPA 3010A	882148	EPA 6010D	882244
92751658007	**MCD-DGWC-67**	EPA 3010A	882148	EPA 6010D	882244
92751658008	**MCD-DGWC-68A**	EPA 3010A	882148	EPA 6010D	882244
92751658009	**MCD-DGWC-69**	EPA 3010A	882148	EPA 6010D	882244
92751658010	**MCD-AP1-EB-1**	EPA 3010A	882148	EPA 6010D	882244
92751658001	**MCD-DGWC-37**	EPA 3005A	880813	EPA 6020B	880958
92751658002	**MCD-DGWC-39**	EPA 3005A	880813	EPA 6020B	880958
92751658003	**MCD-DGWC-121**	EPA 3005A	880813	EPA 6020B	880958
92751658004	**MCD-DGWC-38**	EPA 3005A	880813	EPA 6020B	880958
92751658005	**MCD-AP1-FD-1**	EPA 3005A	880813	EPA 6020B	880958
92751658006	**MCD-DGWC-40**	EPA 3005A	881825	EPA 6020B	881952
92751658007	**MCD-DGWC-67**	EPA 3005A	881825	EPA 6020B	881952
92751658008	**MCD-DGWC-68A**	EPA 3005A	881825	EPA 6020B	881952
92751658009	**MCD-DGWC-69**	EPA 3005A	881825	EPA 6020B	881952
92751658010	**MCD-AP1-EB-1**	EPA 3005A	881825	EPA 6020B	881952
92751658001	**MCD-DGWC-37**	EPA 7470A	882891	EPA 7470A	883081
92751658002	**MCD-DGWC-39**	EPA 7470A	882891	EPA 7470A	883081
92751658003	**MCD-DGWC-121**	EPA 7470A	882891	EPA 7470A	883081
92751658004	**MCD-DGWC-38**	EPA 7470A	882891	EPA 7470A	883081
92751658005	**MCD-AP1-FD-1**	EPA 7470A	882891	EPA 7470A	883081
92751658006	**MCD-DGWC-40**	EPA 7470A	882891	EPA 7470A	883081
92751658007	**MCD-DGWC-67**	EPA 7470A	882891	EPA 7470A	883081
92751658008	**MCD-DGWC-68A**	EPA 7470A	882891	EPA 7470A	883081
92751658009	**MCD-DGWC-69**	EPA 7470A	883894	EPA 7470A	884113
92751658010	**MCD-AP1-EB-1**	EPA 7470A	883894	EPA 7470A	884113
92751658001	**MCD-DGWC-37**	SM 2540C-2015	881518		
92751658002	**MCD-DGWC-39**	SM 2540C-2015	881518		
92751658003	**MCD-DGWC-121**	SM 2540C-2015	881518		
92751658004	**MCD-DGWC-38**	SM 2540C-2015	881518		
92751658005	**MCD-AP1-FD-1**	SM 2540C-2015	881518		
92751658006	**MCD-DGWC-40**	SM 2540C-2015	881824		
92751658007	**MCD-DGWC-67**	SM 2540C-2015	881824		
92751658008	**MCD-DGWC-68A**	SM 2540C-2015	881824		
92751658009	**MCD-DGWC-69**	SM 2540C-2015	881824		
92751658010	**MCD-AP1-EB-1**	SM 2540C-2015	881824		
92751658001	**MCD-DGWC-37**	SM 2320B-2011	881044		
92751658002	**MCD-DGWC-39**	SM 2320B-2011	881044		
92751658003	**MCD-DGWC-121**	SM 2320B-2011	881044		
92751658004	**MCD-DGWC-38**	SM 2320B-2011	881044		
92751658005	**MCD-AP1-FD-1**	SM 2320B-2011	881044		

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Detection
Pace Project No.: 92751658

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92751658006	**MCD-DGWC-40**	SM 2320B-2011	881617		
92751658007	**MCD-DGWC-67**	SM 2320B-2011	881617		
92751658008	**MCD-DGWC-68A**	SM 2320B-2011	881617		
92751658009	**MCD-DGWC-69**	SM 2320B-2011	881617		
92751658010	**MCD-AP1-EB-1**	SM 2320B-2011	881617		
92751658001	**MCD-DGWC-37**	SM 4500-S2D-2011	881393		
92751658002	**MCD-DGWC-39**	SM 4500-S2D-2011	881393		
92751658003	**MCD-DGWC-121**	SM 4500-S2D-2011	881393		
92751658004	**MCD-DGWC-38**	SM 4500-S2D-2011	881393		
92751658005	**MCD-AP1-FD-1**	SM 4500-S2D-2011	881393		
92751658006	**MCD-DGWC-40**	SM 4500-S2D-2011	881395		
92751658007	**MCD-DGWC-67**	SM 4500-S2D-2011	881395		
92751658008	**MCD-DGWC-68A**	SM 4500-S2D-2011	881395		
92751658009	**MCD-DGWC-69**	SM 4500-S2D-2011	881395		
92751658010	**MCD-AP1-EB-1**	SM 4500-S2D-2011	881395		
92751658001	**MCD-DGWC-37**	EPA 300.0 Rev 2.1 1993	881039		
92751658002	**MCD-DGWC-39**	EPA 300.0 Rev 2.1 1993	881039		
92751658003	**MCD-DGWC-121**	EPA 300.0 Rev 2.1 1993	881039		
92751658004	**MCD-DGWC-38**	EPA 300.0 Rev 2.1 1993	881039		
92751658005	**MCD-AP1-FD-1**	EPA 300.0 Rev 2.1 1993	881039		
92751658006	**MCD-DGWC-40**	EPA 300.0 Rev 2.1 1993	881544		
92751658007	**MCD-DGWC-67**	EPA 300.0 Rev 2.1 1993	881369		
92751658008	**MCD-DGWC-68A**	EPA 300.0 Rev 2.1 1993	881369		
92751658009	**MCD-DGWC-69**	EPA 300.0 Rev 2.1 1993	881369		
92751658010	**MCD-AP1-EB-1**	EPA 300.0 Rev 2.1 1993	881369		

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

WO# : 92751658

92751658

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docu

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Detection	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency	
State / Location	
GA	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test: Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	
								Requested Analysis Filtered (Y/N)									N	N	N	N	N	N					
1	MCD-DGWC-37	WG	G	9/4/24	15:10		7	3		3		1					X	X	X	X	X	X					
2	MCD-DGWC-39	WG	G	9/4/24	13:48		7	3		3		1					X	X	X	X	X	X					
3	MCD-DGWC-121	WG	G	9/4/24	13:25		7	3		3		1					X	X	X	X	X	X					
4	MCD-DGWC-38	WG	G	9/4/24	15:31		7	3		3		1					X	X	X	X	X	X					
5	MCD-AP4-FD-1	WG	G	9/4/24	-		7	3		3		1					X	X	X	X	X	X					
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MARK MANN/[illegible]/WSP	09/05/24	0845	[illegible] 834 / COURIER NOW	09/05/24	
				IDDO	9/5/24	

DATE Signed:

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

Pace

DC#_Title: ENV-FRM-HUNT-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: 92751658

PM: BV Due Date: 09/19/24

CLIENT: 92-GA Power

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: SG 9/5/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

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

Cooler Temp: 4.9 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.9

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Sample 5 had API-FD-1 instead of AP4-FD-#

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Qualtrax ID: 69614

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO# : 92751658

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

PM: BV Due Date: 09/19/24
CLIENT: 92-GA Power

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☑ Atlanta ☑ Kernersville ☐

Client GA Power Profile/EZ (Circle one) Notes 9/5/24

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1 ✓		1 ✓																					
2		2	1		2		1 ✓		1 ✓																					
3		2	1		2		1 ✓		1 ✓																					
4		2	1		2		1 ✓		1 ✓																					
5		2	1		2		1 ✓		1 ✓																					
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

WO# : 92751658

PM: BV **Due Date: 09/19/24**

CLIENT: 92-GA Power

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Do

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Detection	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	92751658
																Requested Analysis Filtered (Y/N)	N	N	N	N	N	N					
1	MCD-DGWC-40	WG	G	9/5/24	11:40		7	3		3		1					X	X	X	X	X	X					006
2	MCD-DGWC-67	WG	G	9/5/24	16:09		7	3		3		1					X	X	X	X	X	X					007
3	MCD-DGWC-68A	WG	G	9/5/24	14:15		7	3		3		1					X	X	X	X	X	X					008
4	MCD-DGWC-69	WG	G	9/5/24	11:48		9	3		5		1					X	X	X	X	X	X					009 EXTRA RADS
5	MCD-AP1-EB-1	WG	G	9/5/24	14:30		7	3		3		1					X	X	X	X	X	X					010
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MATT MANN / Matt Mann WSP	9/6/24	1555		9/6/24 1555	

DATE Signed:

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

Pace

DC#_Title: ENV-FRM-HON-0063 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92751658

PM: BV **Due Date: 09/19/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mec

Sample Condition Upon Receipt

Client Name: Ga power

Project #:

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/16/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 236

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 6.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Daltrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Items	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL Plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar* Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGOU-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																													
1		1	1				1	1																					
2		1	1				1	1																					
3		1	1				1	1																					
4		1	1				1	1																					
5		1	1				1	1																					
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 28, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 05, 2024 and September 06, 2024. 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

Revision 1: Amend sample ID for MCD-AP1-FD-1.

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92751651001	**MCD-DGWC-37**	Water	09/04/24 15:10	09/05/24 10:00
92751651002	**MCD-DGWC-39**	Water	09/04/24 13:48	09/05/24 10:00
92751651003	**MCD-DGWC-121**	Water	09/04/24 13:25	09/05/24 10:00
92751651004	**MCD-DGWC-38**	Water	09/04/24 15:31	09/05/24 10:00
92751651005	**MCD-AP1-FD-1**	Water	09/04/24 00:00	09/05/24 10:00
92751651006	**MCD-DGWC-40**	Water	09/05/24 11:40	09/06/24 15:55
92751651007	**MCD-DGWC-67**	Water	09/05/24 16:09	09/06/24 15:55
92751651008	**MCD-DGWC-68A**	Water	09/05/24 14:15	09/06/24 15:55
92751651009	**MCD-DGWC-69**	Water	09/05/24 11:48	09/06/24 15:55
92751651010	**MCD-AP1-EB-1**	Water	09/05/24 14:30	09/06/24 15:55

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92751651001	**MCD-DGWC-37**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651002	**MCD-DGWC-39**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651003	**MCD-DGWC-121**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651004	**MCD-DGWC-38**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651005	**MCD-AP1-FD-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651006	**MCD-DGWC-40**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651007	**MCD-DGWC-67**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651008	**MCD-DGWC-68A**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651009	**MCD-DGWC-69**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92751651010	**MCD-AP1-EB-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-37 **Lab ID: 92751651001** Collected: 09/04/24 15:10 Received: 09/05/24 10:00 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	**0.131U ± 0.117 (0.220) C:87% T:NA**	pCi/L	09/30/24 09:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.330U ± 0.304 (0.611) C:82% T:85%**	pCi/L	09/17/24 14:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.461U ± 0.421 (0.831)**	pCi/L	09/30/24 15:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-39 **Lab ID: 92751651002** Collected: 09/04/24 13:48 Received: 09/05/24 10:00 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	**0.119U ± 0.120 (0.237) C:80% T:NA**	pCi/L	09/30/24 09:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0838U ± 0.311 (0.707) C:79% T:86%**	pCi/L	09/17/24 14:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.203U ± 0.431 (0.944)**	pCi/L	09/30/24 15:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-121 **Lab ID: 92751651003** Collected: 09/04/24 13:25 Received: 09/05/24 10:00 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	**0.0793U ± 0.112 (0.243) C:86% T:NA**	pCi/L	09/30/24 09:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.484U ± 0.351 (0.675) C:79% T:83%**	pCi/L	09/17/24 14:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.563U ± 0.463 (0.918)**	pCi/L	09/30/24 15:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-38 **Lab ID: 92751651004** Collected: 09/04/24 15:31 Received: 09/05/24 10:00 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	**0.0927U ± 0.106 (0.217) C:89% T:NA**	pCi/L	09/30/24 09:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.453U ± 0.379 (0.749) C:76% T:81%**	pCi/L	09/17/24 14:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.546U ± 0.485 (0.966)**	pCi/L	09/30/24 15:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-AP1-FD-1 **Lab ID: 92751651005** Collected: 09/04/24 00:00 Received: 09/05/24 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.109U ± 0.110 (0.212) C:84% T:NA**	pCi/L	09/30/24 09:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.298U ± 0.351 (0.737) C:75% T:85%**	pCi/L	09/17/24 14:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.407U ± 0.461 (0.949)**	pCi/L	09/30/24 15:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-40 **Lab ID: 92751651006** Collected: 09/05/24 11:40 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0624U ± 0.102 (0.229) C:89% T:NA**	pCi/L	09/30/24 09:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.155U ± 0.364 (0.811) C:79% T:78%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.217U ± 0.466 (1.04)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-67 **Lab ID: 92751651007** Collected: 09/05/24 16:09 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0622U ± 0.104 (0.234) C:87% T:NA**	pCi/L	09/30/24 09:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.485U ± 0.383 (0.758) C:80% T:90%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.547U ± 0.487 (0.992)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-68A **Lab ID: 92751651008** Collected: 09/05/24 14:15 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.299 ± 0.155 (0.225) C:86% T:NA**	pCi/L	09/30/24 09:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.847U ± 0.470 (0.850) C:80% T:84%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.15 ± 0.625 (1.08)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-DGWC-69 **Lab ID: 92751651009** Collected: 09/05/24 11:48 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.703 ± 0.238 (0.234) C:91% T:NA**	pCi/L	09/30/24 09:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.899 ± 0.435 (0.724) C:80% T:85%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.60 ± 0.673 (0.958)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Sample: MCD-AP1-EB-1 **Lab ID: 92751651010** Collected: 09/05/24 14:30 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 5 mls of nitric acid were added to one of two of the sample bottles to meet the sample preservation requirement of pH<2 for radiochemistry analysis, where the method requires preservation, in water. The samples were preserved pH <2 within the required 5 days of collection (EPA 815-R-05-004).

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0229U ± 0.103 (0.286) C:80% T:NA**	pCi/L	09/30/24 09:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.433U ± 0.364 (0.721) C:73% T:90%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.433U ± 0.467 (1.01)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

QC Batch: 697040 | Analysis Method: EPA 9320
QC Batch Method: EPA 9320 | Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751651006, 92751651007, 92751651008, 92751651009, 92751651010

METHOD BLANK: 3394381 Matrix: Water
Associated Lab Samples: 92751651006, 92751651007, 92751651008, 92751651009, 92751651010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.181 ± 0.292 (0.633) C:82% T:92%	pCi/L	09/30/24 15:28	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

QC Batch: 695085 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751651001, 92751651002, 92751651003, 92751651004, 92751651005

METHOD BLANK: 3384817 Matrix: Water
Associated Lab Samples: 92751651001, 92751651002, 92751651003, 92751651004, 92751651005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0127 ± 0.268 (0.625) C:84% T:86%	pCi/L	09/17/24 11:10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

QC Batch: 696331 | Analysis Method: EPA 9315
QC Batch Method: EPA 9315 | Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751651006, 92751651007, 92751651008, 92751651009, 92751651010

METHOD BLANK: 3390992 Matrix: Water
Associated Lab Samples: 92751651006, 92751651007, 92751651008, 92751651009, 92751651010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0454 ± 0.0712 (0.154) C:89% T:NA	pCi/L	09/30/24 09:10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

QC Batch: 695870 | Analysis Method: EPA 9315
QC Batch Method: EPA 9315 | Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92751651001, 92751651002, 92751651003, 92751651004, 92751651005

METHOD BLANK: 3388999 Matrix: Water
Associated Lab Samples: 92751651001, 92751651002, 92751651003, 92751651004, 92751651005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0274 ± 0.0932 (0.274) C:73% T:NA	pCi/L	09/30/24 09:02	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Detection- RADs
Pace Project No.: 92751651

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92751651001	**MCD-DGWC-37**	EPA 9315	695870		
92751651002	**MCD-DGWC-39**	EPA 9315	695870		
92751651003	**MCD-DGWC-121**	EPA 9315	695870		
92751651004	**MCD-DGWC-38**	EPA 9315	695870		
92751651005	**MCD-AP1-FD-1**	EPA 9315	695870		
92751651006	**MCD-DGWC-40**	EPA 9315	696331		
92751651007	**MCD-DGWC-67**	EPA 9315	696331		
92751651008	**MCD-DGWC-68A**	EPA 9315	696331		
92751651009	**MCD-DGWC-69**	EPA 9315	696331		
92751651010	**MCD-AP1-EB-1**	EPA 9315	696331		
92751651001	**MCD-DGWC-37**	EPA 9320	695085		
92751651002	**MCD-DGWC-39**	EPA 9320	695085		
92751651003	**MCD-DGWC-121**	EPA 9320	695085		
92751651004	**MCD-DGWC-38**	EPA 9320	695085		
92751651005	**MCD-AP1-FD-1**	EPA 9320	695085		
92751651006	**MCD-DGWC-40**	EPA 9320	697040		
92751651007	**MCD-DGWC-67**	EPA 9320	697040		
92751651008	**MCD-DGWC-68A**	EPA 9320	697040		
92751651009	**MCD-DGWC-69**	EPA 9320	697040		
92751651010	**MCD-AP1-EB-1**	EPA 9320	697040		
92751651001	**MCD-DGWC-37**	Total Radium Calculation	699390		
92751651002	**MCD-DGWC-39**	Total Radium Calculation	699390		
92751651003	**MCD-DGWC-121**	Total Radium Calculation	699390		
92751651004	**MCD-DGWC-38**	Total Radium Calculation	699390		
92751651005	**MCD-AP1-FD-1**	Total Radium Calculation	699390		
92751651006	**MCD-DGWC-40**	Total Radium Calculation	699703		
92751651007	**MCD-DGWC-67**	Total Radium Calculation	699703		
92751651008	**MCD-DGWC-68A**	Total Radium Calculation	699703		
92751651009	**MCD-DGWC-69**	Total Radium Calculation	699703		
92751651010	**MCD-AP1-EB-1**	Total Radium Calculation	699703		

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

WO# : 92751651

92751651

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docu

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Detection	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide			Residual Chlorine (Y/N)	
																	N	N	N	N	N	N				
1	MCD-DGWC-37	WG	G	9/4/24	15:10		7	3		3		1					X	X	X	X	X	X				
2	MCD-DGWC-39	WG	G	9/4/24	13:48		7	3		3		1					X	X	X	X	X	X				
3	MCD-DGWC-121	WG	G	9/4/24	13:25		7	3		3		1					X	X	X	X	X	X				
4	MCD-DGWC-38	WG	G	9/4/24	15:31		7	3		3		1					X	X	X	X	X	X				
5	MCD-AP4-FD-1	WG	G	9/4/24	--		7	3		3		1					X	X	X	X	X	X				
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	[illegible]/WSP	09/05/24	0845	FedEx 834 COURIER NOW	09/05/24	
	FedEx 834 CNow 09/05/24			IDOD	9/5/24	

DATE Signed:

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

Pace

DC#_Title: ENV-FRM-HUNT-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO#: 92751651**

PM: BV **Due Date: 09/26/24**
CLIENT: 92-GA Power

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: SG 9/5/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

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

Cooler Temp: 4.9 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.9

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Sample 5 had AP1-FD-1 instead of AP4-FD-#

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92751651

PM: BV Due Date: 09/26/24

CLIENT: 92-GA Power

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☑ Atlanta ☑ Kernersville ☐

Client GA Power Profile/EZ (Circle one) Notes 9/5/24

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																															
1		2	1		2		1 ✓		1 ✓																						
2		2	1		2		1 ✓		1 ✓																						
3		2	1		2		1 ✓		1 ✓																						
4		2	1		2		1 ✓		1 ✓																						
5		2	1		2		1 ✓		1 ✓																						
6																															
7																															
8																															
9																															
10																															
11																															
12																															

pH Adjustment Log for Preserved Samples

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

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

WO#: 92751651

PM: BV **Due Date: 09/26/24**

CLIENT: 92-GA Power

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request D

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Detection	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency	
State / Location	
GA	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	92751651
	Requested Analysis Filtered (Y/N)																N	N	N	N	N	N					
1	MCD-DGWC-40	WG	G	9/5/24	11:40		7	3		3		1					X	X	X	X	X	X					006
2	MCD-DGWC-67	WG	G	9/5/24	16:09		7	3		3		1					X	X	X	X	X	X					007
3	MCD-DGWC-68A	WG	G	9/5/24	14:15		7	3		3		1					X	X	X	X	X	X					008
4	MCD-DGWC-69	WG	G	9/5/24	11:48		9	3		5		1					X	X	X	X	X	X					009 EXTRA RADS
5	MCD-AP1-EB-1	WQ	G	9/5/24	14:30		7	3		3		1					X	X	X	X	X	X					010
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	[illegible]	9/6/24	1555		[illegible] 1555	

DATE Signed:

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

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92751651

PM: BV **Due Date: 09/26/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Me

Sample Condition Upon Receipt

Client Name: Ga Power

Project #:

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

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/16/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 236

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 6.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Daltrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/E2 (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar - Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SPST-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGOU-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																													
1		1	1				1	1																					
2		1	1				1	1																					
3		1	1				1	1																					
4		1	1				1	1																					
5		1	1				1	1																					
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JJS1
Date:	9/23/2024
Worklist:	81394
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3394381
MB concentration:	0.181
M/B 2 Sigma CSU:	0.292
MB MDC:	0.633
MB Numerical Performance Indicator:	1.22
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81394	LCSD81394
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	35.109	35.109
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.818	0.819
Target Conc. (pCi/L, g, F):	4.294	4.288
Uncertainty (Calculated):	0.210	0.210
Result (pCi/L, g, F):	4.321	3.326
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.992	0.853
Numerical Performance Indicator:	0.05	-2.15
Percent Recovery:	100.64%	77.55%
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.:	LCS81394	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD81394	
Sample Result (pCi/L, g, F):	4.321	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.992	
Sample Duplicate Result (pCi/L, g, F):	3.326	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.853	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.91%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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

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

Comments:

10/1/24
DLW 10/2/24

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2024
Worklist:	81331
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3390992
MB concentration:	0.045
M/B 2 Sigma CSU:	0.071
MB MDC:	0.154
MB Numerical Performance Indicator:	1.25
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81331	LCSD81331
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.500
Target Conc. (pCi/L, g, F):	4.939	5.003
Uncertainty (Calculated):	0.232	0.235
Result (pCi/L, g, F):	5.275	5.529
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.927	0.981
Numerical Performance Indicator:	0.69	1.02
Percent Recovery:	106.79%	110.52%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81331	92751679018
Duplicate Sample I.D.	LCSD81331	92751679018DUP
Sample Result (pCi/L, g, F):	5.275	0.552
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.927	0.205
Sample Duplicate Result (pCi/L, g, F):	5.529	0.700
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.981	0.254
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.369	-0.884
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.43%	23.54%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

MRH
10-1-24

VAM 10/1/24

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 27, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 06, 2024 and September 10, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752185001	**MCD-B-105D**	Water	09/05/24 13:20	09/06/24 15:55
92752185002	**MCD-AP1-FB-1**	Water	09/05/24 13:30	09/06/24 15:55
92752185003	**MCD-B-112D**	Water	09/09/24 11:02	09/10/24 08:50

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92752185001	**MCD-B-105D**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92752185002	**MCD-AP1-FB-1**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92752185003	**MCD-B-112D**	EPA 6010D	AJM	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-B-105D **Lab ID: 92752185001** Collected: 09/05/24 13:20 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**2.8**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:21	7439-89-6	
Potassium	**8.2**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:21	7440-09-7	
Sodium	**24.8**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:21	7440-23-5	
Calcium	**71.3**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:21	7440-70-2	
Magnesium	**22.8**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:21	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00062J**	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 19:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 19:55	7440-38-2	
Barium	**0.038**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 19:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 19:55	7440-41-7	
Boron	**0.72**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 19:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 19:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 19:55	7440-47-3	
Cobalt	**0.0020J**	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 19:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 19:55	7439-92-1	
Lithium	**0.011J**	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 19:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 19:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 19:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 19:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**511**	mg/L	25.0	25.0	1		09/11/24 14:04		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**56.9**	mg/L	5.0	5.0	1		09/11/24 18:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:10		
Alkalinity, Total as CaCO3	**56.9**	mg/L	5.0	5.0	1		09/11/24 18:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.55**	mg/L	0.10	0.022	1		09/10/24 04:36	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**16.2**	mg/L	1.0	0.60	1		09/10/24 11:38	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.050	1		09/10/24 11:38	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-B-105D **Lab ID: 92752185001** Collected: 09/05/24 13:20 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**236**	mg/L	5.0	2.5	5		09/10/24 21:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-AP1-FB-1 **Lab ID: 92752185002** Collected: 09/05/24 13:30 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 19:25	7439-89-6	
Potassium	ND	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 19:25	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 19:25	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 19:25	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 19:25	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 19:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 19:59	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 19:59	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 19:59	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 19:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 19:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 19:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 19:59	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 19:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 19:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 19:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 19:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 19:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:16	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**71.0**	mg/L	25.0	25.0	1		09/11/24 14:05		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:17		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 18:17		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/11/24 18:17		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:42	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/09/24 22:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/24 22:57	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-AP1-FB-1 **Lab ID: 92752185002** Collected: 09/05/24 13:30 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	ND	mg/L	1.0	0.50	1		09/09/24 22:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-B-112D **Lab ID: 92752185003** Collected: 09/09/24 11:02 Received: 09/10/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	**3.2**	mg/L	0.50	0.15	1	09/13/24 18:33	09/17/24 00:22	7440-09-7	
Sodium	**14.0**	mg/L	1.0	0.58	1	09/13/24 18:33	09/17/24 00:22	7440-23-5	
Calcium	**21.9**	mg/L	1.0	0.12	1	09/13/24 18:33	09/17/24 00:22	7440-70-2	
Iron	**0.14**	mg/L	0.040	0.025	1	09/13/24 18:33	09/17/24 22:51	7439-89-6	
Magnesium	**6.3**	mg/L	0.050	0.012	1	09/13/24 18:33	09/17/24 22:51	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/13/24 13:55	09/17/24 18:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/13/24 13:55	09/17/24 18:45	7440-38-2	
Barium	**0.0036J**	mg/L	0.0050	0.00047	1	09/13/24 13:55	09/17/24 18:45	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	09/13/24 13:55	09/19/24 16:24	7440-41-7	
Boron	**0.22**	mg/L	0.040	0.012	1	09/13/24 13:55	09/19/24 16:24	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/13/24 13:55	09/19/24 16:24	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/13/24 13:55	09/19/24 16:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/13/24 13:55	09/19/24 16:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/13/24 13:55	09/17/24 18:45	7439-92-1	
Lithium	**0.0042J**	mg/L	0.030	0.0016	1	09/13/24 13:55	09/19/24 16:24	7439-93-2	
Molybdenum	**0.026**	mg/L	0.010	0.00062	1	09/13/24 13:55	09/17/24 18:45	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/13/24 13:55	09/17/24 18:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/13/24 13:55	09/17/24 18:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**162**	mg/L	25.0	25.0	1		09/12/24 12:57		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**104**	mg/L	5.0	5.0	1		09/13/24 15:39		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/13/24 15:39		
Alkalinity, Total as CaCO3	**104**	mg/L	5.0	5.0	1		09/13/24 15:39		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/14/24 03:42	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.2**	mg/L	1.0	0.60	1		09/12/24 06:22	16887-00-6	
Fluoride	**0.34**	mg/L	0.10	0.050	1		09/12/24 06:22	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Sample: MCD-B-112D **Lab ID: 92752185003** Collected: 09/09/24 11:02 Received: 09/10/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**13.8**	mg/L	1.0	0.50	1		09/12/24 06:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882148
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4542901 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/24 17:48	
Iron	mg/L	ND	0.040	0.025	09/13/24 17:48	
Magnesium	mg/L	ND	0.050	0.012	09/13/24 17:48	
Potassium	mg/L	ND	0.50	0.15	09/13/24 17:48	
Sodium	mg/L	ND	1.0	0.58	09/13/24 17:48	

LABORATORY CONTROL SAMPLE: 4542902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	112	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542903 4542904

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	33.0	1	1	32.5	33.5	-49	47	75-125	3	20	M1
Iron	mg/L	0.042	1	1	0.96	0.96	92	92	75-125	0	20	
Magnesium	mg/L	20.4	1	1	20.4	21.1	-3	67	75-125	3	20	M1
Potassium	mg/L	5.7	1	1	6.5	6.7	77	96	75-125	3	20	
Sodium	mg/L	75.7	1	1	73.6	76.3	-204	57	75-125	3	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882611
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185003

METHOD BLANK: 4545809 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/16/24 23:10	
Iron	mg/L	ND	0.040	0.025	09/17/24 21:44	
Magnesium	mg/L	ND	0.050	0.012	09/17/24 21:44	
Potassium	mg/L	ND	0.50	0.15	09/16/24 23:10	
Sodium	mg/L	ND	1.0	0.58	09/16/24 23:10	

LABORATORY CONTROL SAMPLE: 4545810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.93J	93	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	0.94	94	80-120	
Potassium	mg/L	1	1.2	119	80-120	
Sodium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545811 4545812

Parameter	Units	92751692012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	26.3	1	1	27.7	27.6	140	131	75-125	0	20	M1
Iron	mg/L	ND	1	1	0.97	0.97	97	97	75-125	0	20	
Magnesium	mg/L	12.2	1	1	13.4	13.6	120	140	75-125	2	20	M1
Potassium	mg/L	3.7	1	1	4.8	4.8	117	109	75-125	2	20	
Sodium	mg/L	13.2	1	1	14.5	14.6	123	139	75-125	1	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881825
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4541064 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/16/24 18:53	
Arsenic	mg/L	ND	0.0050	0.00084	09/16/24 18:53	
Barium	mg/L	ND	0.0050	0.00047	09/16/24 18:53	
Beryllium	mg/L	ND	0.00050	0.000094	09/16/24 18:53	
Boron	mg/L	ND	0.040	0.012	09/16/24 18:53	
Cadmium	mg/L	ND	0.00050	0.00010	09/16/24 18:53	
Chromium	mg/L	ND	0.0050	0.0019	09/16/24 18:53	
Cobalt	mg/L	ND	0.0050	0.00032	09/16/24 18:53	
Lead	mg/L	ND	0.0010	0.00016	09/16/24 18:53	
Lithium	mg/L	ND	0.030	0.0016	09/16/24 18:53	
Molybdenum	mg/L	ND	0.010	0.00062	09/16/24 18:53	
Selenium	mg/L	ND	0.0050	0.00096	09/16/24 18:53	
Thallium	mg/L	ND	0.0010	0.00038	09/16/24 18:53	

LABORATORY CONTROL SAMPLE: 4541065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 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	0.097	0.097	97	97	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.094	0.096	94	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.014	0.1	0.1	0.11	0.11	94	95	75-125	1	20	
Beryllium	mg/L	0.0027	0.1	0.1	0.089	0.091	86	88	75-125	2	20	
Boron	mg/L	1.1	1	1	1.9	1.9	76	78	75-125	1	20	
Cadmium	mg/L	0.00098	0.1	0.1	0.094	0.095	93	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cobalt	mg/L	0.010	0.1	0.1	0.10	0.10	92	93	75-125	1	20	
Lead	mg/L	0.00021J	0.1	0.1	0.093	0.093	93	92	75-125	0	20	
Lithium	mg/L	0.0099J	0.1	0.1	0.098	0.10	88	90	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.093	93	93	75-125	0	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882511
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92752185003

METHOD BLANK: 4545096 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/17/24 16:08	
Arsenic	mg/L	ND	0.0050	0.00084	09/17/24 16:08	
Barium	mg/L	ND	0.0050	0.00047	09/17/24 16:08	
Beryllium	mg/L	ND	0.00050	0.000094	09/17/24 16:08	
Boron	mg/L	ND	0.040	0.012	09/17/24 16:08	
Cadmium	mg/L	ND	0.00050	0.00010	09/17/24 16:08	
Chromium	mg/L	ND	0.0050	0.0019	09/17/24 16:08	
Cobalt	mg/L	ND	0.0050	0.00032	09/17/24 16:08	
Lead	mg/L	ND	0.0010	0.00016	09/17/24 16:08	
Lithium	mg/L	ND	0.030	0.0016	09/17/24 16:08	
Molybdenum	mg/L	ND	0.010	0.00062	09/17/24 16:08	
Selenium	mg/L	ND	0.0050	0.00096	09/17/24 16:08	
Thallium	mg/L	ND	0.0010	0.00038	09/17/24 16:08	

LABORATORY CONTROL SAMPLE: 4545097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.10	101	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	1.1	109	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 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	0.097	0.099	97	99	75-125	2	20	
Arsenic	mg/L	0.0027J	0.1	0.1	0.10	0.10	99	100	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.023	0.1	0.1	0.12	0.13	101	104	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Boron	mg/L	0.34	1	1	1.3	1.4	97	101	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	99	97	75-125	2	20	
Cobalt	mg/L	0.0021J	0.1	0.1	0.10	0.098	99	96	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.092	96	92	75-125	3	20	
Lithium	mg/L	0.016J	0.1	0.1	0.11	0.11	97	97	75-125	0	20	
Molybdenum	mg/L	0.0023J	0.1	0.1	0.098	0.10	96	99	75-125	3	20	
Selenium	mg/L	0.0015J	0.1	0.1	0.10	0.098	98	97	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.091	94	91	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 883894
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185001, 92752185002, 92752185003

METHOD BLANK: 4551831 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002, 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/20/24 08:16	

LABORATORY CONTROL SAMPLE: 4551832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4551833 4551834

Parameter	Units	92751692001 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	0.0023	93	88	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881824
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4541058 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/24 14:03	

LABORATORY CONTROL SAMPLE: 4541059

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	422	106	80-120	

SAMPLE DUPLICATE: 4541060

Parameter	Units	92752185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	511	532	4	10	

SAMPLE DUPLICATE: 4541061

Parameter	Units	92751700004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1290	1270	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882138
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752185003

METHOD BLANK: 4542861 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/12/24 12:45	

LABORATORY CONTROL SAMPLE: 4542862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	80-120	

SAMPLE DUPLICATE: 4542863

Parameter	Units	92751700020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	444	459	3	10	

SAMPLE DUPLICATE: 4542864

Parameter	Units	92751692017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	528	539	2	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881617
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4540224 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	

LABORATORY CONTROL SAMPLE: 4540225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

LABORATORY CONTROL SAMPLE: 4540226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.1	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540227 4540228

Parameter	Units	92752128010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	68.8	50	50	84.8	84.3	32	31	80-120	1	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540229 4540230

Parameter	Units	92752128011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	37.0	50	50	71.7	72.0	69	70	80-120	0	25	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882135
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752185003

METHOD BLANK: 4542839 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/13/24 14:21	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/13/24 14:21	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/13/24 14:21	

LABORATORY CONTROL SAMPLE: 4542840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	80-120	

LABORATORY CONTROL SAMPLE: 4542841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542842 4542843

Parameter	Units	92751692016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	50.6	50.5	99	99	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542844 4542845

Parameter	Units	92751692017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	116	50	50	164	166	95	100	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881395
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4539200 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/10/24 04:35	

LABORATORY CONTROL SAMPLE: 4539201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539210 4539211

Parameter	Units	92751658009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.56	99	111	80-120	11	10	R1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 882376
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752185003

METHOD BLANK: 4544511 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/14/24 03:31	

LABORATORY CONTROL SAMPLE: 4544512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544513 4544514

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.49	94	98	80-120	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544515 4544516

Parameter	Units	92751692016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.46	0.57	91	113	80-120	22	10	R1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881369
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752185001, 92752185002

METHOD BLANK: 4539017 Matrix: Water
Associated Lab Samples: 92752185001, 92752185002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/24 21:38	
Fluoride	mg/L	ND	0.10	0.050	09/09/24 21:38	
Sulfate	mg/L	ND	1.0	0.50	09/09/24 21:38	

LABORATORY CONTROL SAMPLE: 4539018

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	107	90-110	
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539019 4539020

Parameter	Units	92752167002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	19.3	50	50	69.0	73.0	99	107	90-110	6	10	
Fluoride	mg/L	0.16	2.5	2.5	2.7	3.0	103	112	90-110	8	10	M1
Sulfate	mg/L	193	50	50	237	237	89	89	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539021 4539022

Parameter	Units	92751692006 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	50	50	55.1	59.2	99	108	90-110	7	10	
Fluoride	mg/L	0.12	2.5	2.5	2.8	3.0	106	116	90-110	9	10	M1
Sulfate	mg/L	155	50	50	195	195	80	80	90-110	0	10	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

QC Batch: 881917
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92752185003

METHOD BLANK: 4541849 Matrix: Water
Associated Lab Samples: 92752185003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/11/24 21:39	
Fluoride	mg/L	ND	0.10	0.050	09/11/24 21:39	
Sulfate	mg/L	ND	1.0	0.50	09/11/24 21:39	

LABORATORY CONTROL SAMPLE: 4541850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.7	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541851 4541852

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.1	50	50	52.3	53.5	100	103	90-110	2	10	
Fluoride	mg/L	0.093J	2.5	2.5	2.9	3.0	113	115	90-110	2	10	M1
Sulfate	mg/L	89.1	50	50	118	122	58	65	90-110	3	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541853 4541854

Parameter	Units	92751692014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	50.2	51.2	100	102	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	104	105	90-110	1	10	
Sulfate	mg/L	ND	50	50	50.3	51.3	100	102	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Assessment
Pace Project No.: 92752185

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752185001	**MCD-B-105D**	EPA 3010A	882148	EPA 6010D	882244
92752185002	**MCD-AP1-FB-1**	EPA 3010A	882148	EPA 6010D	882244
92752185003	**MCD-B-112D**	EPA 3010A	882611	EPA 6010D	882633
92752185001	**MCD-B-105D**	EPA 3005A	881825	EPA 6020B	881952
92752185002	**MCD-AP1-FB-1**	EPA 3005A	881825	EPA 6020B	881952
92752185003	**MCD-B-112D**	EPA 3005A	882511	EPA 6020B	882626
92752185001	**MCD-B-105D**	EPA 7470A	883894	EPA 7470A	884113
92752185002	**MCD-AP1-FB-1**	EPA 7470A	883894	EPA 7470A	884113
92752185003	**MCD-B-112D**	EPA 7470A	883894	EPA 7470A	884113
92752185001	**MCD-B-105D**	SM 2540C-2015	881824		
92752185002	**MCD-AP1-FB-1**	SM 2540C-2015	881824		
92752185003	**MCD-B-112D**	SM 2540C-2015	882138		
92752185001	**MCD-B-105D**	SM 2320B-2011	881617		
92752185002	**MCD-AP1-FB-1**	SM 2320B-2011	881617		
92752185003	**MCD-B-112D**	SM 2320B-2011	882135		
92752185001	**MCD-B-105D**	SM 4500-S2D-2011	881395		
92752185002	**MCD-AP1-FB-1**	SM 4500-S2D-2011	881395		
92752185003	**MCD-B-112D**	SM 4500-S2D-2011	882376		
92752185001	**MCD-B-105D**	EPA 300.0 Rev 2.1 1993	881369		
92752185002	**MCD-AP1-FB-1**	EPA 300.0 Rev 2.1 1993	881369		
92752185003	**MCD-B-112D**	EPA 300.0 Rev 2.1 1993	881917		

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

WO# : 92752185

92752185

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b.

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency
State / Location
GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide			Residual Chlorine (Y/N)	92752185
1	MCD-B-105D	WG	G	9/5/24	13:20		7	3		3		1					X	X	X	X	X	X				001
2	MCD-AP1-FB-1	WQ	G	9/5/24	13:30		7	3		3		1					X	X	X	X	X	X				002
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	HARK MANN/WSP	9/6/24	1555		9/6/24 1555	

DATE Signed:

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

Pace

Effective Date: 05/24/2024

WO#: 92752185

PM: BV **Due Date: 09/23/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mec

Sample Condition Upon Receipt

Client Name: Ga power

Project #:

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

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/6/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Vaultrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/E2 (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BF4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	VGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9H-40 mL Amber NH4Cl (N/A)(Cl-)	DG8H-40 mL VOA HCl (N/A)	VG6T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG8V-40 mL VOA H3PO4 (N/A)	KP7U-5C mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab	SP2T-250 mL Sterile Plastic (N/A – lab)	15 1/2 N	BP3R-250 mL Plastic (NH2)2SO4 (5.3-5.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation Vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1					1	1																	2				
2		2	1					1	1																	2				
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Jou Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta GA 30339			Address:	
Email:		Purchase Order #		Pace Quote:	
Phone:	(470) 625-2176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Beatrice Vera
Requested Due Date:	10 Day TAT	Project #:	31405440.M.D23	Pace Profile #:	

Regulatory Agency	
State / Location	GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH + Zn Acetate	Na2S2O3	MeOH	Other	Analyses Test: App III/IV metals	Cl, F, SO4	Radium 226/228	TDS	pH, Field	Sulfide	Viscosity			Residual Chlorine (Y/N)	92752185
																Y/N	N	N	N	N	N	N	N			
1	MCD-B-112D	WG	G	9/9/24	1100		4			3		1					X	X	X	X	X	X	X			
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS			
Task Code = MCD-CCR-ASSMT-2024S2	MARK MANSELL/Pace	9/10/24	850	Chase Sanders / ACCUTEMP	9/10/24				
*App III/IV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Chase Sanders	9/10/24			9/10/24				

DATE Signed:

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

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt
	Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☑ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/10/24 aw

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.1 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

aboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☒ Kernersville ☐

lient GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1	1																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 08, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 06, 2024 and September 10, 2024. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752186001	**MCD-B-105D**	Water	09/05/24 13:20	09/06/24 15:55
92752186002	**MCD-AP1-FB-1**	Water	09/05/24 13:30	09/06/24 15:55
92752186003	**MCD-B-112D**	Water	09/09/24 11:02	09/10/24 08:50

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92752186001	**MCD-B-105D**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92752186002	**MCD-AP1-FB-1**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92752186003	**MCD-B-112D**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Sample: MCD-B-105D **Lab ID: 92752186001** Collected: 09/05/24 13:20 Received: 09/06/24 15:55 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**1.06 ± 0.283 (0.208) C:96% T:NA**	pCi/L	09/30/24 09:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**2.82 ± 0.746 (0.752) C:81% T:86%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.88 ± 1.03 (0.960)**	pCi/L	10/01/24 11:36	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Sample: MCD-AP1-FB-1 **Lab ID: 92752186002** Collected: 09/05/24 13:30 Received: 09/06/24 15:55 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	**0.0286U ± 0.0924 (0.228) C:82% T:NA**	pCi/L	09/30/24 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.645U ± 0.406 (0.755) C:78% T:84%**	pCi/L	09/30/24 15:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.674U ± 0.498 (0.983)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Sample: MCD-B-112D **Lab ID: 92752186003** Collected: 09/09/24 11:02 Received: 09/10/24 08:50 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	**0.0918U ± 0.102 (0.208) C:90% T:NA**	pCi/L	10/02/24 08:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.42 ± 0.469 (0.594) C:78% T:86%**	pCi/L	09/30/24 11:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.51 ± 0.571 (0.802)**	pCi/L	10/03/24 15:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

QC Batch: 697040
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752186001, 92752186002, 92752186003

METHOD BLANK: 3394381 Matrix: Water
Associated Lab Samples: 92752186001, 92752186002, 92752186003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.181 ± 0.292 (0.633) C:82% T:92%	pCi/L	09/30/24 15:28	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

QC Batch: 696334
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752186003

METHOD BLANK: 3391001 Matrix: Water
Associated Lab Samples: 92752186003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0966 ± 0.111 (0.228) C:89% T:NA	pCi/L	10/02/24 08:40	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

QC Batch: 696331
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752186002

METHOD BLANK: 3390992
Matrix: Water
Associated Lab Samples: 92752186002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0454 ± 0.0712 (0.154) C:89% T:NA	pCi/L	09/30/24 09:10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

QC Batch: 695870
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752186001

METHOD BLANK: 3388999 Matrix: Water
Associated Lab Samples: 92752186001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0274 ± 0.0932 (0.274) C:73% T:NA	pCi/L	09/30/24 09:02	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1 Assessment-RADs
Pace Project No.: 92752186

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752186001	**MCD-B-105D**	EPA 9315	695870		
92752186002	**MCD-AP1-FB-1**	EPA 9315	696331		
92752186003	**MCD-B-112D**	EPA 9315	696334		
92752186001	**MCD-B-105D**	EPA 9320	697040		
92752186002	**MCD-AP1-FB-1**	EPA 9320	697040		
92752186003	**MCD-B-112D**	EPA 9320	697040		
92752186001	**MCD-B-105D**	Total Radium Calculation	699597		
92752186002	**MCD-AP1-FB-1**	Total Radium Calculation	699703		
92752186003	**MCD-B-112D**	Total Radium Calculation	700413		

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

WO# : 92752186

92752186

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

Regulatory Agency	
State / Location	
GA	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide			Residual Chlorine (Y/N)	92752186
	Matrix: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS															Requested Analysis Filtered (Y/N)	N	N	N	N	N	N				
1	MCD-B-105D	WG	G	9/5/24	13:20		7	3		3		1					X	X	X	X	X	X				001
2	MCD-AP1-FB-1	WQ	G	9/5/24	13:30		7	3		3		1					X	X	X	X	X	X				002
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSM1-2024S2	MARK MANN / Pace Mnr / WSP	9/6/24	1555		9/6/24 1555	

DATE Signed:

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

Pace

Effective Date: 05/24/2024

WO#: 92752186

PM: BV **Due Date: 09/30/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ N

Sample Condition Upon Receipt

Client Name: Ga power

Project #

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other: ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/6/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 0.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Cailtrax ID: 69614

Pace	DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt
	Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/E2 (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	VGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG84-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG4T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VSH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	15 pm	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Solidfication Vials (N/A)	DG8U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1				1	1																		2				
2		2	1				1	1																		2				
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 Assessment	Pace Project Manager:	Bonnie Varg
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test	Y/N	*App III/IV metals + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Mercury			Residual Chlorine (Y/N)	9275216
																Requested Analysis Filtered (Y/N)		N	N	N	N	N	N	N				
1	MCD-B-112D	WG	G	9/9/24	11:02		7	3		3		1						X	X	X	X	X	X	X				
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE
Task Code = MCD-CCR-ASSMT-2024S2	MARK MANNING / WSP	9/10/24	850	Chase Landrum / COURIER NEW	9/10/24
*App III/IV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Catherine Bradley CBrad	9/10/24			9/10/24

DATE Signed:

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☑ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/10/24 dw

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.1 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

aboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

lient GA Power Profile/EZ (Circle one) Notes

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP1N	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1	1																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JJS1
Date:	9/23/2024
Worklist:	81394
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3394381
MB concentration:	0.181
M/B 2 Sigma CSU:	0.292
MB MDC:	0.633
MB Numerical Performance Indicator:	1.22
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81394	LCSD81394
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	35.109	35.109
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.818	0.819
Target Conc. (pCi/L, g, F):	4.294	4.288
Uncertainty (Calculated):	0.210	0.210
Result (pCi/L, g, F):	4.321	3.326
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.992	0.853
Numerical Performance Indicator:	0.05	-2.15
Percent Recovery:	100.64%	77.55%
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.:	LCS81394	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD81394	
Sample Result (pCi/L, g, F):	4.321	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.992	
Sample Duplicate Result (pCi/L, g, F):	3.326	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.853	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.91%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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

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

Comments:

10/1/24

DLW 10/2/24

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/19/2024
Worklist:	81293
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3388999
MB concentration:	-0.027
M/B 2 Sigma CSU:	0.093
MB MDC:	0.274
MB Numerical Performance Indicator:	-0.58
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81293	LCSD81293
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.501
Target Conc. (pCi/L, g, F):	4.970	4.994
Uncertainty (Calculated):	0.234	0.235
Result (pCi/L, g, F):	5.287	5.017
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.932	0.881
Numerical Performance Indicator:	0.65	0.05
Percent Recovery:	106.37%	100.45%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81293	92752186001
Duplicate Sample I.D.	LCSD81293	92752186001DUP
Sample Result (pCi/L, g, F):	5.287	1.064
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.932	0.283
Sample Duplicate Result (pCi/L, g, F):	5.017	0.961
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	0.261
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.413	0.527
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.73%	10.24%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

vsm 9/30/24

SLC 9/30/24

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2024
Worklist:	81331
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3390992
MB concentration:	0.045
M/B 2 Sigma CSU:	0.071
MB MDC:	0.154
MB Numerical Performance Indicator:	1.25
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81331	LCSD81331
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.500
Target Conc. (pCi/L, g, F):	4.939	5.003
Uncertainty (Calculated):	0.232	0.235
Result (pCi/L, g, F):	5.275	5.529
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.927	0.981
Numerical Performance Indicator:	0.69	1.02
Percent Recovery:	106.79%	110.52%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81331	92751679018
Duplicate Sample I.D.	LCSD81331	92751679018DUP
Sample Result (pCi/L, g, F):	5.275	0.552
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.927	0.205
Sample Duplicate Result (pCi/L, g, F):	5.529	0.700
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.981	0.254
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.369	-0.884
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.43%	23.54%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

MRH
10-1-24

LAM 10/1/24

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/19/2024
Worklist:	81332
Matrix:	W

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3391001
MB concentration:	0.097
M/B 2 Sigma CSU:	0.111
MB MDC:	0.228
MB Numerical Performance Indicator:	1.71
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81332	LCSD81332
Count Date:	10/2/2024	10/2/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.503
Target Conc. (pCi/L, g, F):	4.976	4.972
Uncertainty (Calculated):	0.234	0.234
Result (pCi/L, g, F):	4.582	5.011
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.809	0.881
Numerical Performance Indicator:	-0.92	0.09
Percent Recovery:	92.08%	100.80%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81332	92751679027
Duplicate Sample I.D.	LCSD81332	92751679027DUP
Sample Result (pCi/L, g, F):	4.582	0.266
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.809	0.149
Sample Duplicate Result (pCi/L, g, F):	5.011	0.191
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	0.135
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.704	0.727
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.04%	32.58%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

VAL
10/3/24

VAM 10/3/24

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 26, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 06, 2024 and September 10, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752200001	**MCD-B-100**	Water	09/05/24 15:15	09/06/24 15:55
92752200002	**MCD-B-62**	Water	09/09/24 14:37	09/10/24 08:50

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92752200001	**MCD-B-100**	EPA 6010D	MJS2	5
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92752200002	**MCD-B-62**	EPA 6010D	AJM	5
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Sample: MCD-B-100 **Lab ID: 92752200001** Collected: 09/05/24 15:15 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**20.2**	mg/L	0.040	0.025	1	09/12/24 13:08	09/13/24 20:13	7439-89-6	
Potassium	**1.1**	mg/L	0.50	0.15	1	09/12/24 13:08	09/13/24 20:13	7440-09-7	
Sodium	**26.9**	mg/L	1.0	0.58	1	09/12/24 13:08	09/13/24 20:13	7440-23-5	
Calcium	**41.6**	mg/L	1.0	0.12	1	09/12/24 13:08	09/13/24 20:13	7440-70-2	
Magnesium	**41.9**	mg/L	0.050	0.012	1	09/12/24 13:08	09/13/24 20:13	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/11/24 14:25	09/16/24 20:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/11/24 14:25	09/16/24 20:28	7440-38-2	
Barium	**0.021**	mg/L	0.0050	0.00047	1	09/11/24 14:25	09/16/24 20:28	7440-39-3	
Beryllium	**0.00053**	mg/L	0.00050	0.000094	1	09/11/24 14:25	09/16/24 20:28	7440-41-7	
Boron	**0.19**	mg/L	0.040	0.012	1	09/11/24 14:25	09/16/24 20:28	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/11/24 14:25	09/16/24 20:28	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/11/24 14:25	09/16/24 20:28	7440-47-3	
Cobalt	**0.031**	mg/L	0.0050	0.00032	1	09/11/24 14:25	09/16/24 20:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/11/24 14:25	09/16/24 20:28	7439-92-1	
Lithium	**0.0019J**	mg/L	0.030	0.0016	1	09/11/24 14:25	09/16/24 20:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/11/24 14:25	09/16/24 20:28	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/11/24 14:25	09/16/24 20:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/11/24 14:25	09/16/24 20:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**581**	mg/L	25.0	25.0	1		09/11/24 14:07		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 19:01		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/11/24 19:01		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		09/11/24 19:01		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/10/24 04:46	18496-25-8	
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		09/10/24 13:13	16887-00-6	
Fluoride	**0.069J**	mg/L	0.10	0.050	1		09/10/24 13:13	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Sample: MCD-B-100 **Lab ID: 92752200001** Collected: 09/05/24 15:15 Received: 09/06/24 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**322**	mg/L	7.0	3.5	7		09/10/24 21:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Sample: MCD-B-62 **Lab ID: 92752200002** Collected: 09/09/24 14:37 Received: 09/10/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**6.2**	mg/L	0.040	0.025	1	09/13/24 18:33	09/17/24 22:56	7439-89-6	
Magnesium	**5.3**	mg/L	0.050	0.012	1	09/13/24 18:33	09/17/24 22:56	7439-95-4	
Potassium	**2.6**	mg/L	0.50	0.15	1	09/13/24 18:33	09/17/24 00:27	7440-09-7	
Sodium	**10.6**	mg/L	1.0	0.58	1	09/13/24 18:33	09/17/24 00:27	7440-23-5	
Calcium	**30.8**	mg/L	1.0	0.12	1	09/13/24 18:33	09/17/24 00:27	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00054	1	09/13/24 13:55	09/17/24 18:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	09/13/24 13:55	09/17/24 18:50	7440-38-2	
Barium	**0.017**	mg/L	0.0050	0.00047	1	09/13/24 13:55	09/17/24 18:50	7440-39-3	
Beryllium	**0.00018J**	mg/L	0.00050	0.000094	1	09/13/24 13:55	09/19/24 16:28	7440-41-7	
Boron	**0.059**	mg/L	0.040	0.012	1	09/13/24 13:55	09/17/24 18:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	09/13/24 13:55	09/19/24 16:28	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	09/13/24 13:55	09/19/24 16:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	09/13/24 13:55	09/19/24 16:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	09/13/24 13:55	09/17/24 18:50	7439-92-1	
Lithium	**0.0093J**	mg/L	0.030	0.0016	1	09/13/24 13:55	09/19/24 16:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	09/13/24 13:55	09/17/24 18:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	09/13/24 13:55	09/17/24 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	09/13/24 13:55	09/17/24 18:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	09/19/24 16:00	09/20/24 09:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**187**	mg/L	25.0	25.0	1		09/12/24 12:58		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**79.8**	mg/L	5.0	5.0	1		09/13/24 15:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/13/24 15:48		
Alkalinity, Total as CaCO3	**79.8**	mg/L	5.0	5.0	1		09/13/24 15:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		09/14/24 03:42	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.5**	mg/L	1.0	0.60	1		09/12/24 07:09	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		09/12/24 07:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Sample: MCD-B-62 **Lab ID: 92752200002** Collected: 09/09/24 14:37 Received: 09/10/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	**44.2**	mg/L	1.0	0.50	1		09/12/24 07:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882148
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752200001

METHOD BLANK: 4542901 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/13/24 17:48	
Iron	mg/L	ND	0.040	0.025	09/13/24 17:48	
Magnesium	mg/L	ND	0.050	0.012	09/13/24 17:48	
Potassium	mg/L	ND	0.50	0.15	09/13/24 17:48	
Sodium	mg/L	ND	1.0	0.58	09/13/24 17:48	

LABORATORY CONTROL SAMPLE: 4542902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	112	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542903 4542904

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	33.0	1	1	32.5	33.5	-49	47	75-125	3	20	M1
Iron	mg/L	0.042	1	1	0.96	0.96	92	92	75-125	0	20	
Magnesium	mg/L	20.4	1	1	20.4	21.1	-3	67	75-125	3	20	M1
Potassium	mg/L	5.7	1	1	6.5	6.7	77	96	75-125	3	20	
Sodium	mg/L	75.7	1	1	73.6	76.3	-204	57	75-125	3	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882611
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752200002

METHOD BLANK: 4545809 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/16/24 23:10	
Iron	mg/L	ND	0.040	0.025	09/17/24 21:44	
Magnesium	mg/L	ND	0.050	0.012	09/17/24 21:44	
Potassium	mg/L	ND	0.50	0.15	09/16/24 23:10	
Sodium	mg/L	ND	1.0	0.58	09/16/24 23:10	

LABORATORY CONTROL SAMPLE: 4545810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.93J	93	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	0.94	94	80-120	
Potassium	mg/L	1	1.2	119	80-120	
Sodium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545811 4545812

Parameter	Units	92751692012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	26.3	1	1	27.7	27.6	140	131	75-125	0	20	M1
Iron	mg/L	ND	1	1	0.97	0.97	97	97	75-125	0	20	
Magnesium	mg/L	12.2	1	1	13.4	13.6	120	140	75-125	2	20	M1
Potassium	mg/L	3.7	1	1	4.8	4.8	117	109	75-125	2	20	
Sodium	mg/L	13.2	1	1	14.5	14.6	123	139	75-125	1	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881825
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92752200001

METHOD BLANK: 4541064 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/16/24 18:53	
Arsenic	mg/L	ND	0.0050	0.00084	09/16/24 18:53	
Barium	mg/L	ND	0.0050	0.00047	09/16/24 18:53	
Beryllium	mg/L	ND	0.00050	0.000094	09/16/24 18:53	
Boron	mg/L	ND	0.040	0.012	09/16/24 18:53	
Cadmium	mg/L	ND	0.00050	0.00010	09/16/24 18:53	
Chromium	mg/L	ND	0.0050	0.0019	09/16/24 18:53	
Cobalt	mg/L	ND	0.0050	0.00032	09/16/24 18:53	
Lead	mg/L	ND	0.0010	0.00016	09/16/24 18:53	
Lithium	mg/L	ND	0.030	0.0016	09/16/24 18:53	
Molybdenum	mg/L	ND	0.010	0.00062	09/16/24 18:53	
Selenium	mg/L	ND	0.0050	0.00096	09/16/24 18:53	
Thallium	mg/L	ND	0.0010	0.00038	09/16/24 18:53	

LABORATORY CONTROL SAMPLE: 4541065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 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	0.097	0.097	97	97	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.094	0.096	94	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541066 4541067

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.014	0.1	0.1	0.11	0.11	94	95	75-125	1	20	
Beryllium	mg/L	0.0027	0.1	0.1	0.089	0.091	86	88	75-125	2	20	
Boron	mg/L	1.1	1	1	1.9	1.9	76	78	75-125	1	20	
Cadmium	mg/L	0.00098	0.1	0.1	0.094	0.095	93	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cobalt	mg/L	0.010	0.1	0.1	0.10	0.10	92	93	75-125	1	20	
Lead	mg/L	0.00021J	0.1	0.1	0.093	0.093	93	92	75-125	0	20	
Lithium	mg/L	0.0099J	0.1	0.1	0.098	0.10	88	90	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.093	93	93	75-125	0	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882511
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92752200002

METHOD BLANK: 4545096 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	09/17/24 16:08	
Arsenic	mg/L	ND	0.0050	0.00084	09/17/24 16:08	
Barium	mg/L	ND	0.0050	0.00047	09/17/24 16:08	
Beryllium	mg/L	ND	0.00050	0.000094	09/17/24 16:08	
Boron	mg/L	ND	0.040	0.012	09/17/24 16:08	
Cadmium	mg/L	ND	0.00050	0.00010	09/17/24 16:08	
Chromium	mg/L	ND	0.0050	0.0019	09/17/24 16:08	
Cobalt	mg/L	ND	0.0050	0.00032	09/17/24 16:08	
Lead	mg/L	ND	0.0010	0.00016	09/17/24 16:08	
Lithium	mg/L	ND	0.030	0.0016	09/17/24 16:08	
Molybdenum	mg/L	ND	0.010	0.00062	09/17/24 16:08	
Selenium	mg/L	ND	0.0050	0.00096	09/17/24 16:08	
Thallium	mg/L	ND	0.0010	0.00038	09/17/24 16:08	

LABORATORY CONTROL SAMPLE: 4545097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.10	101	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	1.1	109	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 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	0.097	0.099	97	99	75-125	2	20	
Arsenic	mg/L	0.0027J	0.1	0.1	0.10	0.10	99	100	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545098 4545099

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.023	0.1	0.1	0.12	0.13	101	104	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Boron	mg/L	0.34	1	1	1.3	1.4	97	101	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	99	97	75-125	2	20	
Cobalt	mg/L	0.0021J	0.1	0.1	0.10	0.098	99	96	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.092	96	92	75-125	3	20	
Lithium	mg/L	0.016J	0.1	0.1	0.11	0.11	97	97	75-125	0	20	
Molybdenum	mg/L	0.0023J	0.1	0.1	0.098	0.10	96	99	75-125	3	20	
Selenium	mg/L	0.0015J	0.1	0.1	0.10	0.098	98	97	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.091	94	91	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 883894
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752200001, 92752200002

METHOD BLANK: 4551831 Matrix: Water
Associated Lab Samples: 92752200001, 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	09/20/24 08:16	

LABORATORY CONTROL SAMPLE: 4551832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4551833 4551834

Parameter	Units	92751692001 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	0.0023	93	88	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881824
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92752200001

METHOD BLANK: 4541058 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/11/24 14:03	

LABORATORY CONTROL SAMPLE: 4541059

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	422	106	80-120	

SAMPLE DUPLICATE: 4541060

Parameter	Units	92752185001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	511	532	4	10	

SAMPLE DUPLICATE: 4541061

Parameter	Units	92751700004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1290	1270	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882138
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92752200002

METHOD BLANK: 4542861 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	09/12/24 12:45	

LABORATORY CONTROL SAMPLE: 4542862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	80-120	

SAMPLE DUPLICATE: 4542863

Parameter	Units	92751700020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	444	459	3	10	

SAMPLE DUPLICATE: 4542864

Parameter	Units	92751692017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	528	539	2	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881617
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752200001

METHOD BLANK: 4540224 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/11/24 16:20	

LABORATORY CONTROL SAMPLE: 4540225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

LABORATORY CONTROL SAMPLE: 4540226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.1	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540227 4540228

Parameter	Units	92752128010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	68.8	50	50	84.8	84.3	32	31	80-120	1	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4540229 4540230

Parameter	Units	92752128011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	37.0	50	50	71.7	72.0	69	70	80-120	0	25	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882135
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752200002

METHOD BLANK: 4542839 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/13/24 14:21	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/13/24 14:21	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/13/24 14:21	

LABORATORY CONTROL SAMPLE: 4542840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	80-120	

LABORATORY CONTROL SAMPLE: 4542841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542842 4542843

Parameter	Units	92751692016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	50.6	50.5	99	99	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542844 4542845

Parameter	Units	92751692017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	116	50	50	164	166	95	100	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881395
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752200001

METHOD BLANK: 4539200 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/10/24 04:35	

LABORATORY CONTROL SAMPLE: 4539201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539210 4539211

Parameter	Units	92751658009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.56	99	111	80-120	11	10	R1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 882376
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752200002

METHOD BLANK: 4544511 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	09/14/24 03:31	

LABORATORY CONTROL SAMPLE: 4544512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544513 4544514

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.47	0.49	94	98	80-120	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544515 4544516

Parameter	Units	92751692016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.46	0.57	91	113	80-120	22	10	R1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881369
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752200001

METHOD BLANK: 4539017 Matrix: Water
Associated Lab Samples: 92752200001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/09/24 21:38	
Fluoride	mg/L	ND	0.10	0.050	09/09/24 21:38	
Sulfate	mg/L	ND	1.0	0.50	09/09/24 21:38	

LABORATORY CONTROL SAMPLE: 4539018

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	107	90-110	
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539019 4539020

Parameter	Units	92752167002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	19.3	50	50	69.0	73.0	99	107	90-110	6	10	
Fluoride	mg/L	0.16	2.5	2.5	2.7	3.0	103	112	90-110	8	10	M1
Sulfate	mg/L	193	50	50	237	237	89	89	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4539021 4539022

Parameter	Units	92751692006 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	50	50	55.1	59.2	99	108	90-110	7	10	
Fluoride	mg/L	0.12	2.5	2.5	2.8	3.0	106	116	90-110	9	10	M1
Sulfate	mg/L	155	50	50	195	195	80	80	90-110	0	10	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

QC Batch: 881917
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92752200002

METHOD BLANK: 4541849 Matrix: Water
Associated Lab Samples: 92752200002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/11/24 21:39	
Fluoride	mg/L	ND	0.10	0.050	09/11/24 21:39	
Sulfate	mg/L	ND	1.0	0.50	09/11/24 21:39	

LABORATORY CONTROL SAMPLE: 4541850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.7	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541851 4541852

Parameter	Units	92751700018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.1	50	50	52.3	53.5	100	103	90-110	2	10	
Fluoride	mg/L	0.093J	2.5	2.5	2.9	3.0	113	115	90-110	2	10	M1
Sulfate	mg/L	89.1	50	50	118	122	58	65	90-110	3	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4541853 4541854

Parameter	Units	92751692014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	50.2	51.2	100	102	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	104	105	90-110	1	10	
Sulfate	mg/L	ND	50	50	50.3	51.3	100	102	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1234 Assessment
Pace Project No.: 92752200

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752200001	**MCD-B-100**	EPA 3010A	882148	EPA 6010D	882244
92752200002	**MCD-B-62**	EPA 3010A	882611	EPA 6010D	882633
92752200001	**MCD-B-100**	EPA 3005A	881825	EPA 6020B	881952
92752200002	**MCD-B-62**	EPA 3005A	882511	EPA 6020B	882626
92752200001	**MCD-B-100**	EPA 7470A	883894	EPA 7470A	884113
92752200002	**MCD-B-62**	EPA 7470A	883894	EPA 7470A	884113
92752200001	**MCD-B-100**	SM 2540C-2015	881824		
92752200002	**MCD-B-62**	SM 2540C-2015	882138		
92752200001	**MCD-B-100**	SM 2320B-2011	881617		
92752200002	**MCD-B-62**	SM 2320B-2011	882135		
92752200001	**MCD-B-100**	SM 4500-S2D-2011	881395		
92752200002	**MCD-B-62**	SM 4500-S2D-2011	882376		
92752200001	**MCD-B-100**	EPA 300.0 Rev 2.1 1993	881369		
92752200002	**MCD-B-62**	EPA 300.0 Rev 2.1 1993	881917		

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

WO# : 92752200

92752200

CHAIN-OF-CUSTODY / Analytical Request

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 and AP-234 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	92752200
1	MCD-B-100	WG	G	9/5/24	15:15		7	3		3		1				N	X	X	X	X	X	X					001
2																N											
3																N											
4																N											
5																N											
6																N											
7																N											
8																N											
9																N											
10																N											
11																N											
12																N											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MACKMANN/WSP	9/6/24	1555		9/6/24 1555	

DATE Signed:

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

Pace

Effective Date: 05/24/2024

WO#: 92752200

PM: BV **Due Date: 09/23/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Me

Sample Condition Upon Receipt

Client Name: Ga Power

Project #:

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other: ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/6/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 236

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 0.6

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Jaltrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL Plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9T-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VFH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG9U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC								1																						
1		2	1				1	1	1	9/6/24		1															2			
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

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:	[illegible]
Phone: (470) 930-6176	Fax:
Requested Due Date:	10 Day TAT

Section B
Required Project Information:

Report To:	Jaja Abraham
Copy To:	WSP
Purchase Order #:	
Project Name:	Plant McD AP-1 and AP-2 [illegible] assessment
Project #:	31406340.MED23

Section C
Invoice Information:

Attention:	[illegible]@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	Reanue Wang
Pace Profile #:	

Regulatory Agency	State / Location
	GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	DATE	TIME	# OF CONTAINERS	Preservatives	Y/N	Analyses Test	Has dual Order ne (Y/N)	9275220
1	MCD-B-62	9/9/24	1437	7	Unpreserved - Ice, H2SO4, HNO3 + Ice, HCl, NaOH + Zn Acetate, Na2S2O3, Methanol, Other	N	App IIIIV metals - Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mn, Mo, Ni, Pb, Sb, Se, Sr, Tl, U, V, Zn		X
						N	Cl, F, SO4		X
						N	Radium 9613/9320		X
						N	TDS		X
						N	Alkalinity		X
						N	Sulfide		X
						N	Mercury		X
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE
Task Code = MCD-CCR-ASSMT-2024S2	[illegible]	9/10/24	0850	[illegible]	9/10/24
*App IIIIV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	[illegible]	9/10/24			9/10/24

SAMPLE CONDITIONS			
Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

DATE Signed:

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☑ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/10 kra

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.1 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

aboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

lient GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BPN	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1 ✓	1 ✓																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 08, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 06, 2024 and September 10, 2024. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
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 #: PA014572023-03
New Hampshire/TNI Certification #: 297622
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 #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752198001	**MCD-B-100**	Water	09/05/24 15:15	09/06/24 15:55
92752198002	**MCD-B-62**	Water	09/09/24 14:37	09/10/24 08:50

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92752198001	**MCD-B-100**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92752198002	**MCD-B-62**	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Sample: MCD-B-100 **Lab ID: 92752198001** Collected: 09/05/24 15:15 Received: 09/06/24 15:55 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	**0.110U ± 0.108 (0.209) C:90% T:NA**	pCi/L	09/30/24 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.330U ± 0.472 (1.01) C:78% T:85%**	pCi/L	09/30/24 15:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.440U ± 0.580 (1.22)**	pCi/L	10/01/24 14:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Sample: MCD-B-62 **Lab ID: 92752198002** Collected: 09/09/24 14:37 Received: 09/10/24 08:50 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	**0.831 ± 0.243 (0.205) C:89% T:NA**	pCi/L	10/02/24 08:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.31 ± 0.463 (0.616) C:79% T:88%**	pCi/L	09/30/24 15:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.14 ± 0.706 (0.821)**	pCi/L	10/03/24 15:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

QC Batch: 697040
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752198001, 92752198002

METHOD BLANK: 3394381
Matrix: Water
Associated Lab Samples: 92752198001, 92752198002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.181 ± 0.292 (0.633) C:82% T:92%	pCi/L	09/30/24 15:28	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

QC Batch: 696334
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752198002

METHOD BLANK: 3391001 Matrix: Water
Associated Lab Samples: 92752198002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0966 ± 0.111 (0.228) C:89% T:NA	pCi/L	10/02/24 08:40	

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

QC Batch: 696331
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92752198001

METHOD BLANK: 3390992 Matrix: Water
Associated Lab Samples: 92752198001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0454 ± 0.0712 (0.154) C:89% T:NA	pCi/L	09/30/24 09:10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McD AP-1234 Assess- RADs
Pace Project No.: 92752198

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752198001	**MCD-B-100**	EPA 9315	696331		
92752198002	**MCD-B-62**	EPA 9315	696334		
92752198001	**MCD-B-100**	EPA 9320	697040		
92752198002	**MCD-B-62**	EPA 9320	697040		
92752198001	**MCD-B-100**	Total Radium Calculation	699703		
92752198002	**MCD-B-62**	Total Radium Calculation	700413		

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

WO# : 92752198

92752198

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Doc

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McD AP-1 and AP-234 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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 P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: App III/IV + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide				Residual Chlorine (Y/N)	92752198
																N	N	N	N	N	N	N				
1	MCD-B-100	WG	G	9/5/24	15:15		7	3		3		1				X	X	X	X	X	X					001
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MACKMANN/WSP	9/6/24	1555		9/6/24 1555	

DATE Signed:

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

Pace

Effective Date: 05/24/2024

WO#: 92752198

PM: BV **Due Date: 09/30/24**

CLIENT: 92-GA Power

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ M

Sample Condition Upon Receipt

Client Name: Ga power

Project #

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other: ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/6/24 SM

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 236

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.7 Correction Factor: Add/Subtract (°C) 6.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Jaltrax ID: 69614

Pace

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Items	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	VGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9H-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG3U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-MFM/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG8U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1				1	X	X	9/6/24		X														X				
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone: (470) 520-6176	Fax:	Project Name:	Plant McD AP-1 and AP-2S4 Assessment	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	31406440.McD23	Pace Profile #:	

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	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test / Requested Analysis Filtered (Y/N) Y/N	*App III/IV metals + Mg, Na, K, Fe	Cl, F, SO4	Radium 9513/9320	TDS	Alkalinity	Sulfide	Mercury		Residual Chlorine (Y/N)	92752198
																Y/N	N	N	N	N	N	N	N		
1	MCD-B-62	WG	G	9/9/24	14:37		7	3		3		1					X	X	X	X	X	X	X		
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Task Code = MCD-CCR-ASSMT-2024S2	MARKMAN / WSP	9/10/24	850	Alexa Lawhon / COURIER NOW	9/10/24	
*App III/IV metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Shan Rawlins CSSI	9/10/24			9/10/24	

DATE Signed:

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

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☑ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 9/10/24 am

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.1 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 4.1

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

aboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

lient GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BPN	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1		2	1		2		1	1																						
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JJS1
Date:	9/23/2024
Worklist:	81394
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3394381
MB concentration:	0.181
M/B 2 Sigma CSU:	0.292
MB MDC:	0.633
MB Numerical Performance Indicator:	1.22
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81394	LCSD81394
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	35.109	35.109
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.818	0.819
Target Conc. (pCi/L, g, F):	4.294	4.288
Uncertainty (Calculated):	0.210	0.210
Result (pCi/L, g, F):	4.321	3.326
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.992	0.853
Numerical Performance Indicator:	0.05	-2.15
Percent Recovery:	100.64%	77.55%
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.:	LCS81394	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD81394	
Sample Result (pCi/L, g, F):	4.321	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.992	
Sample Duplicate Result (pCi/L, g, F):	3.326	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.853	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.91%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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

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

Comments:

10/1/24
DLW 10/2/24

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/20/2024
Worklist:	81331
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3390992
MB concentration:	0.045
M/B 2 Sigma CSU:	0.071
MB MDC:	0.154
MB Numerical Performance Indicator:	1.25
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81331	LCSD81331
Count Date:	9/30/2024	9/30/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.500
Target Conc. (pCi/L, g, F):	4.939	5.003
Uncertainty (Calculated):	0.232	0.235
Result (pCi/L, g, F):	5.275	5.529
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.927	0.981
Numerical Performance Indicator:	0.69	1.02
Percent Recovery:	106.79%	110.52%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81331	92751679018
Duplicate Sample I.D.	LCSD81331	92751679018DUP
Sample Result (pCi/L, g, F):	5.275	0.552
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.927	0.205
Sample Duplicate Result (pCi/L, g, F):	5.529	0.700
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.981	0.254
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.369	-0.884
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.43%	23.54%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

MRH
10-1-24

LAM 10/1/24

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	SLC
Date:	9/19/2024
Worklist:	81332
Matrix:	W

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3391001
MB concentration:	0.097
M/B 2 Sigma CSU:	0.111
MB MDC:	0.228
MB Numerical Performance Indicator:	1.71
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS81332	LCSD81332
Count Date:	10/2/2024	10/2/2024
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.019	25.019
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.503
Target Conc. (pCi/L, g, F):	4.976	4.972
Uncertainty (Calculated):	0.234	0.234
Result (pCi/L, g, F):	4.582	5.011
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.809	0.881
Numerical Performance Indicator:	-0.92	0.09
Percent Recovery:	92.08%	100.80%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
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 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.:	LCS81332	92751679027
Duplicate Sample I.D.	LCSD81332	92751679027DUP
Sample Result (pCi/L, g, F):	4.582	0.266
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.809	0.149
Sample Duplicate Result (pCi/L, g, F):	5.011	0.191
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.881	0.135
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-0.704	0.727
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.04%	32.58%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	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 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:

VAL
10/3/24

VAM 10/3/24

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 18, 2024

Priya Jacob
ARCADIS - Atlanta
2839 Paces Ferry Rd
Suite 900
Atlanta, GA 30339

RE: Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Dear Priya Jacob:

Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Maiya Parks
maiya.parks@pacelabs.com
770-734-4205
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Jordan Gamble, ARCADIS - Atlanta
Daniela Herrera, WSP USA E&I Inc - Atlanta
Ben Hodges, Southern Company
Allison Keefer, Southern Company
Laura Midkiff, Southern Company
Dawn Prell, WSP USA E&I Inc - Atlanta
Noelia Muskus Ruiz, Georgia Power
Tina Sullivan, ERM

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752880001	**MCD-UT01_US**	Water	09/10/24 12:50	09/11/24 13:40
92752880002	**MCD-UT02**	Water	09/10/24 12:40	09/11/24 13:40
92752880003	**MCD-UT03**	Water	09/10/24 12:35	09/11/24 13:40
92752880004	**MCD-UT01_DS**	Water	09/10/24 12:24	09/11/24 13:40
92752880005	**MCD-CR-0.1**	Water	09/10/24 11:27	09/11/24 13:40
92752880006	**MCD-CR+0.2**	Water	09/10/24 11:29	09/11/24 13:40
92752880007	**MCD-CR+0.4**	Water	09/10/24 10:30	09/11/24 13:40

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92752880001	**MCD-UT01_US**	EPA 6010D	MJS2	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880002	**MCD-UT02**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880003	**MCD-UT03**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880004	**MCD-UT01_DS**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880005	**MCD-CR-0.1**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880006	**MCD-CR+0.2**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752880007	**MCD-CR+0.4**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	2	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-UT01_US **Lab ID: 92752880001** Collected: 09/10/24 12:50 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Potassium	**3.1**	mg/L	0.50	1	09/12/24 13:08	09/13/24 20:23	7440-09-7	
Sodium	**13.1**	mg/L	1.0	1	09/12/24 13:08	09/13/24 20:23	7440-23-5	
Calcium	**13.5**	mg/L	1.0	1	09/12/24 13:08	09/13/24 20:23	7440-70-2	
Magnesium	**2.7**	mg/L	0.050	1	09/12/24 13:08	09/13/24 20:23	7439-95-4	
Boron	**0.043**	mg/L	0.040	1	09/12/24 13:08	09/14/24 17:38	7440-42-8	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:08	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**41.8**	mg/L	5.0	1		09/17/24 16:22		
Alkalinity, Total as CaCO3	**41.8**	mg/L	5.0	1		09/17/24 16:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**104**	mg/L	25.0	1		09/16/24 10:39		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**14.7**	mg/L	1.0	1		09/13/24 20:08	16887-00-6	
Fluoride	**0.54**	mg/L	0.10	1		09/13/24 20:08	16984-48-8	
Sulfate	**15.8**	mg/L	1.0	1		09/13/24 20:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-UT02 **Lab ID: 92752880002** Collected: 09/10/24 12:40 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.087**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:01	7440-42-8	
Potassium	**3.5**	mg/L	0.50	1	09/12/24 17:29	09/16/24 18:13	7440-09-7	
Sodium	**14.1**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:13	7440-23-5	
Calcium	**14.3**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:13	7440-70-2	M1
Magnesium	**3.0**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:01	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:24	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**44.3**	mg/L	5.0	1		09/17/24 16:28		
Alkalinity, Total as CaCO3	**44.3**	mg/L	5.0	1		09/17/24 16:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**114**	mg/L	25.0	1		09/16/24 10:39		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**13.9**	mg/L	1.0	1		09/13/24 21:18	16887-00-6	
Fluoride	**0.50**	mg/L	0.10	1		09/13/24 21:18	16984-48-8	
Sulfate	**18.4**	mg/L	1.0	1		09/13/24 21:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-UT03 **Lab ID: 92752880003** Collected: 09/10/24 12:35 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.081**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:15	7440-42-8	
Magnesium	**2.9**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:15	7439-95-4	
Potassium	**3.5**	mg/L	0.50	1	09/12/24 17:29	09/16/24 18:32	7440-09-7	
Sodium	**14.1**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:32	7440-23-5	
Calcium	**14.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:32	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:28	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**44.6**	mg/L	5.0	1		09/17/24 16:34		
Alkalinity, Total as CaCO3	**44.6**	mg/L	5.0	1		09/17/24 16:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**115**	mg/L	25.0	1		09/16/24 10:39		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**13.8**	mg/L	1.0	1		09/13/24 21:32	16887-00-6	
Fluoride	**0.50**	mg/L	0.10	1		09/13/24 21:32	16984-48-8	
Sulfate	**18.4**	mg/L	1.0	1		09/13/24 21:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-UT01_DS **Lab ID: 92752880004** Collected: 09/10/24 12:24 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.17**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:20	7440-42-8	
Magnesium	**3.5**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:20	7439-95-4	
Potassium	**4.0**	mg/L	0.50	1	09/12/24 17:29	09/16/24 18:46	7440-09-7	
Sodium	**13.6**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:46	7440-23-5	
Calcium	**15.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:46	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:33	7440-38-2	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**46.5**	mg/L	5.0	1		09/17/24 16:41		
Alkalinity, Total as CaCO3	**46.5**	mg/L	5.0	1		09/17/24 16:41		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**123**	mg/L	25.0	1		09/16/24 10:19		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**13.5**	mg/L	1.0	1		09/13/24 21:46	16887-00-6	
Fluoride	**0.48**	mg/L	0.10	1		09/13/24 21:46	16984-48-8	
Sulfate	**20.4**	mg/L	1.0	1		09/13/24 21:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-CR-0.1 **Lab ID: 92752880005** Collected: 09/10/24 11:27 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Potassium	**4.8**	mg/L	0.50	1	09/12/24 17:29	09/16/24 18:51	7440-09-7	
Sodium	**14.7**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:51	7440-23-5	
Calcium	**6.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:51	7440-70-2	
Boron	ND	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:25	7440-42-8	
Magnesium	**2.9**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:25	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:46	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**27.0**	mg/L	5.0	1		09/17/24 16:56		
Alkalinity, Total as CaCO3	**27.0**	mg/L	5.0	1		09/17/24 16:56		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**85.0**	mg/L	25.0	1		09/16/24 10:19		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**14.9**	mg/L	1.0	1		09/13/24 21:59	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/13/24 21:59	16984-48-8	
Sulfate	**9.1**	mg/L	1.0	1		09/13/24 21:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-CR+0.2 **Lab ID: 92752880006** Collected: 09/10/24 11:29 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.059**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:30	7440-42-8	
Magnesium	**3.2**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:30	7439-95-4	
Potassium	**4.9**	mg/L	0.50	1	09/12/24 17:29	09/16/24 18:56	7440-09-7	
Sodium	**15.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:56	7440-23-5	
Calcium	**7.5**	mg/L	1.0	1	09/12/24 17:29	09/16/24 18:56	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:50	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**29.0**	mg/L	5.0	1		09/17/24 17:01		
Alkalinity, Total as CaCO3	**29.0**	mg/L	5.0	1		09/17/24 17:01		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**94.0**	mg/L	25.0	1		09/16/24 10:19		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**15.8**	mg/L	1.0	1		09/13/24 22:13	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	1		09/13/24 22:13	16984-48-8	
Sulfate	**12.7**	mg/L	1.0	1		09/13/24 22:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Sample: MCD-CR+0.4 **Lab ID: 92752880007** Collected: 09/10/24 10:30 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Potassium	**5.1**	mg/L	0.50	1	09/12/24 17:29	09/16/24 19:01	7440-09-7	
Sodium	**15.0**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:01	7440-23-5	
Calcium	**7.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:01	7440-70-2	
Boron	**0.051**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:34	7440-42-8	
Magnesium	**3.3**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:34	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Arsenic	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:54	7440-38-2	
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:54	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**28.3**	mg/L	5.0	1		09/17/24 17:07		
Alkalinity, Total as CaCO3	**28.3**	mg/L	5.0	1		09/17/24 17:07		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**89.0**	mg/L	25.0	1		09/16/24 10:21		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**15.7**	mg/L	1.0	1		09/13/24 22:27	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	1		09/13/24 22:27	16984-48-8	
Sulfate	**12.0**	mg/L	1.0	1		09/13/24 22:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882148
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752880001

METHOD BLANK: 4542901 Matrix: Water
Associated Lab Samples: 92752880001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/14/24 17:00	
Calcium	mg/L	ND	1.0	09/13/24 17:48	
Magnesium	mg/L	ND	0.050	09/13/24 17:48	
Potassium	mg/L	ND	0.50	09/13/24 17:48	
Sodium	mg/L	ND	1.0	09/13/24 17:48	

LABORATORY CONTROL SAMPLE: 4542902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.95	95	80-120	
Calcium	mg/L	1	.96J	96	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Potassium	mg/L	1	1.1	112	80-120	
Sodium	mg/L	1	1.2	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4542903 4542904

Parameter	Units	92751700011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	1.1	1	1	2.1	2.1	91	90	75-125	0	20	
Calcium	mg/L	33.0	1	1	32.5	33.5	-49	47	75-125	3	20	M1
Magnesium	mg/L	20.4	1	1	20.4	21.1	-3	67	75-125	3	20	M1
Potassium	mg/L	5.7	1	1	6.5	6.7	77	96	75-125	3	20	
Sodium	mg/L	75.7	1	1	73.6	76.3	-204	57	75-125	3	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882215
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

METHOD BLANK: 4543444 Matrix: Water
Associated Lab Samples: 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/17/24 18:51	
Calcium	mg/L	ND	1.0	09/16/24 17:49	
Magnesium	mg/L	ND	0.050	09/17/24 18:51	
Potassium	mg/L	ND	0.50	09/16/24 17:49	
Sodium	mg/L	ND	1.0	09/16/24 17:49	

LABORATORY CONTROL SAMPLE: 4543445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.95	95	80-120	
Calcium	mg/L	1	.94J	94	80-120	
Magnesium	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	1.2	120	80-120	
Sodium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4543446 4543447

Parameter	Units	92752880002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.087	1	1	1.0	1.1	95	97	75-125	1	20	
Calcium	mg/L	14.3	1	1	15.0	15.2	69	90	75-125	1	20	M1
Magnesium	mg/L	3.0	1	1	3.9	3.8	93	83	75-125	3	20	
Potassium	mg/L	3.5	1	1	4.5	4.6	95	102	75-125	1	20	
Sodium	mg/L	14.1	1	1	14.9	15.2	87	111	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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882510
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

METHOD BLANK: 4545086 Matrix: Water
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	09/16/24 14:55	
Cobalt	mg/L	ND	0.0050	09/16/24 14:55	

LABORATORY CONTROL SAMPLE: 4545087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545088 4545089

Parameter	Units	92752880001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.098	97	97	75-125	0	20	
Cobalt	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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882548
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

METHOD BLANK: 4545325 Matrix: Water
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	09/17/24 14:31	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	09/17/24 14:31	

LABORATORY CONTROL SAMPLE: 4545326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

LABORATORY CONTROL SAMPLE: 4545327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545328 4545329

Parameter	Units	92753032006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	96.0	50	50	145	144	97	96	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545330 4545331

Parameter	Units	92753032007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	45.6	45.5	91	91	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882743
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752880001, 92752880002, 92752880003

METHOD BLANK: 4546406 Matrix: Water
Associated Lab Samples: 92752880001, 92752880002, 92752880003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/16/24 10:33	

LABORATORY CONTROL SAMPLE: 4546407

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	260	104	90-110	

SAMPLE DUPLICATE: 4546408

Parameter	Units	92752389003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	73.0	73.0	0	25	

SAMPLE DUPLICATE: 4546409

Parameter	Units	92752420006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	25.0	25.0	0	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882744 | Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752880004, 92752880005, 92752880006, 92752880007

METHOD BLANK: 4546410 Matrix: Water
Associated Lab Samples: 92752880004, 92752880005, 92752880006, 92752880007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/16/24 10:19	

LABORATORY CONTROL SAMPLE: 4546411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	256	102	90-110	

SAMPLE DUPLICATE: 4546412

Parameter	Units	92752880004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	123	117	5	25	

SAMPLE DUPLICATE: 4546413

Parameter	Units	92751700024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	469	470	0	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

QC Batch: 882403
QC Batch Method: EPA 9056A
Analysis Method: EPA 9056A
Analysis Description: 9056 IC anions 28 Days
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

METHOD BLANK: 4544595 Matrix: Water
Associated Lab Samples: 92752880001, 92752880002, 92752880003, 92752880004, 92752880005, 92752880006, 92752880007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/13/24 19:40	
Fluoride	mg/L	ND	0.10	09/13/24 19:40	
Sulfate	mg/L	ND	1.0	09/13/24 19:40	

LABORATORY CONTROL SAMPLE: 4544596

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544597 4544598

Parameter	Units	92752880001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.7	50	50	65.8	66.2	102	103	90-110	1	10	
Fluoride	mg/L	0.54	2.5	2.5	3.2	3.3	106	110	90-110	3	10	
Sulfate	mg/L	15.8	50	50	67.9	68.2	104	105	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544599 4544600

Parameter	Units	92752882004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.9	50	50	66.2	66.8	103	104	90-110	1	10	
Fluoride	mg/L	0.14	2.5	2.5	2.8	2.8	105	105	90-110	0	10	
Sulfate	mg/L	9.5	50	50	61.9	62.4	105	106	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752880001	**MCD-UT01_US**	EPA 3010A	882148	EPA 6010D	882244
92752880002	**MCD-UT02**	EPA 3010A	882215	EPA 6010D	882317
92752880003	**MCD-UT03**	EPA 3010A	882215	EPA 6010D	882317
92752880004	**MCD-UT01_DS**	EPA 3010A	882215	EPA 6010D	882317
92752880005	**MCD-CR-0.1**	EPA 3010A	882215	EPA 6010D	882317
92752880006	**MCD-CR+0.2**	EPA 3010A	882215	EPA 6010D	882317
92752880007	**MCD-CR+0.4**	EPA 3010A	882215	EPA 6010D	882317
92752880001	**MCD-UT01_US**	EPA 3005A	882510	EPA 6020B	882625
92752880002	**MCD-UT02**	EPA 3005A	882510	EPA 6020B	882625
92752880003	**MCD-UT03**	EPA 3005A	882510	EPA 6020B	882625
92752880004	**MCD-UT01_DS**	EPA 3005A	882510	EPA 6020B	882625
92752880005	**MCD-CR-0.1**	EPA 3005A	882510	EPA 6020B	882625
92752880006	**MCD-CR+0.2**	EPA 3005A	882510	EPA 6020B	882625
92752880007	**MCD-CR+0.4**	EPA 3005A	882510	EPA 6020B	882625
92752880001	**MCD-UT01_US**	SM 2320B-2011	882548		
92752880002	**MCD-UT02**	SM 2320B-2011	882548		
92752880003	**MCD-UT03**	SM 2320B-2011	882548		
92752880004	**MCD-UT01_DS**	SM 2320B-2011	882548		
92752880005	**MCD-CR-0.1**	SM 2320B-2011	882548		
92752880006	**MCD-CR+0.2**	SM 2320B-2011	882548		
92752880007	**MCD-CR+0.4**	SM 2320B-2011	882548		
92752880001	**MCD-UT01_US**	SM 2540C-2015	882743		
92752880002	**MCD-UT02**	SM 2540C-2015	882743		
92752880003	**MCD-UT03**	SM 2540C-2015	882743		
92752880004	**MCD-UT01_DS**	SM 2540C-2015	882744		
92752880005	**MCD-CR-0.1**	SM 2540C-2015	882744		
92752880006	**MCD-CR+0.2**	SM 2540C-2015	882744		
92752880007	**MCD-CR+0.4**	SM 2540C-2015	882744		
92752880001	**MCD-UT01_US**	EPA 9056A	882403		
92752880002	**MCD-UT02**	EPA 9056A	882403		
92752880003	**MCD-UT03**	EPA 9056A	882403		
92752880004	**MCD-UT01_DS**	EPA 9056A	882403		
92752880005	**MCD-CR-0.1**	EPA 9056A	882403		
92752880006	**MCD-CR+0.2**	EPA 9056A	882403		
92752880007	**MCD-CR+0.4**	EPA 9056A	882403		

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

Pace® Location Requested (City/State):
Pace Analytical Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label

WO# : 92752880

92752880

Company Name:	ARCADIS - Atlanta	Contact/Report To:	Priya Jacob
Street Address:	2839 Paces Ferry Rd Suite 900 Atlanta, GA 30339	Phone #:	(618)790-6528
		E-Mail:	priya.jacob@arcadis.com
		Cc E-Mail:	Arcadis-Atl and GPC Distribution List
Customer Project #:			
Project Name:	Plant McDonough-CCR Ash Pond	Invoice To:	Accounts Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site Collection Info/Facility ID (as applicable):	Plant McDonough SWS	Purchase Order # (if applicable):	GPC82474-0004
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Georgia

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App. IV Metals - As only	App. IV Metals - Co only	App. IV Metals - As, Co only	App. III Metals - B, Ca only	Metals - K, Mg, Na	Alkalinity (Total/BiCarb), Cl, F, SO4	TDS	Sample Comment
MCD-UT01_US	WS	G	9/10/24	1250			3			X			X	X	X	X	AS
MCD-UT02	WS	G	9/10/24	1240			3			X			X	X	X	X	AS
MCD-UT03	WS	G	9/10/24	1235			3			X			X	X	X	X	AS
MCD-UT01_DS	WS	G	9/10/24	1224			3			X			X	X	X	X	AS
MCD-CR-0.1	WS	G	9/10/24	1127			3				X		X	X	X	X	CO
MCD-CR+0.2	WS	G	9/10/24	1129			3				X		X	X	X	X	CO
MCD-CR+0.4	WS	G	9/10/24	1030			3					X	X	X	X	X	AS,CO

Lab Use Only
Proj. Mgr: Maiya Parks
AcctNum / Client ID:
Table #:
Profile / Template: 12896
Prelog / Bottle Ord. ID: EZ 3152065

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
MCD-CSURF-ASSMT-2024S2

Collected By: (Printed Name) Garrett G
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Arcadis	9/11/24 1340		9/11/24 1340	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Arcadis

Project #:

WO# : 92752880

PM: MP Due Date: 09/18/24

CLIENT: GA-ArcadAll

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No ☑ N/A

Date/Initials Person Examining Contents: 9/11/24 CM

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 083

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 1.7

Temp should be above freezing to 6°C

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

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # WO#:92752880
PM: MP Due Date: 09/18/24
CLIENT: GA-AreadAtl

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																													
1			2				1																						
2			2				1																						
3			2				1																						
4			2				1																						
5			2				1																						
6			2				1																						
7			2				1																						
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 18, 2024

Priya Jacob
ARCADIS - Atlanta
2839 Paces Ferry Rd
Suite 900
Atlanta, GA 30339

RE: Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Dear Priya Jacob:

Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Maiya Parks
maiya.parks@pacelabs.com
770-734-4205
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Jordan Gamble, ARCADIS - Atlanta
Daniela Herrera, WSP USA E&I Inc - Atlanta
Ben Hodges, Southern Company
Allison Keefer, Southern Company
Laura Midkiff, Southern Company
Dawn Prell, WSP USA E&I Inc - Atlanta
Noelia Muskus Ruiz, Georgia Power
Tina Sullivan, ERM

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92752882001	**MCD-DW_DS**	Water	09/10/24 11:06	09/11/24 13:40
92752882002	**MCD-DW_US**	Water	09/10/24 10:45	09/11/24 13:40
92752882003	**MCD-CR-0.2**	Water	09/10/24 10:40	09/11/24 13:40
92752882004	**MCD-CR-0.5**	Water	09/10/24 11:36	09/11/24 13:40

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92752882001	**MCD-DW_DS**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752882002	**MCD-DW_US**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752882003	**MCD-CR-0.2**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A
92752882004	**MCD-CR-0.5**	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	MT1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		SM 2540C-2015	CDM	1	PASI-A
		EPA 9056A	CDC	3	PASI-A

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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Sample: MCD-DW_DS **Lab ID: 92752882001** Collected: 09/10/24 11:06 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.13**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:52	7440-42-8	
Magnesium	**3.9**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:52	7439-95-4	
Potassium	**5.4**	mg/L	0.50	1	09/12/24 17:29	09/16/24 19:05	7440-09-7	
Sodium	**17.1**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:05	7440-23-5	
Calcium	**9.2**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:05	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 15:58	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**30.4**	mg/L	5.0	1		09/17/24 17:13		
Alkalinity, Total as CaCO3	**30.4**	mg/L	5.0	1		09/17/24 17:13		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**100**	mg/L	25.0	1		09/16/24 10:21		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**17.7**	mg/L	1.0	1		09/13/24 22:41	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	1		09/13/24 22:41	16984-48-8	
Sulfate	**19.2**	mg/L	1.0	1		09/13/24 22:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Sample: MCD-DW_US **Lab ID: 92752882002** Collected: 09/10/24 10:45 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	**0.065**	mg/L	0.040	1	09/12/24 17:29	09/17/24 19:57	7440-42-8	
Magnesium	**3.3**	mg/L	0.050	1	09/12/24 17:29	09/17/24 19:57	7439-95-4	
Potassium	**5.0**	mg/L	0.50	1	09/12/24 17:29	09/16/24 19:10	7440-09-7	
Sodium	**15.4**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:10	7440-23-5	
Calcium	**7.7**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:10	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 16:02	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**28.8**	mg/L	5.0	1		09/17/24 17:19		
Alkalinity, Total as CaCO3	**28.8**	mg/L	5.0	1		09/17/24 17:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**94.0**	mg/L	25.0	1		09/16/24 10:21		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**15.8**	mg/L	1.0	1		09/13/24 22:55	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	1		09/13/24 22:55	16984-48-8	
Sulfate	**13.4**	mg/L	1.0	1		09/13/24 22:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Sample: MCD-CR-0.2 **Lab ID: 92752882003** Collected: 09/10/24 10:40 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	09/12/24 17:29	09/17/24 20:02	7440-42-8	
Magnesium	**2.8**	mg/L	0.050	1	09/12/24 17:29	09/17/24 20:02	7439-95-4	
Potassium	**4.5**	mg/L	0.50	1	09/12/24 17:29	09/16/24 19:15	7440-09-7	
Sodium	**14.1**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:15	7440-23-5	
Calcium	**6.2**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:15	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 16:06	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**27.2**	mg/L	5.0	1		09/17/24 17:25		
Alkalinity, Total as CaCO3	**27.2**	mg/L	5.0	1		09/17/24 17:25		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**81.0**	mg/L	25.0	1		09/16/24 10:21		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**14.9**	mg/L	1.0	1		09/13/24 23:09	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	1		09/13/24 23:09	16984-48-8	
Sulfate	**9.1**	mg/L	1.0	1		09/13/24 23:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Sample: MCD-CR-0.5 **Lab ID: 92752882004** Collected: 09/10/24 11:36 Received: 09/11/24 13:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	09/12/24 17:29	09/17/24 20:07	7440-42-8	
Magnesium	**2.8**	mg/L	0.050	1	09/12/24 17:29	09/17/24 20:07	7439-95-4	
Potassium	**4.6**	mg/L	0.50	1	09/12/24 17:29	09/16/24 19:20	7440-09-7	
Sodium	**14.0**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:20	7440-23-5	
Calcium	**6.5**	mg/L	1.0	1	09/12/24 17:29	09/16/24 19:20	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	09/13/24 13:55	09/16/24 16:11	7440-48-4	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	**27.1**	mg/L	5.0	1		09/17/24 17:31		
Alkalinity, Total as CaCO3	**27.1**	mg/L	5.0	1		09/17/24 17:31		
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	**84.0**	mg/L	25.0	1		09/16/24 10:21		
9056 IC anions 28 Days	Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	**14.9**	mg/L	1.0	1		09/13/24 23:51	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	1		09/13/24 23:51	16984-48-8	
Sulfate	**9.5**	mg/L	1.0	1		09/13/24 23:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

QC Batch: 882215
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

METHOD BLANK: 4543444 Matrix: Water
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/17/24 18:51	
Calcium	mg/L	ND	1.0	09/16/24 17:49	
Magnesium	mg/L	ND	0.050	09/17/24 18:51	
Potassium	mg/L	ND	0.50	09/16/24 17:49	
Sodium	mg/L	ND	1.0	09/16/24 17:49	

LABORATORY CONTROL SAMPLE: 4543445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.95	95	80-120	
Calcium	mg/L	1	.94J	94	80-120	
Magnesium	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	1.2	120	80-120	
Sodium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4543446 4543447

Parameter	Units	92752880002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.087	1	1	1.0	1.1	95	97	75-125	1	20	
Calcium	mg/L	14.3	1	1	15.0	15.2	69	90	75-125	1	20	M1
Magnesium	mg/L	3.0	1	1	3.9	3.8	93	83	75-125	3	20	
Potassium	mg/L	3.5	1	1	4.5	4.6	95	102	75-125	1	20	
Sodium	mg/L	14.1	1	1	14.9	15.2	87	111	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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

QC Batch: 882510
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

METHOD BLANK: 4545086 Matrix: Water
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cobalt	mg/L	ND	0.0050	09/16/24 14:55	

LABORATORY CONTROL SAMPLE: 4545087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cobalt	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545088 4545089

Parameter	Units	92752880001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

QC Batch: 882548
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

METHOD BLANK: 4545325 Matrix: Water
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	09/17/24 14:31	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	09/17/24 14:31	

LABORATORY CONTROL SAMPLE: 4545326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

LABORATORY CONTROL SAMPLE: 4545327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545328 4545329

Parameter	Units	92753032006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	96.0	50	50	145	144	97	96	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4545330 4545331

Parameter	Units	92753032007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	45.6	45.5	91	91	80-120	0	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

QC Batch: 882744
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

METHOD BLANK: 4546410 Matrix: Water
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	09/16/24 10:19	

LABORATORY CONTROL SAMPLE: 4546411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	256	102	90-110	

SAMPLE DUPLICATE: 4546412

Parameter	Units	92752880004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	123	117	5	25	

SAMPLE DUPLICATE: 4546413

Parameter	Units	92751700024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	469	470	0	25	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

QC Batch: 882403
QC Batch Method: EPA 9056A
Analysis Method: EPA 9056A
Analysis Description: 9056 IC anions 28 Days
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

METHOD BLANK: 4544595 Matrix: Water
Associated Lab Samples: 92752882001, 92752882002, 92752882003, 92752882004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/13/24 19:40	
Fluoride	mg/L	ND	0.10	09/13/24 19:40	
Sulfate	mg/L	ND	1.0	09/13/24 19:40	

LABORATORY CONTROL SAMPLE: 4544596

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544597 4544598

Parameter	Units	92752880001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.7	50	50	65.8	66.2	102	103	90-110	1	10	
Fluoride	mg/L	0.54	2.5	2.5	3.2	3.3	106	110	90-110	3	10	
Sulfate	mg/L	15.8	50	50	67.9	68.2	104	105	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4544599 4544600

Parameter	Units	92752882004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.9	50	50	66.2	66.8	103	104	90-110	1	10	
Fluoride	mg/L	0.14	2.5	2.5	2.8	2.8	105	105	90-110	0	10	
Sulfate	mg/L	9.5	50	50	61.9	62.4	105	106	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough-CCR Ash Pond
Pace Project No.: 92752882

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92752882001	**MCD-DW_DS**	EPA 3010A	882215	EPA 6010D	882317
92752882002	**MCD-DW_US**	EPA 3010A	882215	EPA 6010D	882317
92752882003	**MCD-CR-0.2**	EPA 3010A	882215	EPA 6010D	882317
92752882004	**MCD-CR-0.5**	EPA 3010A	882215	EPA 6010D	882317
92752882001	**MCD-DW_DS**	EPA 3005A	882510	EPA 6020B	882625
92752882002	**MCD-DW_US**	EPA 3005A	882510	EPA 6020B	882625
92752882003	**MCD-CR-0.2**	EPA 3005A	882510	EPA 6020B	882625
92752882004	**MCD-CR-0.5**	EPA 3005A	882510	EPA 6020B	882625
92752882001	**MCD-DW_DS**	SM 2320B-2011	882548		
92752882002	**MCD-DW_US**	SM 2320B-2011	882548		
92752882003	**MCD-CR-0.2**	SM 2320B-2011	882548		
92752882004	**MCD-CR-0.5**	SM 2320B-2011	882548		
92752882001	**MCD-DW_DS**	SM 2540C-2015	882744		
92752882002	**MCD-DW_US**	SM 2540C-2015	882744		
92752882003	**MCD-CR-0.2**	SM 2540C-2015	882744		
92752882004	**MCD-CR-0.5**	SM 2540C-2015	882744		
92752882001	**MCD-DW_DS**	EPA 9056A	882403		
92752882002	**MCD-DW_US**	EPA 9056A	882403		
92752882003	**MCD-CR-0.2**	EPA 9056A	882403		
92752882004	**MCD-CR-0.5**	EPA 9056A	882403		

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

Pace® Location Requested (City/State):
Pace Analytical Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 92752882

92752882

Affix Workorder/Login Label Here

Company Name:	ARCADIS - Atlanta	Contact/Report To:	Priya Jacob
Street Address:	2839 Paces Ferry Rd Suite 900 Atlanta, GA 30339	Phone #:	(618)790-6528
		E-Mail:	priya.jacob@arcadis.com
		Cc E-Mail:	Arcadis-Atl and GPC Distribution List
Customer Project #:			
Project Name:	Plant McDonough-CCR Ash Pond	Invoice To:	Accounts Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site Collection Info/Facility ID (as applicable):	Plant McDonough SWS	Purchase Order # (if applicable):	GPC82474-0004
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [x] ET		County / State origin of sample(s):	Georgia

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other _____

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 5 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***

*** Preservative Types: (1) None, (2) HNO_3, (3) H_2SO_4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) $NaHSO_4$, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Lab Use Only: Proj. Mgr: Maiya Parks; AcctNum / Client ID:; Table #:; Profile / Template: 12896; Prelog / Bottle Ord. ID: EZ 3152065

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App. IV Metals - Co only	App. III Metals - B, Ca only	Metals - K, Mg, Na	Alkalinity (Total/BiCarb), Cl, F, SO4	TDS	Sample Comment	Preservation non-conformance identified for sample.
MCD-DW_DS	WS	G	9/10/24	1106			3			X	X	X	X	X	Co	
MCD-DW_US	WS	G	9/10/24	1045			3			X	X	X	X	X	Co	
MCD-CR-0.2	WS	G	9/10/24	[illegible]			3			X	X	X	X	X	Co [illegible] @1040	
MCD-CR-0.5	WS	G	9/10/24	1136			3			X	X	X	X	X	Co	

Additional Instructions from Pace®:
MCD-CSURF-ASSMT-2024SZ
III Metals - B, Ca, Cl, F, NH_4, Sulfate, TDS
[illegible]

Collected By: (Printed Name) Garrett G
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C) | Corrected Temp. (°C) | On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Arcadis	9/11/24 1340		9/11/24 1340	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Arcad:s

Project #

WO# : 92752882

PM: MP **Due Date: 09/18/24**

CLIENT: GA-ArcadAtl

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ ~~No~~ **Seals Intact?** ☐ Yes ☐ No ☑ ~~N/A~~

Date/Initials Person Examining Contents: 9/11/24 (DR)

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ ~~None~~ ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ ~~N/A~~

Thermometer:

☑ IR Gun ID: 083

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.1 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 3.0

Temp should be above freezing to 6°C

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

USDA Regulated Soil (☐ N/A, water sample)

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

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

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☐ Yes	☑ ~~No~~	☐ N/A	9. MCD-DW-US not present but MCD-CR-0.1 was present + logged in as MCD-DW-US
-Includes Date/Time/ID/Analysis Matrix:____				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # WO#: 92752882
PM: MP Due Date: 09/18/24
CLIENT: GA-AreadAtl

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client_____ Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																													
1			2				1																						
2			2				1																						
3			2				1																						
4			2				1																						
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 19, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: Plant McDonough Permitting
Pace Project No.: 92768771

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 11, 2024. 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 - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Plant McDonough Permitting
Pace Project No.: 92768771

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Plant McDonough Permitting
Pace Project No.: 92768771

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92768771001	**MCD-INW-01-TEMP-15**	Water	12/11/24 11:40	12/11/24 16:03

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Plant McDonough Permitting
Pace Project No.: 92768771

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92768771001	**MCD-INW-01-TEMP-15**	EPA 6020B	CW1	1

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Plant McDonough Permitting
Pace Project No.: 92768771

Sample: MCD-INW-01-TEMP-15 **Lab ID: 92768771001** Collected: 12/11/24 11:40 Received: 12/11/24 16:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	0.0016	1	12/13/24 13:08	12/14/24 14:10	7440-38-2	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Plant McDonough Permitting
Pace Project No.: 92768771

QC Batch: 902551
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92768771001

METHOD BLANK: 4645234 Matrix: Water
Associated Lab Samples: 92768771001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.0016	12/14/24 13:34	

LABORATORY CONTROL SAMPLE: 4645235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4645236 4645237

Parameter	Units	92768849001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	100	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Plant McDonough Permitting
Pace Project No.: 92768771

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant McDonough Permitting
Pace Project No.: 92768771

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92768771001	**MCD-INW-01-TEMP-15**	EPA 3005A	902551	EPA 6020B	902679

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

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA- Power

Project #: **WO# : 92768771**

92768771

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other:____ ☑ Client

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 12/11/24 RW

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 214

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.7 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 4.7

USDA Regulated Soil (☐ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92768771

PM: BV **Due Date: 12/27/24**

CLIENT: 92-GA Power

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client GA Power Profile/EZ (Circle one)_____ Notes_____

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)
CC																												
1							1																					
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

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:	2480 Maner Road	Copy To:	WSP	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:		Pace Quote:	
Phone:	(470) 620-6176 Fax:	Project Name:	Plant McDonough Permitting	Pace Project Manager:	Bonnie Vang
Requested Due Date:	10 Day TAT	Project #:	US0037149.3190	Pace Profile #:	

Regulatory Agency
State / Location
GA

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	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Arsenic								Residual Chlorine (Y/N)	
																Requested Analysis Filtered (Y/N)	N	N	N	N	N	N	N			
1	MCD-INW-01-TEMP-15	WG	G	12/11/24	11:40		1			1							X									Do not report this project to EQuIS
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	SAMPLE CONDITIONS
Do not report this project to EQuIS	N/A ZK MANN/PACE/GPM/WSP	12/11/24	1603		12/11/24	
					1603	

DATE Signed:

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 03, 2025

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 28, 2025. 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 - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92776120001	**MCD-INW-01A-TEMP-15**	Water	01/28/25 11:21	01/28/25 14:47
92776120002	**MCD-B-129-TEMP-29**	Water	01/27/25 17:07	01/28/25 14:47

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92776120001	**MCD-INW-01A-TEMP-15**	EPA 6020B	CW1	1
92776120002	**MCD-B-129-TEMP-29**	EPA 6020B	CW1	2

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Sample: MCD-INW-01A-TEMP-15 **Lab ID: 92776120001** Collected: 01/28/25 11:21 Received: 01/28/25 14:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Arsenic	**0.011**	mg/L	0.0050	0.0016	1	01/28/25 15:23	01/28/25 17:53	7440-38-2	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Sample: MCD-B-129-TEMP-29 **Lab ID: 92776120002** Collected: 01/27/25 17:07 Received: 01/28/25 14:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.10**	mg/L	0.040	0.014	1	01/28/25 15:23	01/29/25 09:59	7440-42-8	
Cobalt	**0.00076J**	mg/L	0.0050	0.000098	1	01/28/25 15:23	01/29/25 09:59	7440-48-4	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

QC Batch: 911944
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92776120001, 92776120002

METHOD BLANK: 4688261 Matrix: Water
Associated Lab Samples: 92776120001, 92776120002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.0016	01/28/25 17:45	
Boron	mg/L	ND	0.040	0.014	01/28/25 17:45	
Cobalt	mg/L	ND	0.0050	0.000098	01/28/25 17:45	

LABORATORY CONTROL SAMPLE: 4688262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	1.1	109	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4688263 4688264

Parameter	Units	92776120001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.011	0.1	0.1	0.11	0.11	101	101	75-125	0	20	
Boron	mg/L	0.31	1	1	1.4	1.4	110	108	75-125	2	20	
Cobalt	mg/L	0.00070J	0.1	0.1	0.10	0.10	101	102	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCD-Temporary Injection Well
Pace Project No.: 92776120

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92776120001	**MCD-INW-01A-TEMP-15**	EPA 3005A	911944	EPA 6020B	912008
92776120002	**MCD-B-129-TEMP-29**	EPA 3005A	911944	EPA 6020B	912008

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

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

WO# : 92776120

92776120

Client Name: GA Power - McDonough (WSP)

Project #:

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Pace ☐ Other:

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 1/28/25 DW

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 214

Type of Ice: ☐ Wet ☐ Blue ☐ None

Cooler Temp: 9.4 Correction Factor: Add/Subtract (°C): 0

Temp should be above freezing to 6°C
☑ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 9.4

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92776120

PM: BV Due Date: 01/30/25

CLIENT: 92-GA Power

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

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

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

***Check all unpreserved Nitrates for chlorine

Project #

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client GA Power-McDonough Profile/EZ (Circle one) 320364 Notes

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																														
1							1 ✓																							
2							1 ✓																							
3		2	1				1 ✓	i ✓																						
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

92776120

Scan QR Code for instructions

Company Name:	Georgia Power- McDonough	Contact/Report To:	Joju Abraham
Street Address:	241 Ralph McGill Blvd NE, Bin 10160 Atlanta, GA 30308	Phone #:	(470)620-6176
		E-Mail:	jabraham@southernco.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	MCD-TEMPORARY INJECTION WELL	Invoice To:	Account Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site/Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	GPC82474-0004
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): Georgia

Data Deliverables: [X] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [X] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 1/29 (24HR TAT)

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

Specify Container Size **: 3 3 2

Identify Container Preservative Type***: 2 2 1

Analysis Requested: Total 6020-Co | AS | CO, B | TDS

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: Bonnie Vang; AcctNum / Client ID:; Table #:; Profile / Template: 16474; Prelog / Bottle Ord. ID: EZ 3203847

Preservation non-conformance identified for sample:

* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Total 6020-Co	AS	CO, B	TDS	Sample Comment
INW-03	WT									X				
MCD-INW-01A-TEMP	WT	G	1/28	1121			1				X			W1
MCD-B-129-TEMP	WT	G	1/28	1707			1					X		W2
MCD-B-130-TEMP	WT	G	1/28	1242			5					X	X	Hold acid'l W3
														GW III & IV
														pending CCR
														TDS results

Additional Instructions from Pace®:

Collected By: (Printed Name) Dang Blumfield

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C) Corrected Temp. (°C) On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
WSP	1/28 1325	WSP	1/29 1325	
WSP	1/28 0247		1/25/25 1447	Delivered by: [X] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
				Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 19, 2024

Joju Abraham
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2024. 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 - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92768097001	**MCD-INW-02-Temp-29**	Water	12/09/24 10:30	12/10/24 09:40

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92768097001	**MCD-INW-02-Temp-29**	EPA 6020B	MT1	3

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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Sample: MCD-INW-02-Temp-29 **Lab ID: 92768097001** Collected: 12/09/24 10:30 Received: 12/10/24 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Beryllium	**0.0046**	mg/L	0.00050	0.000026	1	12/11/24 13:17	12/12/24 13:33	7440-41-7	
Cobalt	**0.23**	mg/L	0.0050	0.000098	1	12/11/24 13:17	12/12/24 13:33	7440-48-4	
Lithium	**0.060**	mg/L	0.030	0.00028	1	12/11/24 13:17	12/12/24 13:33	7439-93-2	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

QC Batch: 901909
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92768097001

METHOD BLANK: 4641814 Matrix: Water
Associated Lab Samples: 92768097001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	mg/L	ND	0.00050	0.000026	12/12/24 13:21	
Cobalt	mg/L	ND	0.0050	0.000098	12/12/24 13:21	
Lithium	mg/L	ND	0.030	0.00028	12/12/24 13:21	

LABORATORY CONTROL SAMPLE: 4641815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4641816 4641817

Parameter	Units	92768097001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.0046	0.1	0.1	0.097	0.096	92	92	75-125	0	20	
Cobalt	mg/L	0.23	0.1	0.1	0.32	0.33	91	97	75-125	2	20	
Lithium	mg/L	0.060	0.1	0.1	0.15	0.15	92	95	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCD-INW-02-Temp-29
Pace Project No.: 92768097

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92768097001	**MCD-INW-02-Temp-29**	EPA 3005A	901909	EPA 6020B	902046

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

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: WO# : 92768097

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: AC 12/10

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer:

☐ IR Gun ID: 92T078 Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: 2.2 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 2.2

USDA Regulated Soil (☒ N/A, water sample)

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

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

WO#: 92768097

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottles
***Check all unpreserved Nitrates for chlorine

Project # PM: BV Due Date: 12/24/24
CLIENT: 92-GA Power

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Client Georgia Power Profile (EZ) (Circle one) 3179490 Notes

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
CC																													
1							1																						
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions 92768097

Company Name:	Georgia Power- McDonough	Contact/Report To:	Joju Abraham
Street Address:	241 Ralph McGill Blvd NE, Bin 10160 Atlanta, GA 30308	Phone #:	(470)620-6176
		E-Mail:	jabraham@southernco.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	McDonough- INW-02	Invoice To:	Account Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	GPC82474-0004 line 2
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Georgia

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 250mL

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***: HNO_3

*** Preservative Types: (1) None, (2) HNO_3, (3) H_2SO_4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) $NaHSO_4$, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Lab Use Only: Proj. Mgr: Bonnie Vang; AcctNum / Client ID:; Table #:; Profile / Template: 16474; Prelog / Bottle Ord. ID: EZ 3179490

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Total 6020-Li	Sample Comment	Preservation non-conformance identified for sample.
MCD-INW-02	WT	G	12/9/24	1030			1			X		

Additional Instructions from Pace®:
Sample for metals
Specifically focused on: Co, Li, Be SKK

Collected By: (Printed Name) SIMON KLINE
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
	12/9/24 1200	Pace HNL	12/10/24 0940	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

APPENDIX B

Data Validation Summary September 2024

Quality Control Review of Analytical Data - Ash Pond AP-1
Submitted by Pace Analytical Services, LLC
September 2024

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-1 between September 4 and September 11, 2024. 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. Groundwater samples were also analyzed for cations (magnesium, sodium, and potassium), alkalinity, sulfide, and total iron. Test methods included Inductively Coupled Plasma- Mass Spectrometry (ICP-MS) (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (ICP) (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (TDS) (Standard Methods 2540C), Radium-226 (USEPA Method 9315), Radium-228 (USEPA Method 9320), Alkalinity by Titration (Standard Methods 2320B), and Sulfide (Standard Methods SM 4500-S2D). Additional surface water samples were collected and analyzed for USEPA Methods 6020B, 6010D, 300.0, and Standard Methods 2540C, and SM2320B.

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 (November 2020), and US Department of Energy, Evaluation of Radiochemical Data Usability (April 1997). The review included an assessment of the results for completeness, precision (laboratory and field duplicates, matrix spike/matrix spike duplicates, laboratory control sample/ laboratory control sample duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including field, equipment, 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 with the exception of sulfide, as described in the qualification section below.

Field Precision: Field goals for precision were met.

Accuracy: Laboratory goals for accuracy were met with the exception of calcium, iron, magnesium, sodium, and sulfate as described in the qualification section below.

Detection Limits and Blanks: 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. Detections were found in certain blank results, as described in the qualification sections below.

Completeness: There were no rejected analytical results for this event, resulting in a completion of 100%.

Representativeness: All holding time and sample preservation requirements were met in accordance with specific analytical methods with the exception of radium-226 and radium-228, as described in the qualification section below.

QUALIFICATIONS

In general, chemical results for the samples collected at the Site were qualified on the basis of precision, sensitivity, accuracy, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data 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 and below the reporting limit. The concentration reported is an estimated value.

U The analyte was not detected above the method detection limit.

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. Although these qualifications were applied to some data from samples collected at the site and reported in sample delivery groups (SDGs) listed in Table 1, qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- SDG 92751658 had laboratory method blank detections for arsenic. Two associated samples with arsenic detections above the reporting limit (RL) were qualified as non-detect (U) and the RL was raised to the sample result.
- Total dissolved solids (TDS) was detected in a field blank in SDG 92752185. The associated sample was detected above the RL for this analyte and was qualified as non-detect (U), and the RL was raised to the sample result.
- SDG 92751658 had an MS/MSD RPD exceedance for sulfide and as a result, was qualified as estimated, (J).
- SDG 92751658 had a matrix spike and matrix spike duplicate (MS/MSD) recovery below QC criteria for sulfate. The associate sample was qualified as estimated, bias low (J-).
- SDG 92751658 had MS/MSD recoveries outside of QC criteria for calcium, iron, magnesium, and sodium. All corresponding sample results were greater than 4x the added spike concentration and therefore no qualification was required.
- Certain radiochemistry samples in SDG 92751651 arrived at the laboratory with pH values greater than 2. The laboratory added 5 mLs of nitric acid to meet the sample preservation of pH < 2 for radiochemistry analysis. The laboratory preserved the following samples to pH < 2 within the required 5 days of collection: MCD-AP1-FD-1 (92751651005), MCD-DGWC-40 (92751551006), MCD-DGWC-67 (92751651007), MCD-DGWC-68A (92751651008), MCD-DGWC-69 (92751651009), MCD-AP1-EB-1 (92751651010). There was no other action but to note.

WSP reviewed the data from samples collected at Plant McDonough CCR Ash Pond AP-1 between September 4 and September 11, 2024, 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, November 2020, 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 Ash Pond 1

						Analyses								
SDGs	***Field Identification***	***Collection Date***	***Lab Identification***	***Matrix***	***QC Samples***	**Total Mercury (EPA 7470A)**	**Alkalinity (SM 2320B)**	**TDS (SM 2540C-2011)**	**Total Metals (EPA 6020B)**	**Anions (EPA 300.0)**	**Cations (EPA 6010D)**	**Sulfide (SM4500-S2D)**	**Radium-226 (EPA 9315)**	**Radium-228 (EPA 9320)**
92752200	MCD-B-100	9/5/2024	92752200001	WG	-	X	X	X	X	X	X	X	-	-
92752200	MCD-B-62	9/9/2024	92752200002	WG	-	X	X	X	X	X	X	X	-	-
92751673	MCD-DGWA-70A	9/4/2024	92751673001	WG	-	X	X	X	X	X	X	X	-	-
92751673	MCD-DGWA-71	9/4/2024	92751673002	WG	-	X	X	X	X	X	X	X	-	-
92751673	MCD-DGWA-53	9/11/2024	92751673003	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-37	9/4/2024	92751658001	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-39	9/4/2024	92751658002	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-121	9/4/2024	92751658003	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-38	9/4/2024	92751658004	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-AP1-FD-1	9/4/2024	92751658005	WG	FD (MCD-DGWC-38)	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-40	9/5/2024	92751658006	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-67	9/5/2024	92751658007	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-68A	9/5/2024	92751658008	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-DGWC-69	9/5/2024	92751658009	WG	-	X	X	X	X	X	X	X	-	-
92751658	MCD-AP1-EB-1	9/5/2024	92751658010	WQ	EB (MCD-DGWC-68A)	X	X	X	X	X	X	X	-	-
92752185	MCD-B-105D	9/5/2024	92752185001	WG	-	X	X	X	X	X	X	X	-	-
92752185	MCD-AP1-FB-1	9/5/2024	92752185002	WQ	FB (MCD-B-105D)	X	X	X	X	X	X	X	-	-
92752185	MCD-B-112D	9/9/2024	92752185003	WG	-	X	X	X	X	X	X	X	-	-
92751664	MCD-DGWA-70A	9/4/2024	92751664001	WG	-	-	-	-	-	-	-	-	X	X
92751664	MCD-DGWA-71	9/4/2024	92751664002	WG	-	-	-	-	-	-	-	-	X	X
92751664	MCD-DGWA-53	9/11/2024	92751664003	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-37	9/4/2024	92751651001	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-39	9/4/2024	92751651002	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-121	9/4/2024	92751651003	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-38	9/4/2024	92751651004	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-AP1-FD-1	9/4/2024	92751651005	WG	FD (MCD-DGWC-38)	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-40	9/5/2024	92751651006	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-67	9/5/2024	92751651007	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-68A	9/5/2024	92751651008	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-DGWC-69	9/5/2024	92751651009	WG	-	-	-	-	-	-	-	-	X	X
92751651	MCD-AP1-EB-1	9/5/2024	92751651010	WQ	EB (MCD-DGWC-68A)	-	-	-	-	-	-	-	X	X
92752186	MCD-B-105D	9/5/2024	92752186001	WG	-	-	-	-	-	-	-	-	X	X
92752186	MCD-AP1-FB-1	9/5/2024	92752186002	WQ	FB (MCD-B-105D)	-	-	-	-	-	-	-	X	X
92752186	MCD-B-112D	9/9/2024	92752186003	WG	-	-	-	-	-	-	-	-	X	X
92752198	MCD-B-100	9/5/2024	92752198001	WG	-	-	-	-	-	-	-	-	X	X
92752198	MCD-B-62	9/9/2024	92752198002	WG	-	-	-	-	-	-	-	-	X	X

TABLE 1

Sample Summary Table
SCS Plant McDonough Ash Pond 1

						Analyses								
SDGs	***Field Identification***	***Collection Date***	***Lab Identification***	***Matrix***	***QC Samples***	**Total Mercury (EPA 7470A)**	**Alkalinity (SM 2320B)**	**TDS (SM 2540C-2011)**	**Total Metals (EPA 6020B)**	**Anions (EPA 300.0)**	**Cations (EPA 6010D)**	**Sulfide (SM4500-S2D)**	**Radium-226 (EPA 9315)**	**Radium-228 (EPA 9320)**
92752880	MCD-UT01_US	9/10/2024	92752880001	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-UT02	9/10/2024	92752880002	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-UT03	9/10/2024	92752880003	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-UT01_DS	9/10/2024	92752880004	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-CR-0.1	9/10/2024	92752880005	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-CR+0.2	9/10/2024	92752880006	WS	-	-	X	X	X	X	X	-	-	-
92752880	MCD-CR+0.4	9/10/2024	92752880007	WS	-	-	X	X	X	X	X	-	-	-
92752882	MCD-DW_DS	9/10/2024	92752882001	WS	-	-	X	X	X	X	X	-	-	-
92752882	MCD-DW_US	9/10/2024	92752882002	WS	-	-	X	X	X	X	X	-	-	-
92752882	MCD-CR-0.2	9/10/2024	92752882003	WS	-	-	X	X	X	X	X	-	-	-
92752882	MCD-CR-0.5	9/10/2024	92752882004	WS	-	-	X	X	X	X	X	-	-	-

Abbreviations:

SDG- Sample Delivery Group
QC - Quality Control
EPA - US Environmental Protection Agency
SM - Standard Method
WG - Groundwater
WQ - Water Quality control
FD - Field Duplicate
FB - Field Blank
EB - Equipment Blank
TDS - Total Dissolved Solids
WS - Surface Water

TABLE 2
Qualifier Summary Table
SCS Plant McDonough Ash Pond 1

SDG	*Sample Name*	*Constituent*	*New Result*	*New RL or MDC*	*Qualifier*	*Reason*	*Reason Code*
92751658	MCD-DGWC-37	Arsenic	-	0.00093	U	Laboratory blank contamination	BL
92751658	MCD-DGWC-39	Arsenic	-	0.00091	U	Laboratory blank contamination	BL
92751658	MCD-DGWC-121	Sulfate	-	-	J-	Matrix spike %R does not meet quality control criteria	MS1
92751658	MCD-DGWC-69	Sulfide	-	-	J	MS/MSD RPD above QC limit	MS2
92752185	MCD-B-105D	TDS	-	511	U	Field blank contamination	BF

Abbreviations:
RL : Reporting limit
MDC : Minimum detectable concentration
SDG : Sample delivery group

Qualifier
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 and below the reporting limit. The concentration reported is an estimated value.
U: Non-detect

APPENDIX B

Laboratory Accreditation

June 13, 2024

RE: Georgia Commercial Laboratory Accreditation Rule

Stipulation Requirements for Analysis of Non-Potable Water and Solid and Chemical Materials
Georgia state law requires any person submitting data to the GA Environmental Protection Division for regulatory purposes to stipulate that the laboratory responsible for preparing the data is approved or accredited to perform analysis of environmental samples. This stipulation must be included within each report or may be submitted in a separate document with the first report of the calendar year; alternatively, the attached scope of accreditation may be submitted in lieu of a stipulation.

The information provided below may be used to generate a stipulation for data reporting purposes:

Name of Laboratory:	Pace Analytical Services, LLC – Asheville, NC
Name of Accrediting Agency:	Commonwealth of Virginia Department of General Services Division of Consolidated Laboratory Services [Primary NELAP Accreditation]
Accreditation Number:	460222
Scopes of Accreditation:	Non-Potable Water Solid and Chemical Materials
Accreditation Effective Date:	June 15, 2024
Accreditation Expiration Date:	June 14, 2025

For additional information regarding the Georgia Commercial Laboratory Accreditation Rule, please contact the Georgia Environmental Protection Division at 404-656-4713.

Sincerely,

Kyle Henderson
Quality Manager

[O] 704.526.7835
Kyle.Henderson@pacelabs.com
2225 Riverside Drive, Asheville, NC 28804

PEOPLE ADVANCING SCIENCE

Stipulation of Approval for Commercial Environmental Laboratories

Pursuant to the *Rules and Regulations of the State of Georgia* (O.C.G.A. 12-2-9) and *Rule 391-3-26.05* for "Commercial Environmental Laboratories", any person submitting data prepared by a commercial analytical laboratory to the Division for regulatory purposes shall stipulate that the laboratory is approved.

The stipulations for which Pace-Atlanta is approved, is as follows:

Laboratory:	**Pace Analytical Services, LLC – Atlanta GA** 110 Technology Parkway Peachtree Corners, GA 30092 Phone: (770) 734-4200 Fax: (770) 734-4201
Accredited By:	Authority Florida Department of Health (FL - DOH) Program Florida Environmental Laboratory Certification Program (TNI/NELAP)
Accreditation ID:	E87315
Scope of Accreditation:	Non-Potable Water (NPW) - General Chemistry (Wet Chemistry) - Metals - Microbiology Solid and Chemical Materials (SCM) - General Chemistry - Metals - Microbiology
Effective Dates:	July 1, 2024 – June 30, 2025

Any question regarding this stipulation of approval may be directed to Pace-Atlanta at (770) 734-4200. Thank you for your business and please do not hesitate to contact us if we can be of further assistance.

Sincerely,

Kyle Henderson
Quality Manager – Atlanta Laboratory
Pace Analytical Services, LLC

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

06/24/2024

Raelyn Sylvester
Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601

Re: Accreditation Status Change (A24-00282-11)
DEP Lab # 65-00282

Dear Laboratory Supervisor:

Recently, the Laboratory Accreditation Program of the Pennsylvania Department of Environmental Protection ("Department") became aware of an error that occurred during corrections that were being completed last year. The Department has changed your accreditation for EPA 9045D in SCM from pH to Corrosivity (pH) Your accreditation status in the Pennsylvania Environmental Laboratory Accreditation Program has changed due to this change. Your current accreditation status is as shown on the attached listing. That list of accredited fields of testing replaces all previous lists.

Your laboratory shall not use this Scope of Accreditation to imply endorsement by the Department. In order to maintain accreditation, your laboratory must remain in compliance with Departmental regulations.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

If you have any questions, please contact your laboratory's accreditation officer Rachel Pepper at 717-346-8204 or rapepper@pa.gov.

Sincerely,

Annmarie Beach

Annmarie Beach, Chief
Laboratory Accreditation Program

Enclosure

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF LABORATORIES

LABORATORY ACCREDITATION PROGRAM

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certifies That

65-00282

Pace Analytical Services LLC - Greensburg PA

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

Having duly met the requirement of
The act of June 29, 2002 (P.L. 596, No. 90)
dealing with Environmental Laboratories Accreditation
(27 Pa. C.S. 4104-4113) and the
National Environmental Laboratory Accreditation Program Standard
is hereby approved as an

Accredited Laboratory

to conduct analysis within the fields of accreditations more fully described in the attached Scope of Accreditation

NELAP accreditation granted by the PA DEP to an environmental laboratory is conditioned upon continued compliance with the current edition of the NELAC Standard or TNI Standard and the following Subchapters and Sections of 25 Pa. Code Chapter 252: Subchapter A (relating to general provisions); Subchapter B (relating to application, fees and supporting documents); Subchapter E (relating to proficiency test study requirements); Subchapter F (relating to assessment requirements); Subchapter G (relating to miscellaneous provisions); Section 252.307; and Section 252.401.

Expiration Date: **03/31/2025**

Certificate Number: **025**

Annmarie Beach

Annmarie Beach, Chief
Laboratory Accreditation Program
Bureau of Laboratories

Continued accreditation status depends on successful ongoing participation in the program
Certificate not transferable Surrender upon revocation
To be conspicuously displayed at the Laboratory
Not valid unless accompanied by a valid Scope of Accreditation
Shall not be used to imply endorsement by the Commonwealth of Pennsylvania
Customers are urged to verify the laboratory's current accreditation status
PA DEP is a NELAP recognized accreditation body

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Drinking Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
ASTM D5174-97		30031608	Uranium (mass)	1184	NELAP	PA	11/30/2022
EPA 900.0		10242601	Gross alpha	2830	NELAP	PA	05/27/2008
EPA 900.0		10242601	Gross beta	2840	NELAP	PA	05/27/2008
EPA 901.1		10308608	Gamma emitters	2826	NELAP	PA	06/23/2020
EPA 903.0		10244005	Total alpha radium	2750	NELAP	PA	03/31/2017
EPA 903.1		10309601	Radium-226	2965	NELAP	PA	07/15/2011
EPA 904.0		10309805	Radium-228	2970	NELAP	PA	05/27/2008
EPA 905.0		10310006	Strontium-90	3005	NELAP	PA	02/01/2011
EPA 905.0		10310006	Total Radiostrontium	3010	NELAP	PA	08/03/2022
EPA 906.0		10310200	Tritium	3030	NELAP	PA	05/27/2008
HASL 300 U-02-RC	28th ed.	90011408	Uranium-234	3036	NELAP	PA	01/16/2014
HASL 300 U-02-RC	28th ed.	90011408	Uranium-235	3037	NELAP	PA	01/16/2014
HASL 300 U-02-RC	28th ed.	90011408	Uranium-238	3038	NELAP	PA	01/16/2014
NJ ECLS-R-GA	8th ed	90014394	Gross alpha (including radium & U, excluding radon)		NELAP	PA	08/01/2016
SM 7110C - 1991	19th ed.	20158401	Gross alpha	2830	NELAP	PA	09/25/2008
SM 7110C - 1996	20th ed.	20158605	Gross alpha	2830	NELAP	PA	09/25/2008
SM 7500-Rn B - 1996	20th ed.	20173700	Radon-222	2980	NELAP	PA	10/10/2008
SOP (00282) ENV-SOP-GBUR-0068	5		Thorium-228	1171	NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0068	5		Thorium-230	3027	NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0068	5		Thorium-232	3033	NELAP	PA	02/09/2024

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Drinking Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
SOP (00282) ENV-SOP-GBUR-0068	5		Uranium-234	3036	NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0068	5		Uranium-238	3038	NELAP	PA	02/09/2024

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
ASTM D516-16		30002267	Sulfate	2000	NELAP	PA	11/21/2022
ASTM D5174-97		30031608	Uranium (mass)	1184	NELAP	PA	11/30/2022
ASTM D5811-08		30025071	Strontium-89	2995	NELAP	PA	08/03/2022
ASTM D5811-08		30025071	Strontium-90	3005	NELAP	PA	08/03/2022
ASTM D5811-08		30025071	Total Radiostrontium	3010	NELAP	PA	08/03/2022
ASTM D93-13		30005755	Flashpoint	6117	NELAP	PA	08/25/2021
DOE 4.5.5	27th ed	90000241	Thorium-228	1171	NELAP	PA	07/10/2023
DOE 4.5.5	27th ed	90000241	Thorium-230	3027	NELAP	PA	07/10/2023
DOE 4.5.5	27th ed	90000241	Thorium-232	3033	NELAP	PA	07/10/2023
EPA 1010	B	10234830	Flashpoint	6117	NELAP	PA	08/25/2021
EPA 1010	B	10234830	Ignitability	1780	NELAP	PA	08/25/2021
EPA 120.1		10006403	Conductivity	1610	NELAP	PA	04/21/2014
EPA 1311		10118806	Toxicity characteristic leaching procedure (TCLP)	1466	NELAP	PA	03/29/2005

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 1312		10119003	Synthetic precipitation leaching procedure (SPLP)	1460	NELAP	PA	03/29/2005
EPA 160.4		10010409	Residue, volatile	1970	NELAP	PA	07/28/2006
EPA 1664	A	10127807	Oil and grease	1803	NELAP	PA	10/01/2014
EPA 1664	A	10127807	Total recoverable petroleum hydrocarbons (TRPH)	1935	NELAP	PA	08/17/2017
EPA 180.1	2	10011800	Turbidity	2055	NELAP	PA	07/28/2006
EPA 300.0	2.1	10053200	Bromide	1540	NELAP	PA	05/18/2009
EPA 300.0	2.1	10053200	Chloride	1575	NELAP	PA	09/29/2010
EPA 300.0	2.1	10053200	Fluoride	1730	NELAP	PA	05/06/2009
EPA 300.0	2.1	10053200	Sulfate	2000	NELAP	PA	09/29/2010
EPA 335.4	1.0	10061402	Total cyanide	1645	NELAP	PA	05/06/2009
EPA 350.1	2.0	10063602	Ammonia as N	1515	NELAP	PA	05/06/2009
EPA 351.2	2.0	10065404	Kjeldahl nitrogen, total (TKN)	1795	NELAP	PA	05/06/2009
EPA 3510	C	10138202	Separatory funnel liquid-liquid extraction	1444	NELAP	PA	03/29/2005
EPA 3660	B	10148400	Sulfur cleanup	1456	NELAP	PA	03/29/2005
EPA 3665	A	10148808	Sulfuric acid/permanganate clean-up	1458	NELAP	PA	03/29/2005
EPA 410.4	2.0	10077404	Chemical oxygen demand (COD)	1565	NELAP	PA	05/06/2009
EPA 420.1		10079400	Total phenolics	1905	NELAP	PA	05/06/2009
EPA 5030	B	10153409	Aqueous-phase purge-and-trap	1406	NELAP	PA	03/29/2005
EPA 5030	C	10284603	Aqueous-phase purge-and-trap	1406	NELAP	PA	09/18/2013
EPA 608.3		10296614	4,4'-DDD	7355	NELAP	PA	03/21/2019
EPA 608.3		10296614	4,4'-DDE	7360	NELAP	PA	03/21/2019
EPA 608.3		10296614	4,4'-DDT	7365	NELAP	PA	03/21/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 608.3		10296614	Aldrin (HHDN)	7025	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1016 (PCB-1016)	8880	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1221 (PCB-1221)	8885	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1232 (PCB-1232)	8890	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1242 (PCB-1242)	8895	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1248 (PCB-1248)	8900	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1254 (PCB-1254)	8905	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1260 (PCB-1260)	8910	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1262 (PCB-1262)	8912	NELAP	PA	03/21/2019
EPA 608.3		10296614	Aroclor-1268 (PCB-1268)	8913	NELAP	PA	03/21/2019
EPA 608.3		10296614	Chlordane (tech.)	7250	NELAP	PA	03/21/2019
EPA 608.3		10296614	Dieldrin	7470	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endosulfan I	7510	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endosulfan II	7515	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endosulfan sulfate	7520	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endrin	7540	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endrin aldehyde	7530	NELAP	PA	03/21/2019
EPA 608.3		10296614	Endrin ketone	7535	NELAP	PA	04/01/2021
EPA 608.3		10296614	Heptachlor	7685	NELAP	PA	03/21/2019
EPA 608.3		10296614	Heptachlor epoxide	7690	NELAP	PA	03/21/2019
EPA 608.3		10296614	Methoxychlor	7810	NELAP	PA	08/02/2019
EPA 608.3		10296614	Toxaphene (Chlorinated camphene)	8250	NELAP	PA	03/21/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 608.3		10296614	alpha-BHC (alpha-Hexachlorocyclohexane)	7110	NELAP	PA	03/21/2019
EPA 608.3		10296614	alpha-Chlordane	7240	NELAP	PA	03/21/2019
EPA 608.3		10296614	beta-BHC (beta-Hexachlorocyclohexane)	7115	NELAP	PA	03/21/2019
EPA 608.3		10296614	delta-BHC (delta-Hexachlorocyclohexane)	7105	NELAP	PA	03/21/2019
EPA 608.3		10296614	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	7120	NELAP	PA	03/21/2019
EPA 608.3		10296614	gamma-Chlordane	7245	NELAP	PA	03/21/2019
EPA 624.1		10298121	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1,1-Trichloroethane	5160	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	04/01/2021
EPA 624.1		10298121	1,1,2-Trichloroethane	5165	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1-Dichloroethane	4630	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,1-Dichloropropene	4670	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2,3-Trichlorobenzene	5150	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2,4-Trichlorobenzene	5155	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2,4-Trimethylbenzene	5210	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 624.1		10298121	1,2-Dichloroethane	4635	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,2-Dichloropropane	4655	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,3,5-Trimethylbenzene	5215	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,3-Dichloropropane	4660	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	08/02/2019
EPA 624.1		10298121	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	08/02/2019
EPA 624.1		10298121	2,2-Dichloropropane	4665	NELAP	PA	08/02/2019
EPA 624.1		10298121	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	08/02/2019
EPA 624.1		10298121	2-Chloroethyl vinyl ether	4500	NELAP	PA	08/02/2019
EPA 624.1		10298121	2-Chlorotoluene	4535	NELAP	PA	08/02/2019
EPA 624.1		10298121	2-Hexanone	4860	NELAP	PA	08/02/2019
EPA 624.1		10298121	2-Methylnaphthalene	6385	NELAP	PA	04/01/2021
EPA 624.1		10298121	2-Nitropropane	5020	NELAP	PA	08/02/2019
EPA 624.1		10298121	4-Chlorotoluene	4540	NELAP	PA	08/02/2019
EPA 624.1		10298121	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	08/02/2019
EPA 624.1		10298121	Acetone	4315	NELAP	PA	08/02/2019
EPA 624.1		10298121	Acetonitrile	4320	NELAP	PA	08/02/2019
EPA 624.1		10298121	Acrolein (Propenal)	4325	NELAP	PA	08/02/2019
EPA 624.1		10298121	Acrylonitrile	4340	NELAP	PA	08/02/2019
EPA 624.1		10298121	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	08/02/2019
EPA 624.1		10298121	Benzene	4375	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 624.1		10298121	Bromobenzene	4385	NELAP	PA	08/02/2019
EPA 624.1		10298121	Bromochloromethane	4390	NELAP	PA	08/02/2019
EPA 624.1		10298121	Bromodichloromethane	4395	NELAP	PA	08/02/2019
EPA 624.1		10298121	Bromoform	4400	NELAP	PA	08/02/2019
EPA 624.1		10298121	Carbon disulfide	4450	NELAP	PA	08/02/2019
EPA 624.1		10298121	Carbon tetrachloride	4455	NELAP	PA	08/02/2019
EPA 624.1		10298121	Chlorobenzene	4475	NELAP	PA	08/02/2019
EPA 624.1		10298121	Chloroethane	4485	NELAP	PA	08/02/2019
EPA 624.1		10298121	Chloroform	4505	NELAP	PA	08/02/2019
EPA 624.1		10298121	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	08/02/2019
EPA 624.1		10298121	Cyclohexane	4555	NELAP	PA	08/02/2019
EPA 624.1		10298121	Cyclohexanone	4560	NELAP	PA	08/02/2019
EPA 624.1		10298121	Dibromochloromethane	4575	NELAP	PA	08/02/2019
EPA 624.1		10298121	Dibromomethane	4595	NELAP	PA	08/02/2019
EPA 624.1		10298121	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	08/02/2019
EPA 624.1		10298121	Diethyl ether (Ethyl ether)	4725	NELAP	PA	08/02/2019
EPA 624.1		10298121	Diisopropyl ether (DIPE)	9375	NELAP	PA	08/02/2019
EPA 624.1		10298121	Ethanol	4750	NELAP	PA	08/02/2019
EPA 624.1		10298121	Ethyl acetate	4755	NELAP	PA	08/02/2019
EPA 624.1		10298121	Ethyl methacrylate	4810	NELAP	PA	08/02/2019
EPA 624.1		10298121	Ethylbenzene	4765	NELAP	PA	08/02/2019
EPA 624.1		10298121	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 624.1		10298121	Iodomethane (Methyl iodide)	4870	NELAP	PA	08/02/2019
EPA 624.1		10298121	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	08/02/2019
EPA 624.1		10298121	Isopropylbenzene (Cumene)	4900	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methacrylonitrile	4925	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methyl acetate	4940	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methyl bromide (Bromomethane)	4950	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methyl chloride (Chloromethane)	4960	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methylcyclohexane	4965	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methylene chloride (Dichloromethane)	4975	NELAP	PA	08/02/2019
EPA 624.1		10298121	Methylmethacrylate	4990	NELAP	PA	08/02/2019
EPA 624.1		10298121	Naphthalene	5005	NELAP	PA	08/02/2019
EPA 624.1		10298121	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	08/02/2019
EPA 624.1		10298121	Styrene	5100	NELAP	PA	08/02/2019
EPA 624.1		10298121	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	08/02/2019
EPA 624.1		10298121	Tetrahydrofuran (THF)	5120	NELAP	PA	08/02/2019
EPA 624.1		10298121	Toluene	5140	NELAP	PA	08/02/2019
EPA 624.1		10298121	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	08/02/2019
EPA 624.1		10298121	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	08/02/2019
EPA 624.1		10298121	Vinyl acetate	5225	NELAP	PA	08/02/2019
EPA 624.1		10298121	Vinyl chloride (Chloroethene)	5235	NELAP	PA	08/02/2019
EPA 624.1		10298121	Xylenes, total	5260	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 624.1		10298121	cis-1,2-Dichloroethene	4645	NELAP	PA	08/02/2019
EPA 624.1		10298121	cis-1,3-Dichloropropene	4680	NELAP	PA	08/02/2019
EPA 624.1		10298121	m+p-Xylene	5240	NELAP	PA	08/02/2019
EPA 624.1		10298121	n-Butylbenzene	4435	NELAP	PA	08/02/2019
EPA 624.1		10298121	n-Hexane	4855	NELAP	PA	08/02/2019
EPA 624.1		10298121	n-Propylbenzene	5090	NELAP	PA	08/02/2019
EPA 624.1		10298121	o-Xylene	5250	NELAP	PA	08/02/2019
EPA 624.1		10298121	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	08/02/2019
EPA 624.1		10298121	sec-Butylbenzene	4440	NELAP	PA	08/02/2019
EPA 624.1		10298121	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	08/02/2019
EPA 624.1		10298121	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	08/02/2019
EPA 624.1		10298121	tert-Butyl ethyl ether	4770	NELAP	PA	08/02/2019
EPA 624.1		10298121	tert-Butylbenzene	4445	NELAP	PA	08/02/2019
EPA 624.1		10298121	trans-1,2-Dichloroethene	4700	NELAP	PA	08/02/2019
EPA 624.1		10298121	trans-1,3-Dichloropropene	4685	NELAP	PA	08/02/2019
EPA 624.1		10298121	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	08/02/2019
EPA 625.1		10300024	1,1'-Biphenyl (Biphenyl, Lemonene)	6703	NELAP	PA	08/02/2019
EPA 625.1		10300024	1,2,4-Trichlorobenzene	5155	NELAP	PA	04/01/2021
EPA 625.1		10300024	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	08/02/2019
EPA 625.1		10300024	1,2-Diphenylhydrazine	6220	NELAP	PA	08/02/2019
EPA 625.1		10300024	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	08/02/2019
EPA 625.1		10300024	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 625.1		10300024	1-Methylnaphthalene	6380	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,2'-oxybis(1-Chloropropane)		NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4,5-Trichlorophenol	6835	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4,6-Trichlorophenol	6840	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4-Dichlorophenol	6000	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4-Dimethylphenol	6130	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4-Dinitrophenol	6175	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,4-Dinitrotoluene (2,4-DNT)	6185	NELAP	PA	08/02/2019
EPA 625.1		10300024	2,6-Dinitrotoluene (2,6-DNT)	6190	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Chloronaphthalene	5795	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Chlorophenol	5800	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	6360	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Methylnaphthalene	6385	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Methylphenol (o-Cresol)	6400	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Nitroaniline	6460	NELAP	PA	08/02/2019
EPA 625.1		10300024	2-Nitrophenol	6490	NELAP	PA	08/02/2019
EPA 625.1		10300024	3+4-Methylphenol (m+p-Cresol)	6412	NELAP	PA	08/02/2019
EPA 625.1		10300024	3,3'-Dichlorobenzidine	5945	NELAP	PA	08/02/2019
EPA 625.1		10300024	3-Nitroaniline	6465	NELAP	PA	08/02/2019
EPA 625.1		10300024	4-Bromophenyl phenyl ether	5660	NELAP	PA	08/02/2019
EPA 625.1		10300024	4-Chloro-3-methylphenol	5700	NELAP	PA	08/02/2019
EPA 625.1		10300024	4-Chloroaniline	5745	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 625.1		10300024	4-Chlorophenyl phenyl ether	5825	NELAP	PA	08/02/2019
EPA 625.1		10300024	4-Nitroaniline	6470	NELAP	PA	08/02/2019
EPA 625.1		10300024	4-Nitrophenol	6500	NELAP	PA	08/02/2019
EPA 625.1		10300024	Acenaphthene	5500	NELAP	PA	08/02/2019
EPA 625.1		10300024	Acenaphthylene	5505	NELAP	PA	08/02/2019
EPA 625.1		10300024	Acetophenone	5510	NELAP	PA	08/02/2019
EPA 625.1		10300024	Aniline	5545	NELAP	PA	08/02/2019
EPA 625.1		10300024	Anthracene	5555	NELAP	PA	08/02/2019
EPA 625.1		10300024	Atrazine	7065	NELAP	PA	08/02/2019
EPA 625.1		10300024	Azobenzene	5562	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzaldehyde	5570	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzidine	5595	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzo[a]anthracene	5575	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzo[a]pyrene	5580	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzo[b]fluoranthene	5585	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzo[ghi]perylene	5590	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzo[k]fluoranthene	5600	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzoic acid	5610	NELAP	PA	08/02/2019
EPA 625.1		10300024	Benzyl alcohol	5630	NELAP	PA	08/02/2019
EPA 625.1		10300024	Butyl benzyl phthalate (Benzyl butyl phthalate)	5670	NELAP	PA	08/02/2019
EPA 625.1		10300024	Caprolactam	7180	NELAP	PA	08/02/2019
EPA 625.1		10300024	Carbazole	5680	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 625.1		10300024	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	08/02/2019
EPA 625.1		10300024	Di-n-butyl phthalate	5925	NELAP	PA	08/02/2019
EPA 625.1		10300024	Di-n-octyl phthalate	6200	NELAP	PA	08/02/2019
EPA 625.1		10300024	Dibenzo[a,h]anthracene	5895	NELAP	PA	08/02/2019
EPA 625.1		10300024	Dibenzofuran	5905	NELAP	PA	08/02/2019
EPA 625.1		10300024	Diethyl phthalate	6070	NELAP	PA	08/02/2019
EPA 625.1		10300024	Dimethyl phthalate	6135	NELAP	PA	08/02/2019
EPA 625.1		10300024	Fluoranthene	6265	NELAP	PA	08/02/2019
EPA 625.1		10300024	Fluorene	6270	NELAP	PA	08/02/2019
EPA 625.1		10300024	Hexachlorobenzene	6275	NELAP	PA	08/02/2019
EPA 625.1		10300024	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	08/02/2019
EPA 625.1		10300024	Hexachlorocyclopentadiene	6285	NELAP	PA	08/02/2019
EPA 625.1		10300024	Hexachloroethane	4840	NELAP	PA	08/02/2019
EPA 625.1		10300024	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	08/02/2019
EPA 625.1		10300024	Isophorone	6320	NELAP	PA	08/02/2019
EPA 625.1		10300024	N-Nitrosodi-n-propylamine	6545	NELAP	PA	08/02/2019
EPA 625.1		10300024	N-Nitrosodimethylamine	6530	NELAP	PA	08/02/2019
EPA 625.1		10300024	N-Nitrosodiphenylamine	6535	NELAP	PA	08/02/2019
EPA 625.1		10300024	Naphthalene	5005	NELAP	PA	08/02/2019
EPA 625.1		10300024	Nitrobenzene	5015	NELAP	PA	08/02/2019
EPA 625.1		10300024	Pentachlorophenol (PCP)	6605	NELAP	PA	08/02/2019
EPA 625.1		10300024	Phenanthrene	6615	NELAP	PA	08/02/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 625.1		10300024	Phenol	6625	NELAP	PA	08/02/2019
EPA 625.1		10300024	Pyrene	6665	NELAP	PA	08/02/2019
EPA 625.1		10300024	Pyridine	5095	NELAP	PA	08/02/2019
EPA 625.1		10300024	bis(2-Chloroethoxy)methane	5760	NELAP	PA	08/02/2019
EPA 625.1		10300024	bis(2-Chloroethyl) ether	5765	NELAP	PA	08/02/2019
EPA 625.1		10300024	bis(2-Ethylhexyl) phthalate (DEHP)	6065	NELAP	PA	08/02/2019
EPA 625.1		10300024	n-Decane	5875	NELAP	PA	02/09/2022
EPA 625.1		10300024	n-Octadecane	6580	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Acenaphthene	5500	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Acenaphthylene	5505	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Anthracene	5555	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Benzo[a]anthracene	5575	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Benzo[a]pyrene	5580	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Benzo[b]fluoranthene	5585	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Benzo[ghi]perylene	5590	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Benzo[k]fluoranthene	5600	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Dibenzo[a,h]anthracene	5895	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Fluoranthene	6265	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Fluorene	6270	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Naphthalene	5005	NELAP	PA	02/09/2022

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 625.1 SIM		10300024	Phenanthrene	6615	NELAP	PA	02/09/2022
EPA 625.1 SIM		10300024	Pyrene	6665	NELAP	PA	02/09/2022
EPA 7.3.3.2		10001204	Reactive cyanide	1923	NELAP	PA	03/29/2005
EPA 7.3.4.2		10001408	Reactive sulfide	1925	NELAP	PA	03/29/2005
EPA 7196	A	10162400	Chromium VI	1045	NELAP	PA	05/06/2009
EPA 8011		10173009	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	03/04/2015
EPA 8011		10173009	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	03/04/2015
EPA 8015	D	10305609	Diesel-range organics (DRO)	9369	NELAP	PA	02/25/2010
EPA 8015	D	10305609	Gasoline-range organics (GRO)	9408	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDD	7355	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDE	7360	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDT	7365	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Aldrin (HHDN)	7025	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Chlordane (tech.)	7250	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Dieldrin	7470	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan I	7510	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan II	7515	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan sulfate	7520	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endrin	7540	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endrin aldehyde	7530	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endrin ketone	7535	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8081	B	10178811	Heptachlor	7685	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Heptachlor epoxide	7690	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Methoxychlor	7810	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Toxaphene (Chlorinated camphene)	8250	NELAP	PA	02/25/2010
EPA 8081	B	10178811	alpha-BHC (alpha-Hexachlorocyclohexane)	7110	NELAP	PA	02/25/2010
EPA 8081	B	10178811	alpha-Chlordane	7240	NELAP	PA	02/25/2010
EPA 8081	B	10178811	beta-BHC (beta-Hexachlorocyclohexane)	7115	NELAP	PA	02/25/2010
EPA 8081	B	10178811	delta-BHC (delta-Hexachlorocyclohexane)	7105	NELAP	PA	02/25/2010
EPA 8081	B	10178811	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	7120	NELAP	PA	02/25/2010
EPA 8081	B	10178811	gamma-Chlordane	7245	NELAP	PA	02/25/2010
EPA 8082	A	10179358	Aroclor-1016 (PCB-1016)	8880	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1221 (PCB-1221)	8885	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1232 (PCB-1232)	8890	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1242 (PCB-1242)	8895	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1248 (PCB-1248)	8900	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1254 (PCB-1254)	8905	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1260 (PCB-1260)	8910	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1262 (PCB-1262)	8912	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1268 (PCB-1268)	8913	NELAP	PA	03/29/2005
EPA 8260	B	10184802	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,1-Trichloroethane	5160	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,2-Trichloroethane	5165	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloroethane	4630	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloropropene	4670	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichloroethane	4635	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichloropropane	4655	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,3,5-Trimethylbenzene	5215	NELAP	PA	10/01/2014
EPA 8260	B	10184802	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	04/29/2016
EPA 8260	B	10184802	1,3-Dichloropropane	4660	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2,2-Dichloropropane	4665	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Chlorotoluene	4535	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Hexanone	4860	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Methylnaphthalene	6385	NELAP	PA	05/30/2013
EPA 8260	B	10184802	2-Nitropropane	5020	NELAP	PA	02/25/2010
EPA 8260	B	10184802	4-Chlorotoluene	4540	NELAP	PA	02/25/2010
EPA 8260	B	10184802	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acetone	4315	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acetonitrile	4320	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acrolein (Propenal)	4325	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acrylonitrile	4340	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Benzene	4375	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromobenzene	4385	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromochloromethane	4390	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromodichloromethane	4395	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromoform	4400	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Carbon disulfide	4450	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Carbon tetrachloride	4455	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chlorobenzene	4475	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chloroethane	4485	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chloroform	4505	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Cyclohexane	4555	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Cyclohexanone	4560	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Dibromochloromethane	4575	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Dibromomethane	4595	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Diethyl ether (Ethyl ether)	4725	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethanol	4750	NELAP	PA	06/14/2011
EPA 8260	B	10184802	Ethyl acetate	4755	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethyl methacrylate	4810	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethylbenzene	4765	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Iodomethane (Methyl iodide)	4870	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methacrylonitrile	4925	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl acetate	4940	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/25/2010

Annmarie Beach

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	Methylacrylate	4945	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylcyclohexane	4965	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylmethacrylate	4990	NELAP	PA	08/12/2015
EPA 8260	B	10184802	Naphthalene	5005	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Styrene	5100	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Tetrahydrofuran (THF)	5120	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Toluene	5140	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Vinyl acetate	5225	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Xylenes, total	5260	NELAP	PA	02/25/2010
EPA 8260	B	10184802	cis-1,2-Dichloroethene	4645	NELAP	PA	02/25/2010
EPA 8260	B	10184802	cis-1,3-Dichloropropene	4680	NELAP	PA	02/25/2010
EPA 8260	B	10184802	m+p-Xylene	5240	NELAP	PA	02/25/2010
EPA 8260	B	10184802	n-Butylbenzene	4435	NELAP	PA	02/25/2010
EPA 8260	B	10184802	n-Hexane	4855	NELAP	PA	02/25/2010
EPA 8260	B	10184802	n-Propylbenzene	5090	NELAP	PA	02/25/2010
EPA 8260	B	10184802	o-Xylene	5250	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/25/2010
EPA 8260	B	10184802	sec-Butylbenzene	4440	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Amyl ethyl ether (TAEE)	4369	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	08/11/2011
EPA 8260	B	10184802	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Butylbenzene	4445	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,2-Dichloroethene	4700	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,3-Dichloropropene	4685	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,1-Trichloroethane	5160	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2-Trichloroethane	5165	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloroethane	4630	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloropropene	4670	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichloroethane	4635	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichloropropane	4655	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,3,5-Trimethylbenzene	5215	NELAP	PA	10/01/2014
EPA 8260	C	10307003	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	04/29/2016
EPA 8260	C	10307003	1,3-Dichloropropane	4660	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2,2-Dichloropropane	4665	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Chlorotoluene	4535	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Hexanone	4860	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Methylnaphthalene	6385	NELAP	PA	05/30/2013
EPA 8260	C	10307003	2-Nitropropane	5020	NELAP	PA	02/25/2010
EPA 8260	C	10307003	4-Chlorotoluene	4540	NELAP	PA	02/25/2010
EPA 8260	C	10307003	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acetone	4315	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acetonitrile	4320	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Acrolein (Propenal)	4325	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acrylonitrile	4340	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Benzene	4375	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromobenzene	4385	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromochloromethane	4390	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromodichloromethane	4395	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromoform	4400	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Carbon disulfide	4450	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Carbon tetrachloride	4455	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chlorobenzene	4475	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroethane	4485	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroform	4505	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Cyclohexane	4555	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Cyclohexanone	4560	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Dibromochloromethane	4575	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Dibromomethane	4595	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Diethyl ether (Ethyl ether)	4725	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethanol	4750	NELAP	PA	06/14/2011

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Ethyl acetate	4755	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethyl methacrylate	4810	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethylbenzene	4765	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Iodomethane (Methyl iodide)	4870	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methacrylonitrile	4925	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl acetate	4940	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylacrylate	4945	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylcyclohexane	4965	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylmethacrylate	4990	NELAP	PA	08/12/2015
EPA 8260	C	10307003	Naphthalene	5005	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Styrene	5100	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Tetrahydrofuran (THF)	5120	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Toluene	5140	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Vinyl acetate	5225	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Xylenes, total	5260	NELAP	PA	02/25/2010
EPA 8260	C	10307003	cis-1,2-Dichloroethene	4645	NELAP	PA	02/25/2010
EPA 8260	C	10307003	cis-1,3-Dichloropropene	4680	NELAP	PA	02/25/2010
EPA 8260	C	10307003	m+p-Xylene	5240	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Butylbenzene	4435	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Hexane	4855	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Propylbenzene	5090	NELAP	PA	02/25/2010
EPA 8260	C	10307003	o-Xylene	5250	NELAP	PA	02/25/2010
EPA 8260	C	10307003	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/25/2010
EPA 8260	C	10307003	sec-Butylbenzene	4440	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Amyl ethyl ether (TAEE)	4369	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	08/11/2011
EPA 8260	C	10307003	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Butylbenzene	4445	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,2-Dichloroethene	4700	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,3-Dichloropropene	4685	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,1-Trichloroethane	5160	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	04/11/2023
EPA 8260	D	10307127	1,1,2-Trichloroethane	5165	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,2-Trichlorofluoroethane	5167	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloroethane	4630	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloropropene	4670	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichloroethane	4635	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichloropropane	4655	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3,5-Trichlorobenzene	6800	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3,5-Trimethylbenzene	5215	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	1,3-Dichloropropane	4660	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2,2-Dichloropropane	4665	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Chlorotoluene	4535	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Hexanone	4860	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Methylnaphthalene	6385	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Nitropropane	5020	NELAP	PA	02/03/2023
EPA 8260	D	10307127	4-Chlorotoluene	4540	NELAP	PA	02/03/2023
EPA 8260	D	10307127	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acetone	4315	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acetonitrile	4320	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acrolein (Propenal)	4325	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acrylonitrile	4340	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Benzene	4375	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromobenzene	4385	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromochloromethane	4390	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromodichloromethane	4395	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromoform	4400	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	Carbon disulfide	4450	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Carbon tetrachloride	4455	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chlorobenzene	4475	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroethane	4485	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroform	4505	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Cyclohexane	4555	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Cyclohexanone	4560	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dibromochloromethane	4575	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dibromomethane	4595	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Diethyl ether (Ethyl ether)	4725	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethanol	4750	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl acetate	4755	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl methacrylate	4810	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethylbenzene	4765	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Iodomethane (Methyl iodide)	4870	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/21/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	Methacrylonitrile	4925	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl acetate	4940	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylcyclohexane	4965	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylmethacrylate	4990	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Naphthalene	5005	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Styrene	5100	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Tetrahydrofuran (THF)	5120	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Toluene	5140	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Vinyl acetate	5225	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Xylenes, total	5260	NELAP	PA	02/03/2023
EPA 8260	D	10307127	cis-1,2-Dichloroethene	4645	NELAP	PA	02/03/2023
EPA 8260	D	10307127	cis-1,3-Dichloropropene	4680	NELAP	PA	02/03/2023
EPA 8260	D	10307127	m+p-Xylene	5240	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	n-Butylbenzene	4435	NELAP	PA	02/03/2023
EPA 8260	D	10307127	n-Hexane	4855	NELAP	PA	02/03/2023
EPA 8260	D	10307127	n-Propylbenzene	5090	NELAP	PA	02/03/2023
EPA 8260	D	10307127	o-Xylene	5250	NELAP	PA	02/03/2023
EPA 8260	D	10307127	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/03/2023
EPA 8260	D	10307127	sec-Butylbenzene	4440	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Butylbenzene	4445	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,2-Dichloroethene	4700	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,3-Dichloropropene	4685	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	02/03/2023
EPA 8270	D	10186035	1,1'-Biphenyl (Biphenyl, Lemonene)	6703	NELAP	PA	03/30/2015
EPA 8270	D	10186002	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	10/02/2012
EPA 8270	D	10186035	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	10/02/2012
EPA 8270	D	10186035	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,2-Diphenylhydrazine	6220	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8270	D	10186002	1-Methylnaphthalene	6380	NELAP	PA	09/18/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	1-Methylnaphthalene	6380	NELAP	PA	09/18/2013
EPA 8270	D	10186035	2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl) ether)	4659	NELAP	PA	02/25/2010
EPA 8270	D	10186002	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	10/02/2012
EPA 8270	D	10186035	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	10/02/2012
EPA 8270	D	10186035	2,4,5-Trichlorophenol	6835	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4,6-Trichlorophenol	6840	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dichlorophenol	6000	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dimethylphenol	6130	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dinitrophenol	6175	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dinitrotoluene (2,4-DNT)	6185	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,6-Dinitrotoluene (2,6-DNT)	6190	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Chloronaphthalene	5795	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Chlorophenol	5800	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	6360	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methylnaphthalene	6385	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methylphenol (o-Cresol)	6400	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Nitroaniline	6460	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Nitrophenol	6490	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3+4-Methylphenol (m+p-Cresol)	6412	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3,3'-Dichlorobenzidine	5945	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3-Nitroaniline	6465	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	4-Bromophenyl phenyl ether	5660	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Chloro-3-methylphenol	5700	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Chloroaniline	5745	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Chlorophenyl phenyl ether	5825	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Nitroaniline	6470	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Nitrophenol	6500	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acenaphthene	5500	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acenaphthylene	5505	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acetophenone	5510	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Aniline	5545	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Anthracene	5555	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Atrazine	7065	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Azobenzene	5562	NELAP	PA	08/02/2019
EPA 8270	D	10186035	Benzaldehyde	5570	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Benzidine	5595	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[a]anthracene	5575	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[a]pyrene	5580	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[b]fluoranthene	5585	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[ghi]perylene	5590	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[k]fluoranthene	5600	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzoic acid	5610	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzyl alcohol	5630	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	Butyl benzyl phthalate (Benzyl butyl phthalate)	5670	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Caprolactam	7180	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Carbazole	5680	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Di-n-butyl phthalate	5925	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Di-n-octyl phthalate	6200	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dibenzo[a,h]anthracene	5895	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dibenzofuran	5905	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Diethyl phthalate	6070	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dimethyl phthalate	6135	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Fluoranthene	6265	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Fluorene	6270	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorobenzene	6275	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorocyclopentadiene	6285	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachloroethane	4840	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Isophorone	6320	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodi-n-propylamine	6545	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodimethylamine	6530	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodiphenylamine	6535	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Naphthalene	5005	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	Nitrobenzene	5015	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Pentachlorophenol (PCP)	6605	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Phenanthrene	6615	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Phenol	6625	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Pyrene	6665	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Pyridine	5095	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Chloroethoxy)methane	5760	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Chloroethyl) ether	5765	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Ethylhexyl) phthalate (DEHP)	6065	NELAP	PA	02/25/2010
EPA 8270	D	10186035	n-Decane	5875	NELAP	PA	02/09/2022
EPA 8270	D	10186035	n-Octadecane	6580	NELAP	PA	02/09/2022
EPA 8270	E	10242543	1,1'-Biphenyl (Biphenyl, Lemonene)	6703	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2,4-Trichlorobenzene	5155	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2-Diphenylhydrazine	6220	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1-Methylnaphthalene	6380	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl) ether)	4659	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	2,4,5-Trichlorophenol	6835	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4,6-Trichlorophenol	6840	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dichlorophenol	6000	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dimethylphenol	6130	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dinitrophenol	6175	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dinitrotoluene (2,4-DNT)	6185	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,6-Dinitrotoluene (2,6-DNT)	6190	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Chloronaphthalene	5795	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Chlorophenol	5800	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	6360	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methylnaphthalene	6385	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methylphenol (o-Cresol)	6400	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Nitroaniline	6460	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Nitrophenol	6490	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3+4-Methylphenol (m+p-Cresol)	6412	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3,3'-Dichlorobenzidine	5945	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3-Nitroaniline	6465	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Bromophenyl phenyl ether	5660	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chloro-3-methylphenol	5700	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chloroaniline	5745	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chlorophenyl phenyl ether	5825	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Nitroaniline	6470	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	4-Nitrophenol	6500	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Acenaphthene	5500	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Acenaphthylene	5505	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Acetophenone	5510	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Aniline	5545	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Anthracene	5555	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Atrazine	7065	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Azobenzene	5562	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzaldehyde	5570	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzidine	5595	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[a]anthracene	5575	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[a]pyrene	5580	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[b]fluoranthene	5585	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[ghi]perylene	5590	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[k]fluoranthene	5600	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzoic acid	5610	NELAP	PA	04/01/2021
EPA 8270	E	10242543	Benzyl alcohol	5630	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Butyl benzyl phthalate (Benzyl butyl phthalate)	5670	NELAP	PA	04/01/2021
EPA 8270	E	10242543	Caprolactam	7180	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Carbazole	5680	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Di-n-butyl phthalate	5925	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	Di-n-octyl phthalate	6200	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Dibenzo[a,h]anthracene	5895	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Dibenzofuran	5905	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Diethyl phthalate	6070	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Dimethyl phthalate	6135	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Fluoranthene	6265	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Fluorene	6270	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorobenzene	6275	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorocyclopentadiene	6285	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachloroethane	4840	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Isophorone	6320	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodi-n-propylamine	6545	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodimethylamine	6530	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodiphenylamine	6535	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Naphthalene	5005	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Nitrobenzene	5015	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Pentachlorophenol (PCP)	6605	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Phenanthrene	6615	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Phenol	6625	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Pyrene	6665	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	Pyridine	5095	NELAP	PA	12/22/2020
EPA 8270	E	10242543	bis(2-Chloroethoxy)methane	5760	NELAP	PA	12/22/2020
EPA 8270	E	10242543	bis(2-Chloroethyl) ether	5765	NELAP	PA	12/22/2020
EPA 8270	E	10242543	bis(2-Ethylhexyl) phthalate (DEHP)	6065	NELAP	PA	12/22/2020
EPA 8270	E	10242543	n-Decane	5875	NELAP	PA	02/09/2022
EPA 8270	E	10242543	n-Octadecane	6580	NELAP	PA	02/09/2022
EPA 8270		10185203	Azobenzene	5562	NELAP	PA	08/02/2019
EPA 8270 SIM	D	10242509	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Acenaphthene	5500	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Acenaphthylene	5505	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Anthracene	5555	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[a]anthracene	5575	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[a]pyrene	5580	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[b]fluoranthene	5585	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[ghi]perylene	5590	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[k]fluoranthene	5600	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Dibenzo[a,h]anthracene	5895	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Fluoranthene	6265	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Fluorene	6270	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Naphthalene	5005	NELAP	PA	04/24/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270 SIM	D	10242509	Phenanthrene	6615	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Pyrene	6665	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Quinoline	6670	NELAP	PA	04/24/2019
EPA 8270 SIM	E	10242565	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	1-Methylnaphthalene	6380	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	2-Methylnaphthalene	6385	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Acenaphthene	5500	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Acenaphthylene	5505	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Anthracene	5555	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[a]anthracene	5575	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[a]pyrene	5580	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[b]fluoranthene	5585	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[ghi]perylene	5590	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[k]fluoranthene	5600	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Dibenzo[a,h]anthracene	5895	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Fluoranthene	6265	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Fluorene	6270	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Naphthalene	5005	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Phenanthrene	6615	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Pyrene	6665	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 900.0		10242601	Gross alpha	2830	NELAP	PA	05/27/2008
EPA 900.0		10242601	Gross beta	2840	NELAP	PA	05/27/2008
EPA 901.1		10308608	Gamma emitters	2826	NELAP	PA	08/12/2008
EPA 9010	C	10193109	Amenable cyanide	1510	NELAP	PA	08/31/2006
EPA 9010	C	10193109	Total cyanide	1645	NELAP	PA	08/31/2006
EPA 9012	B	10243228	Total cyanide	1645	NELAP	PA	03/20/2024
EPA 9014		10193803	Total cyanide	1645	NELAP	PA	03/25/2014
EPA 903.0		10244005	Total alpha radium	2750	NELAP	PA	03/31/2017
EPA 903.1		10309601	Radium-226	2965	NELAP	PA	05/27/2008
EPA 9038		10196608	Sulfate	2000	NELAP	PA	05/06/2009
EPA 904.0		10309805	Radium-228	2970	NELAP	PA	08/12/2008
EPA 9040	B	10197203	pH	1900	NELAP	PA	03/29/2005
EPA 9040	C	10244403	pH	1900	NELAP	PA	02/22/2013
EPA 905.0		10310006	Strontium-90	3005	NELAP	PA	08/12/2008
EPA 905.0		10310006	Total Radiostrontium	3010	NELAP	PA	08/03/2022
EPA 9050	A	10198808	Conductivity	1610	NELAP	PA	04/21/2014
EPA 906.0		10310200	Tritium	3030	NELAP	PA	08/12/2008
EPA 9060	A	10244823	Total organic carbon (TOC)	2040	NELAP	PA	09/18/2013
EPA 9065		10200405	Total phenolics	1905	NELAP	PA	05/06/2009
EPA 9095	B	10245600	Paint filter liquids test	1434	NELAP	PA	08/25/2021
EPA 9251		10207406	Chloride	1575	NELAP	PA	05/06/2009
EPA 9310	3rd ed.	10310802	Gross alpha	2830	NELAP	PA	05/27/2008

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 9310	3rd ed.	10310802	Gross beta	2840	NELAP	PA	05/27/2008
EPA 9315	3rd ed.	10311009	Radium-226	2965	NELAP	PA	05/30/2013
EPA 9315	3rd ed.	10311009	Total radium	2975	NELAP	PA	05/27/2008
EPA 9320	3rd ed.	10208603	Radium-228	2970	NELAP	PA	05/27/2008
HACH 10360	1.2	60027852	Oxygen (dissolved)	1880	NELAP	PA	08/25/2021
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-228	1171	NELAP	PA	08/16/2023
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-230	3027	NELAP	PA	08/16/2023
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-232	3033	NELAP	PA	08/16/2023
HASL 300 U-02-RC	28th ed.	90011408	Uranium-234	3036	NELAP	PA	12/22/2020
HASL 300 U-02-RC	28th ed.	90011408	Uranium-235	3037	NELAP	PA	12/22/2020
HASL 300 U-02-RC	28th ed.	90011408	Uranium-238	3038	NELAP	PA	12/22/2020
SM 2120B - 2011	Online ed.	20039310	Color	1605	NELAP	PA	04/10/2007
SM 2310B - 2011	Online ed.	20044615	Acidity as CaCO3	1500	NELAP	PA	03/20/2024
SM 2320B - 2011	Online ed.	20045618	Alkalinity as CaCO3	1505	NELAP	PA	01/04/2007
SM 2540B - 2015	Online ed.	20049438	Residue, total	1950	NELAP	PA	11/21/2022
SM 2540C - 2015	23rd ed.	20050457	Residue, filterable (TDS)	1955	NELAP	PA	11/21/2022
SM 2540D - 2015	Online ed.	20051223	Residue, nonfilterable (TSS)	1960	NELAP	PA	11/21/2022
SM 2540E - 2011	22nd ed.	20051665	Volatile suspended solids	2070	NELAP	PA	08/02/2019
SM 2540F - 2015	Online ed.	20052226	Residue, settleable	1965	NELAP	PA	11/21/2022
SM 3500-Cr B - 2011	Online ed.	20066266	Chromium VI	1045	NELAP	PA	09/18/2013
SM 3500-Fe B - 2011	22nd ed.	20068819	Ferrous iron	1073	NELAP	PA	01/09/2012
SM 4500-CN- C - 2016	23rd ed.	20095458	Cyanide distillation	1412	NELAP	PA	11/21/2022

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
SM 4500-CN- E - 2016	Online ed.	20096439	Total cyanide	1645	NELAP	PA	11/21/2022
SM 4500-CN- G - 2016	Online ed.	20097238	Amenable cyanide	1510	NELAP	PA	11/21/2022
SM 4500-CN- M - 2011	22nd ed.	20099245	Thiocyanate	2032	NELAP	PA	05/06/2009
SM 4500-Cl- E - 2011	Online ed.	20086811	Chloride	1575	NELAP	PA	05/06/2009
SM 4500-F- C - 2011	Online ed.	20102414	Fluoride	1730	NELAP	PA	05/06/2009
SM 4500-H + B - 2011	Online ed.	20105220	pH	1900	NELAP	PA	04/10/2007
SM 4500-NO2- B - 2011	Online ed.	20113115	Nitrite as N	1840	NELAP	PA	06/30/2011
SM 4500-NO3- F - 2016	23rd ed.	20116421	Nitrate as N	1810	NELAP	PA	11/21/2022
SM 4500-NO3- F - 2016	23rd ed.	20116421	Total nitrate-nitrite	1820	NELAP	PA	11/21/2022
SM 4500-P B - 2011	22nd ed.	20123211	Preliminary treatment of phosphate samples	1479	NELAP	PA	05/06/2009
SM 4500-P E - 2011	Online ed.	20124225	Orthophosphate as P	1870	NELAP	PA	05/06/2009
SM 4500-P E - 2011	Online ed.	20124225	Phosphorus, total	1910	NELAP	PA	05/06/2009
SM 4500-S2- F - 2011	Online ed.	20126663	Sulfide	2005	NELAP	PA	04/10/2007
SM 4500-SO3- B - 2011	22nd ed.	20130410	Sulfite, SO3	2015	NELAP	PA	04/10/2007
SM 5210B - 2016	Online ed.	20135039	Biochemical oxygen demand (BOD)	1530	NELAP	PA	11/21/2022
SM 5210B - 2016	Online ed.	20135039	Carbonaceous BOD (CBOD)	1555	NELAP	PA	11/21/2022
SM 5310C - 2014	Online ed.	20138834	Total organic carbon (TOC)	2040	NELAP	PA	11/21/2022
SM 5540C - 2011	Online ed.	20145066	Surfactants as MBAS	2025	NELAP	PA	05/06/2009
SM 7110C - 2000	21st ed.	20158809	Gross alpha	2830	NELAP	PA	05/27/2008
SM 7500-Rn B - 1996	20th ed.	20173700	Radon-222	2980	NELAP	PA	05/23/2024
SOP (00282) ENV-SOP-GBUR-0146	3		Fluoroborate	1733	NELAP	PA	02/09/2024

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
ASTM D3987-12		30030718	Shake extraction of solid waste with water	1386	NELAP	PA	12/22/2020
ASTM D5811-08		30025071	Strontium-89	2995	NELAP	PA	08/03/2022
ASTM D5811-08		30025071	Strontium-90	3005	NELAP	PA	08/03/2022
ASTM D5811-08		30025071	Total Radiostrontium	3010	NELAP	PA	08/03/2022
ASTM D93-13		30005755	Flashpoint	6117	NELAP	PA	04/21/2014
DOE 4.5.2.3	27th ed.	90000207	Gamma emitters	2826	NELAP	PA	09/18/2013
DOE 4.5.5	27th ed	90000241	Thorium-228	1171	NELAP	PA	07/10/2023
DOE 4.5.5	27th ed	90000241	Thorium-230	3027	NELAP	PA	07/10/2023
DOE 4.5.5	27th ed	90000241	Thorium-232	3033	NELAP	PA	07/10/2023
EPA 1010	B	10234830	Flashpoint	6117	NELAP	PA	08/25/2021
EPA 1010	B	10234830	Ignitability	1780	NELAP	PA	09/22/2021
EPA 1311		10118806	Toxicity characteristic leaching procedure (TCLP)	1466	NELAP	PA	03/29/2005
EPA 1312		10119003	Synthetic precipitation leaching procedure (SPLP)	1460	NELAP	PA	03/29/2005
EPA 160.4		10010409	Residue, volatile	1970	NELAP	PA	05/30/2013
EPA 1664	A	10127807	Non-polar material	1853	NELAP	PA	03/31/2017
EPA 3060	A	10136604	Alkaline digestion of Cr(VI)	1402	NELAP	PA	02/22/2013
EPA 350.1	2.0	10063602	Ammonia as N	1515	NELAP	PA	08/01/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 351.2	2.0	10065404	Kjeldahl nitrogen, total (TKN)	1795	NELAP	PA	09/18/2013
EPA 3546		10141205	Microwave extraction	1428	NELAP	PA	04/20/2009
EPA 3580	A	10143007	Waste dilution	1470	NELAP	PA	03/29/2005
EPA 3660	B	10148400	Sulfur cleanup	1456	NELAP	PA	03/29/2005
EPA 3665	A	10148808	Sulfuric acid/permanganate clean-up	1458	NELAP	PA	03/29/2005
EPA 5035	A	10284807	Closed-system purge-and-trap (bisulfate option)	1390	NELAP	PA	10/29/2009
EPA 5035	A	10284807	Closed-system purge-and-trap (methanol option)	1392	NELAP	PA	10/29/2009
EPA 5035	A	10284807	Closed-system purge-and-trap (unpreserved)	1393	NELAP	PA	10/29/2009
EPA 7.3.3.2		10001204	Reactive cyanide	1923	NELAP	PA	03/29/2005
EPA 7.3.4.2		10001408	Reactive sulfide	1925	NELAP	PA	03/29/2005
EPA 7196	A	10162400	Chromium VI	1045	NELAP	PA	05/06/2009
EPA 8015	D	10305609	Diesel-range organics (DRO)	9369	NELAP	PA	02/25/2010
EPA 8015	D	10305609	Gasoline-range organics (GRO)	9408	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDD	7355	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDE	7360	NELAP	PA	02/25/2010
EPA 8081	B	10178811	4,4'-DDT	7365	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Aldrin (HHDN)	7025	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Chlordane (tech.)	7250	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Dieldrin	7470	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan I	7510	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan II	7515	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endosulfan sulfate	7520	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8081	B	10178811	Endrin	7540	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endrin aldehyde	7530	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Endrin ketone	7535	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Heptachlor	7685	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Heptachlor epoxide	7690	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Methoxychlor	7810	NELAP	PA	02/25/2010
EPA 8081	B	10178811	Toxaphene (Chlorinated camphene)	8250	NELAP	PA	02/25/2010
EPA 8081	B	10178811	alpha-BHC (alpha-Hexachlorocyclohexane)	7110	NELAP	PA	02/25/2010
EPA 8081	B	10178811	alpha-Chlordane	7240	NELAP	PA	02/25/2010
EPA 8081	B	10178811	beta-BHC (beta-Hexachlorocyclohexane)	7115	NELAP	PA	02/25/2010
EPA 8081	B	10178811	delta-BHC (delta-Hexachlorocyclohexane)	7105	NELAP	PA	02/25/2010
EPA 8081	B	10178811	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	7120	NELAP	PA	02/25/2010
EPA 8081	B	10178811	gamma-Chlordane	7245	NELAP	PA	02/25/2010
EPA 8082	A	10179358	Aroclor-1016 (PCB-1016)	8880	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1221 (PCB-1221)	8885	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1232 (PCB-1232)	8890	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1242 (PCB-1242)	8895	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1248 (PCB-1248)	8900	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1254 (PCB-1254)	8905	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1260 (PCB-1260)	8910	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1262 (PCB-1262)	8912	NELAP	PA	03/29/2005
EPA 8082	A	10179358	Aroclor-1268 (PCB-1268)	8913	NELAP	PA	03/29/2005

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,1-Trichloroethane	5160	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1,2-Trichloroethane	5165	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloroethane	4630	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,1-Dichloropropene	4670	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichloroethane	4635	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,2-Dichloropropane	4655	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,3,5-Trimethylbenzene	5215	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/25/2010
EPA 8260	B	10184802	1,3-Dichloropropane	4660	NELAP	PA	05/30/2013
EPA 8260	B	10184802	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2,2-Dichloropropane	4665	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Chlorotoluene	4535	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Hexanone	4860	NELAP	PA	02/25/2010
EPA 8260	B	10184802	2-Methylnaphthalene	6385	NELAP	PA	05/30/2013
EPA 8260	B	10184802	2-Nitropropane	5020	NELAP	PA	05/30/2013
EPA 8260	B	10184802	4-Chlorotoluene	4540	NELAP	PA	02/25/2010
EPA 8260	B	10184802	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acetone	4315	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acetonitrile	4320	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Acrolein (Propenal)	4325	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Acrylonitrile	4340	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Benzene	4375	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromobenzene	4385	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromochloromethane	4390	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromodichloromethane	4395	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Bromoform	4400	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Carbon disulfide	4450	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Carbon tetrachloride	4455	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	Chlorobenzene	4475	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chloroethane	4485	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chloroform	4505	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Cyclohexane	4555	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Cyclohexanone	4560	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Dibromochloromethane	4575	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Dibromomethane	4595	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Diethyl ether (Ethyl ether)	4725	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethanol	4750	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Ethyl acetate	4755	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Ethyl methacrylate	4810	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Ethylbenzene	4765	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Iodomethane (Methyl iodide)	4870	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methacrylonitrile	4925	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Methyl acetate	4940	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylcyclohexane	4965	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Methylmethacrylate	4990	NELAP	PA	08/12/2015
EPA 8260	B	10184802	Naphthalene	5005	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Styrene	5100	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Tetrahydrofuran (THF)	5120	NELAP	PA	05/30/2013
EPA 8260	B	10184802	Toluene	5140	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Vinyl acetate	5225	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/25/2010
EPA 8260	B	10184802	Xylenes, total	5260	NELAP	PA	02/25/2010
EPA 8260	B	10184802	cis-1,2-Dichloroethene	4645	NELAP	PA	02/25/2010
EPA 8260	B	10184802	cis-1,3-Dichloropropene	4680	NELAP	PA	02/25/2010
EPA 8260	B	10184802	m+p-Xylene	5240	NELAP	PA	02/25/2010
EPA 8260	B	10184802	n-Butylbenzene	4435	NELAP	PA	02/25/2010
EPA 8260	B	10184802	n-Hexane	4855	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	B	10184802	n-Propylbenzene	5090	NELAP	PA	02/25/2010
EPA 8260	B	10184802	o-Xylene	5250	NELAP	PA	02/25/2010
EPA 8260	B	10184802	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/25/2010
EPA 8260	B	10184802	sec-Butylbenzene	4440	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/25/2010
EPA 8260	B	10184802	tert-Butylbenzene	4445	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,2-Dichloroethene	4700	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,3-Dichloropropene	4685	NELAP	PA	02/25/2010
EPA 8260	B	10184802	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	05/30/2013
EPA 8260	C	10307003	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,1-Trichloroethane	5160	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1,2-Trichloroethane	5165	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloroethane	4630	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,1-Dichloropropene	4670	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichloroethane	4635	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,2-Dichloropropane	4655	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,3,5-Trimethylbenzene	5215	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,3-Dichloropropane	4660	NELAP	PA	05/30/2013
EPA 8260	C	10307003	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010
EPA 8260	C	10307003	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2,2-Dichloropropane	4665	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Chlorotoluene	4535	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Hexanone	4860	NELAP	PA	02/25/2010
EPA 8260	C	10307003	2-Methylnaphthalene	6385	NELAP	PA	05/30/2013
EPA 8260	C	10307003	2-Nitropropane	5020	NELAP	PA	05/30/2013
EPA 8260	C	10307003	4-Chlorotoluene	4540	NELAP	PA	02/25/2010
EPA 8260	C	10307003	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acetone	4315	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acetonitrile	4320	NELAP	PA	05/30/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Acrolein (Propenal)	4325	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Acrylonitrile	4340	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Benzene	4375	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromobenzene	4385	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromochloromethane	4390	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromodichloromethane	4395	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Bromoform	4400	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Carbon disulfide	4450	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Carbon tetrachloride	4455	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chlorobenzene	4475	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroethane	4485	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroform	4505	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Cyclohexane	4555	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Cyclohexanone	4560	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Dibromochloromethane	4575	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Dibromomethane	4595	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Diethyl ether (Ethyl ether)	4725	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethanol	4750	NELAP	PA	05/30/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Ethyl acetate	4755	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Ethyl methacrylate	4810	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Ethylbenzene	4765	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Iodomethane (Methyl iodide)	4870	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methacrylonitrile	4925	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Methyl acetate	4940	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylcyclohexane	4965	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Methylmethacrylate	4990	NELAP	PA	08/12/2015
EPA 8260	C	10307003	Naphthalene	5005	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Styrene	5100	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Tetrahydrofuran (THF)	5120	NELAP	PA	05/30/2013
EPA 8260	C	10307003	Toluene	5140	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	C	10307003	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Vinyl acetate	5225	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/25/2010
EPA 8260	C	10307003	Xylenes, total	5260	NELAP	PA	02/25/2010
EPA 8260	C	10307003	cis-1,2-Dichloroethene	4645	NELAP	PA	02/25/2010
EPA 8260	C	10307003	cis-1,3-Dichloropropene	4680	NELAP	PA	02/25/2010
EPA 8260	C	10307003	m+p-Xylene	5240	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Butylbenzene	4435	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Hexane	4855	NELAP	PA	02/25/2010
EPA 8260	C	10307003	n-Propylbenzene	5090	NELAP	PA	02/25/2010
EPA 8260	C	10307003	o-Xylene	5250	NELAP	PA	02/25/2010
EPA 8260	C	10307003	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/25/2010
EPA 8260	C	10307003	sec-Butylbenzene	4440	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/25/2010
EPA 8260	C	10307003	tert-Butylbenzene	4445	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,2-Dichloroethene	4700	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,3-Dichloropropene	4685	NELAP	PA	02/25/2010
EPA 8260	C	10307003	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	05/30/2013
EPA 8260	D	10307127	1,1,1,2-Tetrachloroethane	5105	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,1-Trichloroethane	5160	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	1,1,2,2-Tetrachloroethane	5110	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5185	NELAP	PA	04/11/2023
EPA 8260	D	10307127	1,1,2-Trichloroethane	5165	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1,2-Trichlorofluoroethane	5167	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloroethane	4630	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloroethene (1,1-Dichloroethylene)	4640	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,1-Dichloropropene	4670	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,3-Trichlorobenzene	5150	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,3-Trichloropropane (1,2,3-TCP)	5180	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2,4-Trimethylbenzene	5210	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dibromo-3-chloropropane (DBCP, Dibromochloropropane)	4570	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dibromoethane (EDB, Ethylene dibromide)	4585	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichloroethane	4635	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,2-Dichloropropane	4655	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3,5-Trichlorobenzene	6800	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3,5-Trimethylbenzene	5215	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,3-Dichloropropane	4660	NELAP	PA	02/03/2023
EPA 8260	D	10307127	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2,2-Dichloropropane	4665	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Butanone (Methyl ethyl ketone, MEK)	4410	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Chloroethyl vinyl ether	4500	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Chlorotoluene	4535	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Hexanone	4860	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Methylnaphthalene	6385	NELAP	PA	02/03/2023
EPA 8260	D	10307127	2-Nitropropane	5020	NELAP	PA	02/03/2023
EPA 8260	D	10307127	4-Chlorotoluene	4540	NELAP	PA	02/03/2023
EPA 8260	D	10307127	4-Methyl-2-pentanone (MIBK)	4995	NELAP	PA	02/28/2023
EPA 8260	D	10307127	Acetone	4315	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acetonitrile	4320	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acrolein (Propenal)	4325	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Acrylonitrile	4340	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Allyl chloride (3-Chloropropene)	4355	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Benzene	4375	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromobenzene	4385	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromochloromethane	4390	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromodichloromethane	4395	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Bromoform	4400	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Carbon disulfide	4450	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Carbon tetrachloride	4455	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	Chlorobenzene	4475	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroethane	4485	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroform	4505	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Chloroprene (2-Chloro-1,3-butadiene)	4525	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Cyclohexane	4555	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Cyclohexanone	4560	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dibromochloromethane	4575	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dibromomethane	4595	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Dichlorodifluoromethane (Freon 12)	4625	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Diethyl ether (Ethyl ether)	4725	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Diisopropyl ether (DIPE)	9375	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethanol	4750	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl acetate	4755	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl methacrylate	4810	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethyl tert-butyl ether (ETBE)	4770	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Ethylbenzene	4765	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Iodomethane (Methyl iodide)	4870	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Isobutyl alcohol (2-Methyl-1-propanol)	4875	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Isopropylbenzene (Cumene)	4900	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methacrylonitrile	4925	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl acetate	4940	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	Methyl bromide (Bromomethane)	4950	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl chloride (Chloromethane)	4960	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methyl tert-butyl ether (MTBE)	5000	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylcyclohexane	4965	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylene chloride (Dichloromethane)	4975	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Methylmethacrylate	4990	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Naphthalene	5005	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Propionitrile (Ethyl cyanide)	5080	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Styrene	5100	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Tetrachloroethene (PCE, Perchloroethylene)	5115	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Tetrahydrofuran (THF)	5120	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Toluene	5140	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Trichloroethene (TCE, Trichloroethylene)	5170	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Trichlorofluoromethane (Freon 11)	5175	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Vinyl acetate	5225	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Vinyl chloride (Chloroethene)	5235	NELAP	PA	02/03/2023
EPA 8260	D	10307127	Xylenes, total	5260	NELAP	PA	02/28/2023
EPA 8260	D	10307127	cis-1,2-Dichloroethene	4645	NELAP	PA	02/03/2023
EPA 8260	D	10307127	cis-1,3-Dichloropropene	4680	NELAP	PA	02/03/2023
EPA 8260	D	10307127	m+p-Xylene	5240	NELAP	PA	02/03/2023
EPA 8260	D	10307127	n-Butylbenzene	4435	NELAP	PA	02/03/2023
EPA 8260	D	10307127	n-Hexane	4855	NELAP	PA	02/03/2023

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8260	D	10307127	n-Propylbenzene	5090	NELAP	PA	02/03/2023
EPA 8260	D	10307127	o-Xylene	5250	NELAP	PA	02/03/2023
EPA 8260	D	10307127	p-Isopropyltoluene (4-Isopropyltoluene)	4910	NELAP	PA	02/03/2023
EPA 8260	D	10307127	sec-Butylbenzene	4440	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Amyl methyl ether (TAME)	4370	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Butyl alcohol (2-Methyl-2-propanol)	4420	NELAP	PA	02/03/2023
EPA 8260	D	10307127	tert-Butylbenzene	4445	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,2-Dichloroethene	4700	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,3-Dichloropropene	4685	NELAP	PA	02/03/2023
EPA 8260	D	10307127	trans-1,4-Dichloro-2-butene	4605	NELAP	PA	02/03/2023
EPA 8270	D	10186035	1,1'-Biphenyl (Biphenyl, Lemonene)	6703	NELAP	PA	03/30/2015
EPA 8270	D	10186002	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	10/02/2012
EPA 8270	D	10186035	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	10/02/2012
EPA 8270	D	10186035	1,2,4-Trichlorobenzene	5155	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,2-Diphenylhydrazine	6220	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	02/25/2010
EPA 8270	D	10186035	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	02/25/2010
EPA 8270	D	10186002	1-Methylnaphthalene	6380	NELAP	PA	09/18/2013
EPA 8270	D	10186035	1-Methylnaphthalene	6380	NELAP	PA	09/18/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl) ether)	4659	NELAP	PA	02/25/2010
EPA 8270	D	10186002	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	10/02/2012
EPA 8270	D	10186035	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	10/02/2012
EPA 8270	D	10186035	2,4,5-Trichlorophenol	6835	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4,6-Trichlorophenol	6840	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dichlorophenol	6000	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dimethylphenol	6130	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dinitrophenol	6175	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,4-Dinitrotoluene (2,4-DNT)	6185	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2,6-Dinitrotoluene (2,6-DNT)	6190	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Chloronaphthalene	5795	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Chlorophenol	5800	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	6360	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methylnaphthalene	6385	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Methylphenol (o-Cresol)	6400	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Nitroaniline	6460	NELAP	PA	02/25/2010
EPA 8270	D	10186035	2-Nitrophenol	6490	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3+4-Methylphenol (m+p-Cresol)	6412	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3,3'-Dichlorobenzidine	5945	NELAP	PA	02/25/2010
EPA 8270	D	10186035	3-Nitroaniline	6465	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Bromophenyl phenyl ether	5660	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	4-Chloro-3-methylphenol	5700	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Chloroaniline	5745	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Chlorophenyl phenyl ether	5825	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Nitroaniline	6470	NELAP	PA	02/25/2010
EPA 8270	D	10186035	4-Nitrophenol	6500	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acenaphthene	5500	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acenaphthylene	5505	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Acetophenone	5510	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Aniline	5545	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Anthracene	5555	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Atrazine	7065	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Azobenzene	5562	NELAP	PA	08/02/2019
EPA 8270	D	10186035	Benzaldehyde	5570	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Benzidine	5595	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[a]anthracene	5575	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[a]pyrene	5580	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[b]fluoranthene	5585	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[ghi]perylene	5590	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzo[k]fluoranthene	5600	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzoic acid	5610	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Benzyl alcohol	5630	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Butyl benzyl phthalate (Benzyl butyl phthalate)	5670	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	Caprolactam	7180	NELAP	PA	03/30/2015
EPA 8270	D	10186035	Carbazole	5680	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Di-n-butyl phthalate	5925	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Di-n-octyl phthalate	6200	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dibenzo[a,h]anthracene	5895	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dibenzofuran	5905	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Diethyl phthalate	6070	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Dimethyl phthalate	6135	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Fluoranthene	6265	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Fluorene	6270	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorobenzene	6275	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachlorocyclopentadiene	6285	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Hexachloroethane	4840	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Isophorone	6320	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodi-n-propylamine	6545	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodimethylamine	6530	NELAP	PA	02/25/2010
EPA 8270	D	10186035	N-Nitrosodiphenylamine	6535	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Naphthalene	5005	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Nitrobenzene	5015	NELAP	PA	02/25/2010

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	D	10186035	Pentachlorophenol (PCP)	6605	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Phenanthrene	6615	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Phenol	6625	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Pyrene	6665	NELAP	PA	02/25/2010
EPA 8270	D	10186035	Pyridine	5095	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Chloroethoxy)methane	5760	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Chloroethyl) ether	5765	NELAP	PA	02/25/2010
EPA 8270	D	10186035	bis(2-Ethylhexyl) phthalate (DEHP)	6065	NELAP	PA	02/25/2010
EPA 8270	D	10186035	n-Decane	5875	NELAP	PA	02/09/2022
EPA 8270	D	10186035	n-Octadecane	6580	NELAP	PA	02/09/2022
EPA 8270	E	10242543	1,1'-Biphenyl (Biphenyl, Lemonene)	6703	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2,4,5-Tetrachlorobenzene	6715	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2,4-Trichlorobenzene	5155	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2-Dichlorobenzene (o-Dichlorobenzene)	4610	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,2-Diphenylhydrazine	6220	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,3-Dichlorobenzene (m-Dichlorobenzene)	4615	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1,4-Dichlorobenzene (p-Dichlorobenzene)	4620	NELAP	PA	12/22/2020
EPA 8270	E	10242543	1-Methylnaphthalene	6380	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl) ether)	4659	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,3,4,6-Tetrachlorophenol	6735	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4,5-Trichlorophenol	6835	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	2,4,6-Trichlorophenol	6840	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dichlorophenol	6000	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dimethylphenol	6130	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dinitrophenol	6175	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,4-Dinitrotoluene (2,4-DNT)	6185	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2,6-Dinitrotoluene (2,6-DNT)	6190	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Chloronaphthalene	5795	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Chlorophenol	5800	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	6360	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methylnaphthalene	6385	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Methylphenol (o-Cresol)	6400	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Nitroaniline	6460	NELAP	PA	12/22/2020
EPA 8270	E	10242543	2-Nitrophenol	6490	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3+4-Methylphenol (m+p-Cresol)	6412	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3,3'-Dichlorobenzidine	5945	NELAP	PA	12/22/2020
EPA 8270	E	10242543	3-Nitroaniline	6465	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Bromophenyl phenyl ether	5660	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chloro-3-methylphenol	5700	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chloroaniline	5745	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Chlorophenyl phenyl ether	5825	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Nitroaniline	6470	NELAP	PA	12/22/2020
EPA 8270	E	10242543	4-Nitrophenol	6500	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	Acenaphthene	5500	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Acenaphthylene	5505	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Acetophenone	5510	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Aniline	5545	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Anthracene	5555	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Atrazine	7065	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Azobenzene	5562	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzaldehyde	5570	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzidine	5595	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[a]anthracene	5575	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[a]pyrene	5580	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[b]fluoranthene	5585	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[ghi]perylene	5590	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzo[k]fluoranthene	5600	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzoic acid	5610	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Benzyl alcohol	5630	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Butyl benzyl phthalate (Benzyl butyl phthalate)	5670	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Caprolactam	7180	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Carbazole	5680	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Di-n-butyl phthalate	5925	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Di-n-octyl phthalate	6200	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	Dibenzo[a,h]anthracene	5895	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Dibenzofuran	5905	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Diethyl phthalate	6070	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Dimethyl phthalate	6135	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Fluoranthene	6265	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Fluorene	6270	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorobenzene	6275	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorobutadiene (1,3-Hexachlorobutadiene)	4835	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachlorocyclopentadiene	6285	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Hexachloroethane	4840	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Isophorone	6320	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodi-n-propylamine	6545	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodimethylamine	6530	NELAP	PA	12/22/2020
EPA 8270	E	10242543	N-Nitrosodiphenylamine	6535	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Naphthalene	5005	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Nitrobenzene	5015	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Pentachlorophenol (PCP)	6605	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Phenanthrene	6615	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Phenol	6625	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Pyrene	6665	NELAP	PA	12/22/2020
EPA 8270	E	10242543	Pyridine	5095	NELAP	PA	12/22/2020

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270	E	10242543	bis(2-Chloroethoxy)methane	5760	NELAP	PA	12/22/2020
EPA 8270	E	10242543	bis(2-Chloroethyl) ether	5765	NELAP	PA	12/22/2020
EPA 8270	E	10242543	bis(2-Ethylhexyl) phthalate (DEHP)	6065	NELAP	PA	12/22/2020
EPA 8270	E	10242543	n-Decane	5875	NELAP	PA	02/09/2022
EPA 8270	E	10242543	n-Octadecane	6580	NELAP	PA	02/09/2022
EPA 8270		10185203	Azobenzene	5562	NELAP	PA	08/02/2019
EPA 8270 SIM	D	10242509	1,4-Dioxane (1,4-Diethyleneoxide)	4735	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Acenaphthene	5500	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Acenaphthylene	5505	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Anthracene	5555	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[a]anthracene	5575	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[a]pyrene	5580	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[b]fluoranthene	5585	NELAP	PA	07/15/2020
EPA 8270 SIM	D	10242509	Benzo[ghi]perylene	5590	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Benzo[k]fluoranthene	5600	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Dibenzo[a,h]anthracene	5895	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Fluoranthene	6265	NELAP	PA	07/15/2020
EPA 8270 SIM	D	10242509	Fluorene	6270	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	07/15/2020
EPA 8270 SIM	D	10242509	Naphthalene	5005	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Phenanthrene	6615	NELAP	PA	04/24/2019

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 8270 SIM	D	10242509	Pyrene	6665	NELAP	PA	04/24/2019
EPA 8270 SIM	D	10242509	Quinoline	6670	NELAP	PA	04/24/2019
EPA 8270 SIM	E	10242565	1-Methylnaphthalene	6380	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	2-Methylnaphthalene	6385	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Acenaphthene	5500	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Acenaphthylene	5505	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Anthracene	5555	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[a]anthracene	5575	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[a]pyrene	5580	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[b]fluoranthene	5585	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[ghi]perylene	5590	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Benzo[k]fluoranthene	5600	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Chrysene (Benzo[a]phenanthrene)	5855	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Dibenzo[a,h]anthracene	5895	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Fluoranthene	6265	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Fluorene	6270	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Indeno(1,2,3-cd)pyrene	6315	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Naphthalene	5005	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Phenanthrene	6615	NELAP	PA	12/22/2020
EPA 8270 SIM	E	10242565	Pyrene	6665	NELAP	PA	12/22/2020
EPA 901.1		10308608	Gamma emitters	2826	NELAP	PA	08/12/2008
EPA 9010	C	10193109	Total cyanide	1645	NELAP	PA	02/22/2013

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
EPA 9012	B	10243228	Total cyanide	1645	NELAP	PA	03/20/2024
EPA 9014		10193803	Total cyanide	1645	NELAP	PA	04/22/2008
EPA 9038		10196608	Sulfate	2000	NELAP	PA	04/15/2009
EPA 9045	D	10198455	Corrosivity (pH)	1625	NELAP	PA	06/24/2024
EPA 906.0 (Modified)		618	Tritium	3030	NELAP	PA	08/12/2008
EPA 9065		10200405	Total phenolics	1905	NELAP	PA	05/06/2009
EPA 9071	B	10201806	Oil and grease	1803	NELAP	PA	05/07/2010
EPA 9071	B	10201806	Total petroleum hydrocarbons (TPH)	2050	NELAP	PA	05/07/2010
EPA 9095	B	10245600	Paint filter liquids test	1434	NELAP	PA	02/22/2013
EPA 9251		10207406	Chloride	1575	NELAP	PA	10/30/2015
EPA 9310	3rd ed.	10310802	Gross alpha	2830	NELAP	PA	05/27/2008
EPA 9310	3rd ed.	10310802	Gross beta	2840	NELAP	PA	05/27/2008
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-228	1171	NELAP	PA	08/16/2023
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-230	3027	NELAP	PA	08/16/2023
HASL 300 Th-01-RC	28th ed.	90010803	Thorium-232	3033	NELAP	PA	08/16/2023
HASL 300 U-02-RC	28th ed.	90011408	Uranium-234	3036	NELAP	PA	01/28/2021
HASL 300 U-02-RC	28th ed.	90011408	Uranium-235	3037	NELAP	PA	08/25/2021
HASL 300 U-02-RC	28th ed.	90011408	Uranium-238	3038	NELAP	PA	01/28/2021
SM 2540G - 2011	Online ed.	20005270	Percent moisture in soil	8641	NELAP	PA	12/02/2021
SM 2540G - 2011	Online ed.	20005270	Percent solids	8642	NELAP	PA	12/02/2021
SM 4500-P B - 2011	22nd ed.	20123211	Preliminary treatment of phosphate samples	1479	NELAP	PA	09/11/2009
SM 4500-P E - 2011	Online ed.	20124225	Phosphorus, total	1910	NELAP	PA	09/11/2009

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Scope of Accreditation

Attached to Certificate of Accreditation 025-009 expiration date 03/31/2025. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Solid and Chemical Materials

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Effective Date
SOP (00282) ENV-SOP-GBUR-0069	6		Preparation of Solid Samples for Strontium		NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0126	4		Chloride Water Leach Preparation for EPA 9251		NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0139	4		Thiocyanate Water Leach Preparation for SM 4500-CN-M		NELAP	PA	02/09/2024
SOP (00282) ENV-SOP-GBUR-0140	4		Sulfate Preparation for EPA 9038		NELAP	PA	02/09/2024

Annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Laboratory Status Summary

Pace Analytical Services LLC - Greensburg PA
1638 Roseytown Suites 2, 3, & 4
Greensburg, PA 15601
(724) 850-5600

DEP Laboratory ID: 65-00282
EPA Lab Code: PA01457
TNI Code: TNI02141
PADWIS ID: 65282

Matrix: Non-Potable Water

Method	Revision	TNI Method Code	Analyte	TNI Analyte Code	Accreditation Type	Primary State	Status	Effective Date
SM 4500-Cl G - 2011	Online ed.	20081623	Total residual chlorine	1940	NELAP	PA	Suspended	06/10/2024

Annmarie Beach

The Laboratory Status Summary is not a continuation of the Scope of Accreditation. This Status Summary includes fields of accreditation for which the laboratory does not hold accreditation per the effective date listed above.

APPENDIX C

Well Condition Assessment Table and Well Maintenance and Repair Documentation

APPENDIX C

Well Condition Assessment Table

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
DGWA-53	NO	YES	NO	YES
DGWA-70A	YES	YES	NO	YES
DGWA-71	NO	YES	NO	YES
DGWC-37	YES	YES	NO	YES
DGWC-38	YES	YES	NO	YES
DGWC-39	YES	YES	NO	YES
DGWC-40	YES	YES	NO	YES
DGWC-67	YES	YES	NO	YES
DGWC-68A	YES	YES	NO	YES
DGWC-69	YES	YES	NO	YES
DGWC-121	YES	YES	NO	YES
B-62	YES	YES	NO	YES
B-100	YES	YES	NO	YES
B-105D	YES	YES	NO	YES
B-112D	YES	YES	NO	YES
DGWC-2	YES	YES	NO	YES
DGWC-4	YES	YES	NO	YES
DGWC-5	YES	YES	NO	YES
DGWC-8	YES	YES	NO	YES
DGWC-9	YES	YES	NO	YES
DGWC-10	YES	YES	NO	YES
DGWC-11	YES	YES	NO	YES
DGWC-12	YES	YES	NO	YES
DGWC-13	YES	YES	NO	YES
DGWC-14	YES	YES	NO	YES
DGWC-15	YES	YES	NO	YES
DGWC-17	YES	YES	NO	YES
DGWC-19	YES	YES	NO	YES
DGWC-20	YES	YES	NO	YES
DGWC-21	YES	YES	NO	YES
DGWC-22	YES	YES	NO	YES
DGWC-23	YES	YES	NO	YES
DGWC-42	YES	YES	NO	YES
DGWC-47	YES	YES	NO	YES
DGWC-48	YES	YES	NO	YES
B-56	YES	YES	NO	YES
B-63	YES	YES	NO	YES
B-66	YES	YES	NO	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
B-77	YES	YES	NO	YES
B-82	YES	YES	NO	YES
B-83	YES	YES	NO	YES
B-88	YES	YES	NO	YES
B-92	YES	YES	YES	YES
B-93	YES	YES	YES	YES
B-97	YES	YES	YES	YES
B-98	YES	YES	YES	YES
B-101D	YES	YES	NO	YES
B-102D	YES	YES	NO	YES
B-104D	YES	YES	NO	YES
B-106D	YES	YES	NO	YES
B-107D	YES	YES	NO	YES
B-108D	YES	YES	NO	YES
B-111D	YES	YES	NO	YES
B-120D	YES	YES	NO	YES
B-122D	YES	YES	NO	YES
B-125D	YES	YES	YES	YES
B-3	YES	YES	NO	YES
B-6	YES	YES	NO	YES
B-7	YES	YES	NO	YES
B-16	YES	YES	NO	YES
B-18	YES	YES	NO	YES
B-24	YES	YES	NO	YES
B-25	YES	YES	NO	YES
B-26	YES	YES	NO	YES
B-28	YES	YES	NO	YES
B-29	YES	YES	NO	YES
B-31	YES	YES	NO	YES
B-41	YES	YES	NO	YES
B-50	YES	YES	NO	YES
B-51	YES	YES	NO	YES
B-52	YES	YES	NO	YES
B-54	YES	YES	NO	YES
B-55	YES	YES	NO	YES
B-57	YES	YES	NO	YES
B-58	YES	YES	NO	YES
B-59	YES	YES	NO	YES

Well Inspection

Site Name: Plant McDonough Date: 9/3/2024

Permit Number: NA Field Conditions: Sunny

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
B-60	YES	YES	NO	YES
B-61	YES	YES	NO	YES
B-64	YES	YES	NO	YES
B-65	YES	YES	NO	YES
B-68	YES	YES	NO	YES
B-72	YES	YES	NO	YES
B-73	YES	YES	NO	YES
B-74	YES	YES	NO	YES
B-76	YES	YES	NO	YES
B-78	YES	YES	NO	YES
B-79	YES	YES	NO	YES
B-80	NO	YES	NO	YES
B-81	YES	YES	NO	YES
B-84	YES	YES	NO	YES
B-85	YES	YES	NO	YES
B-86	YES	NO	NO	YES
B-87	YES	YES	NO	YES
B-89	YES	YES	NO	YES
B-90	YES	YES	YES	YES
B-91	YES	NO	YES	YES
B-94	NO	YES	NO	YES
B-95	YES	YES	YES	YES
B-96	YES	YES	YES	YES
B-99	YES	YES	NO	YES
B-103D	YES	YES	NO	YES
B-109D	YES	YES	NO	YES
B-110D	YES	YES	NO	YES
B-113D	YES	YES	NO	NO
B-115D	YES	YES	NO	YES
B-116D	YES	YES	NO	YES
B-117D	NO	YES	NO	YES
B-118	YES	YES	NO	YES
B-119D	YES	YES	NO	YES
B-123D	YES	YES	NO	YES
AP-1-B-3	YES	YES	NO	YES
AP-1-B-7	YES	YES	NO	YES
AP-1-B-8	YES	YES	NO	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
DW-1	YES	YES	NO	YES
DW-2	YES	YES	NO	YES
DW-3	YES	YES	NO	YES
DW-4	YES	YES	NO	YES
WT-1	YES	YES	NO	YES
WT-2	YES	YES	NO	YES
WT-3	YES	YES	NO	YES
WT-4	YES	YES	NO	YES
WT-5	YES	YES	NO	YES
WT-6	YES	YES	NO	YES
WT-7	NO	YES	NO	YES
ET-1	YES	YES	NO	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
DGWA-53	YES	YES	YES	YES	YES
DGWA-70A	YES	YES	YES	YES	YES
DGWA-71	YES	YES	YES	YES	YES
DGWC-37	YES	YES	YES	YES	YES
DGWC-38	YES	YES	YES	YES	NO
DGWC-39	YES	YES	YES	YES	YES
DGWC-40	YES	YES	YES	YES	YES
DGWC-67	YES	YES	YES	YES	YES
DGWC-68A	YES	YES	YES	YES	YES
DGWC-69	YES	YES	YES	YES	YES
DGWC-121	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES
B-105D	YES	YES	YES	YES	YES
B-112D	YES	YES	YES	YES	YES
DGWC-2	YES	YES	YES	YES	YES
DGWC-4	YES	YES	YES	YES	YES
DGWC-5	YES	YES	YES	YES	YES
DGWC-8	YES	YES	YES	YES	YES
DGWC-9	YES	YES	YES	YES	YES
DGWC-10	YES	YES	YES	YES	YES
DGWC-11	YES	YES	YES	YES	YES
DGWC-12	YES	YES	YES	YES	YES
DGWC-13	YES	YES	YES	YES	YES
DGWC-14	YES	YES	YES	YES	YES
DGWC-15	YES	YES	YES	YES	YES
DGWC-17	YES	YES	YES	YES	YES
DGWC-19	YES	YES	YES	YES	YES
DGWC-20	YES	YES	YES	YES	YES
DGWC-21	YES	YES	YES	YES	YES
DGWC-22	YES	YES	YES	YES	YES
DGWC-23	YES	YES	YES	YES	YES
DGWC-42	YES	YES	YES	YES	YES
DGWC-47	YES	YES	YES	YES	YES
DGWC-48	YES	YES	YES	YES	YES
B-56	NO	YES	YES	YES	NO
B-63	YES	YES	YES	YES	YES
B-66	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
B-77	YES	YES	YES	YES	YES
B-82	YES	YES	NO	YES	YES
B-83	YES	YES	YES	YES	YES
B-88	YES	YES	YES	YES	YES
B-92	YES	YES	YES	YES	YES
B-93	YES	YES	YES	YES	YES
B-97	YES	YES	YES	YES	YES
B-98	YES	YES	YES	YES	YES
B-101D	YES	YES	YES	YES	YES
B-102D	YES	YES	YES	YES	YES
B-104D	YES	YES	YES	YES	YES
B-106D	YES	YES	YES	YES	YES
B-107D	YES	YES	YES	YES	YES
B-108D	YES	YES	YES	YES	YES
B-111D	YES	YES	YES	YES	YES
B-120D	YES	YES	YES	YES	YES
B-122D	YES	YES	YES	YES	YES
B-125D	YES	YES	YES	NO	YES
B-3	YES	YES	YES	YES	YES
B-6	YES	YES	YES	YES	YES
B-7	YES	YES	YES	YES	YES
B-16	YES	YES	YES	YES	YES
B-18	YES	YES	YES	YES	YES
B-24	YES	YES	YES	YES	YES
B-25	YES	YES	YES	YES	YES
B-26	YES	YES	YES	YES	YES
B-28	YES	YES	YES	YES	YES
B-29	YES	YES	YES	YES	YES
B-31	YES	YES	YES	YES	YES
B-41	YES	YES	YES	YES	YES
B-50	YES	YES	YES	YES	YES
B-51	YES	YES	YES	YES	YES
B-52	YES	YES	YES	YES	YES
B-54	YES	YES	YES	YES	YES
B-55	YES	YES	YES	YES	YES
B-57	YES	YES	YES	YES	YES
B-58	YES	YES	YES	YES	YES
B-59	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
B-60	YES	YES	YES	YES	YES
B-61	YES	YES	YES	YES	YES
B-64	YES	YES	YES	YES	YES
B-65	YES	YES	YES	YES	YES
B-68	NO	YES	YES	YES	YES
B-72	YES	YES	YES	YES	YES
B-73	YES	YES	YES	YES	YES
B-74	YES	YES	YES	YES	YES
B-76	YES	YES	YES	YES	YES
B-78	YES	YES	YES	YES	YES
B-79	YES	YES	YES	YES	YES
B-80	YES	YES	NO	YES	YES
B-81	YES	YES	YES	YES	YES
B-84	YES	YES	YES	YES	YES
B-85	YES	YES	YES	YES	YES
B-86	YES	YES	YES	YES	YES
B-87	YES	YES	YES	YES	YES
B-89	YES	YES	YES	YES	YES
B-90	YES	YES	YES	YES	YES
B-91	YES	YES	YES	YES	YES
B-94	YES	YES	YES	YES	YES
B-95	YES	YES	YES	YES	NO
B-96	YES	YES	YES	YES	YES
B-99	YES	YES	YES	YES	YES
B-103D	YES	YES	YES	YES	YES
B-109D	YES	YES	YES	YES	YES
B-110D	YES	YES	YES	YES	YES
B-113D	YES	YES	NA	NO	NA
B-115D	YES	YES	YES	YES	YES
B-116D	YES	YES	YES	YES	YES
B-117D	YES	YES	YES	YES	YES
B-118	YES	YES	YES	YES	YES
B-119D	YES	YES	YES	YES	YES
B-123D	YES	YES	YES	YES	YES
AP-1-B-3	YES	YES	YES	YES	YES
AP-1-B-7	YES	YES	YES	YES	YES
AP-1-B-8	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
DW-1	YES	YES	YES	YES	YES
DW-2	YES	YES	YES	YES	YES
DW-3	YES	YES	YES	YES	YES
DW-4	YES	YES	YES	YES	YES
WT-1	YES	YES	YES	YES	YES
WT-2	YES	YES	YES	YES	YES
WT-3	YES	YES	YES	YES	YES
WT-4	YES	YES	YES	YES	YES
WT-5	YES	YES	YES	YES	YES
WT-6	NO	YES	YES	YES	YES
WT-7	YES	YES	YES	YES	YES
ET-1	NO	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
DGWA-53	YES	YES	YES	YES	YES	YES
DGWA-70A	YES	YES	YES	YES	YES	YES
DGWA-71	YES	YES	YES	YES	YES	YES
DGWC-37	YES	YES	YES	YES	YES	YES
DGWC-38	YES	YES	YES	YES	YES	YES
DGWC-39	YES	YES	YES	YES	YES	YES
DGWC-40	YES	YES	YES	NO	YES	YES
DGWC-67	YES	YES	YES	YES	YES	YES
DGWC-68A	YES	YES	YES	YES	YES	YES
DGWC-69	YES	YES	YES	YES	YES	YES
DGWC-121	YES	YES	YES	YES	YES	YES
B-62	YES	YES	YES	YES	YES	YES
B-100	YES	YES	YES	YES	YES	YES
B-105D	YES	YES	YES	YES	YES	YES
B-112D	YES	YES	YES	YES	YES	YES
DGWC-2	YES	YES	YES	YES	YES	YES
DGWC-4	YES	YES	YES	YES	YES	YES
DGWC-5	YES	YES	YES	YES	YES	YES
DGWC-8	YES	YES	YES	YES	YES	YES
DGWC-9	YES	YES	YES	YES	YES	YES
DGWC-10	YES	YES	YES	YES	YES	YES
DGWC-11	YES	YES	YES	YES	YES	YES
DGWC-12	YES	YES	YES	YES	YES	YES
DGWC-13	YES	YES	YES	YES	YES	YES
DGWC-14	YES	YES	YES	YES	YES	YES
DGWC-15	YES	YES	YES	YES	YES	YES
DGWC-17	YES	YES	YES	YES	YES	YES
DGWC-19	YES	YES	YES	YES	YES	YES
DGWC-20	YES	YES	YES	YES	YES	YES
DGWC-21	YES	YES	YES	YES	YES	YES
DGWC-22	YES	YES	YES	YES	YES	YES
DGWC-23	YES	YES	YES	YES	YES	YES
DGWC-42	YES	YES	YES	YES	YES	YES
DGWC-47	YES	YES	YES	YES	YES	YES
DGWC-48	YES	YES	YES	YES	YES	YES
B-56	YES	YES	YES	YES	YES	YES
B-63	YES	YES	YES	YES	YES	YES
B-66	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
B-77	YES	YES	YES	YES	YES	YES
B-82	YES	YES	YES	YES	YES	YES
B-83	YES	YES	YES	YES	YES	YES
B-88	YES	YES	YES	YES	YES	YES
B-92	YES	YES	YES	YES	YES	YES
B-93	YES	YES	YES	YES	YES	YES
B-97	YES	YES	YES	YES	YES	YES
B-98	YES	YES	YES	YES	YES	YES
B-101D	YES	YES	YES	YES	YES	YES
B-102D	YES	YES	YES	YES	YES	YES
B-104D	YES	YES	YES	YES	YES	YES
B-106D	YES	YES	YES	YES	YES	YES
B-107D	YES	YES	YES	YES	YES	YES
B-108D	YES	YES	YES	YES	YES	YES
B-111D	YES	YES	YES	YES	YES	YES
B-120D	YES	YES	YES	YES	YES	YES
B-122D	YES	YES	YES	YES	YES	YES
B-125D	YES	YES	YES	YES	YES	YES
B-3	YES	YES	YES	YES	YES	YES
B-6	YES	YES	YES	YES	YES	YES
B-7	YES	YES	YES	YES	YES	YES
B-16	YES	YES	YES	YES	YES	YES
B-18	YES	YES	YES	YES	YES	YES
B-24	YES	YES	YES	YES	YES	YES
B-25	YES	YES	YES	YES	YES	YES
B-26	YES	YES	YES	YES	YES	YES
B-28	YES	YES	YES	YES	YES	YES
B-29	YES	YES	YES	YES	YES	YES
B-31	YES	YES	YES	YES	YES	YES
B-41	YES	YES	YES	YES	YES	YES
B-50	YES	YES	YES	YES	YES	YES
B-51	YES	YES	YES	YES	YES	YES
B-52	YES	YES	YES	YES	YES	YES
B-54	YES	YES	YES	YES	YES	YES
B-55	YES	YES	YES	YES	YES	YES
B-57	YES	YES	YES	YES	YES	YES
B-58	YES	YES	YES	YES	YES	YES
B-59	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
B-60	YES	YES	YES	YES	YES	YES
B-61	YES	YES	YES	YES	YES	YES
B-64	YES	YES	YES	YES	YES	YES
B-65	YES	YES	YES	YES	YES	YES
B-68	YES	YES	YES	YES	YES	YES
B-72	YES	YES	YES	YES	YES	YES
B-73	YES	YES	YES	YES	YES	YES
B-74	YES	YES	YES	YES	YES	YES
B-76	YES	YES	YES	YES	YES	YES
B-78	YES	YES	YES	YES	YES	YES
B-79	YES	YES	YES	YES	YES	YES
B-80	YES	YES	YES	YES	YES	YES
B-81	YES	YES	YES	YES	YES	YES
B-84	YES	YES	YES	YES	YES	YES
B-85	YES	YES	YES	YES	YES	YES
B-86	YES	YES	YES	YES	YES	YES
B-87	YES	YES	YES	YES	YES	YES
B-89	YES	YES	YES	YES	YES	YES
B-90	YES	YES	YES	YES	YES	YES
B-91	YES	YES	YES	YES	YES	YES
B-94	YES	YES	YES	YES	YES	YES
B-95	YES	YES	YES	YES	YES	YES
B-96	YES	YES	YES	YES	YES	YES
B-99	YES	YES	YES	YES	YES	YES
B-103D	YES	YES	YES	YES	YES	YES
B-109D	YES	YES	YES	YES	YES	YES
B-110D	YES	YES	YES	YES	YES	YES
B-113D	YES	YES	YES	YES	YES	YES
B-115D	YES	YES	YES	YES	YES	YES
B-116D	YES	YES	YES	YES	YES	YES
B-117D	YES	YES	YES	YES	YES	YES
B-118	YES	YES	YES	YES	YES	YES
B-119D	YES	YES	YES	YES	YES	YES
B-123D	YES	YES	YES	YES	YES	YES
AP-1-B-3	YES	YES	YES	YES	YES	YES
AP-1-B-7	YES	YES	YES	YES	YES	YES
AP-1-B-8	YES	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough

Date: 9/3/2024

Permit Number: NA

Field Conditions: Sunny

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
DW-1	YES	YES	YES	YES	YES	YES
DW-2	YES	YES	YES	YES	YES	YES
DW-3	YES	YES	YES	YES	YES	YES
DW-4	YES	YES	YES	YES	YES	YES
WT-1	YES	YES	YES	YES	YES	YES
WT-2	YES	YES	YES	YES	YES	YES
WT-3	YES	YES	YES	YES	YES	YES
WT-4	YES	YES	YES	YES	YES	YES
WT-5	YES	YES	YES	YES	YES	YES
WT-6	NO	YES	YES	YES	YES	YES
WT-7	YES	YES	YES	YES	YES	YES
ET-1	NO	YES	YES	YES	YES	YES

Well Inspection

Site Name: Plant McDonough Date: 9/3/2024

Permit Number: NA Field Conditions: Sunny

Well ID:	Corrective actions as needed, by date:
DGWA-53	Access trail partially blocked by rock/gravel stockpiles, path needs clearing
DGWA-70A	
DGWA-71	Clear overgrowth on pad
DGWC-37	
DGWC-38	Needs lock replacement
DGWC-39	
DGWC-40	Needs well cap
DGWC-67	
DGWC-68A	
DGWC-69	
DGWC-121	
B-62	
B-100	
B-105D	
B-112D	
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	
B-56	Lid on exterior casing covering well needs adjusting- well is unable to be secured and locked
B-63	
B-66	

Well Inspection

Site Name: Plant McDonough Date: 9/3/2024

Permit Number: NA Field Conditions: Sunny

Well ID:	Corrective actions as needed, by date:
B-77	
B-82	Overgrowth around well pad needs clearing, weep hole needs to be put into internal PVC casing
B-83	
B-88	
B-92	Needs flat well cap
B-93	
B-97	
B-98	
B-101D	
B-102D	
B-104D	
B-106D	
B-107D	
B-108D	
B-111D	
B-120D	
B-122D	
B-125D	Pea gravel needs to be added to annular space
B-3	
B-6	
B-7	
B-16	
B-18	
B-24	
B-25	
B-26	
B-28	
B-29	
B-31	
B-41	
B-50	
B-51	
B-52	
B-54	
B-55	
B-57	
B-58	
B-59	

Well Inspection

Site Name: Plant McDonough Date: 9/3/2024

Permit Number: NA Field Conditions: Sunny

Well ID:	Corrective actions as needed, by date:
B-60	
B-61	
B-64	
B-65	
B-68	Bolt hole stripped on screw fastener affixing flush mount cover, needs replacement
B-72	
B-73	
B-74	
B-76	
B-78	
B-79	
B-80	Weep hole needs to be put into internal PVC casing
B-81	
B-84	
B-85	
B-86	Needs new label inside flush mount cover
B-87	
B-89	
B-90	
B-91	Needs new label
B-94	Overgrowth behind gate 23B needs clearing
B-95	Needs new lock
B-96	
B-99	
B-103D	
B-109D	
B-110D	
B-113D	Flush mount casing filled with water, cover need sealing
B-115D	
B-116D	
B-117D	Clear overgrowth on pad
B-118	
B-119D	
B-123D	
AP-1-B-3	
AP-1-B-7	
AP-1-B-8	

Well Inspection

Site Name: Plant McDonough Date: 9/3/2024

Permit Number: NA Field Conditions: Sunny

Well ID:	Corrective actions as needed, by date:
DW-1	
DW-2	
DW-3	
DW-4	
WT-1	
WT-2	
WT-3	
WT-4	
WT-5	
WT-6	Stream gauge bent at ~45° angle and split at top, not usable
WT-7	Appears unsafe to access. Path to stream gauge needs to be created and cleared
ET-1	Gauge needs cleaning and/or replacement. Measurements not legible near base.

APPENDIX C

Well Maintenance and Repair Documentation

TECHNICAL MEMORANDUM

DATE February 28, 2025

TO Joju Abraham, PG
Southern Company Services

CC Ben Hodges, Georgia Power Company

FROM WSP USA Inc

PLANT MCDONOUGH ASH POND 1, ASH POND 2, AND ASH POND 3/4
WELL MAINTENANCE AND REPAIR DOCUMENTATION
GEORGIA POWER COMPANY

WSP USA Inc. (WSP) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant McDonough Ash Pond 1, and Ash Pond 2 and 3/4 on February 8, 2024. Repairs and maintenance were completed in accordance with 12-5-134 (5)(D)vii of the Georgia Well Standards Act (1985) for routine visual inspections of groundwater monitoring wells (i.e., at least once every five years) under the direction of a Georgia licensed professional engineer or geologist.

Table 1: Plant McDonough Ash Pond 1, 2, 3/4 – Well Maintenance Summary

Well ID	Date Performed	Maintenance/Repair Performed
B-91	September 2024	New label added.
B-92	September 2024	Well cap added.
B-95	September 2024	Well lock replaced.
B-117D	January 2025	Cleaned off pad to improve access.
DGWA-71	January 2025	Cleaned off pad to improve access.
ET-1	September 2024	Gauge cleaned for legible measurement.
WT-7	January 2025	Access to stream gauge improved and cleared.
B-94	January 2025	Overgrowth behind gate 23B cleared to improve access.
DGWA-53	January 2025	Access improved by clearing stockpiles.
B-86	September 2024	Label added inside flush mount cover.
B-82	January 2025	Weep hole created; cleaned off pad.
B-80	September 2024	Weep hole created.

WSP USA Inc.
5170 Peachtree Road Building 100 Suite 300, Atlanta, Georgia, USA 30341 T: +1 770 496-1893 F: +1 770 934-9476

Well ID	Date Performed	Maintenance/Repair Performed
B-113D	September 2024	Cover sealed to prevent entry of water.
DGWC-40	September 2024	Well cap added.
DGWC-38	September 2024	Well lock replaced.
B-68	January 2025	Bolt holes on the manhole where tapped and new bolts installed.
B-125D	September 2024	Pea gravels added to annular space.
B-56	January 2025	Protective cover lid was inspected. Lid appeared in good condition and locked.

WSP USA Inc.

Rhonda N. Quinn, PG
Senior Consultant, Geologist

Dawn L. Prell, CPG
Vice President, Hydrogeologist

Attachments: Southern Company CFS
Plant McDonough Jan. 2025 Well O&M
(Jan. 7th)

Southern Company CFS
Plant McDonough Jan. 2025 Well O&M (Jan. 7th)

McDonough AP4:

B-56 – Protective cover lid was inspected. Lid appeared in good condition and locked.

McDonough AP1:

B-68 – Bolt holes on the manhole where tapped and new bolts installed.

Southern Company

APPENDIX D

Annual Water Well Survey

Plant McDonough
5551 South Cobb Drive SE
Atlanta, GA 30339

Inquiry Number: 7787989.1s
October 09, 2024

The EDR GeoCheck® Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION **PAGE**

GEOCHECK ADDENDUM

Physical Setting Source Addendum ---- **A-1**

Physical Setting Source Summary ---- **A-2**

Physical Setting SSURGO Soil Map ---- **A-5**

Physical Setting Source Map ---- **A-14**

Physical Setting Source Map Findings ---- **A-15**

Physical Setting Source Records Searched ---- **PSGR-1**

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. **NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA) INFORMATION PROVIDED IN THIS REPORT.** Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2024 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

PLANT MCDONOUGH
5551 SOUTH COBB DRIVE SE
ATLANTA, GA 30339

TARGET PROPERTY COORDINATES

Latitude (North):	33.818566 - 33° 49' 6.84''
Longitude (West):	84.481499 - 84° 28' 53.40''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	733105.4
UTM Y (Meters):	3744697.8
Elevation:	791 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33084-G4 NORTHWEST ATLANTA, GA
Version Date:	1997

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

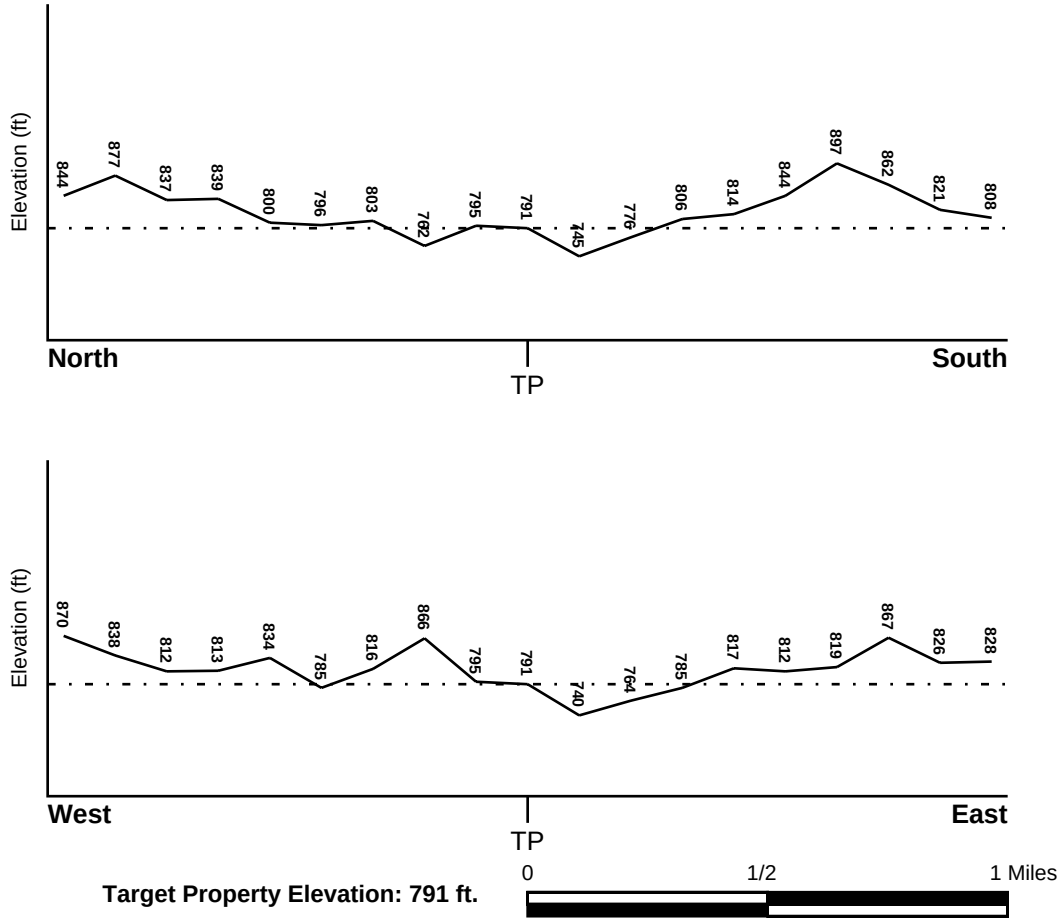
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ESE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 791 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
13067C0228H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
13067C0226G	FEMA FIRM Flood data
13067C0227H	FEMA FIRM Flood data
13067C0209H	FEMA FIRM Flood data
13067C0229H	FEMA FIRM Flood data
13121C0229F	FEMA FIRM Flood data
13067C0236H	FEMA FIRM Flood data
13067C0217H	FEMA FIRM Flood data
13121C0237F	FEMA FIRM Flood data
13121C0236F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NORTHWEST ATLANTA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile SE	SSW
2	1/2 - 1 Mile SSE	SW
3	1/2 - 1 Mile South	SW

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

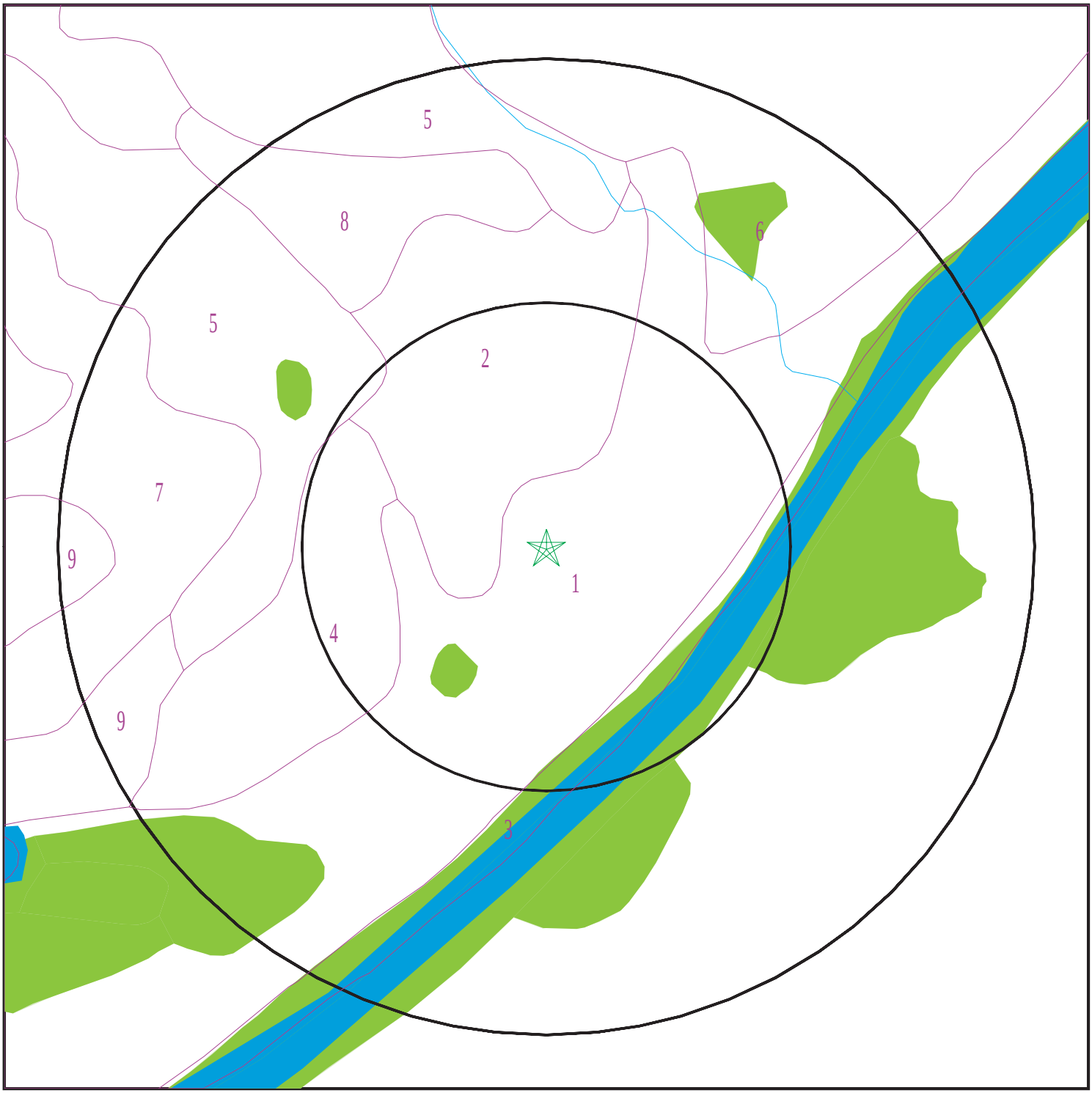
Era:	Paleozoic
System:	Pennsylvanian
Series:	Catacalastic rocks
Code:	cat *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7787989.1s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Plant McDonough	CLIENT:	WSP USA Environment & Infrastructure Inc.
ADDRESS:	5551 South Cobb Drive SE Atlanta GA 30339	CONTACT:	Tanya Kinnard
LAT/LONG:	33.818566 / 84.481499	INQUIRY #:	7787989.1s
		DATE:	October 09, 2024 3:56 pm

Copyright © 2024 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Toccoa

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 114 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1
2	9 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1

Soil Map ID: 2

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	35 inches	66 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 5

Soil Component Name: Madison

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	29 inches	35 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 6

Soil Component Name: Urban land

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 200 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 7

Soil Component Name: Madison

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 8

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Map ID: 9

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	2.000
Federal FRDS PWS	2.000
State Database	2.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A4	USGS40000265087	1 - 2 Miles ENE
A7	USGS40000265094	1 - 2 Miles ENE
A9	USGS40000265091	1 - 2 Miles ENE
B10	USGS40000265121	1 - 2 Miles NNE
D22	USGS40000265168	1 - 2 Miles NNW
E23	USGS40000265030	1 - 2 Miles WSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

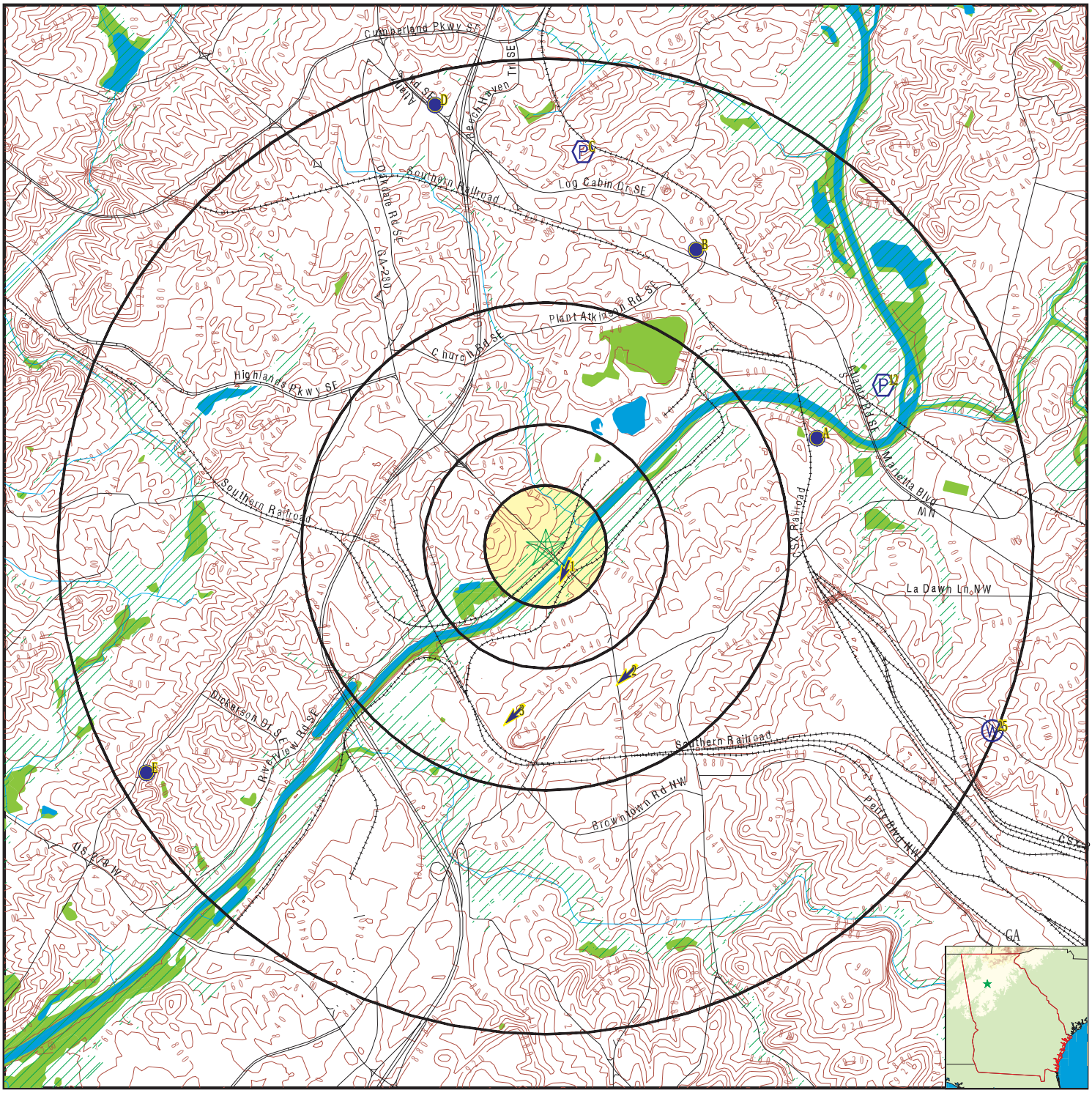
MAP ID	WELL ID	LOCATION FROM TP
12	GA1210001	1 - 2 Miles ENE
C13	GA1210038	1 - 2 Miles North
C14	GA1210000	1 - 2 Miles North
C15	GA1210006	1 - 2 Miles North
C16	GA1210037	1 - 2 Miles North
C17	GA1210002	1 - 2 Miles North
C18	GA1210039	1 - 2 Miles North
C19	GA1210007	1 - 2 Miles North
C20	GA1210005	1 - 2 Miles North

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A5	0000004656	1 - 2 Miles ENE
A6	0000004659	1 - 2 Miles ENE
A8	0000004658	1 - 2 Miles ENE
B11	0000002231	1 - 2 Miles NNE
D21	0000002233	1 - 2 Miles NNW
E24	0000002229	1 - 2 Miles WSW
25	0000004654	1 - 2 Miles ESE

PHYSICAL SETTING SOURCE MAP - 7787989.1s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Wildlife Areas

SITE NAME:	Plant McDonough	CLIENT:	WSP USA Environment & Infrastructure Inc.
ADDRESS:	5551 South Cobb Drive SE Atlanta GA 30339	CONTACT:	Tanya Kinnard
LAT/LONG:	33.818566 / 84.481499	INQUIRY #:	7787989.1s
		DATE:	October 09, 2024 3:56 pm

Copyright © 2024 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **SE** **1/8 - 1/4 Mile** **Lower**	Site ID:	0-601138	**AQUIFLOW**	**18783**
	Groundwater Flow:	SSW		
	Shallow Water Depth:	18.82		
	Deep Water Depth:	19.04		
	Average Water Depth:	Not Reported		
	Date:	07/1991		
2 **SSE** **1/2 - 1 Mile** **Higher**	Site ID:	0-600936	**AQUIFLOW**	**18791**
	Groundwater Flow:	SW		
	Shallow Water Depth:	19		
	Deep Water Depth:	30		
	Average Water Depth:	Not Reported		
	Date:	06/1995		
3 **South** **1/2 - 1 Mile** **Higher**	Site ID:	9000676	**AQUIFLOW**	**23156**
	Groundwater Flow:	SW		
	Shallow Water Depth:	3.71		
	Deep Water Depth:	23.84		
	Average Water Depth:	Not Reported		
	Date:	7/1994		

A4
ENE
1 - 2 Miles
Higher

FED USGS **USGS40000265087**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE27	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19660401
Well Depth:	500	Well Depth Units:	ft
Well Hole Depth:	500	Well Hole Depth Units:	ft

A5
ENE
1 - 2 Miles
Higher

GA WELLS **0000004656**

County code:	121	Well num:	10EE27
Remarks:	SONOCO PRODUCTS	Lat:	334926
Lon:	0842745	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	500	Depth to casing:	23.00
Casing dia:	Not Reported	Casing matl:	S
Depth to top:	23.00	Depth to bot:	500.00
Opening type:	X	Constr date:	196604
Discharge:	32.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004656

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
A6 **ENE** **1 - 2 Miles** **Lower**	**GA WELLS**	**0000004659**

County code:	121	Well num:	10EE26
Remarks:	SONOCO PRODUCTS	Lat:	334933
Lon:	0842745	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	500	Depth to casing:	23.00
Casing dia:	8.00	Casing matl:	S
Depth to top:	23.00	Depth to bot:	500.00
Opening type:	X	Constr date:	196603
Discharge:	30.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004659

A7
ENE
1 - 2 Miles
Lower

FED USGS **USGS40000265094**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE26	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19660301
Well Depth:	500	Well Depth Units:	ft
Well Hole Depth:	500	Well Hole Depth Units:	ft

A8
ENE
1 - 2 Miles
Higher

GA WELLS **0000004658**

County code:	121	Well num:	10EE25
Remarks:	SONOCO PRODUCTS	Lat:	334930
Lon:	0842742	Latlon datum:	NAD27
Alt:	900.00	Alt datum:	NGVD29
Depth:	400	Depth to casing:	33.00
Casing dia:	10.00	Casing matl:	S
Depth to top:	33.00	Depth to bot:	400.00
Opening type:	X	Constr date:	195801
Discharge:	144.00	Prim use:	C
Aquifer code:	Not Reported	Edr id:	0000004658

A9
ENE
1 - 2 Miles
Higher

FED USGS **USGS40000265091**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE25	Type:	Well
Description:	SONOCO PRODUCTS	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19580101
Well Depth:	400	Well Depth Units:	ft
Well Hole Depth:	400	Well Hole Depth Units:	ft

B10
NNE
1 - 2 Miles
Higher

FED USGS **USGS40000265121**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE02	Type:	Well
Description:	W.C. HALL	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Crystalline Rocks	Aquifer Type:	Confined multiple aquifer
Construction Date:	1932	Well Depth:	79
Well Depth Units:	ft	Well Hole Depth:	79
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	49	Level reading date:	1992-06-16
Feet below surface:	29.34	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1991-10-31	Feet below surface:	29.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1991-05-23	Feet below surface:	30.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-10-29	Feet below surface:	31.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-05-30	Feet below surface:	29.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1989-10-27	Feet below surface:	32.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-11-28	Feet below surface:	34.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-06-29	Feet below surface:	33.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-10-26	Feet below surface:	32.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-11-26	Feet below surface:	32.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-07-28	Feet below surface:	32.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-31	Feet below surface:	34.34
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1984-05-31	Feet below surface:	26.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-01	Feet below surface:	30.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-05-31	Feet below surface:	29.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-10-26	Feet below surface:	32.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-05-25	Feet below surface:	31.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-22	Feet below surface:	32.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-05-21	Feet below surface:	31.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-11-13	Feet below surface:	30.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-05-29	Feet below surface:	27.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-10-25	Feet below surface:	30.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-05-23	Feet below surface:	31.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-12-07	Feet below surface:	32.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-10-18	Feet below surface:	31.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-05-25	Feet below surface:	29.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-04-21	Feet below surface:	30.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-03-31	Feet below surface:	30.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-03-01	Feet below surface:	30.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-01-30	Feet below surface:	31.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-12-28	Feet below surface:	31.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-12-01	Feet below surface:	31.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-10-27	Feet below surface:	31.33
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1977-09-30	Feet below surface:	31.11
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-08-25	Feet below surface:	30.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-07-27	Feet below surface:	30.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-06-28	Feet below surface:	29.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-05-26	Feet below surface:	29.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-05-02	Feet below surface:	29.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-03-28	Feet below surface:	30.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-02-23	Feet below surface:	30.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-01-26	Feet below surface:	30.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-12-21	Feet below surface:	32.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-10-14	Feet below surface:	29.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-06-03	Feet below surface:	26.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-11-14	Feet below surface:	28.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-10-18	Feet below surface:	29.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-05-15	Feet below surface:	26.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-24	Feet below surface:	34
Feet to sea level:	Not Reported	Note:	Not Reported

B11
NNE
1 - 2 Miles
Higher

GA WELLS **0000002231**

County code:	067	Well num:	10EE02
Remarks:	W.C. HALL	Lat:	335010
Lon:	0842815	Latlon datum:	NAD27
Alt:	858.00	Alt datum:	NGVD29
Depth:	79	Depth to casing:	40
Casing dia:	6	Casing matl:	Not Reported
Depth to top:	40	Depth to bot:	85
Opening type:	X	Constr date:	1932

Discharge:	Not Reported	Prim use:	U
Aquifer code:	320CRSL	Edr id:	0000002231

12
ENE
1 - 2 Miles
Lower

FRDS PWS GA1210001

Epa region:	04	State:	GA
Pwsid:	GA1210001	Pwsname:	ATLANTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13089
Status:	Active	Retpopsrvd:	650000
Pwssvcconn:	240780	Psource longname:	Surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	PARKER, RICHARD	Contactorgname:	PARKER, RICHARD
Contactphone:	404-235-2058	Contactaddress1:	651 14TH STREET, NW
Contactaddress2:	Not Reported	Contactcity:	ATLANTA
Contactstate:	GA	Contactzip:	30318
Pwsactivitycode:	A		

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	rapid mix	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	ph adjustment, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	coagulation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	flocculation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	sedimentation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	filtration, rapid sand	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	corrosion control
Trtprocess:	ph adjustment, post	Factypecode:	TP

Pwsid:	GA1210001	Facid:	1027
Facname:	HEMPHILL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	rapid mix	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	ph adjustment, pre	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	coagulation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	flocculation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	sedimentation	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	particulate removal
Trtprocess:	filtration, rapid sand	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	corrosion control
Trtprocess:	ph adjustment, post	Factypecode:	TP

Pwsid:	GA1210001	Facid:	2816
Facname:	CHATTAHOOCHEE PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		

PWS ID:	GA1210001	PWS name:	ATLANTA
Address:	2528 CHATTAHOOCHEE CIR., NW		
Care of:	ATLANTA WATER DEPARTMENT	City:	ATLANTA
State:	GA	Zip:	30318
Owner:	ATLANTA	Source code:	Surface water
Population:	649836		

PWS ID:	GA1210001	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported

PWS zip:	Not Reported	PWS name:	ATLANTA
PWS type code:	C	Retail population served:	650000
Contact:	HEBBERD, CHRISTOPHER	Contact address:	651 14TH STREET
Contact address:	ATLANTA	Contact city:	GA
Contact state:	30	Contact zip:	404-602-44
Contact telephone:	Not Reported		
County:	FULTON	Source:	Surface water
Treatment Objective:	CORROSION CONTROL	Process:	PH ADJUSTMENT, POST
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	DISINFECTION	Process:	GASEOUS CHLORINATION, POST
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	DISINFECTION	Process:	GASEOUS CHLORINATION, PRE
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	COAGULATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	FILTRATION, RAPID SAND
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	FLOCCULATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	RAPID MIX
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	SEDIMENTATION
Population:	650000		
County:	FULTON	Source:	Surface water
Treatment Objective:	PARTICULATE REMOVAL	Process:	PH ADJUSTMENT, PRE
Population:	650000		
PWS ID:	GA1210001	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00649836	System name:	ATLANTA
System address:	ATLANTA WATER BUREAU	System address:	2541 CHATTAHOOCHEE CIRCLE, NW
System city:	ATLANTA	System state:	GA
System zip:	30318		
Population served:	over 100,000 Persons	Treatment:	Treated
Latitude:	334941	Longitude:	0842727
State:	GA	Latitude degrees:	33
Latitude minutes:	49	Latitude seconds:	41.0000
Longitude degrees:	84	Longitude minutes:	27
Longitude seconds:	27.0000		
Violation id:	10097	Orig code:	S
State:	GA	Violation Year:	1997
Contamination code:	5000	Contamination Name:	Lead and Copper Rule

Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/1997
Cmp edt:	Not Reported		

Violation id:	10502	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	0300	Contamination Name:	IESWTR
Violation code:	38		
Violation name:	Monitoring, Turbidity (Enhanced SWTR)		
Rule code:	122	Rule name:	LT1 ESWTR
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	01/01/2002
Cmp edt:	01/31/2002		

Violation id:	11303	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2000
Cmp edt:	Not Reported		

Violation id:	11406	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		

Violation id:	11607	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	11909	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		

Violation id:	12511	Orig code:	S
State:	GA	Violation Year:	2010
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2010
Cmp edt:	Not Reported		

Violation id:	12616	Orig code:	S

State:	GA	Violation Year:	2013
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	220	Rule name:	St2 DBP
Violation measur:	0.081	Unit of measure:	MG/L
State mcl:	0.08	Cmp bdt:	04/01/2013
Cmp edt:	06/30/2013		

Violation id:	12617	Orig code:	S
State:	GA	Violation Year:	2014
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	220	Rule name:	St2 DBP
Violation measur:	0.082	Unit of measure:	MG/L
State mcl:	0.08	Cmp bdt:	01/01/2014
Cmp edt:	03/31/2014		

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/28/2002
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/09/2002
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/28/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/06/2003
Enforcement Detail:	St BCA signed	Enforcement Category:	Formal

Violation ID:	10502	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/09/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11303	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/24/2006
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/24/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11406	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/15/2006
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	11607	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	07/12/2007
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	11607	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	07/09/2007
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	07/07/2009
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12511	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	10/05/2011
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12616	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/23/2013
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	12616	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/23/2013
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	2/28/2002 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	2/28/2002 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	5/6/2003 0:00:00	Enforcement action:	State BCA Signed
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	7/9/2002 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	10502
Contaminant:	0300	Violation type:	38
Compliance start date:	1/1/2002 0:00:00	Compliance end date:	1/31/2002 0:00:00
Enforcement date:	7/9/2002 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	0		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11303
Contaminant:	Lead & Copper Rule	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	9/3/2001 0:00:00
Enforcement date:	9/3/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71

Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	7/24/2006 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	7/24/2006 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11406
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2006 0:00:00	Compliance end date:	7/24/2006 0:00:00
Enforcement date:	8/15/2006 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11607
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	7/9/2007 0:00:00
Enforcement date:	7/12/2007 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	ATLANTA	Population served:	650000
PWS type code:	C	Violation ID:	11607
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	7/9/2007 0:00:00
Enforcement date:	7/9/2007 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

C13
North
1 - 2 Miles
Higher

FRDS PWS **GA1210038**

Epa region:	04	State:	GA
Pwsid:	GA1210038		
Pwsname:	ATLANTA-FULTON CO WATER RES COMMISSION		
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	0
Pwssvcconn:	2	Psource longname:	Surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CREWS, KATHY	Contactorgname:	CREWS, KATHY
Contactphone:	678-942-2791	Contactaddress1:	9750 SPRUILL RD.
Contactaddress2:	Not Reported	Contactcity:	ALPHARETTA
Contactstate:	GA	Contactzip:	30022
Pwsactivitycode:	A		

Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	gaseous chlorination, post
Factypecode:	TP		

Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	corrosion control	Trtprocess:	ph adjustment, post

Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	filtration, rapid sand
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	gaseous chlorination, pre
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	ph adjustment, pre
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	rapid mix
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	coagulation
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	flocculation
Factypecode:	TP		
Pwsid:	GA1210038	Facid:	1034
Facname:	ATLANTA-FULTON CO WATER PLANT		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	particulate removal	Trtprocess:	sedimentation
Factypecode:	TP		
PWS ID:	GA1210038	PWS name:	ATLANTA-FULTON WATER RES COMM
Address:	9750 SPRUILL ROAD	Care of:	FULTON CO. WATER RESOURCES CM
City:	ALPHARETTA	State:	GA
Zip:	30022	Owner:	ATLANTA-FULTON WATER RES COMM
Source code:	Surface water	Population:	25
PWS ID:	GA1210038	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	FULTON
Source:	Surface water	Treatment Objective:	DISINFECTION
Process:	GASEOUS CHLORINATION, POST		
Population:	0		
PWS ID:	GA1210038	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000025	System name:	ATLANTA-FULTON WATER RES COMM
System address:	ATLANTA-FULTON WATER RES COMM		

System address:	9750 SPRUILL ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201
Population served:	Under 101 Persons	Treatment:	Treated
Latitude:	340431	Longitude:	0841739
Latitude:	335031	Longitude:	0842844
State:	GA	Latitude degrees:	33
Latitude minutes:	50	Latitude seconds:	31.0000
Longitude degrees:	84	Longitude minutes:	28
Longitude seconds:	44.0000		

C14
North
1 - 2 Miles
Higher

FRDS PWS GA1210000

Epa region:	04	State:	GA
Pwsid:	GA1210000	Pwsname:	ALPHARETTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	11700
Pwssvcconn:	3392	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CHATHAM, EARL	Contactorgname:	Not Reported
Contactphone:	678-297-6200	Contactaddress1:	1790 HEMBREE ROAD
Contactaddress2:	Not Reported	Contactcity:	ALPHARETTA
Contactstate:	GA	Contactzip:	30004
Pwsactivitycode:	I		
PWS ID:	GA1210000	PWS name:	ALPHARETTA
Address:	1790 HEMBREE ROAD	Care of:	CITY OF ALPHARETTA
City:	ALPHARETTA	State:	GA
Zip:	30004	Owner:	ALPHARETTA
Source code:	Purchases surface water	Population:	8060
PWS ID:	GA1210000	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210000
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00006539
System name:	ALPHARETTA	System address:	CITY OF ALPHARETTA
System address:	TWO SOUTH MAIN STREET	System city:	ALPHARETTA
System state:	GA	System zip:	30201
Population served:	5,001 - 10,000 Persons	Treatment:	Treated
Latitude:	335031	Longitude:	0842844
Violation id:	10098	Orig code:	S
State:	GA	Violation Year:	1995
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1995
Cmp edt:	Not Reported		

Violation id:	20303	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	24	Violation name:	Monitoring, Routine Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	04/01/2003
Cmp edt:	04/30/2003		

Violation id:	20404	Orig code:	S
State:	GA	Violation Year:	1998
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1998
Cmp edt:	Not Reported		

Violation id:	20505	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2004
Cmp edt:	10/31/2004		

Violation id:	20605	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2004
Cmp edt:	11/30/2004		

Violation id:	20705	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2004
Cmp edt:	Not Reported		

Violation id:	20805	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		

Violation ID:	20303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/29/2003
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	20303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	05/29/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	09/25/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	06/28/2004
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20404	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	02/03/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/03/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/25/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20505	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/03/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/07/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/07/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20605	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/25/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/27/2005
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	01/27/2005
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	05/26/2005
Enforcement Detail:	St Other	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	05/05/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/24/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005

Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

---

C15
North
1 - 2 Miles
Higher

FRDS PWS GA1210006

Epa region:	04	State:	GA
Pwsid:	GA1210006	Pwsname:	HAPEVILLE
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	5385
Pwssvcconn:	2071	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	MARTIN, C C	Contactorgname:	MARTIN, C C
Contactphone:	404-669-2100	Contactaddress1:	POB 82311
Contactaddress2:	Not Reported	Contactcity:	HAPEVILLE
Contactstate:	GA	Contactzip:	30354-2311
Pwsactivitycode:	A		

PWS ID:	GA1210006	PWS name:	HAPEVILLE
Address:	3560 PERKINS STREET	Care of:	CITY OF HAPEVILLE
City:	HAPEVILLE	State:	GA
Zip:	30354	Owner:	HAPEVILLE
Source code:	Purchases surface water	Population:	5385

PWS ID:	GA1210006	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	HAPEVILLE
PWS type code:	C	Retail population served:	5385
Contact:	MARTIN, C C	Contact address:	POB 82311
Contact address:	HAPEVILLE	Contact city:	GA
Contact state:	30	Contact zip:	404-669-21
Contact telephone:	Not Reported		

PWS ID:	GA1210006	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00005483	System name:	HAPEVILLE
System address:	CITY OF HAPEVILLE	System address:	POB 82311
System city:	HAPEVILLE	System state:	GA
System zip:	303542311		

Population served:	5,001 - 10,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Violation id:	10101	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2000
Cmp edt:	Not Reported		

Violation id:	10402	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR

Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	10603	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		

Violation id:	10704	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2003
Cmp edt:	Not Reported		

Violation id:	10805	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		

Violation id:	10907	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	11008	Orig code:	S
State:	GA	Violation Year:	2007
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2007
Cmp edt:	Not Reported		

Violation id:	11209	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	05/01/2009
Cmp edt:	05/31/2009		

Violation id:	11612	Orig code:	S
State:	GA	Violation Year:	2011
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)

Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2011
Cmp edt:	11/30/2011		

Violation id:	11613	Orig code:	S
State:	GA	Violation Year:	2012
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	Not Reported		

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	08/31/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10402	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/18/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10402	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/02/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/11/2003
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	10603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/18/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/07/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/01/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/09/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10907	Orig Code:	S

Enforcemnt FY: 2007
Enforcement Detail: St Compliance achieved
Enforcement Action: 09/11/2007
Enforcement Category: Resolving

Violation ID: 10907
Enforcemnt FY: 2007
Enforcement Detail: State CCR Follow-up Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 09/01/2007

Violation ID: 11008
Enforcemnt FY: 2008
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 07/22/2008
Enforcement Category: Resolving

Violation ID: 11008
Enforcemnt FY: 2008
Enforcement Detail: State CCR Follow-up Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 08/12/2008

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 06/03/2009

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Public Notif received
Orig Code: S
Enforcement Action: 07/02/2009
Enforcement Category: Informal

Violation ID: 11209
Enforcemnt FY: 2009
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 06/03/2009
Enforcement Category: Informal

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 01/30/2012

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 01/30/2012
Enforcement Category: Informal

Violation ID: 11612
Enforcemnt FY: 2012
Enforcement Detail: St Public Notif received
Orig Code: S
Enforcement Action: 02/08/2012
Enforcement Category: Informal

Violation ID: 11613
Enforcemnt FY: 2012
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 07/11/2012
Enforcement Category: Resolving

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 7/2/2001 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10101
Violation type: 71
Compliance end date: 8/31/2001 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 8/31/2001 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10101
Violation type: 71
Compliance end date: 8/31/2001 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
Population served: 5385

PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2002 0:00:00
Enforcement date: 7/18/2002 0:00:00
Violation measurement: Not Reported
Violation ID: 10402
Violation type: 71
Compliance end date: 7/18/2002 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2002 0:00:00
Enforcement date: 7/2/2002 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10402
Violation type: 71
Compliance end date: 7/18/2002 0:00:00
Enforcement action: State Violation/Reminder Notice

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2003 0:00:00
Enforcement date: 8/11/2003 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10603
Violation type: 71
Compliance end date: 8/18/2003 0:00:00
Enforcement action: SII

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2003 0:00:00
Enforcement date: 8/18/2003 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10603
Violation type: 71
Compliance end date: 8/18/2003 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2004 0:00:00
Enforcement date: 7/1/2004 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10704
Violation type: 71
Compliance end date: 7/7/2004 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2004 0:00:00
Enforcement date: 7/7/2004 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10704
Violation type: 71
Compliance end date: 7/7/2004 0:00:00
Enforcement action: State Compliance Achieved

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 7/1/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: State Intentional no-action

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 8/1/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: SII

PWS name: HAPEVILLE
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2005 0:00:00
Enforcement date: 8/9/2005 0:00:00
Violation measurement: Not Reported
Population served: 5385
Violation ID: 10805
Violation type: 71
Compliance end date: 8/9/2005 0:00:00
Enforcement action: State Compliance Achieved

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	10907
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/11/2007 0:00:00
Enforcement date:	9/1/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	10907
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/11/2007 0:00:00
Enforcement date:	9/11/2007 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	11008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/22/2008 0:00:00
Enforcement date:	7/22/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	HAPEVILLE	Population served:	5385
PWS type code:	C	Violation ID:	11008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/22/2008 0:00:00
Enforcement date:	8/12/2008 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

C16
North
1 - 2 Miles
Higher

FRDS PWS GA1210037

Epa region:	04	State:	GA
Pwsid:	GA1210037	Pwsname:	PROVIDENCE PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	400
Pwssvcconn:	1	Psource longname:	Groundwater
Pwstype:	TNCWS	Owner:	Local_Govt
Contact:	CULBRETH, JOHN	Contactorgname:	CULBRETH, JOHN
Contactphone:	404-730-6200	Contactaddress1:	141 PRIOR ST., SW SUITE 8054
Contactaddress2:	Not Reported	Contactcity:	ATLANTA
Contactstate:	GA	Contactzip:	30303
Pwsactivitycode:	I		

Pwsid:	GA1210037	Facid:	1033
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1210037	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210037
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000400
System name:	PROVIDENCE PARK	System address:	PROVIDENCE PARK
System address:	13440 PROVIDENCE ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201

Population served:	101 - 500 Persons	Treatment:	Treated
Latitude:	334456	Longitude:	0842317
Latitude:	335031	Longitude:	0842844
Violation id:	20203	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2003
Cmp edt:	03/31/2003		
Violation id:	20306	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2005
Cmp edt:	12/31/2005		
Violation id:	20407	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2006
Cmp edt:	12/31/2006		
Violation ID:	20203	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	04/16/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20203	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	04/16/2003
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/21/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/21/2006
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/15/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20306	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	06/08/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20407	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	01/19/2007
Enforcement Detail:	St Violation/Reminder Notice		

Enforcement Category:	Informal		
Violation ID:	20407	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	01/19/2007
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

---

C17
North
1 - 2 Miles
Higher

FRDS PWS GA1210002

Epa region:	04	State:	GA
Pwsid:	GA1210002	Pwsname:	COLLEGE PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	20382
Pwssvcconn:	2620	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	LEE, PHIL	Contactorgname:	LEE, PHIL
Contactphone:	404-669-3757	Contactaddress1:	1886 W HARVARD AVE.
Contactaddress2:	Not Reported	Contactcity:	COLLEGE PARK
Contactstate:	GA	Contactzip:	30337
Pwsactivitycode:	A		

PWS ID:	GA1210002	PWS name:	COLLEGE PARK
Address:	1886 WEST HARVARD AVE.	Care of:	CITY OF COLLEGE PARK
City:	COLLEGE PARK	State:	GA
Zip:	30337	Owner:	COLLEGE PARK
Source code:	Purchases surface water	Population:	20645

PWS ID:	GA1210002	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	COLLEGE PARK
PWS type code:	C	Retail population served:	20382
Contact:	HOWARD, JR., JESSIE	Contact address:	POB 87137
Contact address:	COLLEGE PARK	Contact city:	GA
Contact state:	30	Contact zip:	404-669-37
Contact telephone:	Not Reported		

PWS ID:	GA1210002	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00020457	System name:	COLLEGE PARK
System address:	CITY OF COLLEGE PARK	System address:	1886 WEST HARVARD AVE.
System city:	COLLEGE PARK	System state:	GA
System zip:	30337		

Population served:	10,001 - 50,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Violation id:	10301	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	11407	Orig code:	S

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State: GA
Contamination code: 5000
Violation code: 52
Rule code: 350
Violation measur: Not Reported
State mcl: Not Reported
Cmp edt: Not Reported
Violation Year: 2006
Contamination Name: Lead and Copper Rule
Violation name: Follow-up Or Routine LCR Tap M/R
Rule name: LCR
Unit of measure: Not Reported
Cmp bdt: 10/01/2006

Violation ID: 10301
Enforcemnt FY: 2001
Enforcement Detail: St Intentional no-action
Orig Code: S
Enforcement Action: 07/02/2001
Enforcement Category: Resolving

Violation ID: 10301
Enforcemnt FY: 2001
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 08/10/2001
Enforcement Category: Resolving

Violation ID: 11407
Enforcemnt FY: 2007
Enforcement Detail: St Violation/Reminder Notice
Enforcement Category: Informal
Orig Code: S
Enforcement Action: 03/02/2007

Violation ID: 11407
Enforcemnt FY: 2010
Enforcement Detail: St Compliance achieved
Orig Code: S
Enforcement Action: 09/14/2010
Enforcement Category: Resolving

Violation ID: 11407
Enforcemnt FY: 2007
Enforcement Detail: St Public Notif requested
Orig Code: S
Enforcement Action: 03/02/2007
Enforcement Category: Informal

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 7/2/2001 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 10301
Violation type: 71
Compliance end date: 8/10/2001 0:00:00
Enforcement action: State Intentional no-action

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: 7000
Compliance start date: 7/1/2001 0:00:00
Enforcement date: 8/10/2001 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 10301
Violation type: 71
Compliance end date: 8/10/2001 0:00:00
Enforcement action: State Compliance Achieved

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: Lead & Copper Rule
Compliance start date: 10/1/2006 0:00:00
Enforcement date: 3/2/2007 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 11407
Violation type: Follow-up and Routine Tap Sampling
Compliance end date: 12/31/2025 0:00:00
Enforcement action: State Violation/Reminder Notice

PWS name: COLLEGE PARK
PWS type code: C
Contaminant: Lead & Copper Rule
Compliance start date: 10/1/2006 0:00:00
Enforcement date: 3/2/2007 0:00:00
Violation measurement: Not Reported
Population served: 20382
Violation ID: 11407
Violation type: Follow-up and Routine Tap Sampling
Compliance end date: 12/31/2025 0:00:00
Enforcement action: State Public Notif Requested

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C18
North
1 - 2 Miles
Higher | **FRDS PWS** | **GA1210039**

Epa region:	04	State:	GA
Pwsid:	GA1210039	Pwsname:	CHAMPIONS CLUB OF ATLANTA
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Closed	Retpopsrvd:	255
Pwssvcconn:	2	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	MELNIK, STEVE	Contactorgname:	Not Reported
Contactphone:	904-356-1000	Contactaddress1:	111 RIVERSIDE AVE., SUITE 330
Contactaddress2:	Not Reported	Contactcity:	JACKSONVILLE
Contactstate:	FL	Contactzip:	33202
Pwsactivitycode:	I		

Pwsid:	GA1210039	Facid:	1035
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

PWS ID:	GA1210039	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA1210039
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000025
System name:	CHAMPIONS CLUB-HOPEWELL DOWNS		
System address:	CHAMPIONS CLUB-HOPEWELL DOWNS		
System address:	15135 HOPEWELL ROAD	System city:	ALPHARETTA
System state:	GA	System zip:	30201

Population served:	101 - 500 Persons	Treatment:	Treated

Latitude:	340431	Longitude:	0841739

Latitude:	335031	Longitude:	0842844

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200001	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	Coliform (Tcr)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	010192	Violation end date:	033192
Violation period (months):	003	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200002	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	Coliform (Tcr)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	040192	Violation end date:	063092
Violation period (months):	003	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported

Analysis method:	Not Reported	Analysis result:	Not Reported

C19
North
1 - 2 Miles
Higher

FRDS PWS GA1210007

Epa region:	04	State:	GA
Pwsid:	GA1210007	Pwsname:	MOUNTAIN PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	798
Pwssvcconn:	307	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	SCHMIDT, BILL	Contactorgname:	SCHMIDT, BILL
Contactphone:	770-993-4231	Contactaddress1:	118 LAKE SHORE DRIVE
Contactaddress2:	Not Reported	Contactcity:	MOUNTAIN PARK
Contactstate:	GA	Contactzip:	30075
Pwsactivitycode:	A		

PWS ID:	GA1210007	PWS name:	MOUNTAIN PARK
Address:	100 MOUNTAIN PARK ROAD	Care of:	CITY OF MOUNTAIN PARK
City:	ROSWELL	State:	GA
Zip:	30075	Owner:	MOUNTAIN PARK
Source code:	Purchases surface water	Population:	679

PWS ID:	GA1210007	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	MOUNTAIN PARK
PWS type code:	C	Retail population served:	798
Contact:	SCHMIDT, BILL	Contact address:	118 LAKE SHORE DRIVE
Contact address:	MOUNTAIN PARK	Contact city:	GA
Contact state:	30	Contact zip:	770-993-42
Contact telephone:	Not Reported		

PWS ID:	GA1210007	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000679	System name:	MOUNTAIN PARK
System address:	CITY OF MOUNTAIN PARK	System address:	100 MOUNTAIN PARK ROAD
System city:	ROSWELL	System state:	GA
System zip:	30075		

Population served:	501 - 1,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Violation id:	1005	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		

Violation id:	1107	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR

Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	1408	Orig code:	S
State:	GA	Violation Year:	2007
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2007
Cmp edt:	Not Reported		

Violation id:	1613	Orig code:	S
State:	GA	Violation Year:	2012
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	Not Reported		

Violation id:	1614	Orig code:	S
State:	GA	Violation Year:	2013
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2013
Cmp edt:	Not Reported		

Violation id:	201	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2000
Cmp edt:	Not Reported		

Violation id:	302	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		

Violation id:	603	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		

Violation id:	804	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report

Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2003
Cmp edt:	Not Reported		

Violation id:	905	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	26	Violation name:	Monitoring, Repeat Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	06/01/2005
Cmp edt:	06/30/2005		

Violation ID:	1005	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/29/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1005	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/01/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	09/01/2007
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	10/05/2007
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1107	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	09/10/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1408	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	09/10/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1408	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/12/2008
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1613	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	08/27/2012
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1613	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	10/18/2012
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1614	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	07/02/2013
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

Violation ID:	1614	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	08/27/2013

Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/07/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	302	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/23/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	302	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	08/08/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/19/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	603	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/11/2003
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	804	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	09/08/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	804	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	08/20/2004
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	905	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/21/2005
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	905	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/21/2005
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1005
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	8/29/2005 0:00:00
Enforcement date:	8/1/2005 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1005
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	8/29/2005 0:00:00
Enforcement date:	8/29/2005 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107

Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	10/5/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/1/2007 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1107
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2007 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/10/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1408
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	8/12/2008 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	1408
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	9/10/2008 0:00:00
Enforcement date:	9/10/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	201
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2001 0:00:00	Compliance end date:	9/7/2001 0:00:00
Enforcement date:	7/2/2001 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	201
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2001 0:00:00	Compliance end date:	9/7/2001 0:00:00
Enforcement date:	9/7/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	302
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	8/8/2002 0:00:00
Enforcement date:	7/23/2002 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	302
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	8/8/2002 0:00:00
Enforcement date:	8/8/2002 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798

PWS type code:	C	Violation ID:	603
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2003 0:00:00	Compliance end date:	8/19/2003 0:00:00
Enforcement date:	8/11/2003 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	603
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2003 0:00:00	Compliance end date:	8/19/2003 0:00:00
Enforcement date:	8/19/2003 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	804
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	9/8/2004 0:00:00
Enforcement date:	8/20/2004 0:00:00	Enforcement action:	SII
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	804
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	9/8/2004 0:00:00
Enforcement date:	9/8/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	905
Contaminant:	Coliform (Tcr)	Violation type:	Monitoring, Repeat Minor (TCR)
Compliance start date:	6/1/2005 0:00:00	Compliance end date:	6/30/2005 0:00:00
Enforcement date:	7/21/2005 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	MOUNTAIN PARK	Population served:	798
PWS type code:	C	Violation ID:	905
Contaminant:	Coliform (Tcr)	Violation type:	Monitoring, Repeat Minor (TCR)
Compliance start date:	6/1/2005 0:00:00	Compliance end date:	6/30/2005 0:00:00
Enforcement date:	7/21/2005 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		

C20
North
1 - 2 Miles
Higher

FRDS PWS GA1210005

Epa region:	04	State:	GA
Pwsid:	GA1210005	Pwsname:	NORTH FULTON COUNTY
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13121
Status:	Active	Retpopsrvd:	172533
Pwssvcconn:	70291	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	PERSON, PATRICK	Contactorgname:	PERSON, PATRICK
Contactphone:	404-612-9429	Contactaddress1:	1030 MARIETTA HWY
Contactaddress2:	Not Reported	Contactcity:	ROSWELL
Contactstate:	GA	Contactzip:	30075
Pwsactivitycode:	A		

PWS ID:	GA1210005	PWS name:	NORTH FULTON COUNTY
Address:	141 PRYOR ST. SW SUITE 6001		

Care of:	DEPT. OF PUBLIC WORKS	City:	ATLANTA
State:	GA	Zip:	30303
Owner:	NORTH FULTON COUNTY	Source code:	Purchases surface water
Population:	106600		

PWS ID:	GA1210005	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	NORTH FULTON COUNTY
PWS type code:	C	Retail population served:	172533
Contact:	BAH, MARIE	Contact address:	1030 MARIETTA HWY.
Contact address:	ROSWELL	Contact city:	GA
Contact state:	30	Contact zip:	404-612-02
Contact telephone:	Not Reported		

PWS ID:	GA1210005	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00060000	System name:	NORTH FULTON COUNTY
System address:	NORTH FULTON WATER SYSTEM	System address:	1030 MARIETTA HIGHWAY
System city:	ROSWELL	System state:	GA
System zip:	300754732		

Population served:	50,001 - 75,000 Persons	Treatment:	Treated

Latitude:	335031	Longitude:	0842844

Latitude:	335031	Longitude:	0842844

Latitude:	335031	Longitude:	0842844

Latitude:	335031	Longitude:	0842844

Violation id:	10102	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		

Violation id:	10304	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2002
Cmp edt:	Not Reported		

Violation id:	10404	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		

Violation id:	10606	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule

Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		

Violation id:	10808	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		

Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/18/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/23/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10304	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	09/22/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10304	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	02/03/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/02/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10404	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10606	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/21/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10606	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/21/2006
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving

Violation ID:	10808	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/14/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10808	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/12/2008
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

PWS name:	NORTH FULTON COUNTY	Population served:	172533
PWS type code:	C	Violation ID:	10102
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2002 0:00:00	Compliance end date:	7/18/2002 0:00:00

Enforcement date: 7/18/2002 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10102
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2002 0:00:00
Compliance end date: 7/18/2002 0:00:00
Enforcement date: 7/23/2002 0:00:00
Enforcement action: State Violation/Reminder Notice
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10304
Contaminant: Lead & Copper Rule
Violation type: Follow-up and Routine Tap Sampling
Compliance start date: 10/1/2002 0:00:00
Compliance end date: 9/22/2003 0:00:00
Enforcement date: 2/3/2003 0:00:00
Enforcement action: State Violation/Reminder Notice
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10304
Contaminant: Lead & Copper Rule
Violation type: Follow-up and Routine Tap Sampling
Compliance start date: 10/1/2002 0:00:00
Compliance end date: 9/22/2003 0:00:00
Enforcement date: 9/22/2003 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10404
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2004 0:00:00
Compliance end date: 7/2/2004 0:00:00
Enforcement date: 7/1/2004 0:00:00
Enforcement action: State Intentional no-action
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10404
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2004 0:00:00
Compliance end date: 7/2/2004 0:00:00
Enforcement date: 7/2/2004 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10606
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2006 0:00:00
Compliance end date: 7/21/2006 0:00:00
Enforcement date: 7/21/2006 0:00:00
Enforcement action: State Intentional no-action
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10606
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2006 0:00:00
Compliance end date: 7/21/2006 0:00:00
Enforcement date: 7/21/2006 0:00:00
Enforcement action: State Compliance Achieved
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10808
Contaminant: 7000
Violation type: 71
Compliance start date: 7/1/2008 0:00:00
Compliance end date: 8/14/2008 0:00:00
Enforcement date: 8/12/2008 0:00:00
Enforcement action: SII
Violation measurement: Not Reported

PWS name: NORTH FULTON COUNTY
Population served: 172533
PWS type code: C
Violation ID: 10808
Contaminant: 7000
Violation type: 71

Compliance start date:	7/1/2008 0:00:00	Compliance end date:	8/14/2008 0:00:00
Enforcement date:	8/14/2008 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

D21
NNW
1 - 2 Miles
Higher

GA WELLS **0000002233**

County code:	067	Well num:	10EE39
Remarks:	BP GAS STN S ATLANTA ROAD	Lat:	335041
Lon:	0842922	Latlon datum:	NAD27
Alt:	930	Alt datum:	NGVD29
Depth:	39	Depth to casing:	29
Casing dia:	2	Casing matl:	P
Depth to top:	29	Depth to bot:	39
Opening type:	P	Constr date:	19900724
Discharge:	Not Reported	Prim use:	U
Aquifer code:	110SPRL	Edr id:	0000002233

D22
NNW
1 - 2 Miles
Higher

FED USGS **USGS40000265168**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	10EE39	Type:	Well
Description:	BP GAS STN S ATLANTA ROAD	HUC:	03130001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Saprolite	Aquifer Type:	Unconfined single aquifer
Construction Date:	19900724	Well Depth:	39
Well Depth Units:	ft	Well Hole Depth:	39.5
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1995-06-27
Feet below surface:	29.62	Feet to sea level:	Not Reported
Note:	Not Reported		

E23
WSW
1 - 2 Miles
Higher

FED USGS **USGS40000265030**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	09EE06	Type:	Well
Description:	CLAUDE W. McAteer	HUC:	03130002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation Type:	Saprolite	Aquifer Type:	Unconfined single aquifer
Construction Date:	1940	Well Depth:	38
Well Depth Units:	ft	Well Hole Depth:	38
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1995-06-01

Feet below surface:	28.95	Feet to sea level:	Not Reported
Note:	Not Reported		

E24
WSW
1 - 2 Miles
Higher

GA WELLS **0000002229**

County code:	067	Well num:	09EE06
Remarks:	CLAUDE W. McAteer	Lat:	334818
Lon:	0843036	Latlon datum:	NAD27
Alt:	880	Alt datum:	NGVD29
Depth:	38	Depth to casing:	Not Reported
Casing dia:	30	Casing matl:	B
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	1940
Discharge:	Not Reported	Prim use:	H
Aquifer code:	110SPRL	Edr id:	0000002229

25
ESE
1 - 2 Miles
Higher

GA WELLS **0000004654**

County code:	121	Well num:	10EE36
Remarks:	TREMONT TMPL BPTST CH SPG	Lat:	334827
Lon:	0842659	Latlon datum:	NAD27
Alt:	925	Alt datum:	NGVD29
Depth:	Not Reported	Depth to casing:	Not Reported
Casing dia:	Not Reported	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	Not Reported
Discharge:	5	Prim use:	U
Aquifer code:	320CRSL	Edr id:	0000004654

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for COBB County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 30080

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.067 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.300 pCi/L	67%	33%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

A listing of Private Water Well locations
Georgia Department of Public Health
Telephone: (404) 657-2700
A listing of Private Water Well locations

Georgia Public Supply Wells
Source: Georgia Department of Community Affairs
Telephone: 404-894-0127

USGS Georgia Water Wells
Source: USGS, Georgia District Office
Telephone: 770-903-9100

DNR Managed Lands
Source: Department of Natural Resources
Telephone: 706-557-3032
This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX E

Statistical Analyses

GROUNDWATER STATS CONSULTING

February 28, 2025

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant McDonough Ash Pond (AP-1)
September 2024 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2024 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant McDonough AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) 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 the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. The assessment wells were installed at various times since 2020 and have limited data. Semi-annual sampling of the majority of Appendix IV constituents has been performed for the groundwater monitoring wells 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, and DGWA-71
- **Downgradient wells:** DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69, and DGWC-121
- **Assessment wells:** B-62, B-100, B-105D, and B-112D

Note that downgradient well DGWC-121 was installed in March 2022 and was first sampled in June 2022 for all constituents except combined radium 226 + 228, which was first sampled in September 2022. Per request of Georgia Power Company, both Appendix III and Appendix IV constituents among downgradient wells will be evaluated using interwell prediction limits and confidence intervals, respectively, when a minimum of 8 samples is available. Well DGWC-121 has reached the minimum of 8 samples for all constituents except combined radium 226 + 228 and pH; therefore, eligible constituents are evaluated with interwell prediction limits and confidence intervals. Data from this well for combined radium 226 + 228 and pH are plotted on the time series graphs and box plots. Additionally, assessment wells with a minimum of 4 samples are evaluated using confidence intervals for Appendix IV constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting. The analysis is prepared according to the recommended statistical methodology prepared in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance.

The Coal Combustion Residual (CCR) program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient and assessment well/constituent pairs with 100% non-detects follows this letter.

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.

Note that due to flooding in well DGWC-68A during the September 2021 sample event, this well was, reportedly, re-developed and resamples were collected in October 2021 for arsenic, barium, chromium, cobalt, and pH. While the September 2021 reported results

remain in the database for this well, these measurements were flagged as outliers. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods – Appendix III Parameters:

Based on the earlier evaluation described above, the following method was selected:

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

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits. Non-detects are handled as follows:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after 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 is available to determine whether earlier concentrations are representative of current groundwater quality. In some cases, the earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Conducted in March 2019

Outlier Analysis

Time series plots 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 at all wells for Appendix III and Appendix IV parameters are 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, and the reports were submitted with the screening. In cases where the most recent value was identified as an outlier, values were not flagged in the database at that time as they may represent a future trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Of the outliers identified by Tukey's method, only a few of these values were flagged in the database as all other values are similar to remaining measurements within a given well or neighboring wells or were non-detects.

Additionally, when any values are flagged in the database as outliers, the measurements 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, non-detects were substituted with one half the reporting limit.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Test Evaluation

While trends can be identified by visual inspection, a quantification of the trend and its statistical 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 indicated intrawell analyses may be most appropriate for these parameters. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Analysis of Appendix III Parameters – September 2024

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available historical upgradient well data through September 2024 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2024 sample event from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When 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. 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. Exceedances were noted for the following well/constituent pairs:

- Boron: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69, and DGWC-121
- Calcium: DGWC-37, DGWC-38, DGWC-39, DGWC-67, DGWC-68A, and DGWC-121
- Chloride: DGWC-40 and DGWC-67
- pH: DGWC-40 (lower limit)
- Sulfate: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, and DGWC-121
- TDS: DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, and DGWC-121

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level 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. Similar patterns present in both upgradient and downgradient wells may be an indication of variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: DGWC-67
- Calcium: DGWC-68A
- Chloride: DGWA-71 (upgradient) and DGWC-67

Decreasing trends:

- Boron: DGWA-53 (upgradient), DGWC-39, and DGWC-40
- Calcium: DGWA-53 (upgradient)
- Chloride: DGWA-53 (upgradient) and DGWC-40
- Sulfate: DGWA-71 (upgradient), DGWC-38, DGWC-39, and DGWC-40
- TDS: DGWA-53 (upgradient) and DGWC-39

Statistical Analysis of Appendix IV Parameters – September 2024

For Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and assessment well/constituent pairs that have 100% non-detects do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis prior to constructing statistical limits. No additional values were flagged during this analysis and a complete list of flagged outliers follows this report (Figure C).

Trend Test Analysis

Earlier concentrations collected from March 2017 through March 2018 during baseline sampling for cobalt at upgradient well DGWA-53 were noted to be elevated compared to current groundwater quality conditions for this well. The Sen's Slope/Mann-Kendall trend test was used to determine whether concentrations have statistically significantly decreased at the 95% confidence level (Figure F). A statistically significant decreasing trend was identified; therefore, the earlier concentrations were truncated from the record in order to reduce the magnitude of the trend (USEPA Unified Guidance, 2009, Chapter 5). The resulting statistical limit is representative of current groundwater quality conditions and is more conservative (i.e., lower) from a regulatory perspective. A list of the date ranges used for cobalt at upgradient well DGWA-53 follows this report.

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2024 for Appendix IV constituents (Figure G). Parametric tolerance limits are calculated, with a target of 95% confidence and 95% coverage, when data follow a normal or transformed-normal distribution, such as for combined radium 226 + 228. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were constructed using the highest background measurement. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium,

and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure H).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in accordance with the state requirements in each downgradient well with a minimum of 8 samples and assessment wells with a minimum of 4 samples (Figure I).

The Sanitas software was used to calculate the confidence intervals. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The confidence level associated with nonparametric confidence intervals is dependent upon the number of samples available.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. A summary of the confidence intervals follows this letter. Exceedances were noted for the following well/constituent pairs:

- Arsenic: DGWC-69
- Cobalt: DGWC-40
- Molybdenum: DGWC-68A

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test at the 95% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure J). Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence level is recommended in cases with limited sample sizes and, particularly, for new assessment wells. All available data for upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient wells, it is an indication of variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:
- Cobalt: DGWA-71 (upgradient)

Decreasing trends:
- Cobalt: DGWA-53 (upgradient)
- Molybdenum: DGWA-53 (upgradient) and DGWC-68A

Note that while the trend test identified a statistically significant increasing trend for cobalt in upgradient well DGWA-71, the slope is displayed as zero which represents the median slopes of all the possible pairwise slopes. The zero median slope results from the large number of non-detects in the record, and the positive test statistic results from a few recorded trace values in the earlier part of the record.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for McDonough Ash Pond 1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Abdul Diane
Groundwater Analyst

Andrew T. Collins
Project Manager

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Date Ranges

Date: 11/19/2024 3:07 PM

Plant McDonough Client: Southern Company Data: McDonough AP

Cobalt (mg/L)

DGWA-53 overall:7/12/2018-9/11/2024

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 11/20/2024 11:23 AM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Antimony (mg/L)
DGWC-38

Arsenic (mg/L)
B-100, DGWC-121

Beryllium (mg/L)
B-105D, B-112D, DGWC-121, DGWC-39, DGWC-67

Cadmium (mg/L)
B-105D, B-112D, B-62, DGWC-121, DGWC-39

Chromium (mg/L)
DGWC-121, DGWC-39

Lead (mg/L)
B-62, DGWC-121

Lithium (mg/L)
DGWC-39

Mercury (mg/L)
B-112D, B-62, DGWC-121

Molybdenum (mg/L)
B-62, DGWC-37, DGWC-40

Selenium (mg/L)
B-105D, B-112D, B-62, DGWC-121, DGWC-37, DGWC-39, DGWC-69

Thallium (mg/L)
B-100, B-105D, B-112D, B-62, DGWC-121, DGWC-37, DGWC-67, DGWC-69

Appendix III - Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/9/2024, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-121	0.13	n/a	9/4/2024	1.6	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-37	0.13	n/a	9/4/2024	1.5	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-38	0.13	n/a	9/4/2024	2.6	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-39	0.13	n/a	9/4/2024	2.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-40	0.13	n/a	9/5/2024	0.64	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-67	0.13	n/a	9/5/2024	3.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-68A	0.13	n/a	9/5/2024	1.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-69	0.13	n/a	9/5/2024	0.24	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-121	40.3	n/a	9/4/2024	41	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-37	40.3	n/a	9/4/2024	58.1	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-38	40.3	n/a	9/4/2024	83.2	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-39	40.3	n/a	9/4/2024	92	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-67	40.3	n/a	9/5/2024	44.6	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-68A	40.3	n/a	9/5/2024	52.7	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-40	9.4	n/a	9/5/2024	14.4	Yes	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-67	9.4	n/a	9/5/2024	10.4	Yes	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.69	5.43	9/5/2024	4.6	Yes	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-121	49	n/a	9/4/2024	87.8	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-37	49	n/a	9/4/2024	95.2	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-38	49	n/a	9/4/2024	214	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-39	49	n/a	9/4/2024	142	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-40	49	n/a	9/5/2024	160	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-67	49	n/a	9/5/2024	107	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-121	231	n/a	9/4/2024	276	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	231	n/a	9/4/2024	348	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	231	n/a	9/4/2024	503	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	231	n/a	9/4/2024	466	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	231	n/a	9/5/2024	374	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	231	n/a	9/5/2024	314	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	231	n/a	9/5/2024	278	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/9/2024, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**DGWC-121**	**0.13**	**n/a**	**9/4/2024**	**1.6**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-37**	**0.13**	**n/a**	**9/4/2024**	**1.5**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-38**	**0.13**	**n/a**	**9/4/2024**	**2.6**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-39**	**0.13**	**n/a**	**9/4/2024**	**2.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-40**	**0.13**	**n/a**	**9/5/2024**	**0.64**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-67**	**0.13**	**n/a**	**9/5/2024**	**3.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-68A**	**0.13**	**n/a**	**9/5/2024**	**1.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-69**	**0.13**	**n/a**	**9/5/2024**	**0.24**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-121**	**40.3**	**n/a**	**9/4/2024**	**41**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-37**	**40.3**	**n/a**	**9/4/2024**	**58.1**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-38**	**40.3**	**n/a**	**9/4/2024**	**83.2**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-39**	**40.3**	**n/a**	**9/4/2024**	**92**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-40	40.3	n/a	9/5/2024	38.8	No	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	**DGWC-67**	**40.3**	**n/a**	**9/5/2024**	**44.6**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-68A**	**40.3**	**n/a**	**9/5/2024**	**52.7**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-69	40.3	n/a	9/5/2024	13.6	No	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-121	9.4	n/a	9/4/2024	4.7	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-37	9.4	n/a	9/4/2024	6	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-38	9.4	n/a	9/4/2024	9	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-39	9.4	n/a	9/4/2024	8.2	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	**DGWC-40**	**9.4**	**n/a**	**9/5/2024**	**14.4**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**DGWC-67**	**9.4**	**n/a**	**9/5/2024**	**10.4**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	DGWC-68A	9.4	n/a	9/5/2024	4.4	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-69	9.4	n/a	9/5/2024	5	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-121	0.42	n/a	9/4/2024	0.082J	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-37	0.42	n/a	9/4/2024	0.1	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-38	0.42	n/a	9/4/2024	0.12	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-39	0.42	n/a	9/4/2024	0.14	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-40	0.42	n/a	9/5/2024	0.14	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-67	0.42	n/a	9/5/2024	0.071J	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-68A	0.42	n/a	9/5/2024	0.11	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-69	0.42	n/a	9/5/2024	0.11	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-37	6.69	5.43	9/4/2024	6.24	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-38	6.69	5.43	9/4/2024	6.01	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-39	6.69	5.43	9/4/2024	6.45	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	**DGWC-40**	**6.69**	**5.43**	**9/5/2024**	**4.6**	**Yes**	**67**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0008517**	**NP Inter (normality) 1 of 2**
pH, Field (SU)	DGWC-67	6.69	5.43	9/5/2024	6.19	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-68A	6.69	5.43	9/5/2024	6.53	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-69	6.69	5.43	9/5/2024	6.17	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**DGWC-121**	**49**	**n/a**	**9/4/2024**	**87.8**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-37**	**49**	**n/a**	**9/4/2024**	**95.2**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-38**	**49**	**n/a**	**9/4/2024**	**214**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-39**	**49**	**n/a**	**9/4/2024**	**142**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-40**	**49**	**n/a**	**9/5/2024**	**160**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-67**	**49**	**n/a**	**9/5/2024**	**107**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	DGWC-68A	49	n/a	9/5/2024	35.9	No	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-69	49	n/a	9/5/2024	14.9	No	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	**DGWC-121**	**231**	**n/a**	**9/4/2024**	**276**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-37**	**231**	**n/a**	**9/4/2024**	**348**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-38**	**231**	**n/a**	**9/4/2024**	**503**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**231**	**n/a**	**9/4/2024**	**466**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-40**	**231**	**n/a**	**9/5/2024**	**374**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-67**	**231**	**n/a**	**9/5/2024**	**314**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-68A**	**231**	**n/a**	**9/5/2024**	**278**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	231	n/a	9/5/2024	125	No	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 10:55 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003796**	**-90**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-39**	**-0.1201**	**-111**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.0296**	**-112**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.09001**	**100**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.284**	**-142**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.006**	**94**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1275**	**-132**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-71 (bg)**	**0.7154**	**111**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7927**	**-125**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.6324**	**168**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.4673**	**-91**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-38**	**-7.296**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-18.26**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.742**	**-116**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-16.99**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-15.62**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 10:55 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003796**	**-90**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWA-70A (bg)	0	28	81	No	20	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	0.001028	49	81	No	20	25	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-121	0	1	21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-37	-0.02083	-26	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-38	-0.04688	-77	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	**DGWC-39**	**-0.1201**	**-111**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.0296**	**-112**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.09001**	**100**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWC-68A	-0.02294	-38	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-69	-0.02253	-86	-92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.284**	**-142**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	DGWA-70A (bg)	0.08606	31	81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.2068	-38	-81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-121	-1.021	-8	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-37	0.6315	42	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-38	0.7345	34	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-39	-0.8265	-33	-81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-67	0.6643	79	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWC-68A**	**1.006**	**94**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1275**	**-132**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	DGWA-70A (bg)	-0.01924	-36	-81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**DGWA-71 (bg)**	**0.7154**	**111**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7927**	**-125**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.6324**	**168**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, Field (SU)	DGWA-53 (bg)	0.01147	18	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02084	-54	-87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.005537	22	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02096	-87	-92	No	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-0.3077	-24	-87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	0	-22	-81	No	20	50	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.4673**	**-91**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-121	1.99	9	21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-37	-0.8383	-36	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWC-38**	**-7.296**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-18.26**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.742**	**-116**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-67	0	6	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-16.99**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	3	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-0.8828	-30	-87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-121	7.344	4	21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	2.994	33	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.9	21	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-15.62**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-1.663	-18	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	2.661	26	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	-3.048	-38	-81	No	20	0	n/a	n/a	0.01	NP

Trend Test Summary - Cobalt DGWA-53

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 10:58 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 11:00 AM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.0045	n/a	n/a	n/a	n/a	63	84.13	n/a	0.0395	NP Inter(NDs)
Arsenic (mg/L)	0.0054	n/a	n/a	n/a	n/a	63	76.19	n/a	0.0395	NP Inter(NDs)
Barium (mg/L)	0.19	n/a	n/a	n/a	n/a	63	0	n/a	0.0395	NP Inter(normality)
Beryllium (mg/L)	0.0009	n/a	n/a	n/a	n/a	63	53.97	n/a	0.0395	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	n/a	63	93.65	n/a	0.0395	NP Inter(NDs)
Chromium (mg/L)	0.005	n/a	n/a	n/a	n/a	62	72.58	n/a	0.04158	NP Inter(NDs)
Cobalt (mg/L)	0.024	n/a	n/a	n/a	n/a	57	50.88	n/a	0.05373	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	4.624	n/a	n/a	n/a	n/a	63	0	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.42	n/a	n/a	n/a	n/a	67	46.27	n/a	0.03217	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	n/a	n/a	63	85.71	n/a	0.0395	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	n/a	63	38.1	n/a	0.0395	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	63	84.13	n/a	0.0395	NP Inter(NDs)
Molybdenum (mg/L)	0.0409	n/a	n/a	n/a	n/a	63	65.08	n/a	0.0395	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	63	100	n/a	0.0395	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	63	95.24	n/a	0.0395	NP Inter(NDs)

PLANT MCDONOUGH ASH POND AP-1 GWPS TABLE				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0045	0.006
Arsenic, Total (mg/L)	0.01		0.0054	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.024	0.024
Combined Radium, Total (pCi/L)	5		4.62	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	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 Residual*

**GWPS = Groundwater Protection Standard*

Appendix IV - Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.029**	**0.017**	**0.01**	**Yes**	**23**	**0.03564**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Cobalt (mg/L)	**DGWC-40**	**0.04344**	**0.03726**	**0.024**	**Yes**	**21**	**0.005603**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**DGWC-68A**	**0.2169**	**0.1942**	**0.1**	**Yes**	**21**	**0.02129**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**

Appendix IV - Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0017	0.006	No	10	0.0006394	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00062	0.006	No	9	0.002234	55.56	None	No	0.002	NP (NDs)
Antimony (mg/L)	B-112D	0.003	0.00041	0.006	No	8	0.0009157	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	13	0.0007045	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-121	0.003	0.00062	0.006	No	8	0.001057	75	None	No	0.004	NP (NDs)
Antimony (mg/L)	DGWC-37	0.003	0.0014	0.006	No	20	0.0003578	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-39	0.003	0.00088	0.006	No	20	0.0007004	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	20	0.000597	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.0039	0.0023	0.006	No	20	0.0007895	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	20	0.000755	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	21	0.0005887	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	9	0.001087	66.67	None	No	0.002	NP (NDs)
Arsenic (mg/L)	B-112D	0.005	0.00078	0.01	No	8	0.001492	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	B-62	0.005	0.0033	0.01	No	13	0.0004715	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	21	0.001089	90.48	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	21	0.000982	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.00087	0.01	No	21	0.002097	57.14	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.003	0.01	No	21	0.001537	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	21	0.001347	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	21	0.0007419	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	**DGWC-69**	**0.029**	**0.017**	**0.01**	**Yes**	**23**	**0.03564**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Barium (mg/L)	B-100	0.023	0.019	2	No	10	0.02459	0	None	No	0.011	NP (normality)
Barium (mg/L)	B-105D	0.03997	0.03358	2	No	9	0.003308	0	None	No	0.01	Param.
Barium (mg/L)	B-112D	0.026	0.0026	2	No	8	0.008134	0	None	No	0.004	NP (normality)
Barium (mg/L)	B-62	0.02401	0.01799	2	No	13	0.004041	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-121	0.04934	0.04191	2	No	8	0.003503	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1033	0.08514	2	No	21	0.01649	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.033	0.03052	2	No	21	0.002504	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-39	0.09823	0.08738	2	No	21	0.009834	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.018	0.0163	2	No	21	0.002323	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1067	0.09007	2	No	21	0.01507	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.099	0.0878	2	No	21	0.007476	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09072	0.06189	2	No	22	0.02686	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005558	0.0003722	0.004	No	10	0.0001029	10	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.00018	0.00009	0.004	No	14	0.0004091	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	21	0.0002132	61.9	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	21	0.00009645	95.24	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003271	0.002834	0.004	No	21	0.0004474	4.762	None	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	21	0.0001286	90.48	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.00007	0.004	No	22	0.0002146	63.64	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	10	0.0001343	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00027	0.005	No	21	0.000152	76.19	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0003	0.00017	0.005	No	21	0.0002323	19.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008267	0.000699	0.005	No	21	0.0001157	9.524	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.0005	0.00029	0.005	No	21	0.0001342	71.43	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002347	0.0001547	0.005	No	21	0.0002103	42.86	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	22	0.0001325	81.82	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00094	0.1	No	10	0.001792	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	9	0.001267	88.89	None	No	0.002	NP (NDs)
Chromium (mg/L)	B-112D	0.005	0.00085	0.1	No	8	0.0018	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	13	0.001115	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	21	0.001312	90.48	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	21	0.001573	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.0007	0.1	No	21	0.00212	52.38	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-67	0.005	0.0014	0.1	No	21	0.001669	80.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	21	0.000982	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0013	0.1	No	22	0.001722	77.27	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.06544	0.02158	0.024	No	12	0.02689	8.333	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-105D	0.007474	0.002337	0.024	No	9	0.003058	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-112D	0.005	0.0004	0.024	No	8	0.002091	62.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	B-62	0.005	0.00031	0.024	No	14	0.001705	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-121	0.002229	0.001146	0.024	No	8	0.0005111	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.024	No	21	0.001662	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.024	No	21	0.001037	9.524	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.00659	0.005819	0.024	No	21	0.0006989	9.524	None	No	0.01	Param.
Cobalt (mg/L)	**DGWC-40**	**0.04344**	**0.03726**	**0.024**	**Yes**	**21**	**0.005603**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	DGWC-67	0.0037	0.0011	0.024	No	21	0.001641	9.524	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.024	No	21	0.001531	85.71	None	No	0.01	NP (NDs)

Appendix IV - Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	DGWC-69	0.005	0.0031	0.024	No	22	0.001534	72.73	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	B-100	0.9945	0.2768	5	No	10	0.4022	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-105D	5.69	1.21	5	No	8	2.114	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-112D	1.651	0.4476	5	No	7	0.5067	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-62	2.033	1.519	5	No	12	0.3271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.008	0.5234	5	No	20	0.4268	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	0.9119	0.3624	5	No	20	0.5428	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.166	0.5656	5	No	20	0.5285	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.381	0.6332	5	No	20	0.6582	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.8997	0.4917	5	No	20	0.3593	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.28	0.6054	5	No	20	0.5943	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.718	1.135	5	No	21	0.5282	0	None	No	0.01	Param.
Fluoride (mg/L)	B-100	0.1	0.063	4	No	10	0.01928	60	None	No	0.011	NP (NDs)
Fluoride (mg/L)	B-105D	0.32	0.058	4	No	9	0.07949	0	None	No	0.002	NP (normality)
Fluoride (mg/L)	B-112D	0.335	0.2675	4	No	8	0.03182	0	None	No	0.01	Param.
Fluoride (mg/L)	B-62	0.2054	0.1057	4	No	12	0.0924	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-121	0.09599	0.05376	4	No	8	0.01992	12.5	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-37	0.089	0.06	4	No	22	0.0678	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-38	0.1401	0.0777	4	No	22	0.09473	9.091	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-39	0.15	0.086	4	No	22	0.1033	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-40	0.2429	0.1315	4	No	22	0.143	4.545	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-67	0.1	0.068	4	No	22	0.09945	45.45	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-68A	0.12	0.092	4	No	22	0.1128	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-69	0.1494	0.08849	4	No	23	0.06446	4.348	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.001	0.00018	0.015	No	10	0.0004072	70	None	No	0.011	NP (NDs)
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	9	0.000316	88.89	None	No	0.002	NP (NDs)
Lead (mg/L)	B-112D	0.001	0.00014	0.015	No	8	0.0003041	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	21	0.0002267	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.00014	0.015	No	21	0.0003918	76.19	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	21	0.0002566	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.000081	0.015	No	21	0.0004427	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-67	0.001	0.00025	0.015	No	21	0.0003597	80.95	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	21	0.0002422	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00017	0.015	No	22	0.0004225	68.18	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.03	0.0019	0.04	No	10	0.01175	20	None	No	0.011	NP (normality)
Lithium (mg/L)	B-105D	0.01428	0.01217	0.04	No	9	0.001093	0	None	No	0.01	Param.
Lithium (mg/L)	B-112D	0.004426	0.003849	0.04	No	8	0.0002722	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.0094	0.0082	0.04	No	13	0.004551	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-121	0.013	0.0045	0.04	No	8	0.003153	0	None	No	0.004	NP (normality)
Lithium (mg/L)	DGWC-37	0.0029	0.0019	0.04	No	21	0.01213	23.81	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0034	0.0029	0.04	No	21	0.004793	4.762	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.0024	0.0022	0.04	No	21	0.006833	9.524	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.005	0.0044	0.04	No	21	0.004452	4.762	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	21	0.008661	90.48	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0031	0.0023	0.04	No	22	0.004781	4.545	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	9	0.00003	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	B-105D	0.0002	0.000087	0.002	No	8	0.00004247	75	None	No	0.004	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	20	0.00005006	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	20	0.00005001	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	20	0.00003153	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	20	0.00005211	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	20	0.00002907	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	20	0.00002907	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	21	0.00002837	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-100	0.01	0.01	0.1	No	10	0.05692	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	9	0.002967	88.89	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	B-112D	0.03379	0.02571	0.1	No	8	0.003808	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-121	0.01	0.00089	0.1	No	8	0.004703	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.001	0.1	No	21	0.004262	33.33	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-39	0.01	0.0016	0.1	No	21	0.001833	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-67	0.01	0.0013	0.1	No	21	0.001898	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	**DGWC-68A**	**0.2169**	**0.1942**	**0.1**	**Yes**	**21**	**0.02129**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**
Molybdenum (mg/L)	DGWC-69	0.01	0.0057	0.1	No	22	0.005347	4.545	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.005	0.05	No	10	0.0009803	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	21	0.0006765	95.24	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003117	0.001862	0.05	No	21	0.002111	33.33	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	21	0.0005019	95.24	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	21	0.0007201	95.24	Kaplan-Meier	No	0.01	NP (NDs)

Appendix IV - Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Thallium (mg/L)	DGWC-38	0.001	0.00014	0.002	No	21	0.0004351	61.9	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-39	0.001	0.0001	0.002	No	21	0.000399	76.19	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.00007	0.002	No	21	0.0004078	76.19	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	21	0.0001855	95.24	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 11:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**70**	**66**	**Yes**	**21**	**76.19**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWA-53 (bg)**	**-0.001936**	**-82**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWC-68A**	**-0.003807**	**-78**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Appendix IV Trend Tests - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 11:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	0	66	No	21	57.14	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-25	-66	No	21	85.71	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	29	66	No	21	85.71	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWC-69	0.001661	63	76	No	23	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWA-70A (bg)	0	55	66	No	21	61.9	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**70**	**66**	**Yes**	**21**	**76.19**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWC-40	-0.00001825	-9	-66	No	21	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWA-53 (bg)**	**-0.001936**	**-82**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	66	No	21	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	20	66	No	21	95.24	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWC-68A**	**-0.003807**	**-78**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

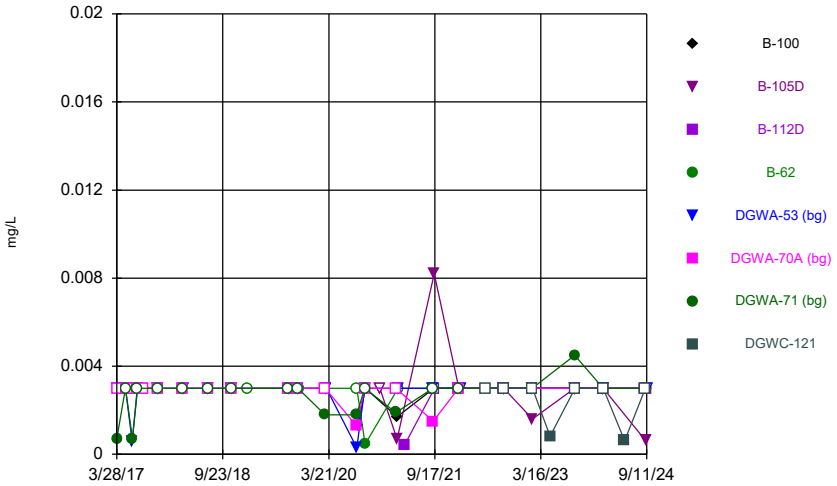
Table of Contents

Figure A. Time Series	27
Figure B. Box Plots	104
Figure C. Outlier Summary	116
Figure D. Appendix III Prediction Limits	118
Figure E. Appendix III Trend Tests	151
Figure F. Trend Test - Cobalt DGWA-53	166
Figure G. Upper Tolerance Limits	169
Figure H. GWPS	179
Figure I. Confidence Intervals	181
Figure J. Appendix IV Trend Tests	228

FIGURE A.

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

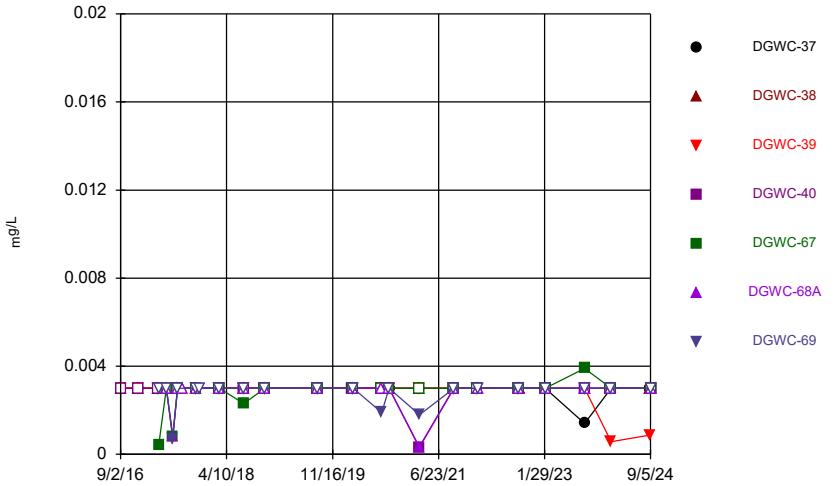
Time Series



Constituent: Antimony Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

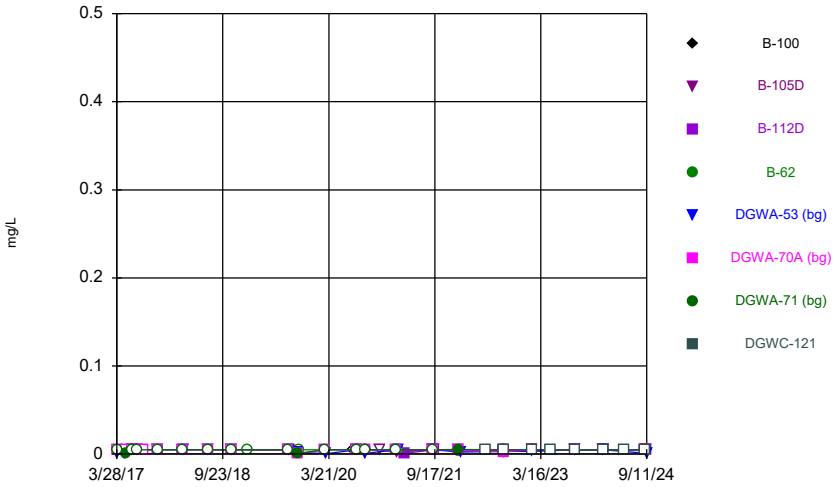
Time Series



Constituent: Antimony Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

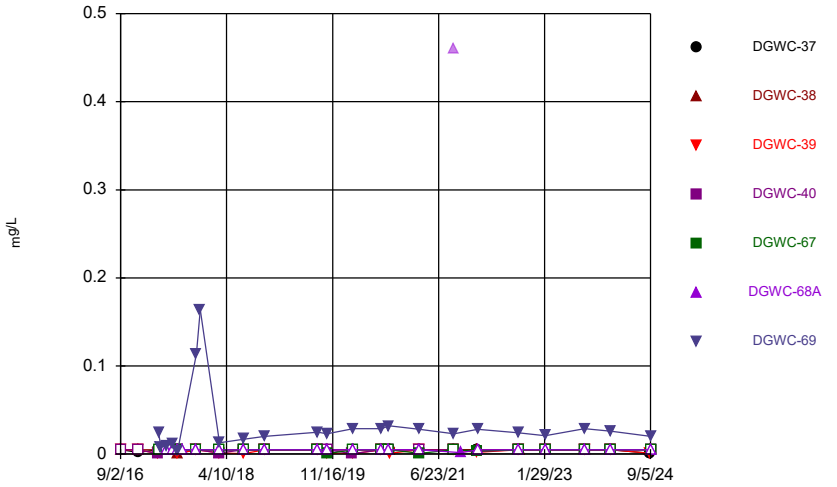
Time Series



Constituent: Arsenic Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

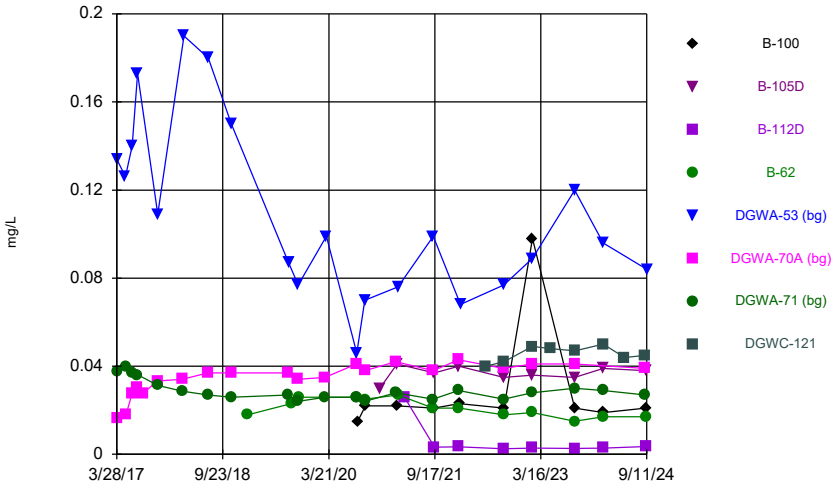
Time Series



Constituent: Arsenic Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

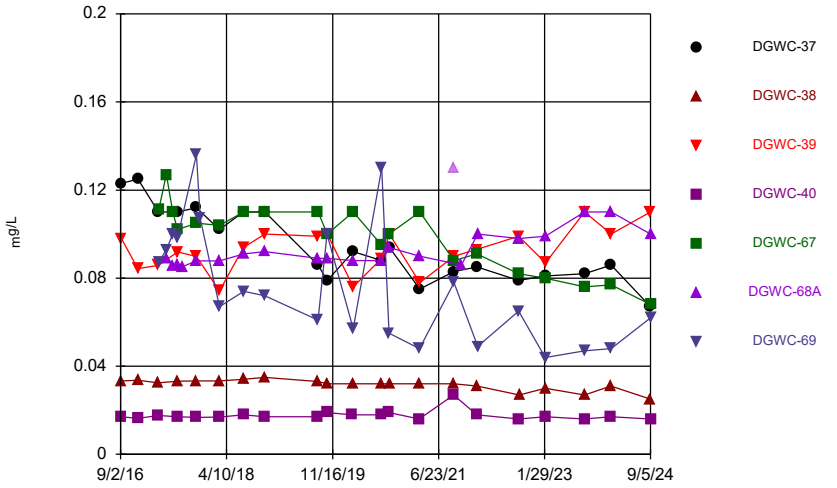
Time Series



Constituent: Barium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

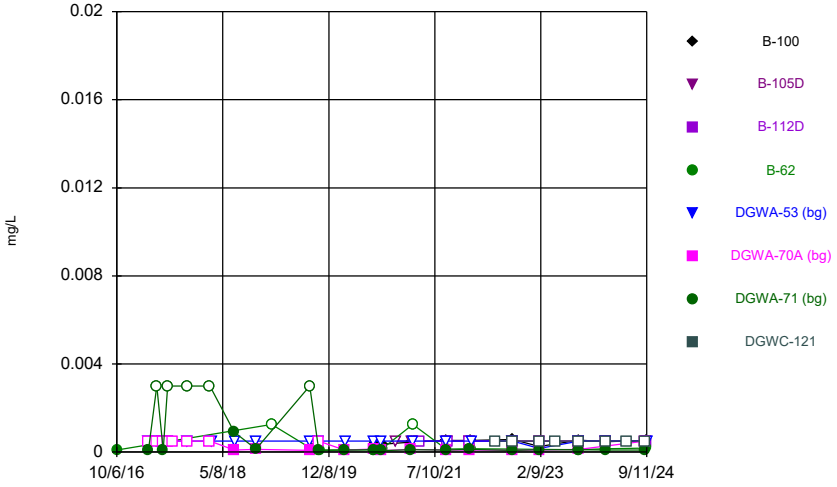
Time Series



Constituent: Barium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

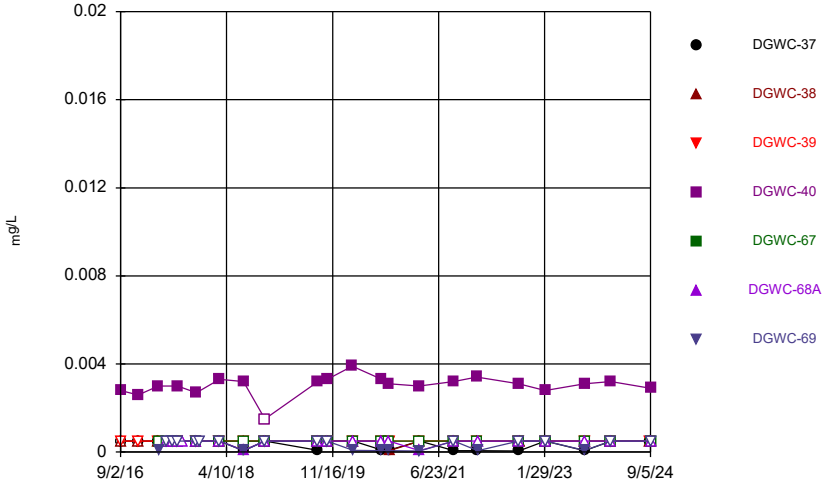
Time Series



Constituent: Beryllium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

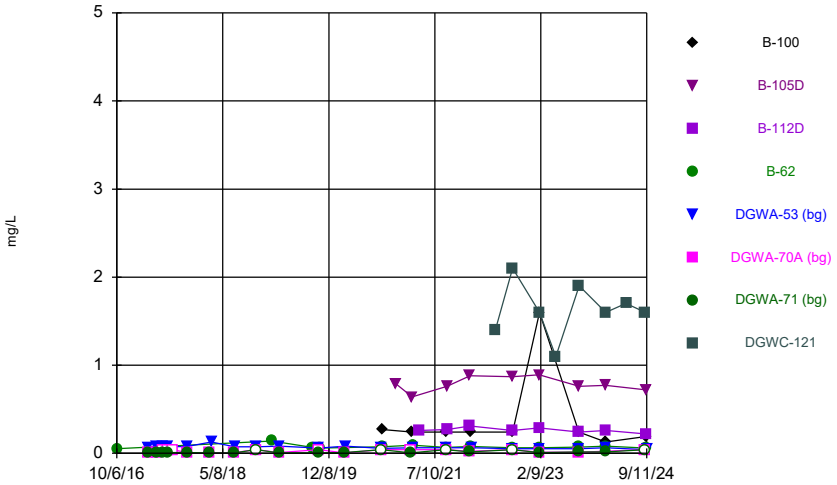
Time Series



Constituent: Beryllium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

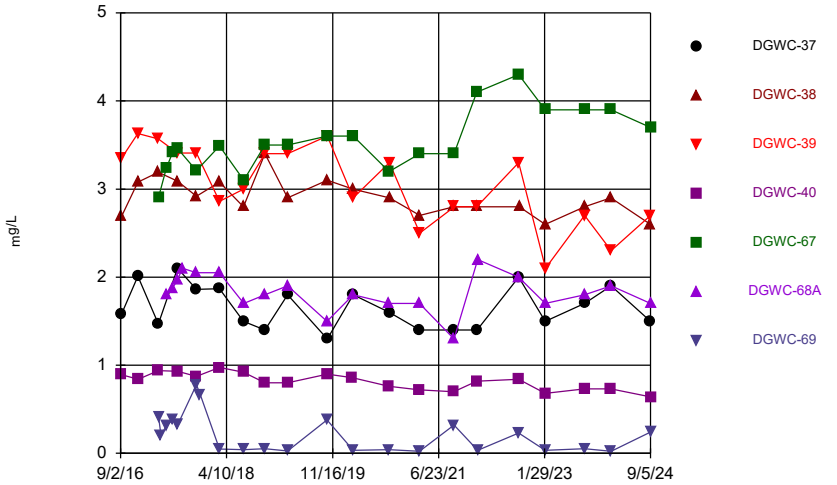
Time Series



Constituent: Boron Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

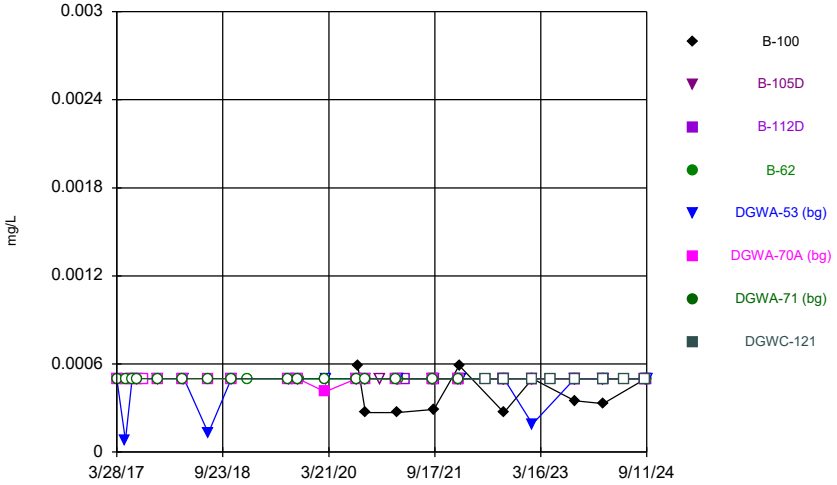
Time Series



Constituent: Boron Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

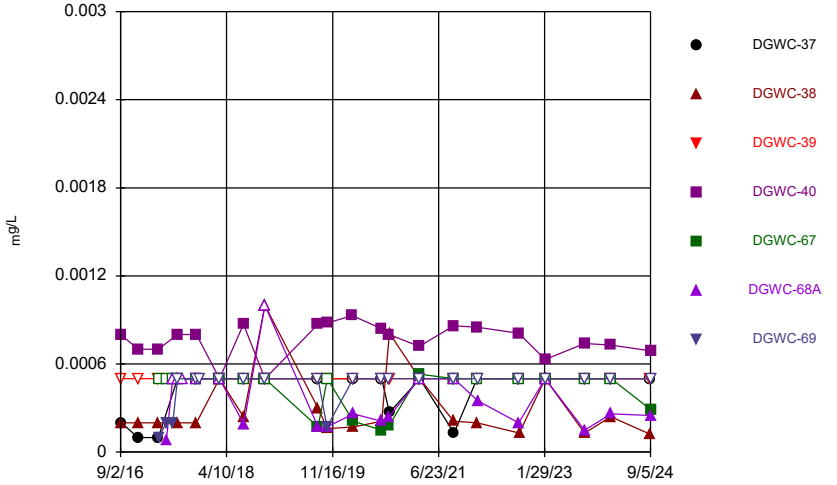
Time Series



Constituent: Cadmium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

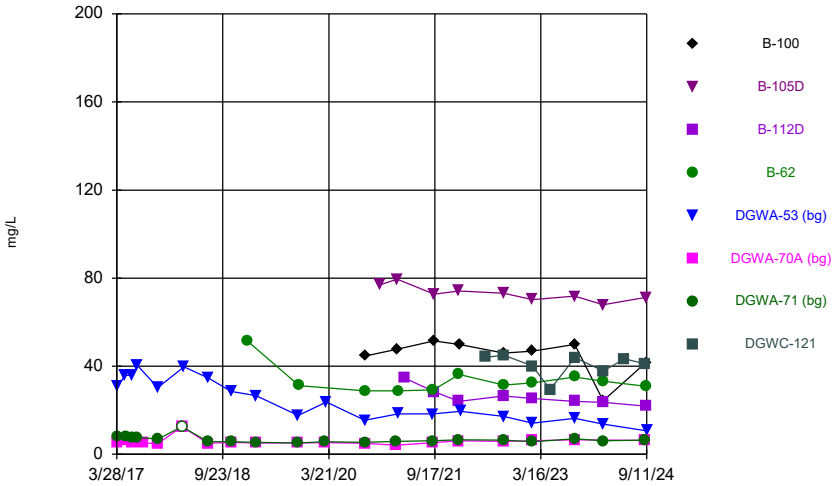
Time Series



Constituent: Cadmium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

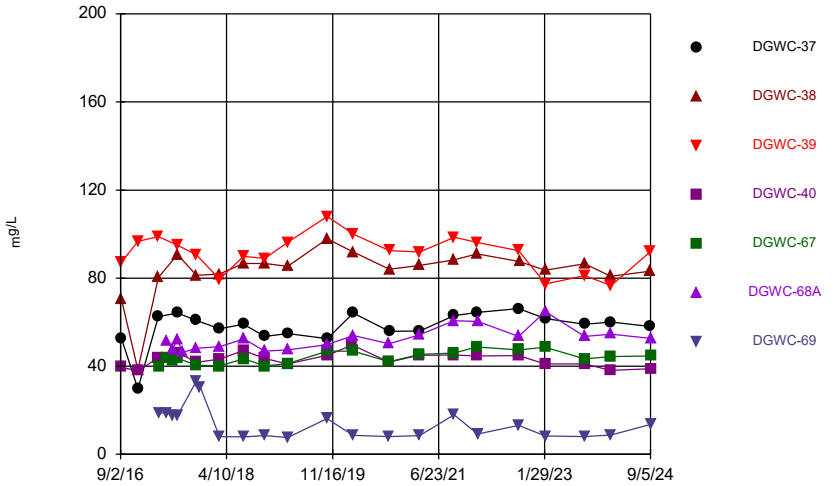
Time Series



Constituent: Calcium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

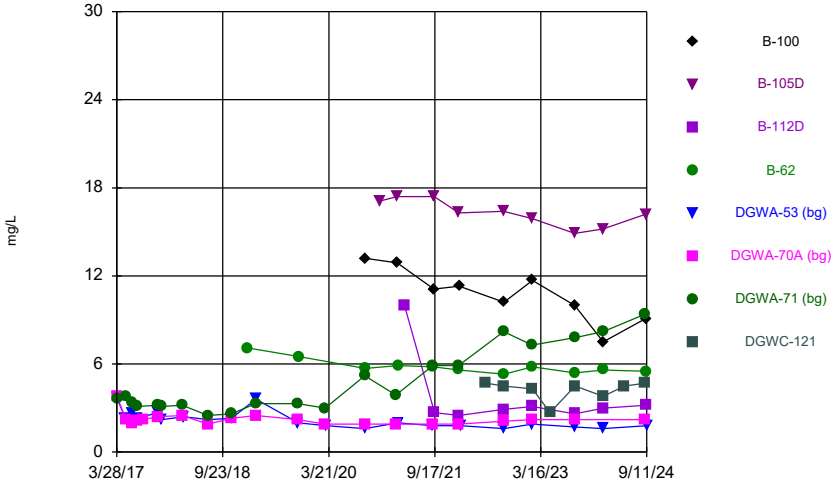
Time Series



Constituent: Calcium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

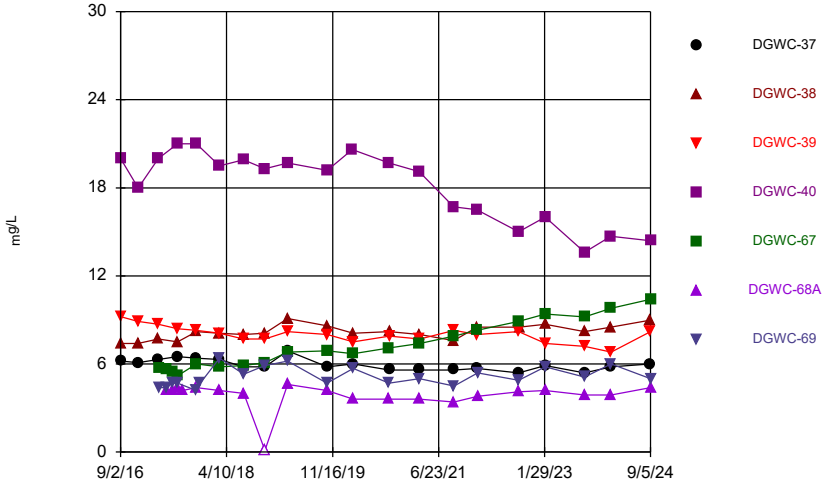
Time Series



Constituent: Chloride Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

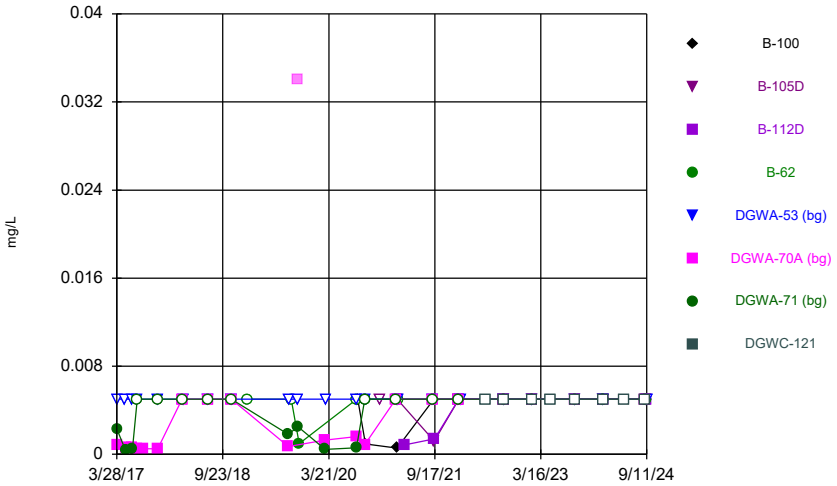
Time Series



Constituent: Chloride Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

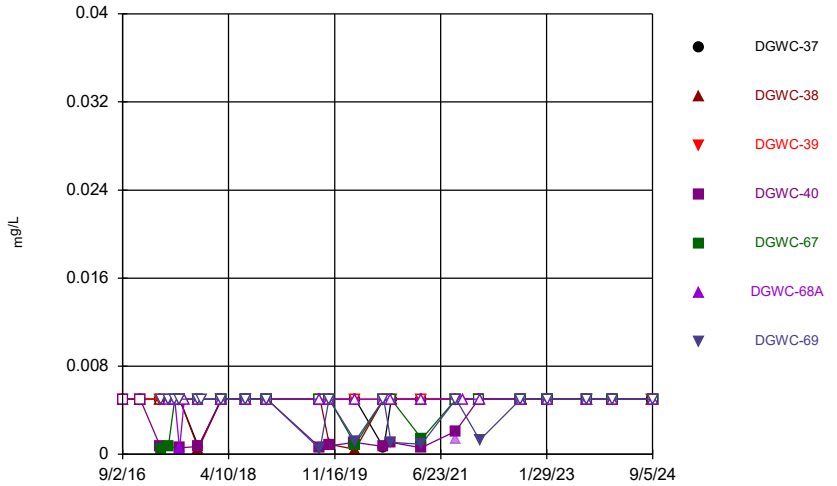
Time Series



Constituent: Chromium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

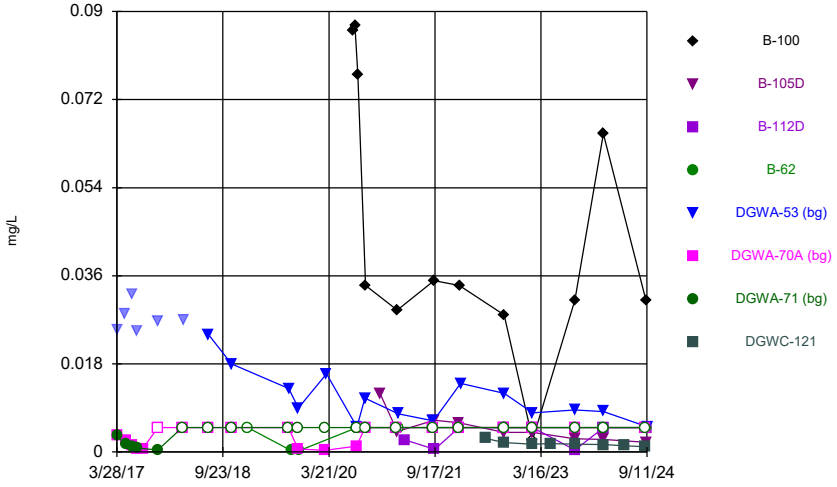
Time Series



Constituent: Chromium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

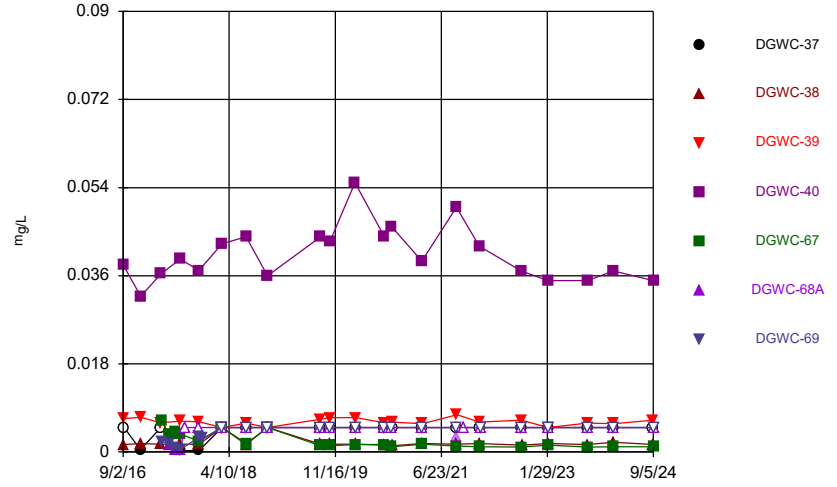
Time Series



Constituent: Cobalt Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

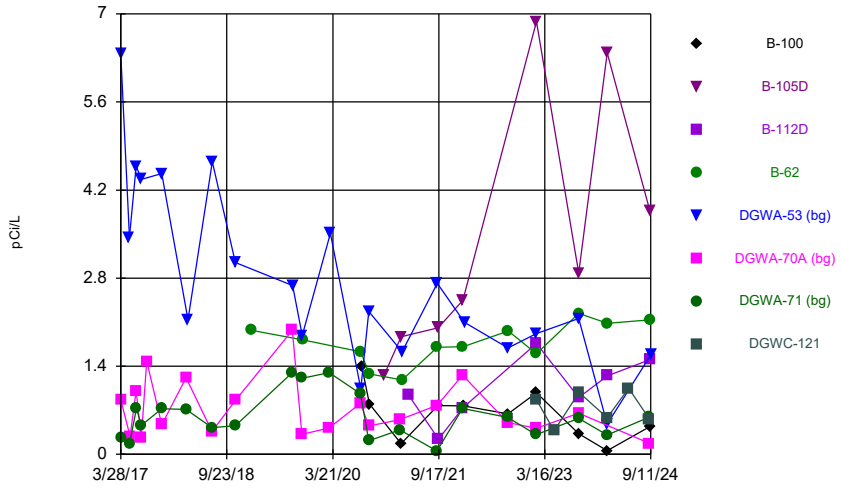
Time Series



Constituent: Cobalt Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

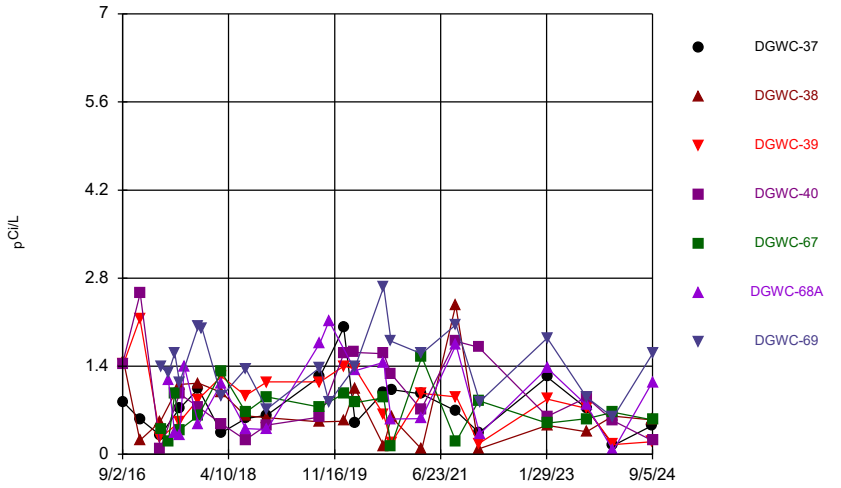
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

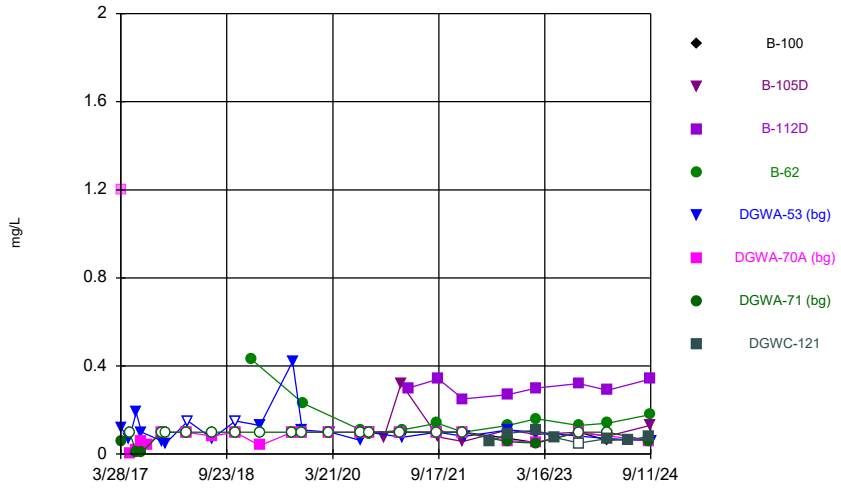
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

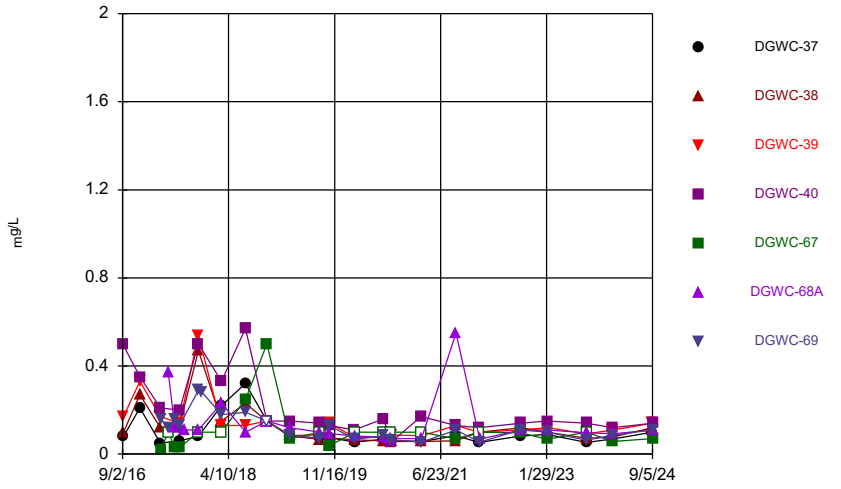
Time Series



Constituent: Fluoride Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

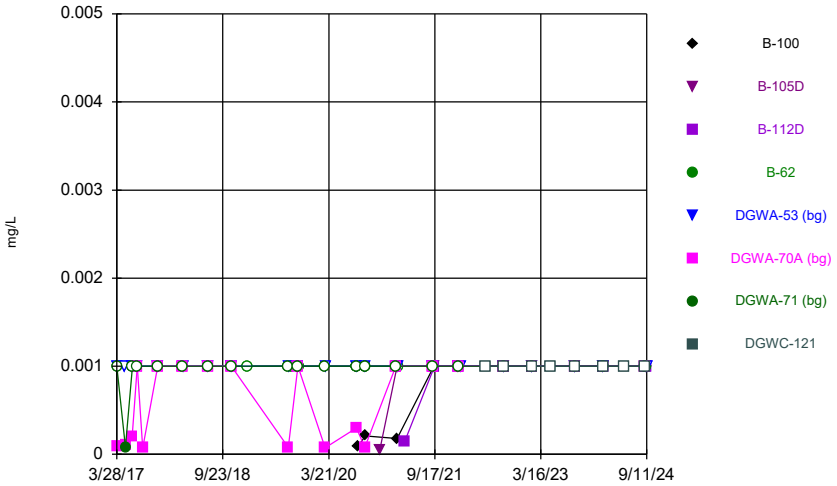
Time Series



Constituent: Fluoride Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

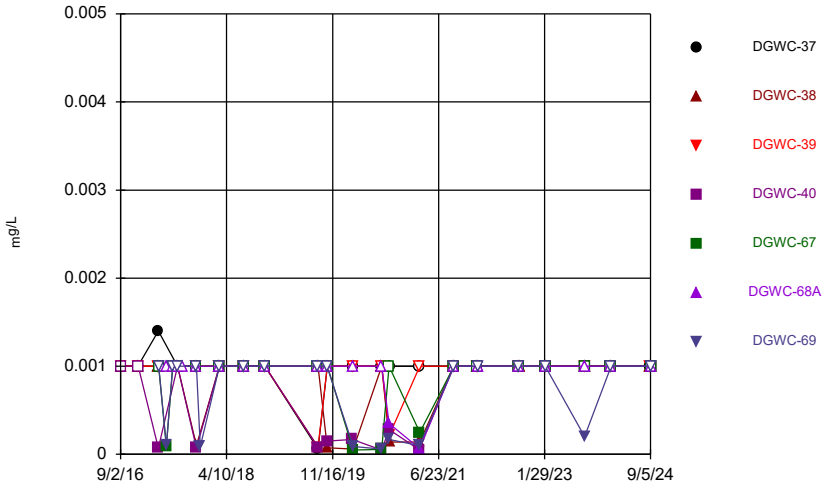
Time Series



Constituent: Lead Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

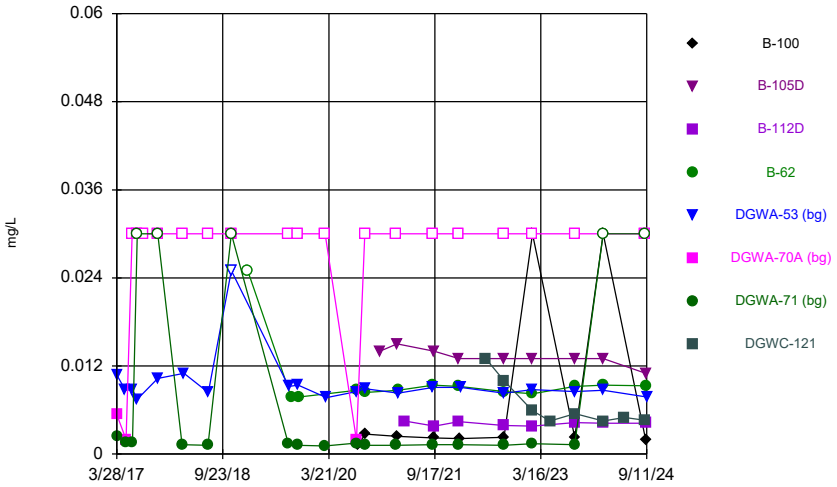
Time Series



Constituent: Lead Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

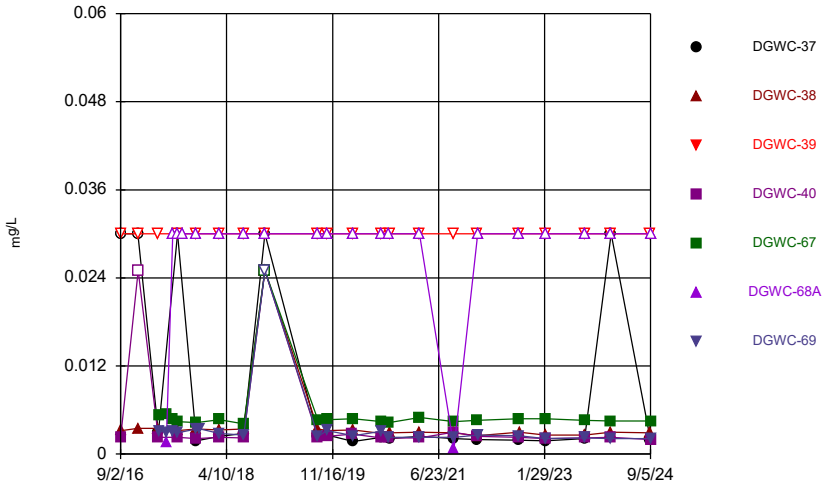
Time Series



Constituent: Lithium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

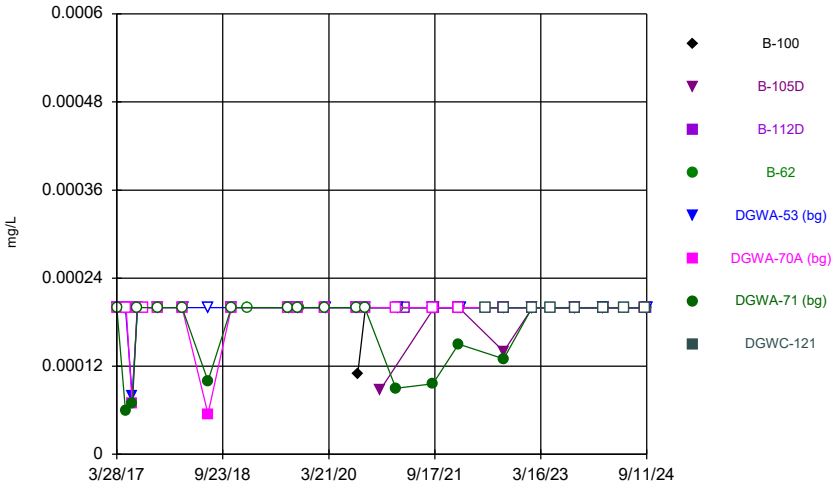
Time Series



Constituent: Lithium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

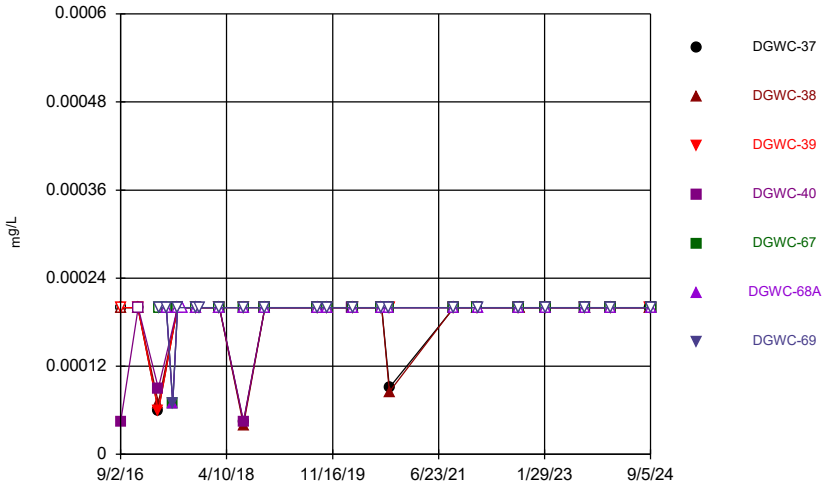
Time Series



Constituent: Mercury Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

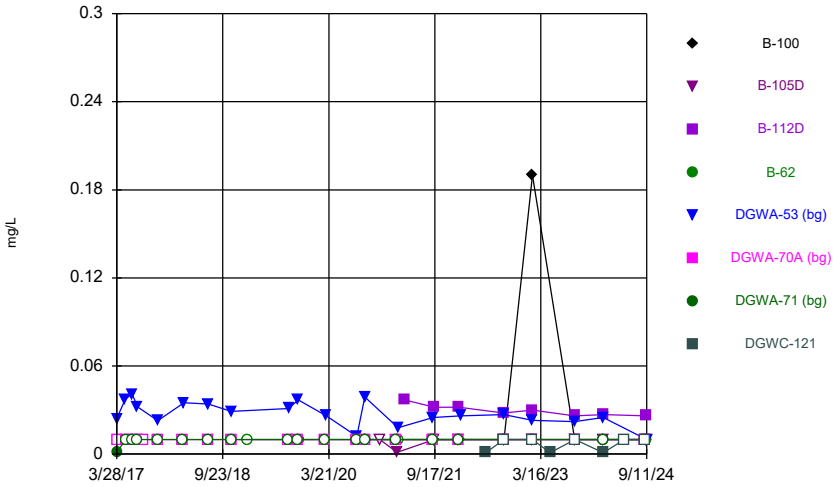
Time Series



Constituent: Mercury Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

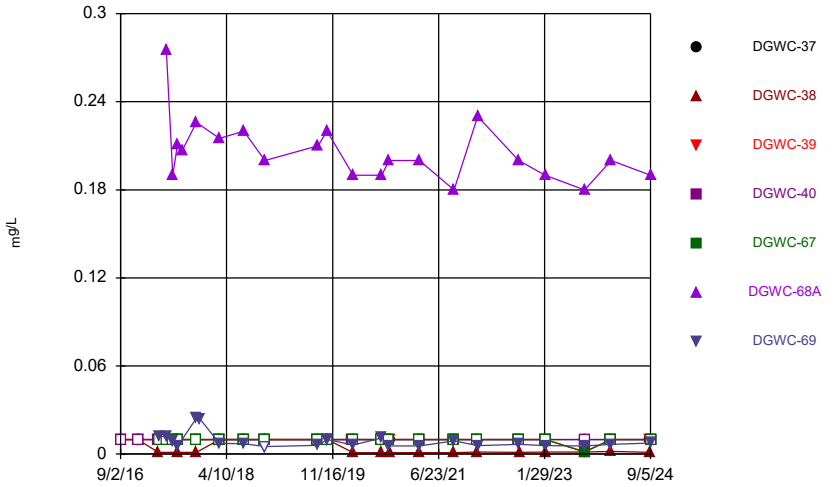
Time Series



Constituent: Molybdenum Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

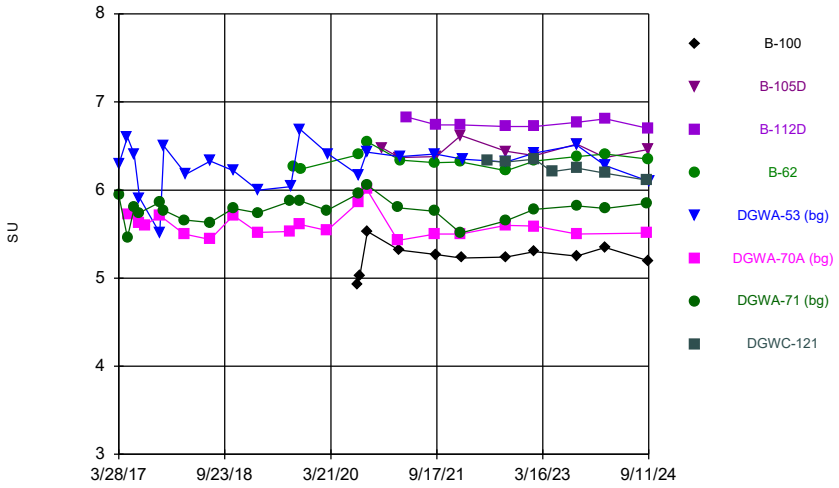
Time Series



Constituent: Molybdenum Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

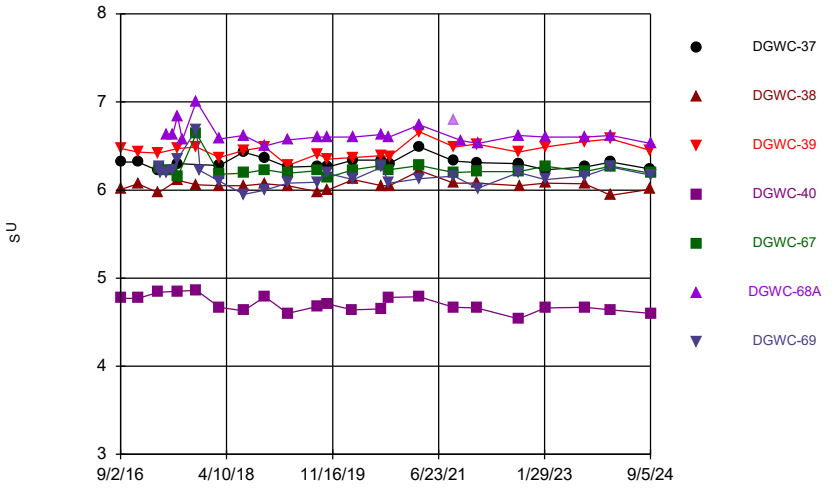
Time Series



Constituent: pH, Field Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

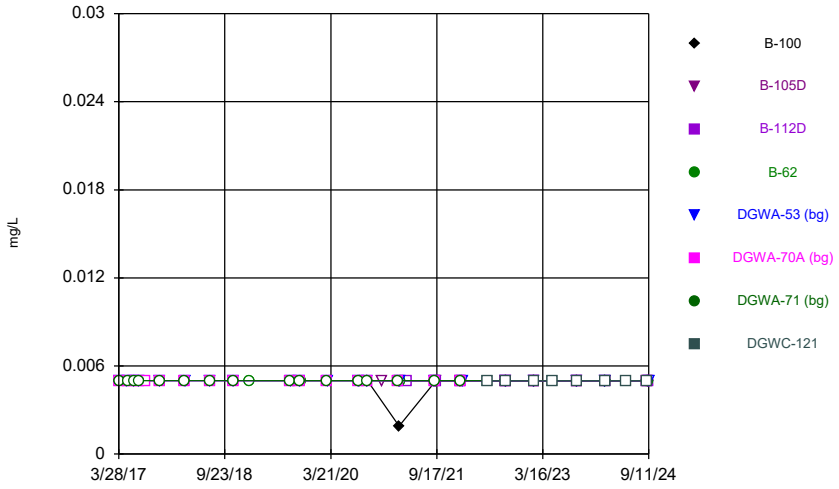
Time Series



Constituent: pH, Field Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

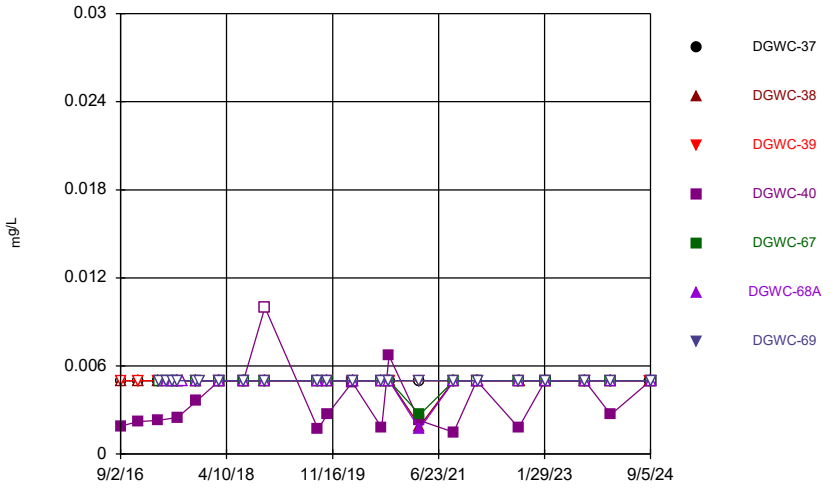
Time Series



Constituent: Selenium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

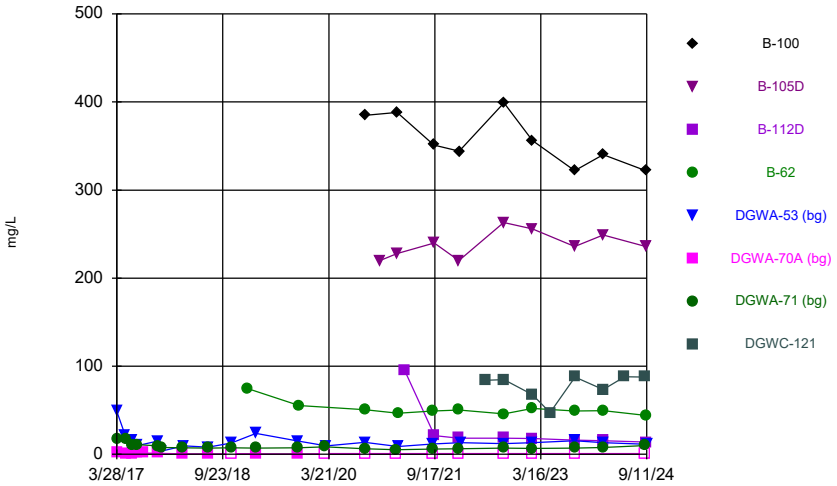
Time Series



Constituent: Selenium Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

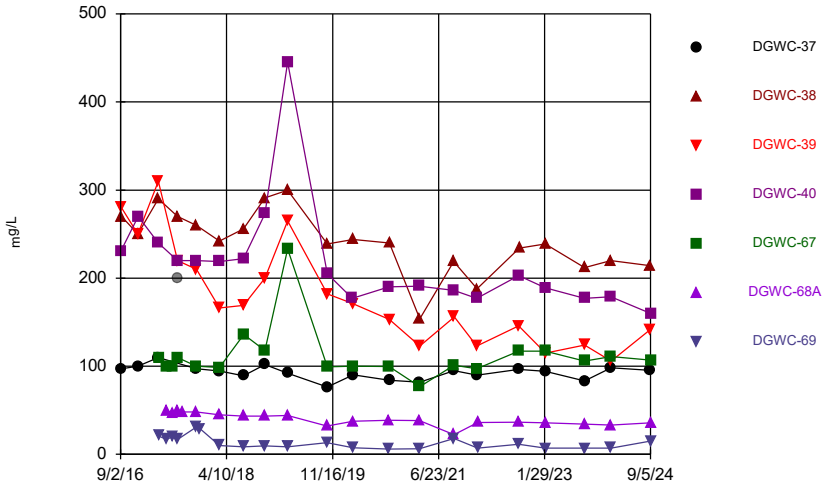
Time Series



Constituent: Sulfate Analysis Run 12/4/2024 10:31 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

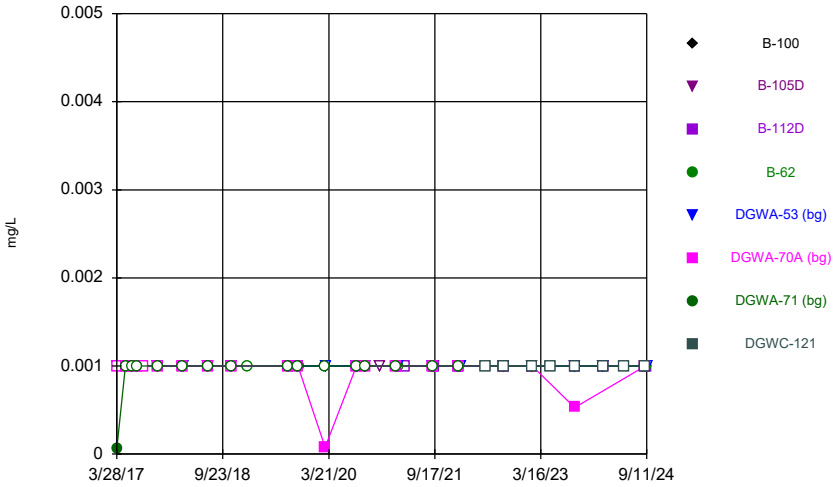
Time Series



Constituent: Sulfate Analysis Run 12/4/2024 10:32 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

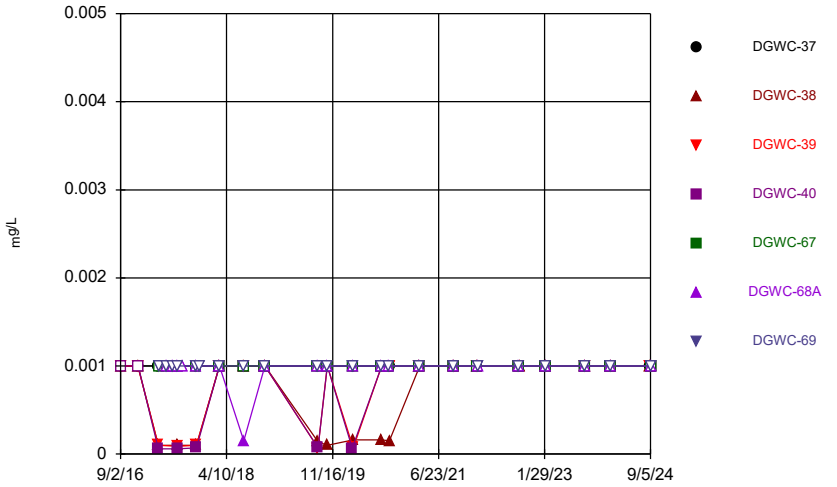
Time Series



Constituent: Thallium Analysis Run 12/4/2024 10:32 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

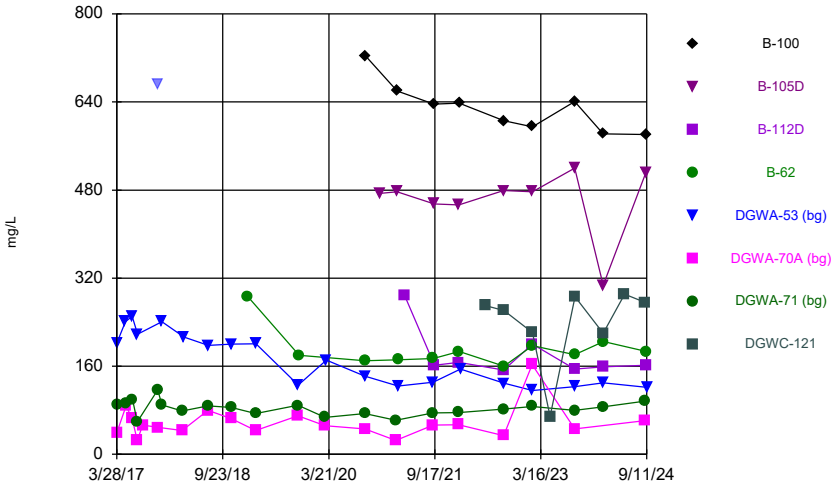
Time Series



Constituent: Thallium Analysis Run 12/4/2024 10:32 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Time Series

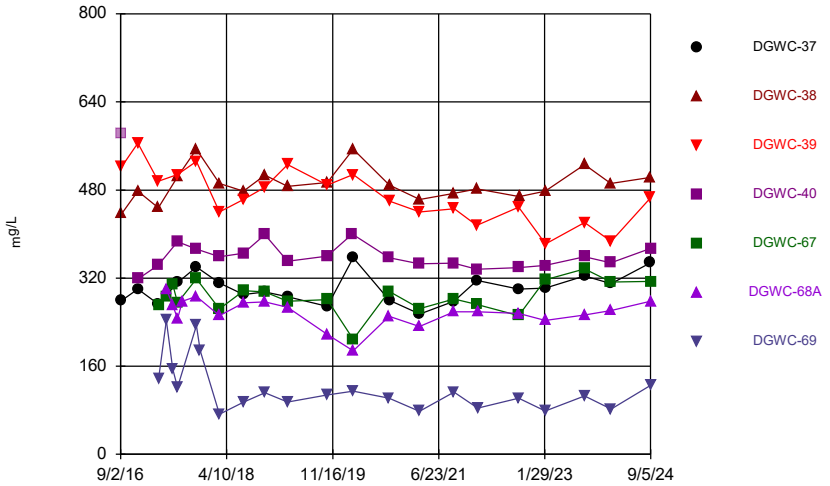


Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.003	<0.003	0.0007 (J)	
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			
8/8/2017						<0.003		
10/24/2017					<0.003	<0.003	<0.003	
2/27/2018						<0.003	<0.003	
3/8/2018					<0.003			
7/10/2018						<0.003	<0.003	
7/12/2018					<0.003			
11/6/2018						<0.003	<0.003	
11/7/2018					<0.003			
1/30/2019				<0.003				
8/27/2019						<0.003	<0.003	
8/28/2019					<0.003			
9/11/2019				<0.003				
10/15/2019						<0.003	<0.003	
10/16/2019					<0.003			
10/21/2019				<0.003				
3/2/2020						<0.003	0.0018 (J)	
3/9/2020					<0.003			
8/11/2020						0.0013 (J)	0.0018 (J)	
8/13/2020				<0.003	0.0003 (J)			
8/17/2020	0.0013 (J)							
9/22/2020					<0.003	<0.003	<0.003	
9/24/2020				0.00046 (J)				
9/25/2020	<0.003							
12/9/2020		<0.003						
3/1/2021						<0.003	0.0019 (J)	
3/8/2021	0.0017 (J)	0.00069 (J)						
3/12/2021				<0.003	<0.003			
4/15/2021			0.00041 (J)					
9/8/2021							<0.003	
9/9/2021				<0.003	<0.003	0.0015 (J)		
9/13/2021	<0.003							
9/15/2021		0.0082						
9/16/2021			<0.003					
1/18/2022						<0.003	<0.003	
1/19/2022		<0.003	<0.003					
1/20/2022				<0.003				
1/21/2022	<0.003							
1/28/2022					<0.003			
6/6/2022								<0.003
9/7/2022		<0.003	<0.003			<0.003	<0.003	
9/8/2022	<0.003			<0.003	<0.003			<0.003
1/31/2023						<0.003	<0.003	
2/1/2023		0.0016 (J)	<0.003		<0.003			
2/2/2023	<0.003			<0.003				<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								0.00082 (J)
9/6/2023	<0.003					<0.003	0.0045	
9/7/2023		<0.003	<0.003	<0.003	<0.003			
9/8/2023								<0.003
1/30/2024		<0.003			<0.003		<0.003	
1/31/2024	<0.003							<0.003
2/1/2024			<0.003	<0.003				
5/20/2024								0.00062 (J)
9/4/2024						<0.003	<0.003	<0.003
9/5/2024	<0.003	0.00062 (J)						
9/9/2024			<0.003	<0.003				
9/11/2024					<0.003			

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.003			
9/8/2016	<0.003	<0.003	<0.003				
12/7/2016	<0.003	<0.003	<0.003				
12/8/2016				<0.003			
3/30/2017	<0.003	<0.003	<0.003	<0.003			
3/31/2017					0.0004 (J)		<0.003
5/12/2017					<0.003	<0.003	<0.003
6/16/2017					0.0008 (J)	0.0008 (J)	0.0007 (J)
7/13/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2017						<0.003	
10/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/15/2017							<0.003
3/1/2018	<0.003	<0.003	<0.003				
3/2/2018				<0.003	<0.003	<0.003	<0.003
7/12/2018	<0.003	<0.003	<0.003	<0.003			
7/13/2018					0.0023 (J)	<0.003	<0.003
11/8/2018	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/4/2020				<0.003			
3/9/2020	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
8/13/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0019 (J)
9/23/2020				<0.003	<0.003	<0.003	<0.003
9/24/2020	<0.003	<0.003					
9/25/2020			<0.003				
3/8/2021				0.00033 (J)			
3/10/2021						0.00032 (J)	0.0018 (J)
3/11/2021	<0.003	<0.003	<0.003		<0.003		
9/14/2021				<0.003			
9/15/2021		<0.003					
9/16/2021	<0.003				<0.003	<0.003	<0.003
9/17/2021			<0.003				
1/19/2022				<0.003	<0.003		
1/20/2022			<0.003				
1/21/2022	<0.003	<0.003					
1/25/2022						<0.003	<0.003
9/7/2022			<0.003	<0.003		<0.003	<0.003
9/8/2022	<0.003				<0.003		
9/12/2022		<0.003					
2/1/2023				<0.003		<0.003	<0.003
2/2/2023	<0.003	<0.003			<0.003		
2/3/2023			<0.003				
9/6/2023	0.0014 (J)						
9/7/2023		<0.003	<0.003	<0.003	0.0039	<0.003	<0.003
1/30/2024		<0.003		<0.003			
1/31/2024	<0.003		0.00058 (J)			<0.003	<0.003
2/1/2024					<0.003		
9/4/2024	<0.003	<0.003	0.00088 (J)				
9/5/2024				<0.003	<0.003	<0.003	<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0005 (J)	<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			
8/8/2017						<0.005		
10/24/2017					<0.005	<0.005	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/10/2018						<0.005	<0.005	
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005 (J)			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						0.00052 (J)	0.00071 (J)	
10/16/2019					0.0018 (J)			
10/21/2019				<0.005				
3/2/2020						<0.005	<0.005	
3/9/2020					0.00068 (J)			
7/23/2020	<0.005							
8/11/2020						<0.005	<0.005	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					0.00093 (J)	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	<0.005							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	<0.005	0.0025 (J)						
3/12/2021				<0.005	<0.005			
4/15/2021			0.00078 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		<0.005						
9/16/2021			<0.005					
1/18/2022						0.0046 (J)	0.0054	
1/19/2022		0.0051	0.005					
1/20/2022				0.0033 (J)				
1/21/2022	<0.005							
1/28/2022					0.0024 (J)			
6/6/2022								<0.005
9/7/2022		0.0026 (J)	<0.005			0.0024 (J)	<0.005	
9/8/2022	<0.005			<0.005	0.0029 (J)			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		0.0029 (J)			

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/2/2023	<0.005			<0.005				<0.005
5/2/2023								<0.005
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005
1/30/2024		<0.005			<0.005		<0.005	
1/31/2024	<0.005							<0.005
2/1/2024			<0.005	<0.005				
5/20/2024								<0.005
9/4/2024						<0.005	<0.005	<0.005
9/5/2024	<0.005	<0.005						
9/9/2024			<0.005	<0.005				
9/11/2024					0.00091 (J)			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.005			
9/8/2016	<0.005	<0.005	<0.005				
12/7/2016	0.0019 (J)	<0.005	<0.005				
12/8/2016				<0.005			
3/30/2017	<0.005	<0.005	0.0007 (J)	0.0006 (J)			
3/31/2017					<0.005		0.0239
4/12/2017							0.0077
5/12/2017					<0.005	<0.005	0.0097
6/16/2017					<0.005	<0.005	0.0113
7/13/2017	<0.005	0.0005 (J)	0.0009 (J)	<0.005	<0.005	<0.005	0.0029 (J)
8/8/2017						<0.005	
10/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.114
11/15/2017							0.164
3/1/2018	<0.005	<0.005	0.0011 (J)				
3/2/2018				0.0011 (J)	<0.005	<0.005	0.0127
7/12/2018	<0.005	<0.005	0.00057 (J)	<0.005			
7/13/2018					<0.005	<0.005	0.017
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005 (J)	0.02
8/28/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.025
10/16/2019						<0.005	0.023
10/17/2019					0.00042 (J)		
10/18/2019	<0.005	<0.005	0.00075 (J)	<0.005			
3/4/2020				0.00065 (J)			
3/9/2020	<0.005	<0.005	0.00039 (J)		<0.005	<0.005	0.029
8/13/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.029
9/23/2020				<0.005	<0.005	<0.005	0.032
9/24/2020	<0.005	<0.005					
9/25/2020			0.00087 (J)				
3/8/2021				<0.005			
3/10/2021						<0.005	0.028
3/11/2021	<0.005	<0.005	<0.005		0.0008 (J)		
9/14/2021				<0.005			
9/15/2021		<0.005					
9/16/2021	<0.005				<0.005	0.46 (o)	0.023
9/17/2021			<0.005				
10/27/2021						0.0016 (J)	
1/19/2022				0.003 (J)	0.0033 (J)		
1/20/2022			0.0019 (J)				
1/21/2022	<0.005	<0.005					
1/25/2022						<0.005	0.028
9/7/2022			<0.005	<0.005		<0.005	0.024
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	0.021
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	0.029
1/30/2024		<0.005		<0.005			
1/31/2024	<0.005		<0.005			<0.005	0.026
2/1/2024					<0.005		
9/4/2024	0.00093 (J)	<0.005	0.00091 (J)				

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/5/2024				<0.005	<0.005	<0.005	0.02

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Barium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.134	0.0166	0.0378	
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			
8/8/2017						0.0277		
10/24/2017					0.109	0.0333	0.0313	
2/27/2018						0.0341	0.0287	
3/8/2018					0.19			
7/10/2018						0.037	0.027	
7/12/2018					0.18			
11/6/2018						0.037	0.026	
11/7/2018					0.15			
1/30/2019				0.018				
8/27/2019						0.037	0.027	
8/28/2019					0.087			
9/11/2019				0.023				
10/15/2019						0.034	0.024	
10/16/2019					0.077			
10/21/2019				0.026				
3/2/2020						0.035	0.026	
3/9/2020					0.099			
8/11/2020						0.041	0.026	
8/13/2020				0.026	0.046			
8/17/2020	0.015							
9/22/2020					0.07	0.038	0.024	
9/24/2020				0.025				
9/25/2020	0.022							
12/9/2020		0.03						
3/1/2021						0.042	0.028	
3/8/2021	0.022	0.041						
3/12/2021				0.027	0.076			
4/15/2021			0.026					
9/8/2021							0.025	
9/9/2021				0.021	0.099	0.038		
9/13/2021	0.021							
9/15/2021		0.037						
9/16/2021			0.0032 (J)					
1/18/2022						0.043	0.029	
1/19/2022		0.04	0.0034 (J)					
1/20/2022				0.021				
1/21/2022	0.023							
1/28/2022					0.068			
6/6/2022								0.04
9/7/2022		0.035	0.0026 (J)			0.039	0.025	
9/8/2022	0.021			0.018	0.077			0.042
1/31/2023						0.041	0.028	
2/1/2023		0.036	0.0028 (J)		0.089			
2/2/2023	0.098			0.019				0.049

Time Series

Constituent: Barium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								0.048
9/6/2023	0.021					0.041	0.03	
9/7/2023		0.035	0.0027 (J)	0.015	0.12			
9/8/2023								0.047
1/30/2024		0.039			0.096		0.029	
1/31/2024	0.019							0.05
2/1/2024			0.0028 (J)	0.017				
5/20/2024								0.044
9/4/2024						0.039	0.027	0.045
9/5/2024	0.021	0.038						
9/9/2024			0.0036 (J)	0.017				
9/11/2024					0.084			

Time Series

Constituent: Barium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0171			
9/8/2016	0.123	0.0333	0.0978				
12/7/2016	0.125	0.0336	0.0844				
12/8/2016				0.0163			
3/30/2017	0.11	0.0325	0.0858	0.0177			
3/31/2017					0.111		0.0872
5/12/2017					0.127	0.089	0.0929
6/16/2017					0.11	0.0855	0.1
7/13/2017	0.11	0.0332	0.0919	0.017	0.102	0.0859	0.0985
8/8/2017						0.0852	
10/26/2017	0.112	0.0333	0.0899	0.0168	0.105	0.0878	0.136
11/15/2017							0.107
3/1/2018	0.102	0.0333	0.0742				
3/2/2018				0.0169	0.104	0.0878	0.0671
7/12/2018	0.11	0.034	0.094	0.018			
7/13/2018					0.11	0.091	0.074
11/8/2018	0.11	0.035	0.1	0.017	0.11	0.092	0.072
8/28/2019	0.086	0.033	0.099	0.017	0.11	0.089	0.061
10/16/2019						0.089	0.1
10/17/2019					0.1		
10/18/2019	0.079	0.032	0.1	0.019			
3/4/2020				0.018			
3/9/2020	0.092	0.032	0.076		0.11	0.088	0.057
8/13/2020	0.088	0.032	0.089	0.018	0.095	0.088	0.13
9/23/2020				0.019	0.1	0.094	0.055
9/24/2020	0.094	0.032					
9/25/2020			0.1				
3/8/2021				0.016			
3/10/2021						0.09	0.048
3/11/2021	0.075	0.032	0.078		0.11		
9/14/2021				0.027			
9/15/2021		0.032					
9/16/2021	0.083				0.088	0.13 (o)	0.078
9/17/2021			0.09				
10/27/2021						0.086	
1/19/2022				0.018	0.091		
1/20/2022			0.093				
1/21/2022	0.085	0.031					
1/25/2022						0.1	0.049
9/7/2022			0.099	0.016		0.098	0.065
9/8/2022	0.079				0.082		
9/12/2022		0.027					
2/1/2023				0.017		0.099	0.044
2/2/2023	0.081	0.03			0.08		
2/3/2023			0.087				
9/6/2023	0.082						
9/7/2023		0.027	0.11	0.016	0.076	0.11	0.047
1/30/2024		0.031		0.017			
1/31/2024	0.086		0.1			0.11	0.048
2/1/2024					0.077		
9/4/2024	0.067	0.025	0.11				
9/5/2024				0.016	0.068	0.1	0.062

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
10/6/2016				9E-05 (J)				
3/28/2017					<0.0005	<0.0005	9E-05 (J)	
5/11/2017					<0.0005			
5/12/2017							<0.003	
5/15/2017						<0.0005		
6/15/2017					<0.0005	<0.0005		
6/16/2017							0.0001 (J)	
7/11/2017						<0.0005	<0.003	
7/12/2017					<0.0005			
8/8/2017						<0.0005		
10/24/2017					<0.0005	<0.0005	<0.003	
2/27/2018						<0.0005	<0.003	
3/8/2018					<0.0005			
7/10/2018						9.5E-05 (J)	0.0009 (J)	
7/12/2018					<0.0005			
11/6/2018						0.00012 (J)	0.00013 (J)	
11/7/2018					<0.0005			
1/30/2019				<0.0025				
8/27/2019						7.9E-05 (J)	<0.003	
8/28/2019					<0.0005			
9/11/2019				0.00012 (J)				
10/15/2019						<0.0005	8.8E-05 (J)	
10/16/2019					<0.0005			
10/21/2019				7.8E-05 (J)				
3/2/2020						9.6E-05 (J)	0.0001 (J)	
3/9/2020					<0.0005			
8/11/2020						0.00013 (J)	0.00011 (J)	
8/13/2020				0.00011 (J)	<0.0005			
8/17/2020	0.0004 (J)							
9/22/2020					<0.0005	6.8E-05 (J)	6.9E-05 (J)	
9/24/2020				0.00013 (J)				
9/25/2020	0.00035 (J)							
12/9/2020		<0.0005						
3/1/2021						0.00012 (J)	0.00011 (J)	
3/8/2021	0.00046 (J)	<0.0005						
3/12/2021				<0.0025	<0.0005			
4/15/2021			<0.0005					
9/8/2021							9.1E-05 (J)	
9/9/2021				0.00014 (J)	<0.0005	8.9E-05 (J)		
9/13/2021	0.00053							
9/15/2021		<0.0005						
9/16/2021			<0.0005					
1/18/2022						9.2E-05 (J)	0.00012 (J)	
1/19/2022		<0.0005	<0.0005					
1/20/2022				0.00015 (J)				
1/21/2022	0.00053							
1/28/2022					<0.0005			
6/6/2022								<0.0005
9/7/2022		<0.0005	<0.0005			8.4E-05 (J)	7.5E-05 (J)	
9/8/2022	0.00058			0.00013 (J)	<0.0005			<0.0005
1/31/2023						9.4E-05 (J)	0.00011 (J)	
2/1/2023		<0.0005	<0.0005		0.00016 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/2/2023	<0.0005			0.00012 (J)				<0.0005
5/2/2023								<0.0005
9/6/2023	0.00054					0.00012 (J)	0.00011 (J)	
9/7/2023		<0.0005	<0.0005	0.00011 (J)	<0.0005			
9/8/2023								<0.0005
1/30/2024		<0.0005			<0.0005		9.8E-05 (J)	
1/31/2024	0.00047 (J)							<0.0005
2/1/2024			<0.0005	0.00015 (J)				
5/20/2024								<0.0005
9/4/2024						<0.0005	0.0001 (J)	<0.0005
9/5/2024	0.00053	<0.0005						
9/9/2024			<0.0005	0.00018 (J)				
9/11/2024					<0.0005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0028 (J)			
9/8/2016	<0.0005	<0.0005	<0.0005				
12/7/2016	<0.0005	<0.0005	<0.0005				
12/8/2016				0.0026 (J)			
3/30/2017	<0.0005	<0.0005	<0.0005	0.003			
3/31/2017					<0.0005		7E-05 (J)
5/12/2017					<0.0005	<0.0005	<0.0005
6/16/2017					<0.0005	<0.0005	<0.0005
7/13/2017	<0.0005	<0.0005	<0.0005	0.003 (J)	<0.0005	<0.0005	<0.0005
8/8/2017						<0.0005	
10/26/2017	<0.0005	<0.0005	<0.0005	0.0027 (J)	<0.0005	<0.0005	<0.0005
11/15/2017							<0.0005
3/1/2018	<0.0005	<0.0005	<0.0005				
3/2/2018				0.0033	<0.0005	<0.0005	<0.0005
7/12/2018	7E-05 (J)	<0.0005	<0.0005	0.0032			
7/13/2018					<0.0005	8.4E-05 (J)	5.8E-05 (J)
11/8/2018	<0.0005	<0.0005	<0.0005	<0.003 (J)	<0.0005	<0.0005	<0.0005
8/28/2019	8.6E-05 (J)	<0.0005	<0.0005	0.0032	<0.0005	<0.0005	<0.0005
10/16/2019						<0.0005	<0.0005
10/17/2019					<0.0005		
10/18/2019	<0.0005	<0.0005	<0.0005	0.0033			
3/4/2020				0.0039			
3/9/2020	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	7.5E-05 (J)
8/13/2020	0.0001 (J)	<0.0005	<0.0005	0.0033	<0.0005	<0.0005	6.3E-05 (J)
9/23/2020				0.0031	<0.0005	<0.0005	6.1E-05 (J)
9/24/2020	8.8E-05 (J)	5.8E-05 (J)					
9/25/2020			<0.0005				
3/8/2021				0.003			
3/10/2021						6.1E-05 (J)	5E-05 (J)
3/11/2021	<0.0005	<0.0005	<0.0005		<0.0005		
9/14/2021				0.0032			
9/15/2021		<0.0005					
9/16/2021	5.9E-05 (J)				<0.0005	<0.0005	<0.0005
9/17/2021			<0.0005				
1/19/2022				0.0034	<0.0005		
1/20/2022			<0.0005				
1/21/2022	5.9E-05 (J)	<0.0005					
1/25/2022						<0.0005	5.9E-05 (J)
9/7/2022			<0.0005	0.0031		<0.0005	<0.0005
9/8/2022	5.7E-05 (J)				<0.0005		
9/12/2022		<0.0005					
2/1/2023				0.0028		<0.0005	<0.0005
2/2/2023	<0.0005	<0.0005			<0.0005		
2/3/2023			<0.0005				
9/6/2023	5.8E-05 (J)						
9/7/2023		<0.0005	<0.0005	0.0031	<0.0005	<0.0005	7.8E-05 (J)
1/30/2024		<0.0005		0.0032			
1/31/2024	<0.0005		<0.0005			<0.0005	<0.0005
2/1/2024					<0.0005		
9/4/2024	<0.0005	<0.0005	<0.0005				
9/5/2024				0.0029	<0.0005	<0.0005	<0.0005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Boron (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
10/6/2016				0.053 (J)				
3/28/2017					0.0612	0.0067 (J)	0.0097 (J)	
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			
8/8/2017						<0.04		
10/24/2017					0.077	0.0082 (J)	0.0083 (J)	
2/27/2018						0.0062 (J)	0.0069 (J)	
3/8/2018					0.13 (J)			
7/10/2018						0.0077 (J)	0.0059 (J)	
7/12/2018					0.076			
11/6/2018						<0.04 (J)	<0.04 (J)	
11/7/2018					0.073			
1/30/2019				0.14				
3/12/2019						0.0073 (J)	0.0068 (J)	
3/13/2019					0.08			
9/11/2019				0.068				
10/15/2019						<0.04	0.0054 (J)	
10/16/2019					0.059			
10/21/2019				0.058				
3/2/2020						0.0055 (J)	0.01 (J)	
3/9/2020					0.08 (J)			
9/22/2020					0.056 (J)	<0.04	<0.04	
9/24/2020				0.074 (J)				
9/25/2020	0.27							
12/9/2020		0.79						
3/1/2021						<0.04	0.0054 (J)	
3/8/2021	0.24	0.64						
3/12/2021				0.092 (J)	0.064			
4/15/2021			0.26					
9/8/2021							<0.04	
9/9/2021				0.068	0.065	<0.04		
9/13/2021	0.24							
9/15/2021		0.76						
9/16/2021			0.27					
1/18/2022						0.024 (J)	0.015 (J)	
1/19/2022		0.88	0.31					
1/20/2022				0.077				
1/21/2022	0.24							
1/28/2022					0.062			
6/6/2022								1.4
9/7/2022		0.87	0.26			<0.04	<0.04	
9/8/2022	0.24			0.064	0.054			2.1
1/31/2023						0.011 (J)	0.0097 (J)	
2/1/2023		0.89	0.29		0.051			
2/2/2023	1.6			0.064				1.6
5/2/2023								1.1
9/6/2023	0.24					0.012 (J)	0.015 (J)	

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Boron (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/7/2023		0.76	0.24	0.071	0.052			
9/8/2023								1.9
1/30/2024		0.77			0.065		0.015 (J)	
1/31/2024	0.13							1.6
2/1/2024			0.26	0.083				
5/20/2024								1.7
9/4/2024						<0.04	<0.04	1.6
9/5/2024	0.19	0.72						
9/9/2024			0.22	0.059				
9/11/2024					0.042			

Time Series

Constituent: Boron (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.895			
9/8/2016	1.58	2.69	3.35				
12/7/2016	2.01	3.08	3.63				
12/8/2016				0.841			
3/30/2017	1.47	3.19	3.57	0.937			
3/31/2017					2.91		0.407
4/12/2017							0.207
5/12/2017					3.24	1.8	0.311
6/16/2017					3.42	1.88	0.381
7/13/2017	2.1	3.09	3.41	0.933	3.46	1.97	0.323
8/8/2017						2.1	
10/26/2017	1.86	2.92	3.41	0.873	3.21	2.05	0.779
11/15/2017							0.667
3/1/2018	1.87	3.08	2.86				
3/2/2018				0.974	3.49	2.05	0.0478
7/12/2018	1.5	2.8	3	0.92			
7/13/2018					3.1	1.7	0.043
11/8/2018	1.4	3.4	3.4	0.8	3.5	1.8	0.054
3/13/2019	1.8	2.9	3.4	0.8	3.5	1.9	0.028 (J)
10/16/2019						1.5	0.38
10/17/2019					3.6		
10/18/2019	1.3	3.1	3.6	0.9			
3/4/2020				0.86			
3/9/2020	1.8	3	2.9		3.6	1.8	0.035 (J)
9/23/2020				0.76	3.2	1.7	0.041 (J)
9/24/2020	1.6	2.9					
9/25/2020			3.3				
3/8/2021				0.72			
3/10/2021						1.7	0.024 (J)
3/11/2021	1.4	2.7	2.5		3.4		
9/14/2021				0.7			
9/15/2021		2.8					
9/16/2021	1.4				3.4	1.3	0.32
9/17/2021			2.8				
1/19/2022				0.82	4.1		
1/20/2022			2.8				
1/21/2022	1.4	2.8					
1/25/2022						2.2	0.035 (J)
9/7/2022			3.3	0.84		2	0.23
9/8/2022	2				4.3		
9/12/2022		2.8					
2/1/2023				0.68		1.7	0.035 (J)
2/2/2023	1.5	2.6			3.9		
2/3/2023			2.1				
9/6/2023	1.7						
9/7/2023		2.8	2.7	0.73	3.9	1.8	0.052
1/30/2024		2.9		0.73			
1/31/2024	1.9		2.3			1.9	0.025 (J)
2/1/2024					3.9		
9/4/2024	1.5	2.6	2.7				
9/5/2024				0.64	3.7	1.7	0.24

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.0005	<0.0005	<0.0005	
5/11/2017					8E-05 (J)			
5/12/2017							<0.0005	
5/15/2017						<0.0005		
6/15/2017					<0.0005	<0.0005		
6/16/2017							<0.0005	
7/11/2017						<0.0005	<0.0005	
7/12/2017					<0.0005			
8/8/2017						<0.0005		
10/24/2017					<0.0005	<0.0005	<0.0005	
2/27/2018						<0.0005	<0.0005	
3/8/2018					<0.0005			
7/10/2018						<0.0005	<0.0005	
7/12/2018					0.00013 (J)			
11/6/2018						<0.0005	<0.0005	
11/7/2018					<0.0005			
1/30/2019				<0.0005				
8/27/2019						<0.0005	<0.0005	
8/28/2019					<0.0005			
9/11/2019				<0.0005				
10/15/2019						<0.0005	<0.0005	
10/16/2019					<0.0005			
10/21/2019				<0.0005				
3/2/2020						0.00041 (J)	<0.0005	
3/9/2020					<0.0005			
8/11/2020						<0.0005	<0.0005	
8/13/2020				<0.0005	<0.0005			
8/17/2020	0.00059 (J)							
9/22/2020					<0.0005	<0.0005	<0.0005	
9/24/2020				<0.0005				
9/25/2020	0.00027 (J)							
12/9/2020		<0.0005						
3/1/2021						<0.0005	<0.0005	
3/8/2021	0.00027 (J)	<0.0005						
3/12/2021				<0.0005	<0.0005			
4/15/2021			<0.0005					
9/8/2021							<0.0005	
9/9/2021				<0.0005	<0.0005	<0.0005		
9/13/2021	0.00029 (J)							
9/15/2021		<0.0005						
9/16/2021			<0.0005					
1/18/2022						<0.0005	<0.0005	
1/19/2022		<0.0005	<0.0005					
1/20/2022				<0.0005				
1/21/2022	0.00059							
1/28/2022					<0.0005			
6/6/2022								<0.0005
9/7/2022		<0.0005	<0.0005			<0.0005	<0.0005	
9/8/2022	0.00027 (J)			<0.0005	<0.0005			<0.0005
1/31/2023						<0.0005	<0.0005	
2/1/2023		<0.0005	<0.0005		0.00019 (J)			
2/2/2023	<0.0005			<0.0005				<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.0005
9/6/2023	0.00035 (J)					<0.0005	<0.0005	
9/7/2023		<0.0005	<0.0005	<0.0005	<0.0005			
9/8/2023								<0.0005
1/30/2024		<0.0005			<0.0005		<0.0005	
1/31/2024	0.00033 (J)							<0.0005
2/1/2024			<0.0005	<0.0005				
5/20/2024								<0.0005
9/4/2024						<0.0005	<0.0005	<0.0005
9/5/2024	<0.0005	<0.0005						
9/9/2024			<0.0005	<0.0005				
9/11/2024					<0.0005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0008 (J)			
9/8/2016	0.0002 (J)	0.0002 (J)	<0.0005				
12/7/2016	0.0001 (J)	0.0002 (J)	<0.0005				
12/8/2016				0.0007 (J)			
3/30/2017	0.0001 (J)	0.0002 (J)	<0.0005	0.0007 (J)			
3/31/2017					<0.0005		0.0001 (J)
5/12/2017					<0.0005	8E-05 (J)	0.0002 (J)
6/16/2017					<0.0005	<0.0005	0.0002 (J)
7/13/2017	<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005	<0.0005	<0.0005
8/8/2017						<0.0005	
10/26/2017	<0.0005	0.0002 (J)	<0.0005	0.0008 (J)	<0.0005	<0.0005	<0.0005
11/15/2017							<0.0005
3/1/2018	<0.0005	<0.0005	<0.0005				
3/2/2018				<0.001	<0.0005	<0.0005	<0.0005
7/12/2018	<0.0005	0.00024 (J)	<0.0005	0.00087 (J)			
7/13/2018					<0.0005	0.00019 (J)	<0.0005
11/8/2018	<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005	<0.001 (J)	<0.0005
8/28/2019	<0.0005	0.0003 (J)	<0.0005	0.00087 (J)	0.00017 (J)	0.00017 (J)	<0.0005
10/16/2019						0.00017 (J)	0.00017 (J)
10/17/2019					<0.0005		
10/18/2019	<0.0005	0.00016 (J)	<0.0005	0.00088 (J)			
3/4/2020				0.00093 (J)			
3/9/2020	<0.0005	0.00017 (J)	<0.0005		0.00021 (J)	0.00026 (J)	<0.0005
8/13/2020	<0.0005	0.00021 (J)	<0.0005	0.00084 (J)	0.00015 (J)	0.00021 (J)	<0.0005
9/23/2020				0.0008 (J)	0.00018 (J)	0.00024 (J)	<0.0005
9/24/2020	0.00027 (J)	0.00081 (J)					
9/25/2020			<0.0005				
3/8/2021				0.00072			
3/10/2021						<0.0005	<0.0005
3/11/2021	<0.0005	<0.0005	<0.0005		0.00053		
9/14/2021				0.00086			
9/15/2021		0.00021 (J)					
9/16/2021	0.00013 (J)				<0.0005	<0.0005	<0.0005
9/17/2021			<0.0005				
1/19/2022				0.00085	<0.0005		
1/20/2022			<0.0005				
1/21/2022	<0.0005	0.0002 (J)					
1/25/2022						0.00035 (J)	<0.0005
9/7/2022			<0.0005	0.00081		0.0002 (J)	<0.0005
9/8/2022	<0.0005				<0.0005		
9/12/2022		0.00013 (J)					
2/1/2023				0.00063		<0.0005	<0.0005
2/2/2023	<0.0005	<0.0005			<0.0005		
2/3/2023			<0.0005				
9/6/2023	<0.0005						
9/7/2023		0.00013 (J)	<0.0005	0.00074	<0.0005	0.00015 (J)	<0.0005
1/30/2024		0.00024 (J)		0.00073			
1/31/2024	<0.0005		<0.0005			0.00026 (J)	<0.0005
2/1/2024					<0.0005		
9/4/2024	<0.0005	0.00012 (J)	<0.0005				
9/5/2024				0.00069	0.00029 (J)	0.00025 (J)	<0.0005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					30.8	5.14	8.31	
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			
8/8/2017						5.2		
10/24/2017					30.3	4.93	6.86	
2/27/2018						<25	<25	
3/8/2018					39.8			
7/10/2018						5	5.7	
7/12/2018					34.7			
11/6/2018						5.5	5.7	
11/7/2018					28.6			
1/30/2019				51.4				
3/12/2019						5.1	5.5	
3/13/2019					26.7			
10/15/2019						5.1	5.1	
10/16/2019					17.7			
10/21/2019				31.2				
3/2/2020						5.3	5.8	
3/9/2020					23.7			
9/22/2020					15.5	5	5.4	
9/24/2020				28.8				
9/25/2020	44.7							
12/9/2020		76.9						
3/1/2021						4.1	5.9	
3/8/2021	47.7	79.6						
3/12/2021				28.8	18.4			
4/15/2021			34.6					
9/8/2021							6.1	
9/9/2021				29.2	18.3	5.3		
9/13/2021	51.5							
9/15/2021		72.7						
9/16/2021			28.4					
1/18/2022						6.1	6.6	
1/19/2022		74.2	24.1					
1/20/2022				36.3				
1/21/2022	49.9							
1/28/2022					19.5			
6/6/2022								44.1
9/7/2022		73.2	26.5			5.9	6.4	
9/8/2022	46			31.4	17.2			45
1/31/2023						6.2	5.7	
2/1/2023		70.2	25.3		14.1			
2/2/2023	46.9			32.4				40.1
5/2/2023								29.4
9/6/2023	49.9					6.6	7	
9/7/2023		71.8	24	35.1	16.3			
9/8/2023								43.9

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
1/30/2024		67.9			13.7		6.1	
1/31/2024	24.3							37.8
2/1/2024			23.6	33.2				
5/20/2024								43.4
9/4/2024						6.3	6.5	41
9/5/2024	41.6	71.3						
9/9/2024			21.9	30.8				
9/11/2024					10.6			

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				39.6			
9/8/2016	52.5	70.3	87.2				
12/7/2016	29.7	38.4	96.7				
12/8/2016				37.9			
3/30/2017	62.6	80.3	98.9	43.9			
3/31/2017					39.9		18.6 (J)
5/12/2017					43.6	51.7	18.9 (J)
6/16/2017					42.5	47.9	17.7
7/13/2017	64.1	90.8	95	46.2	43.7	52.3	17.6
8/8/2017						46.3	
10/26/2017	60.8	81.3	90.6	41.8	40.4	48.2	33.3
11/15/2017							30.6
3/1/2018	57	81.8	79.6				
3/2/2018				43.2	40.1	48.9	8.09
7/12/2018	59.1	86.7	89.8	47.1			
7/13/2018					43.3	52.4	7.9
11/8/2018	53.6	86.6	89	43.5	40.1	46.8	8.5
3/13/2019	54.8	85.3	96.3	41	41.2	47.5	7.6
10/16/2019						49.7	16.2
10/17/2019					46.9		
10/18/2019	52.5	97.8	108	44.9			
3/4/2020				49.6			
3/9/2020	64.2	91.9	100		46.9	54	8.6
9/23/2020				41.9	42	50.2	8
9/24/2020	55.9	84.1					
9/25/2020			92.5				
3/8/2021				44.9			
3/10/2021						54.2	8.5
3/11/2021	56	85.8	91.9		45.4		
9/14/2021				45.1			
9/15/2021		88.3					
9/16/2021	63				46	60.6	18
9/17/2021			98.6				
1/19/2022				44.7	48.8		
1/20/2022			96.2				
1/21/2022	64.4	91					
1/25/2022						60.4	9.2
9/7/2022			92.5	44.8		53.5	13.1
9/8/2022	66.2				47.4		
9/12/2022		87.6					
2/1/2023				41.1		64.8	8.3
2/2/2023	61.7	83.6			48.6		
2/3/2023			77.4				
9/6/2023	59.1						
9/7/2023		86.5	81.2	41	43.3	53.6	8.1
1/30/2024		80.8		38.2			
1/31/2024	60.1		76.6			54.6	8.8
2/1/2024					44.4		
9/4/2024	58.1	83.2	92				
9/5/2024				38.8	44.6	52.7	13.6

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					3.7	3.8	3.6	
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			
8/8/2017						2.2		
10/24/2017					2.7	2.4	3.2	
11/15/2017					2.2		3.1	
2/27/2018						2.5	3.2	
3/8/2018					2.4			
7/10/2018						1.9	2.5	
7/12/2018					2.2			
11/6/2018						2.3	2.6	
11/7/2018					2.3			
1/30/2019				7.1				
3/12/2019						2.5	3.3	
3/13/2019					3.6			
10/15/2019						2.2	3.3	
10/16/2019					2			
10/21/2019				6.5				
3/2/2020						1.9	3	
3/9/2020					1.8			
9/22/2020					1.6	1.9	5.2	
9/24/2020				5.7				
9/25/2020	13.2							
12/9/2020		17.1						
3/1/2021						1.9	3.9	
3/8/2021	12.9	17.4						
3/12/2021				5.9	2			
4/15/2021			10					
9/8/2021							5.9	
9/9/2021				5.8	1.8	1.9		
9/13/2021	11.1							
9/15/2021		17.4						
9/16/2021			2.7					
1/18/2022						1.9	5.9	
1/19/2022		16.3	2.5					
1/20/2022				5.6				
1/21/2022	11.3							
1/28/2022					1.8			
6/6/2022								4.7
9/7/2022		16.4	2.9			2.1	8.2	
9/8/2022	10.2			5.3	1.6			4.5
1/31/2023						2.2	7.3	
2/1/2023		15.9	3.1		1.9			
2/2/2023	11.7			5.8				4.3
5/2/2023								2.7
9/6/2023	10					2.2	7.8	
9/7/2023		14.9	2.6	5.4	1.7			

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/8/2023								4.5
1/30/2024		15.2			1.6		8.2	
1/31/2024	7.5							3.8
2/1/2024			3	5.6				
5/20/2024								4.5
9/4/2024						2.2	9.4	4.7
9/5/2024	9.1	16.2						
9/9/2024			3.2	5.5				
9/11/2024					1.8			

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				20			
9/8/2016	6.2	7.4	9.2				
12/7/2016	6.1	7.4	8.9				
12/8/2016				18			
3/30/2017	6.3	7.7	8.7	20			
3/31/2017					5.7		4.4
5/12/2017					5.6	4.2	4.4
6/16/2017					5.5	4.2	4.7
7/13/2017	6.5	7.5	8.4	21	5.2	4.4	4.7
8/8/2017						4.2	
10/26/2017	6.4	8.2	8.3	21	6	4.4	4.2
11/15/2017							4.7
3/1/2018	6.3	8.1	8.1				
3/2/2018				19.5	5.8	4.2	6.4
7/12/2018	5.8	8	7.7	19.9			
7/13/2018					5.9	4	5.3
11/8/2018	5.8	8.1	7.7	19.3	6.1	<0.25	5.9
3/13/2019	6.9	9.1	8.2	19.7	6.8	4.6	6.2
10/16/2019						4.2	4.7
10/17/2019					6.9		
10/18/2019	5.8	8.6	8	19.2			
3/4/2020				20.6			
3/9/2020	6	8.1	7.5		6.7	3.6	5.7
9/23/2020				19.7	7.1	3.6	4.7
9/24/2020	5.6	8.2					
9/25/2020			7.9				
3/8/2021				19.1			
3/10/2021						3.6	5
3/11/2021	5.6	8	7.7		7.4		
9/14/2021				16.7			
9/15/2021		7.6					
9/16/2021	5.6				7.9	3.4	4.5
9/17/2021			8.3				
1/19/2022				16.5	8.3		
1/20/2022			8				
1/21/2022	5.7	8.5					
1/25/2022						3.8	5.4
9/7/2022			8.2	15		4.1	4.9
9/8/2022	5.4				8.9		
9/12/2022		8.5					
2/1/2023				16		4.2	5.8
2/2/2023	5.9	8.7			9.4		
2/3/2023			7.4				
9/6/2023	5.4						
9/7/2023		8.2	7.2	13.6	9.2	3.9	5.1
1/30/2024		8.5		14.7			
1/31/2024	5.8		6.8			3.9	6
2/1/2024					9.8		
9/4/2024	6	9	8.2				
9/5/2024				14.4	10.4	4.4	5

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.005	0.0008 (J)	0.0023 (J)	
5/11/2017					<0.005			
5/12/2017							0.0004 (J)	
5/15/2017						0.0006 (J)		
6/15/2017					<0.005	0.0006 (J)		
6/16/2017							0.0005 (J)	
7/11/2017						0.0005 (J)	<0.005	
7/12/2017					<0.005			
8/8/2017						0.0005 (J)		
10/24/2017					<0.005	0.0005 (J)	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/10/2018						<0.005	<0.005	
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005			
1/30/2019				<0.005				
8/27/2019						0.00071 (J)	0.0018 (J)	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						0.034 (O)	0.0025 (J)	
10/16/2019					<0.005			
10/21/2019				0.00098 (J)				
3/2/2020						0.0013 (J)	0.00045 (J)	
3/9/2020					<0.005			
8/11/2020						0.0016 (J)	0.0006 (J)	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					<0.005	0.00089 (J)	<0.005	
9/24/2020				<0.005				
9/25/2020	0.00094 (J)							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	0.00057 (J)	<0.005						
3/12/2021				<0.005	<0.005			
4/15/2021			0.00085 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		0.0012 (J)						
9/16/2021			0.0014 (J)					
1/18/2022						<0.005	<0.005	
1/19/2022		<0.005	<0.005					
1/20/2022				<0.005				
1/21/2022	<0.005							
1/28/2022					<0.005			
6/6/2022								<0.005
9/7/2022		<0.005	<0.005			<0.005	<0.005	
9/8/2022	<0.005			<0.005	<0.005			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		<0.005			
2/2/2023	<0.005			<0.005				<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.005
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005
1/30/2024		<0.005			<0.005		<0.005	
1/31/2024	<0.005							<0.005
2/1/2024			<0.005	<0.005				
5/20/2024								<0.005
9/4/2024						<0.005	<0.005	<0.005
9/5/2024	<0.005	<0.005						
9/9/2024			<0.005	<0.005				
9/11/2024					<0.005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.005			
9/8/2016	<0.005	<0.005	<0.005				
12/7/2016	<0.005	<0.005	<0.005				
12/8/2016				<0.005			
3/30/2017	<0.005	<0.005	<0.005	0.0007 (J)			
3/31/2017					0.0005 (J)		<0.005
5/12/2017					0.0007 (J)	<0.005	<0.005
6/16/2017					<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	<0.005	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017						<0.005	
10/26/2017	0.0007 (J)	0.0005 (J)	<0.005	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017							<0.005
3/1/2018	<0.005	<0.005	<0.005				
3/2/2018				<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005	<0.005			
7/13/2018					<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	<0.005	0.00061 (J)	<0.005	<0.005	0.00049 (J)
10/16/2019						<0.005	<0.005
10/17/2019					<0.005		
10/18/2019	<0.005	0.00092 (J)	<0.005	0.00078 (J)			
3/4/2020				0.0011 (J)			
3/9/2020	<0.005	0.00044 (J)	<0.005		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00058 (J)	<0.005	<0.005	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020				0.0011 (J)	<0.005	<0.005	0.0011 (J)
9/24/2020	<0.005	<0.005					
9/25/2020			<0.005				
3/8/2021				0.0006 (J)			
3/10/2021						<0.005	0.0009 (J)
3/11/2021	<0.005	<0.005	<0.005		0.0014 (J)		
9/14/2021				0.0021 (J)			
9/15/2021		<0.005					
9/16/2021	<0.005				<0.005	0.0014 (Jo)	<0.005
9/17/2021			<0.005				
10/27/2021						<0.005	
1/19/2022				<0.005	<0.005		
1/20/2022			<0.005				
1/21/2022	<0.005	<0.005					
1/25/2022						<0.005	0.0013 (J)
9/7/2022			<0.005	<0.005		<0.005	<0.005
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	<0.005
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2024		<0.005		<0.005			
1/31/2024	<0.005		<0.005			<0.005	<0.005
2/1/2024					<0.005		
9/4/2024	<0.005	<0.005	<0.005				
9/5/2024				<0.005	<0.005	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.025	0.0034 (J)	0.0033 (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			
8/8/2017						0.0007 (J)		
10/24/2017					0.0267	<0.005	0.0004 (J)	
2/27/2018						<0.005	<0.005	
3/8/2018					0.027			
7/10/2018						<0.005	<0.005	
7/12/2018					0.024			
11/6/2018						<0.005	<0.005	
11/7/2018					0.018			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					0.013			
9/11/2019				0.0003 (J)				
10/15/2019						0.00064 (J)	<0.005	
10/16/2019					0.009			
10/21/2019				0.00031 (J)				
3/2/2020						0.00037 (J)	<0.005	
3/9/2020					0.016			
7/23/2020	0.086							
8/3/2020	0.087							
8/11/2020						0.0012 (J)	<0.005	
8/13/2020				<0.005	0.0051			
8/17/2020	0.077							
9/22/2020					0.011	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	0.034							
12/9/2020		0.012						
3/1/2021						<0.005	<0.005	
3/8/2021	0.029	0.0042 (J)						
3/12/2021				<0.005	0.0078			
4/15/2021			0.0025 (J)					
9/8/2021							<0.005	
9/9/2021				<0.005	0.0064	<0.005		
9/13/2021	0.035							
9/15/2021		0.0065						
9/16/2021			0.00054 (J)					
1/18/2022						<0.005	<0.005	
1/19/2022		0.006	<0.005					
1/20/2022				<0.005				
1/21/2022	0.034							
1/28/2022					0.014			
6/6/2022								0.0028 (J)
9/7/2022		0.004 (J)	<0.005			<0.005	<0.005	
9/8/2022	0.028			<0.005	0.012			0.0019 (J)
9/9/2022				<0.005				

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
1/31/2023						<0.005	<0.005	
2/1/2023		0.004 (J)	<0.005		0.008			
2/2/2023	<0.005			<0.005				0.0016 (J)
5/2/2023								0.0017 (J)
9/6/2023	0.031					<0.005	<0.005	
9/7/2023		0.0027 (J)	0.0004 (J)	<0.005	0.0086			
9/8/2023								0.0016 (J)
1/30/2024		0.0026 (J)			0.0083		<0.005	
1/31/2024	0.065							0.0015 (J)
2/1/2024			<0.005	<0.005				
5/20/2024								0.0013 (J)
9/4/2024						<0.005	<0.005	0.0011 (J)
9/5/2024	0.031	0.002 (J)						
9/9/2024			<0.005	<0.005				
9/11/2024					0.0052			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0382			
9/8/2016	<0.005	0.0015 (J)	0.0068 (J)				
12/7/2016	0.0005 (J)	0.0017 (J)	0.0071 (J)				
12/8/2016				0.0318			
3/30/2017	<0.005	0.0016 (J)	0.006 (J)	0.0364			
3/31/2017					0.0064 (J)		0.0022 (J)
5/12/2017					0.0037 (J)	0.0015 (J)	0.0016 (J)
6/16/2017					0.0041 (J)	0.0003 (J)	0.0009 (J)
7/13/2017	0.0003 (J)	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)	0.0004 (J)
8/8/2017						<0.005	
10/26/2017	0.0003 (J)	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)	<0.005	0.0031 (J)
11/15/2017							0.0028 (J)
3/1/2018	<0.005	<0.01	<0.01				
3/2/2018				0.0425	<0.01	<0.005	<0.005
7/12/2018	<0.005	0.0015 (J)	0.0059 (J)	0.044			
7/13/2018					0.0017 (J)	<0.005	<0.005
11/8/2018	<0.005	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005	<0.005
8/28/2019	<0.005	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005	<0.005
10/16/2019						<0.005	<0.005
10/17/2019					0.0013 (J)		
10/18/2019	<0.005	0.0016 (J)	0.007	0.043			
3/4/2020				0.055			
3/9/2020	<0.005	0.0016 (J)	0.007		0.0015 (J)	<0.005	<0.005
8/13/2020	<0.005	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005	<0.005
9/23/2020				0.046	0.0011 (J)	<0.005	<0.005
9/24/2020	<0.005	0.0013 (J)					
9/25/2020			0.0061				
3/8/2021				0.039			
3/10/2021						<0.005	<0.005
3/11/2021	<0.005	0.0017 (J)	0.0058		0.0016 (J)		
9/14/2021				0.05			
9/15/2021		0.0016 (J)					
9/16/2021	<0.005				0.0012 (J)	0.0032 (Jo)	<0.005
9/17/2021			0.0076				
10/27/2021						<0.005	
1/19/2022				0.042	0.0011 (J)		
1/20/2022			0.0061				
1/21/2022	<0.005	0.0017 (J)					
1/25/2022						<0.005	<0.005
9/7/2022			0.0065	0.037		<0.005	<0.005
9/8/2022	<0.005				0.001 (J)		
9/12/2022		0.0014 (J)					
2/1/2023				0.035		<0.005	<0.005
2/2/2023	<0.005	0.0017 (J)			0.0014 (J)		
2/3/2023			0.005				
9/6/2023	<0.005						
9/7/2023		0.0015 (J)	0.0059	0.035	0.001 (J)	<0.005	<0.005
1/30/2024		0.002 (J)		0.037			
1/31/2024	<0.005		0.0058			<0.005	<0.005
2/1/2024					0.0011 (J)		
9/4/2024	<0.005	0.0015 (J)	0.0065				
9/5/2024				0.035	0.0011 (J)	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					6.36	0.866 (U)	0.257 (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			
8/8/2017						1.48		
10/24/2017					4.46	0.472 (U)	0.724 (U)	
2/27/2018						1.22	0.714 (U)	
3/8/2018					2.14			
7/10/2018						0.362 (U)	0.426 (U)	
7/12/2018					4.65			
11/6/2018						0.859 (U)	0.455 (U)	
11/7/2018					3.05			
1/30/2019				1.97 (U)				
8/27/2019						1.97	1.3 (U)	
8/28/2019					2.68			
10/15/2019						0.319 (U)	1.21 (U)	
10/16/2019					1.89			
10/21/2019				1.82				
3/2/2020						0.419 (U)	1.3	
3/9/2020					3.51			
8/11/2020						0.812 (U)	0.965 (U)	
8/13/2020				1.63	1.04			
8/17/2020	1.4 (U)							
9/22/2020					2.27	0.45 (U)	0.216 (U)	
9/24/2020				1.28 (U)				
9/25/2020	0.799 (U)							
12/9/2020		1.25 (U)						
3/1/2021						0.552 (U)	0.389 (U)	
3/8/2021	0.168 (U)	1.87						
3/12/2021				1.18 (U)	1.63			
4/15/2021			0.945 (U)					
9/8/2021							0.051 (U)	
9/9/2021				1.7	2.72	0.779 (U)		
9/13/2021	0.774 (U)							
9/15/2021		2.01						
9/16/2021			0.241 (U)					
1/18/2022						1.26	0.729 (U)	
1/19/2022		2.45	0.738 (U)					
1/20/2022				1.71				
1/21/2022	0.769 (U)							
1/28/2022					2.1			
9/7/2022						0.504 (U)	0.588 (U)	
9/8/2022	0.643 (U)				1.69			
9/9/2022				1.96				
1/31/2023						0.416 (U)	0.314 (U)	
2/1/2023		6.88	1.76		1.92			
2/2/2023	0.981			1.6				0.868 (U)
5/2/2023								0.374 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	0.326 (U)					0.651 (U)	0.572 (U)	
9/7/2023		2.88	0.902	2.24	2.16			
9/8/2023								0.986 (U)
1/30/2024		6.38			0.478 (U)		0.305 (U)	
1/31/2024	0.0563 (U)							0.58 (U)
2/1/2024			1.25	2.08				
5/20/2024								1.05 (U)
9/4/2024						0.174 (U)	0.593 (U)	0.563 (U)
9/5/2024	0.44 (U)	3.88						
9/9/2024			1.51	2.14				
9/11/2024					1.58			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				1.44			
9/8/2016	0.827 (U)	1.48	1.44				
12/7/2016	0.56 (U)	0.22 (U)	2.16				
12/8/2016				2.56			
3/30/2017	0.302 (U)	0.519 (U)	0.264 (U)	0.0844 (U)			
3/31/2017					0.404 (U)		1.39
5/12/2017					0.206 (U)	1.18	1.29
6/16/2017					0.966 (U)	0.332 (U)	1.61
7/13/2017	0.731 (U)	1.11	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)	1.14
8/8/2017						1.4	
10/26/2017	1.04 (U)	1.13 (U)	0.875 (U)	0.748 (U)	0.619 (U)	0.477 (U)	2.04
11/15/2017							1.99
3/1/2018	0.344 (U)	0.985 (U)	1.24				
3/2/2018				0.485 (U)	1.31	1.13	0.918 (U)
7/12/2018	0.566 (U)	0.615 (U)	0.935 (U)	0.231 (U)			
7/13/2018					0.667 (U)	0.407 (U)	1.36 (U)
11/8/2018	0.623 (U)	0.58 (U)	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)	0.719 (U)
8/28/2019	1.24 (U)	0.517 (U)	1.15 (U)	0.592 (U)	0.751 (U)	1.77	1.38
10/16/2019						2.12	0.826 (U)
1/6/2020	2.01	0.527 (U)	1.4	1.6	0.965 (U)		
3/4/2020				1.62			
3/9/2020	0.499 (U)	1.04	1.36		0.819 (U)	1.33	1.39
8/13/2020	0.99	0.132 (U)	0.626 (U)	1.6	0.897 (U)	1.46	2.66
9/23/2020				1.28 (U)	0.131 (U)	0.563 (U)	1.8
9/24/2020	1.03 (U)	0.593 (U)					
9/25/2020			0.181 (U)				
3/8/2021				0.714 (U)			
3/10/2021						0.568 (U)	1.6
3/11/2021	0.956 (U)	0.0784 (U)	0.969 (U)		1.55		
9/14/2021				1.8			
9/15/2021		2.37					
9/16/2021	0.691 (U)				0.201 (U)	1.74	2.06
9/17/2021			0.911 (U)				
1/19/2022				1.7	0.853 (U)		
1/20/2022			0.172 (U)				
1/21/2022	0.343 (U)	0.0873 (U)					
1/25/2022						0.323 (U)	0.834 (U)
2/1/2023				0.603 (U)		1.37	1.85
2/2/2023	1.23	0.462 (U)			0.498 (U)		
2/3/2023			0.878 (U)				
9/6/2023	0.732 (U)						
9/7/2023		0.358 (U)	0.728 (U)	0.902 (U)	0.565 (U)	0.782 (U)	0.91
1/30/2024		0.606 (U)		0.534 (U)			
1/31/2024	0.14 (U)		0.156 (U)			0.0595 (U)	0.588 (U)
2/1/2024					0.667 (U)		
9/4/2024	0.461 (U)	0.546 (U)	0.203 (U)				
9/5/2024				0.217 (U)	0.547 (U)	1.15	1.6

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.12 (J)	1.2 (O)	0.06 (J)	
5/11/2017					0.07 (J)			
5/12/2017							<0.1	
5/15/2017						0.005 (J)		
6/15/2017					0.19 (J)	0.02 (J)		
6/16/2017							0.008 (J)	
7/11/2017						0.06 (J)	0.007 (J)	
7/12/2017					0.1 (J)			
8/8/2017						0.04 (J)		
10/24/2017					0.06 (J)	<0.1	<0.1	
11/15/2017					0.05 (J)		<0.1	
2/27/2018						<0.1	<0.1	
3/8/2018					<0.3			
7/10/2018						0.082 (J)	<0.1	
7/12/2018					0.071 (J)			
11/6/2018						<0.1	<0.1	
11/7/2018					<0.3			
1/30/2019				0.43				
3/12/2019						0.039 (J)	<0.1	
3/13/2019					0.13 (J)			
8/27/2019						<0.1	<0.1	
8/28/2019					0.42			
10/15/2019						<0.1	<0.1	
10/16/2019					0.11 (J)			
10/21/2019				0.23 (J)				
3/2/2020						<0.1	<0.1	
3/9/2020					0.1 (J)			
8/11/2020						<0.1	<0.1	
8/13/2020				0.11	0.062 (J)			
8/17/2020	<0.1							
9/22/2020					0.099 (J)	<0.1	<0.1	
9/24/2020				0.093 (J)				
9/25/2020	<0.1							
12/9/2020		0.075 (J)						
3/1/2021						<0.1	<0.1	
3/8/2021	<0.1	0.32						
3/12/2021				0.11	0.076 (J)			
4/15/2021			0.3					
9/8/2021							<0.1	
9/9/2021				0.14	0.099 (J)	<0.1		
9/13/2021	<0.1							
9/15/2021		0.078 (J)						
9/16/2021			0.34					
1/18/2022						<0.1	<0.1	
1/19/2022		0.058 (J)	0.25					
1/20/2022				0.099 (J)				
1/21/2022	<0.1							
1/28/2022					0.08 (J)			
6/6/2022								0.056 (J)
9/7/2022		0.11	0.27			0.061 (J)	0.056 (J)	
9/8/2022	0.072 (J)			0.13	0.11			0.093 (J)
1/31/2023						0.053 (J)	0.05 (J)	

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
2/1/2023		0.089 (J)	0.3		0.1			
2/2/2023	0.052 (J)			0.16				0.11
5/2/2023								0.076 (J)
9/6/2023	<0.1					<0.1	<0.1	
9/7/2023		0.1	0.32	0.13	0.082 (J)			
9/8/2023								<0.1
1/30/2024		0.081 (J)			0.07 (J)		<0.1	
1/31/2024	0.063 (J)							0.07 (J)
2/1/2024			0.29	0.14				
5/20/2024								0.062 (J)
9/4/2024						0.059 (J)	0.06 (J)	0.082 (J)
9/5/2024	0.069 (J)	0.13						
9/9/2024			0.34	0.18				
9/11/2024					0.06 (J)			

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.5			
9/8/2016	0.08 (J)	0.1 (J)	0.17 (J)				
12/7/2016	0.21 (J)	0.27 (J)	0.33				
12/8/2016				0.35			
3/30/2017	0.05 (J)	0.12 (J)	0.17 (J)	0.21 (J)			
3/31/2017					0.02 (J)		0.16 (J)
5/12/2017					<0.1	0.37	0.12 (J)
6/16/2017					0.03 (J)	0.12 (J)	0.16 (J)
7/13/2017	0.06 (J)	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)	0.13 (J)
8/8/2017						0.11 (J)	
10/26/2017	0.08 (J)	0.47	0.54	0.5	<0.1	0.11 (J)	0.29 (J)
11/15/2017							0.28 (J)
3/1/2018	0.22	<0.3	0.13				
3/2/2018				0.33	<0.1	0.23	0.18
7/12/2018	0.32	0.23 (J)	0.13 (J)	0.57			
7/13/2018					0.25 (J)	0.099 (J)	0.19 (J)
11/8/2018	<0.3	<0.3	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)	<0.3 (J)
3/13/2019	0.08 (J)	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)	0.086 (J)
8/28/2019	0.074 (J)	0.066 (J)	0.086 (J)	0.14	<0.1	0.1	0.07 (J)
10/16/2019						0.093 (J)	0.13 (J)
10/17/2019					0.038 (J)		
10/18/2019	0.075 (J)	0.073 (J)	0.14 (J)	0.13 (J)			
3/4/2020				0.11 (J)			
3/9/2020	0.054 (J)	0.064 (J)	0.075 (J)		<0.1	0.082 (J)	0.068 (J)
8/13/2020	0.068 (J)	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)	0.084 (J)
9/23/2020				0.054 (J)	<0.1	0.07 (J)	0.064 (J)
9/24/2020	0.061 (J)	0.057 (J)					
9/25/2020			0.086 (J)				
3/8/2021				0.17			
3/10/2021						0.07 (J)	0.055 (J)
3/11/2021	0.057 (J)	0.058 (J)	0.083 (J)		<0.1		
9/14/2021				0.13			
9/15/2021		0.06 (J)					
9/16/2021	0.084 (J)				0.069 (J)	0.55	0.11
9/17/2021			0.13				
1/19/2022				0.12	<0.1		
1/20/2022			0.1				
1/21/2022	0.053 (J)	0.1					
1/25/2022						0.067 (J)	0.054 (J)
9/7/2022			0.11	0.14		0.11	0.11
9/8/2022	0.082 (J)				0.096 (J)		
9/12/2022		0.12					
2/1/2023				0.15		0.11	0.1
2/2/2023	0.089 (J)	0.1			0.068 (J)		
2/3/2023			0.12				
9/6/2023	0.053 (J)						
9/7/2023		0.072 (J)	0.092 (J)	0.14	<0.1	0.096 (J)	0.063 (J)
1/30/2024		0.078 (J)		0.12			
1/31/2024	0.069 (J)		0.11			0.092 (J)	0.086 (J)
2/1/2024					0.057 (J)		
9/4/2024	0.1	0.12	0.14				
9/5/2024				0.14	0.071 (J)	0.11	0.11

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Lead (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.001	9E-05 (J)	<0.001	
5/11/2017					<0.001			
5/12/2017							8E-05 (J)	
5/15/2017						0.0001 (J)		
6/15/2017					<0.001	0.0002 (J)		
6/16/2017							<0.001	
7/11/2017						<0.001	<0.001	
7/12/2017					<0.001			
8/8/2017						7E-05 (J)		
10/24/2017					<0.001	<0.001	<0.001	
2/27/2018						<0.001	<0.001	
3/8/2018					<0.001			
7/10/2018						<0.001	<0.001	
7/12/2018					<0.001			
11/6/2018						<0.001	<0.001	
11/7/2018					<0.001			
1/30/2019				<0.001				
8/27/2019						7.8E-05 (J)	<0.001	
8/28/2019					<0.001			
9/11/2019				<0.001				
10/15/2019						<0.001	<0.001	
10/16/2019					<0.001			
10/21/2019				<0.001				
3/2/2020						7.4E-05 (J)	<0.001	
3/9/2020					<0.001			
8/11/2020						0.0003 (J)	<0.001	
8/13/2020				<0.001	<0.001			
8/17/2020	8.8E-05 (J)							
9/22/2020					<0.001	7.8E-05 (J)	<0.001	
9/24/2020				<0.001				
9/25/2020	0.00021 (J)							
12/9/2020		5.2E-05 (J)						
3/1/2021						<0.001	<0.001	
3/8/2021	0.00018 (J)	<0.001						
3/12/2021				<0.001	<0.001			
4/15/2021			0.00014 (J)					
9/8/2021							<0.001	
9/9/2021				<0.001	<0.001	<0.001		
9/13/2021	<0.001							
9/15/2021		<0.001						
9/16/2021			<0.001					
1/18/2022						<0.001	<0.001	
1/19/2022		<0.001	<0.001					
1/20/2022				<0.001				
1/21/2022	<0.001							
1/28/2022					<0.001			
6/6/2022								<0.001
9/7/2022		<0.001	<0.001			<0.001	<0.001	
9/8/2022	<0.001			<0.001	<0.001			<0.001
1/31/2023						<0.001	<0.001	
2/1/2023		<0.001	<0.001		<0.001			
2/2/2023	<0.001			<0.001				<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.001
9/6/2023	<0.001					<0.001	<0.001	
9/7/2023		<0.001	<0.001	<0.001	<0.001			
9/8/2023								<0.001
1/30/2024		<0.001			<0.001		<0.001	
1/31/2024	<0.001							<0.001
2/1/2024			<0.001	<0.001				
5/20/2024								<0.001
9/4/2024						<0.001	<0.001	<0.001
9/5/2024	<0.001	<0.001						
9/9/2024			<0.001	<0.001				
9/11/2024					<0.001			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.001			
9/8/2016	<0.001	<0.001	<0.001				
12/7/2016	<0.001	<0.001	<0.001				
12/8/2016				<0.001			
3/30/2017	0.0014 (J)	<0.001	<0.001	7E-05 (J)			
3/31/2017					<0.001		<0.001
5/12/2017					9E-05 (J)	<0.001	0.0001 (J)
6/16/2017					<0.001	<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2017						<0.001	
10/26/2017	<0.001	0.0001 (J)	<0.001	7E-05 (J)	<0.001	<0.001	<0.001
11/15/2017							9E-05 (J)
3/1/2018	<0.001	<0.001	<0.001				
3/2/2018				<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001			
7/13/2018					<0.001	<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	6.1E-05 (J)	<0.001	8E-05 (J)	8.1E-05 (J)	<0.001	<0.001	<0.001
10/16/2019						<0.001	<0.001
10/17/2019					<0.001		
10/18/2019	<0.001	7.4E-05 (J)	<0.001	0.00015 (J)			
3/4/2020				0.00017 (J)			
3/9/2020	<0.001	6.1E-05 (J)	<0.001		4.7E-05 (J)	<0.001	9E-05 (J)
8/13/2020	<0.001	<0.001	<0.001	4.9E-05 (J)	5.6E-05 (J)	<0.001	5.9E-05 (J)
9/23/2020				0.00028 (J)	<0.001	0.00035 (J)	0.00017 (J)
9/24/2020	<0.001	0.00014 (J)					
9/25/2020			0.00022 (J)				
3/8/2021				5.4E-05 (J)			
3/10/2021						6.7E-05 (J)	0.0001 (J)
3/11/2021	<0.001	0.00014 (J)	<0.001		0.00025 (J)		
9/14/2021				<0.001			
9/15/2021		<0.001					
9/16/2021	<0.001				<0.001	<0.001	<0.001
9/17/2021			<0.001				
1/19/2022				<0.001	<0.001		
1/20/2022			<0.001				
1/21/2022	<0.001	<0.001					
1/25/2022						<0.001	<0.001
9/7/2022			<0.001	<0.001		<0.001	<0.001
9/8/2022	<0.001				<0.001		
9/12/2022		<0.001					
2/1/2023				<0.001		<0.001	<0.001
2/2/2023	<0.001	<0.001			<0.001		
2/3/2023			<0.001				
9/6/2023	<0.001						
9/7/2023		<0.001	<0.001	<0.001	<0.001	<0.001	0.0002 (J)
1/30/2024		<0.001		<0.001			
1/31/2024	<0.001		<0.001			<0.001	<0.001
2/1/2024					<0.001		
9/4/2024	<0.001	<0.001	<0.001				
9/5/2024				<0.001	<0.001	<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0108 (J)	0.0054 (J)	0.0025 (J)	
5/11/2017					0.0087 (J)			
5/12/2017							0.0016 (J)	
5/15/2017						0.002 (J)		
6/15/2017					0.0088 (J)	<0.03		
6/16/2017							0.0016 (J)	
7/11/2017						<0.03	<0.03	
7/12/2017					0.0075 (J)			
8/8/2017						<0.03		
10/24/2017					0.0103 (J)	<0.03	<0.03	
2/27/2018						<0.03	0.0013 (J)	
3/8/2018					0.011 (J)			
7/10/2018						<0.03	0.0012 (J)	
7/12/2018					0.0084 (J)			
11/6/2018						<0.03	<0.03	
11/7/2018					<0.05			
1/30/2019				<0.05				
8/27/2019						<0.03	0.0014 (J)	
8/28/2019					0.0092 (J)			
9/11/2019				0.0078 (J)				
10/15/2019						<0.03	0.0012 (J)	
10/16/2019					0.0094 (J)			
10/21/2019				0.0078 (J)				
3/2/2020						<0.03	0.0011 (J)	
3/9/2020					0.0077 (J)			
8/11/2020						0.0019 (J)	0.0015 (J)	
8/13/2020				0.0087 (J)	0.0085 (J)			
8/17/2020	0.0013 (J)							
9/22/2020					0.0089 (J)	<0.03	0.0012 (J)	
9/24/2020				0.0084 (J)				
9/25/2020	0.0027 (J)							
12/9/2020		0.014 (J)						
3/1/2021						<0.03	0.0012 (J)	
3/8/2021	0.0024 (J)	0.015 (J)						
3/12/2021				0.0087 (J)	0.0083 (J)			
4/15/2021			0.0045 (J)					
9/8/2021							0.0013 (J)	
9/9/2021				0.0094 (J)	0.0091 (J)	<0.03		
9/13/2021	0.0022 (J)							
9/15/2021		0.014 (J)						
9/16/2021			0.0038 (J)					
1/18/2022						<0.03	0.0013 (J)	
1/19/2022		0.013 (J)	0.0044 (J)					
1/20/2022				0.0092 (J)				
1/21/2022	0.0021 (J)							
1/28/2022					0.0091 (J)			
6/6/2022								0.013 (J)
9/7/2022		0.013 (J)	0.0039 (J)			<0.03	0.0012 (J)	
9/8/2022	0.0023 (J)			0.0085 (J)	0.0083 (J)			0.01 (J)
1/31/2023						<0.03	0.0014 (J)	
2/1/2023		0.013 (J)	0.0038 (J)		0.0088 (J)			
2/2/2023	<0.03			0.0082 (J)				0.0059 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								0.0045 (J)
9/6/2023	0.0023 (J)					<0.03	0.0013 (J)	
9/7/2023		0.013 (J)	0.0043 (J)	0.0092 (J)	0.0085 (J)			
9/8/2023								0.0055 (J)
1/30/2024		0.013 (J)			0.0087 (J)		<0.03	
1/31/2024	<0.03							0.0045 (J)
2/1/2024			0.0042 (J)	0.0094 (J)				
5/20/2024								0.005 (J)
9/4/2024						<0.03	<0.03	0.0046 (J)
9/5/2024	0.0019 (J)	0.011 (J)						
9/9/2024			0.0042 (J)	0.0093 (J)				
9/11/2024					0.0078 (J)			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0022 (J)			
9/8/2016	<0.03	0.0032 (J)	<0.03				
12/7/2016	<0.03	0.0035 (J)	<0.03				
12/8/2016				<0.05			
3/30/2017	0.0029 (J)	0.0035 (J)	<0.03	0.0023 (J)			
3/31/2017					0.0052 (J)		0.0031 (J)
5/12/2017					0.0054 (J)	0.0016 (J)	0.003 (J)
6/16/2017					0.0048 (J)	<0.03	0.0031 (J)
7/13/2017	<0.03	0.0032 (J)	<0.03	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017						<0.03	
10/26/2017	0.0018 (J)	0.0034 (J)	<0.03	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017							0.0034 (J)
3/1/2018	0.0024 (J)	0.0033 (J)	<0.03				
3/2/2018				0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0028 (J)	0.0034 (J)	<0.03	0.0022 (J)			
7/13/2018					0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.03	<0.05	<0.03	<0.05	<0.05	<0.03	<0.05
8/28/2019	0.0025 (J)	0.0034 (J)	<0.03	0.0022 (J)	0.0046 (J)	<0.03	0.0024 (J)
10/16/2019						<0.03	0.0032 (J)
10/17/2019					0.0047 (J)		
10/18/2019	0.0026 (J)	0.0032 (J)	<0.03	0.0024 (J)			
3/4/2020				0.0027 (J)			
3/9/2020	0.0017 (J)	0.0033 (J)	<0.03		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0023 (J)	0.0028 (J)	<0.03	0.0022 (J)	0.0044 (J)	<0.03	0.0031 (J)
9/23/2020				0.0022 (J)	0.0043 (J)	<0.03	0.0023 (J)
9/24/2020	0.0021 (J)	0.0029 (J)					
9/25/2020			<0.03				
3/8/2021				0.0022 (J)			
3/10/2021						<0.03	0.0023 (J)
3/11/2021	0.0024 (J)	0.003 (J)	<0.03		0.005 (J)		
9/14/2021				0.003 (J)			
9/15/2021		0.0029 (J)					
9/16/2021	0.0021 (J)				0.0044 (J)	0.00082 (J)	0.0023 (J)
9/17/2021			<0.03				
1/19/2022				0.0024 (J)	0.0046 (J)		
1/20/2022			<0.03				
1/21/2022	0.002 (J)	0.0025 (J)					
1/25/2022						<0.03	0.0026 (J)
9/7/2022			<0.03	0.0023 (J)		<0.03	0.0025 (J)
9/8/2022	0.0019 (J)				0.0048 (J)		
9/12/2022		0.003 (J)					
2/1/2023				0.0021 (J)		<0.03	0.0021 (J)
2/2/2023	0.0018 (J)	0.0026 (J)			0.0048 (J)		
2/3/2023			<0.03				
9/6/2023	0.0021 (J)						
9/7/2023		0.0026 (J)	<0.03	0.0022 (J)	0.0046 (J)	<0.03	0.0022 (J)
1/30/2024		0.003 (J)		0.0023 (J)			
1/31/2024	<0.03		<0.03			<0.03	0.0021 (J)
2/1/2024					0.0045 (J)		
9/4/2024	0.0019 (J)	0.0029 (J)	<0.03				
9/5/2024				0.002 (J)	0.0045 (J)	<0.03	0.0021 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.0002	<0.0002	<0.0002	
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			
8/8/2017						<0.0002		
10/24/2017					<0.0002	<0.0002	<0.0002	
2/27/2018						<0.0002	<0.0002	
3/8/2018					<0.0002			
7/10/2018						5.5E-05 (J)	0.0001 (J)	
7/12/2018					<0.0002			
11/6/2018						<0.0002	<0.0002	
11/7/2018					<0.0002			
1/30/2019				<0.0002				
8/27/2019						<0.0002	<0.0002	
8/28/2019					<0.0002			
9/11/2019				<0.0002				
10/15/2019						<0.0002	<0.0002	
10/16/2019					<0.0002			
10/21/2019				<0.0002				
3/2/2020						<0.0002	<0.0002	
3/9/2020					<0.0002			
8/11/2020						<0.0002	<0.0002	
8/13/2020				<0.0002	<0.0002			
8/17/2020	0.00011 (J)							
9/22/2020					<0.0002	<0.0002	<0.0002	
9/24/2020				<0.0002				
9/25/2020	<0.0002							
12/9/2020		8.7E-05 (J)						
3/1/2021						<0.0002	9E-05 (J)	
3/12/2021				<0.0002	<0.0002			
4/15/2021			<0.0002					
9/8/2021							9.6E-05 (J)	
9/9/2021				<0.0002	<0.0002	<0.0002		
9/13/2021	<0.0002							
9/15/2021		<0.0002						
9/16/2021			<0.0002					
1/18/2022						<0.0002	0.00015 (J)	
1/19/2022		<0.0002	<0.0002					
1/20/2022				<0.0002				
1/21/2022	<0.0002							
1/28/2022					<0.0002			
6/6/2022								<0.0002
9/7/2022		0.00014 (J)	<0.0002			<0.0002	0.00013 (J)	
9/8/2022	<0.0002			<0.0002	<0.0002			<0.0002
1/31/2023						<0.0002	<0.0002	
2/1/2023		<0.0002	<0.0002		<0.0002			
2/2/2023	<0.0002			<0.0002				<0.0002
5/2/2023								<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/6/2023	<0.0002					<0.0002	<0.0002	
9/7/2023		<0.0002	<0.0002	<0.0002	<0.0002			
9/8/2023								<0.0002
1/30/2024		<0.0002			<0.0002		<0.0002	
1/31/2024	<0.0002							<0.0002
2/1/2024			<0.0002	<0.0002				
5/20/2024								<0.0002
9/4/2024						<0.0002	<0.0002	<0.0002
9/5/2024	<0.0002	<0.0002						
9/9/2024			<0.0002	<0.0002				
9/11/2024					<0.0002			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				4.4E-05 (J)			
9/8/2016	<0.0002	<0.0002	<0.0002				
12/7/2016	<0.0002	<0.0002	<0.0002				
12/8/2016				<0.0002			
3/30/2017	6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)			
3/31/2017					<0.0002		<0.0002
5/12/2017					<0.0002	<0.0002	<0.0002
6/16/2017					7E-05 (J)	7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2017						<0.0002	
10/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
11/15/2017							<0.0002
3/1/2018	<0.0002	<0.0002	<0.0002				
3/2/2018				<0.0002	<0.0002	<0.0002	<0.0002
7/12/2018	4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)			
7/13/2018					<0.0002	<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019						<0.0002	<0.0002
10/17/2019					<0.0002		
10/18/2019	<0.0002	<0.0002	<0.0002	<0.0002			
3/4/2020				<0.0002			
3/9/2020	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/23/2020				<0.0002	<0.0002	<0.0002	<0.0002
9/24/2020	9.1E-05 (J)	8.5E-05 (J)					
9/25/2020			<0.0002				
9/14/2021				<0.0002			
9/15/2021		<0.0002					
9/16/2021	<0.0002				<0.0002	<0.0002	<0.0002
9/17/2021			<0.0002				
1/19/2022				<0.0002	<0.0002		
1/20/2022			<0.0002				
1/21/2022	<0.0002	<0.0002					
1/25/2022						<0.0002	<0.0002
9/7/2022			<0.0002	<0.0002		<0.0002	<0.0002
9/8/2022	<0.0002				<0.0002		
9/12/2022		<0.0002					
2/1/2023				<0.0002		<0.0002	<0.0002
2/2/2023	<0.0002	<0.0002			<0.0002		
2/3/2023			<0.0002				
9/6/2023	<0.0002						
9/7/2023		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/30/2024		<0.0002		<0.0002			
1/31/2024	<0.0002		<0.0002			<0.0002	<0.0002
2/1/2024					<0.0002		
9/4/2024	<0.0002	<0.0002	<0.0002				
9/5/2024				<0.0002	<0.0002	<0.0002	<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					0.0242	<0.01	0.0009 (J)	
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			
8/8/2017						<0.01		
10/24/2017					0.0227	<0.01	<0.01	
2/27/2018						<0.01	<0.01	
3/8/2018					0.035			
7/10/2018						<0.01	<0.01	
7/12/2018					0.034			
11/6/2018						<0.01	<0.01	
11/7/2018					0.029			
1/30/2019				<0.01				
8/27/2019						<0.01	<0.01	
8/28/2019					0.031			
9/11/2019				<0.01				
10/15/2019						<0.01	<0.01	
10/16/2019					0.037			
10/21/2019				<0.01				
3/2/2020						<0.01	<0.01	
3/9/2020					0.026			
8/11/2020						<0.01	<0.01	
8/13/2020				<0.01	0.012			
8/17/2020	<0.01							
9/22/2020					0.039	<0.01	<0.01	
9/24/2020				<0.01				
9/25/2020	<0.01							
12/9/2020		<0.01						
3/1/2021						<0.01	<0.01	
3/8/2021	<0.01	0.0011 (J)						
3/12/2021				<0.01	0.018			
4/15/2021			0.037					
9/8/2021							<0.01	
9/9/2021				<0.01	0.025	<0.01		
9/13/2021	<0.01							
9/15/2021		<0.01						
9/16/2021			0.032					
1/18/2022						<0.01	<0.01	
1/19/2022		<0.01	0.032					
1/20/2022				<0.01				
1/21/2022	<0.01							
1/28/2022					0.026			
6/6/2022								0.00093 (J)
9/7/2022		<0.01	0.028			<0.01	<0.01	
9/8/2022	<0.01			<0.01	0.027			<0.01
1/31/2023						<0.01	<0.01	
2/1/2023		<0.01	0.03		0.023			
2/2/2023	0.19			<0.01				<0.01

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								0.00089 (J)
9/6/2023	<0.01					<0.01	<0.01	
9/7/2023		<0.01	0.026	<0.01	0.022			
9/8/2023								<0.01
1/30/2024		<0.01			0.025		<0.01	
1/31/2024	<0.01							0.00092 (J)
2/1/2024			0.027	<0.01				
5/20/2024								<0.01
9/4/2024						<0.01	<0.01	<0.01
9/5/2024	<0.01	<0.01						
9/9/2024			0.026	<0.01				
9/11/2024					0.01			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.01			
9/8/2016	<0.01	<0.01	<0.01				
12/7/2016	<0.01	<0.01	<0.01				
12/8/2016				<0.01			
3/30/2017	<0.01	0.0011 (J)	<0.01	<0.01			
3/31/2017					<0.01		0.0124
5/12/2017					<0.01	0.275	0.0117
6/16/2017					<0.01	0.19	0.0087 (J)
7/13/2017	<0.01	0.0012 (J)	<0.01	<0.01	<0.01	0.211	0.0053 (J)
8/8/2017						0.207	
10/26/2017	<0.01	0.0011 (J)	<0.01	<0.01	<0.01	0.226	0.0244
11/15/2017							0.0237
3/1/2018	<0.01	<0.01	<0.01				
3/2/2018				<0.01	<0.01	0.215	0.0072 (J)
7/12/2018	<0.01	<0.01	<0.01	<0.01			
7/13/2018					<0.01	0.22	0.007 (J)
11/8/2018	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.01 (J)
8/28/2019	<0.01	<0.01	<0.01	<0.01	<0.01	0.21	0.0059 (J)
10/16/2019						0.22	0.01
10/17/2019					<0.01		
10/18/2019	<0.01	<0.01	<0.01	<0.01			
3/4/2020				<0.01			
3/9/2020	<0.01	0.001 (J)	<0.01		<0.01	0.19	0.0062 (J)
8/13/2020	<0.01	0.00098 (J)	<0.01	<0.01	<0.01	0.19	0.011
9/23/2020				<0.01	<0.01	0.2	0.0056 (J)
9/24/2020	<0.01	0.001 (J)					
9/25/2020			<0.01				
3/8/2021				<0.01			
3/10/2021						0.2	0.0056 (J)
3/11/2021	<0.01	0.00092 (J)	<0.01		<0.01		
9/14/2021				<0.01			
9/15/2021		0.00099 (J)					
9/16/2021	<0.01				<0.01	0.18	0.009 (J)
9/17/2021			<0.01				
1/19/2022				<0.01	<0.01		
1/20/2022			<0.01				
1/21/2022	<0.01	0.0013 (J)					
1/25/2022						0.23	0.0057 (J)
9/7/2022			<0.01	<0.01		0.2	0.0067 (J)
9/8/2022	<0.01				<0.01		
9/12/2022		0.0012 (J)					
2/1/2023				<0.01		0.19	0.0058 (J)
2/2/2023	<0.01	0.0015 (J)			<0.01		
2/3/2023			<0.01				
9/6/2023	<0.01						
9/7/2023		0.0013 (J)	0.0016 (J)	<0.01	0.0013 (J)	0.18	0.0056 (J)
1/30/2024		0.0018 (J)		<0.01			
1/31/2024	<0.01		<0.01			0.2	0.0066 (J)
2/1/2024					<0.01		
9/4/2024	<0.01	0.0012 (J)	<0.01				
9/5/2024				<0.01	<0.01	0.19	0.0076 (J)

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: pH, Field (SU) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					6.29		5.94	
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			
8/8/2017						5.6		
10/24/2017					5.51	5.71	5.86	
11/15/2017					6.5		5.77	
2/27/2018						5.5	5.66	
3/8/2018					6.18			
7/10/2018						5.44	5.63	
7/12/2018					6.33			
11/6/2018						5.71	5.79	
11/7/2018					6.22			
3/12/2019						5.52	5.74	
3/13/2019					6			
8/27/2019						5.53	5.87	
8/28/2019					6.04			
9/11/2019				6.27				
10/15/2019						5.61	5.88	
10/16/2019					6.69			
10/21/2019				6.24				
3/2/2020						5.54	5.77	
3/9/2020					6.41			
8/3/2020	4.93							
8/11/2020						5.86	5.96	
8/13/2020				6.4	6.17			
8/17/2020	5.02							
9/22/2020					6.43	6.01	6.06	
9/24/2020				6.55				
9/25/2020	5.53							
12/9/2020		6.48						
3/1/2021						5.43	5.8	
3/8/2021	5.32	6.37						
3/12/2021				6.34	6.38			
4/15/2021			6.83					
9/8/2021							5.76	
9/9/2021				6.31	6.41	5.5		
9/13/2021	5.27							
9/15/2021		6.38						
9/16/2021			6.74					
1/18/2022						5.5	5.51	
1/19/2022		6.62	6.74					
1/20/2022				6.32				
1/21/2022	5.23							
1/28/2022					6.35			
6/6/2022								6.33
9/7/2022		6.44	6.72			5.6	5.65	
9/8/2022	5.24			6.22	6.32			6.32

Time Series

Constituent: pH, Field (SU) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/9/2022				6.22 (D)				
1/31/2023						5.59	5.78	
2/1/2023		6.39	6.72		6.42			
2/2/2023	5.3			6.33				6.35
5/2/2023								6.21
9/6/2023	5.25				6.51	5.5	5.82	
9/7/2023		6.52	6.77	6.38				
9/8/2023								6.25
1/30/2024		6.37			6.28		5.79	
1/31/2024	5.35							6.19
2/1/2024			6.81	6.41				
9/4/2024						5.51	5.85	6.11
9/5/2024	5.2	6.46						
9/9/2024			6.7	6.35				
9/11/2024					6.1			

Time Series

Constituent: pH, Field (SU) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				4.77			
9/8/2016	6.32	6.01	6.47				
12/7/2016	6.32	6.07	6.43				
12/8/2016				4.77			
3/30/2017	6.22	5.97	6.42	4.84			
3/31/2017					6.25		6.26
4/12/2017							6.19
5/12/2017					6.23	6.63	6.2
6/16/2017					6.22	6.63	6.22
7/13/2017	6.3	6.11	6.47	4.85	6.15	6.84	6.35
8/8/2017						6.57	
10/26/2017		6.06	6.49	4.86	6.64	7.01	6.69
11/15/2017							6.22
3/1/2018	6.28	6.05	6.37				
3/2/2018				4.67	6.18	6.58	6.1
7/12/2018	6.43	6.05	6.45	4.63			
7/13/2018					6.19	6.62	5.95
11/8/2018	6.36	6.07	6.49	4.79	6.23	6.5	6
3/13/2019	6.26	6.05	6.28	4.6	6.19	6.57	6.08
8/28/2019	6.27	5.98	6.41	4.68	6.22	6.6	6.09
10/16/2019						6.6	6.19
10/17/2019					6.14		
10/18/2019	6.26	6	6.35	4.71			
3/4/2020				4.64			
3/9/2020	6.34	6.12	6.37		6.23	6.6	6.12
8/13/2020	6.34	6.05	6.39	4.65	6.28	6.63	6.26
9/23/2020				4.78	6.23	6.6	6.08
9/24/2020	6.3	6.05					
9/25/2020			6.38				
3/8/2021				4.79			
3/10/2021						6.74	6.13
3/11/2021	6.49	6.22	6.66		6.28		
9/14/2021				4.67			
9/15/2021		6.08					
9/16/2021	6.33				6.2	6.79 (o)	6.16
9/17/2021			6.49				
10/27/2021						6.56	
1/19/2022				4.66	6.21		
1/20/2022			6.52				
1/21/2022	6.31	6.08					
1/25/2022						6.53	6.02
9/7/2022			6.43	4.54		6.62	6.2
9/8/2022	6.3				6.21		
9/9/2022	6.3						
9/12/2022		6.05					
2/1/2023				4.66		6.6	6.12
2/2/2023	6.23	6.08			6.27		
2/3/2023			6.49				
9/6/2023	6.26						
9/7/2023		6.07	6.55	4.67	6.21	6.6	6.16
1/30/2024		5.94		4.64			
1/31/2024	6.32		6.58			6.62	6.26

Time Series

Constituent: pH, Field (SU) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
2/1/2024					6.27		
9/4/2024	6.24	6.01	6.45				
9/5/2024				4.6	6.19	6.53	6.17

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.005	<0.005	<0.005	
5/11/2017					<0.005			
5/12/2017							<0.005	
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			
8/8/2017						<0.005		
10/24/2017					<0.005	<0.005	<0.005	
2/27/2018						<0.005	<0.005	
3/8/2018					<0.005			
7/10/2018						<0.005	<0.005	
7/12/2018					<0.005			
11/6/2018						<0.005	<0.005	
11/7/2018					<0.005			
1/30/2019				<0.005				
8/27/2019						<0.005	<0.005	
8/28/2019					<0.005			
9/11/2019				<0.005				
10/15/2019						<0.005	<0.005	
10/16/2019					<0.005			
10/21/2019				<0.005				
3/2/2020						<0.005	<0.005	
3/9/2020					<0.005			
8/11/2020						<0.005	<0.005	
8/13/2020				<0.005	<0.005			
8/17/2020	<0.005							
9/22/2020					<0.005	<0.005	<0.005	
9/24/2020				<0.005				
9/25/2020	<0.005							
12/9/2020		<0.005						
3/1/2021						<0.005	<0.005	
3/8/2021	0.0019 (J)	<0.005						
3/12/2021				<0.005	<0.005			
4/15/2021			<0.005					
9/8/2021							<0.005	
9/9/2021				<0.005	<0.005	<0.005		
9/13/2021	<0.005							
9/15/2021		<0.005						
9/16/2021			<0.005					
1/18/2022						<0.005	<0.005	
1/19/2022		<0.005	<0.005					
1/20/2022				<0.005				
1/21/2022	<0.005							
1/28/2022					<0.005			
6/6/2022								<0.005
9/7/2022		<0.005	<0.005			<0.005	<0.005	
9/8/2022	<0.005			<0.005	<0.005			<0.005
1/31/2023						<0.005	<0.005	
2/1/2023		<0.005	<0.005		<0.005			
2/2/2023	<0.005			<0.005				<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.005
9/6/2023	<0.005					<0.005	<0.005	
9/7/2023		<0.005	<0.005	<0.005	<0.005			
9/8/2023								<0.005
1/30/2024		<0.005			<0.005		<0.005	
1/31/2024	<0.005							<0.005
2/1/2024			<0.005	<0.005				
5/20/2024								<0.005
9/4/2024						<0.005	<0.005	<0.005
9/5/2024	<0.005	<0.005						
9/9/2024			<0.005	<0.005				
9/11/2024					<0.005			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				0.0019 (J)			
9/8/2016	<0.005	<0.005	<0.005				
12/7/2016	<0.005	<0.005	<0.005				
12/8/2016				0.0022 (J)			
3/30/2017	<0.005	<0.005	<0.005	0.0023 (J)			
3/31/2017					<0.005		<0.005
5/12/2017					<0.005	<0.005	<0.005
6/16/2017					<0.005	<0.005	<0.005
7/13/2017	<0.005	<0.005	<0.005	0.0025 (J)	<0.005	<0.005	<0.005
8/8/2017						<0.005	
10/26/2017	<0.005	<0.005	<0.005	0.0036 (J)	<0.005	<0.005	<0.005
11/15/2017							<0.005
3/1/2018	<0.005	<0.005	<0.005				
3/2/2018				<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005	<0.005	<0.005	<0.005			
7/13/2018					<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.01 (J)	<0.005	<0.005	<0.005
8/28/2019	<0.005	<0.005	<0.005	0.0017 (J)	<0.005	<0.005	<0.005
10/16/2019						<0.005	<0.005
10/17/2019					<0.005		
10/18/2019	<0.005	<0.005	<0.005	0.0027 (J)			
3/4/2020				0.0049 (J)			
3/9/2020	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
8/13/2020	<0.005	<0.005	<0.005	0.0018 (J)	<0.005	<0.005	<0.005
9/23/2020				0.0067 (J)	<0.005	<0.005	<0.005
9/24/2020	<0.005	<0.005					
9/25/2020			<0.005				
3/8/2021				0.0023 (J)			
3/10/2021						0.0017 (J)	<0.005
3/11/2021	<0.005	0.0019 (J)	<0.005		0.0027 (J)		
9/14/2021				0.0015 (J)			
9/15/2021		<0.005					
9/16/2021	<0.005				<0.005	<0.005	<0.005
9/17/2021			<0.005				
1/19/2022				<0.005	<0.005		
1/20/2022			<0.005				
1/21/2022	<0.005	<0.005					
1/25/2022						<0.005	<0.005
9/7/2022			<0.005	0.0018 (J)		<0.005	<0.005
9/8/2022	<0.005				<0.005		
9/12/2022		<0.005					
2/1/2023				<0.005		<0.005	<0.005
2/2/2023	<0.005	<0.005			<0.005		
2/3/2023			<0.005				
9/6/2023	<0.005						
9/7/2023		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2024		<0.005		0.0027 (J)			
1/31/2024	<0.005		<0.005			<0.005	<0.005
2/1/2024					<0.005		
9/4/2024	<0.005	<0.005	<0.005				
9/5/2024				<0.005	<0.005	<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					49	2.7	17	
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			
8/8/2017						1.5		
10/24/2017					15	1.4	9.6	
11/15/2017					3.8		7.8	
2/27/2018						0.54 (J)	7.4	
3/8/2018					9.7			
7/10/2018						0.25 (J)	7.2	
7/12/2018					8			
11/6/2018						<1 (J)	7.3	
11/7/2018					12.8			
1/30/2019				74.7				
3/12/2019						0.35 (J)	7	
3/13/2019					23.7			
10/15/2019						0.16 (J)	7.4	
10/16/2019					15.1			
10/21/2019				55.3				
3/2/2020						<1	8.5	
3/9/2020					9.5			
9/22/2020					13.5	<1	6.5	
9/24/2020				50.6				
9/25/2020	385							
12/9/2020		220						
3/1/2021						<1	5.2	
3/8/2021	388	228						
3/12/2021				46.5	8.8			
4/15/2021			95.6					
9/8/2021							6.1	
9/9/2021				49.2	11.9	<1		
9/13/2021	351							
9/15/2021		240						
9/16/2021			21.2					
1/18/2022						<1	6.3	
1/19/2022		220	18.4					
1/20/2022				50.3				
1/21/2022	344							
1/28/2022					13.1			
6/6/2022								83.9
9/7/2022		263	18.2			<1	7	
9/8/2022	399			45.8	12			84.8
1/31/2023						<1	6.8	
2/1/2023		256	17.9		13.3			
2/2/2023	356			52.1				67.6
5/2/2023								47.3
9/6/2023	322					<1	7.2	
9/7/2023		236	16.3	49.3	15.4			

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/8/2023								87.8
1/30/2024		249			13.4		7.9	
1/31/2024	340							73.7
2/1/2024			15.5	49.4				
5/20/2024								88
9/4/2024						<1	9.9	87.8
9/5/2024	322	236						
9/9/2024			13.8	44.2				
9/11/2024					11.5			

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				230			
9/8/2016	97	270	280				
12/7/2016	100	250	250				
12/8/2016				270			
3/30/2017	110	290	310	240			
3/31/2017					110		21
5/12/2017					100	50	17
6/16/2017					100	47	20
7/13/2017	200 (O)	270	220	220	110	49	17
8/8/2017						48	
10/26/2017	97	260	210	220	100	48	31
11/15/2017							29
3/1/2018	94.6	242	166				
3/2/2018				219	98.5	44.7	10.1
7/12/2018	89.2	256	169	222			
7/13/2018					136	43.3	8.6
11/8/2018	102	291	200	273	118	43.5	9.7
3/13/2019	92.2	300	265	445	233	44.1	8.4
10/16/2019						32.1	13.3
10/17/2019					99.4		
10/18/2019	76.4	239	182	205			
3/4/2020				177			
3/9/2020	90.3	244	171		100	37.4	7.6
9/23/2020				190	99.8	38.7	5.9
9/24/2020	84.1	240					
9/25/2020			153				
3/8/2021				191			
3/10/2021						38.4	6.4
3/11/2021	81.9	154	123		76.7		
9/14/2021				186			
9/15/2021		219					
9/16/2021	95				101	22.3	17.9
9/17/2021			156				
1/19/2022				177	97.2		
1/20/2022			123				
1/21/2022	89.8	188					
1/25/2022						36.3	7.1
9/7/2022			146	203		36.5	11.6
9/8/2022	96.6				117		
9/12/2022		234					
2/1/2023				189		35.6	6.9
2/2/2023	94.3	239			117		
2/3/2023			115				
9/6/2023	83.4						
9/7/2023		212	124	177	106	34.2	6.9
1/30/2024		220		179			
1/31/2024	98.4		106			33.2	7.2
2/1/2024					111		
9/4/2024	95.2	214	142				
9/5/2024				160	107	35.9	14.9

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					<0.001	<0.001	6E-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			
8/8/2017						<0.001		
10/24/2017					<0.001	<0.001	<0.001	
2/27/2018						<0.001	<0.001	
3/8/2018					<0.001			
7/10/2018						<0.001	<0.001	
7/12/2018					<0.001			
11/6/2018						<0.001	<0.001	
11/7/2018					<0.001			
1/30/2019				<0.001				
8/27/2019						<0.001	<0.001	
8/28/2019					<0.001			
9/11/2019				<0.001				
10/15/2019						<0.001	<0.001	
10/16/2019					<0.001			
10/21/2019				<0.001				
3/2/2020						7.8E-05 (J)	<0.001	
3/9/2020					<0.001			
8/11/2020						<0.001	<0.001	
8/13/2020				<0.001	<0.001			
8/17/2020	<0.001							
9/22/2020					<0.001	<0.001	<0.001	
9/24/2020				<0.001				
9/25/2020	<0.001							
12/9/2020		<0.001						
3/1/2021						<0.001	<0.001	
3/8/2021	<0.001	<0.001						
3/12/2021				<0.001	<0.001			
4/15/2021			<0.001					
9/8/2021							<0.001	
9/9/2021				<0.001	<0.001	<0.001		
9/13/2021	<0.001							
9/15/2021		<0.001						
9/16/2021			<0.001					
1/18/2022						<0.001	<0.001	
1/19/2022		<0.001	<0.001					
1/20/2022				<0.001				
1/21/2022	<0.001							
1/28/2022					<0.001			
6/6/2022								<0.001
9/7/2022		<0.001	<0.001			<0.001	<0.001	
9/8/2022	<0.001			<0.001	<0.001			<0.001
1/31/2023						<0.001	<0.001	
2/1/2023		<0.001	<0.001		<0.001			
2/2/2023	<0.001			<0.001				<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
5/2/2023								<0.001
9/6/2023	<0.001					0.00053 (J)	<0.001	
9/7/2023		<0.001	<0.001	<0.001	<0.001			
9/8/2023								<0.001
1/30/2024		<0.001			<0.001		<0.001	
1/31/2024	<0.001							<0.001
2/1/2024			<0.001	<0.001				
5/20/2024								<0.001
9/4/2024						<0.001	<0.001	<0.001
9/5/2024	<0.001	<0.001						
9/9/2024			<0.001	<0.001				
9/11/2024					<0.001			

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				<0.001			
9/8/2016	<0.001	<0.001	<0.001				
12/7/2016	<0.001	<0.001	<0.001				
12/8/2016				<0.001			
3/30/2017	<0.001	0.0001 (J)	0.0001 (J)	6E-05 (J)			
3/31/2017					<0.001		<0.001
5/12/2017					<0.001	<0.001	<0.001
6/16/2017					<0.001	<0.001	<0.001
7/13/2017	<0.001	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001	<0.001	<0.001
8/8/2017						<0.001	
10/26/2017	<0.001	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001	<0.001	<0.001
11/15/2017							<0.001
3/1/2018	<0.001	<0.001	<0.001				
3/2/2018				<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	<0.001			
7/13/2018					<0.001	0.00015 (J)	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/28/2019	<0.001	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001	<0.001	<0.001
10/16/2019						<0.001	<0.001
10/17/2019					<0.001		
10/18/2019	<0.001	0.0001 (J)	<0.001	<0.001			
3/4/2020				6.8E-05 (J)			
3/9/2020	<0.001	0.00016 (J)	7.1E-05 (J)		<0.001	<0.001	<0.001
8/13/2020	<0.001	0.00016 (J)	<0.001	<0.001	<0.001	<0.001	<0.001
9/23/2020				<0.001	<0.001	<0.001	<0.001
9/24/2020	<0.001	0.00015 (J)					
9/25/2020			<0.001				
3/8/2021				<0.001			
3/10/2021						<0.001	<0.001
3/11/2021	<0.001	<0.001	<0.001		<0.001		
9/14/2021				<0.001			
9/15/2021		<0.001					
9/16/2021	<0.001				<0.001	<0.001	<0.001
9/17/2021			<0.001				
1/19/2022				<0.001	<0.001		
1/20/2022			<0.001				
1/21/2022	<0.001	<0.001					
1/25/2022						<0.001	<0.001
9/7/2022			<0.001	<0.001		<0.001	<0.001
9/8/2022	<0.001				<0.001		
9/12/2022		<0.001					
2/1/2023				<0.001		<0.001	<0.001
2/2/2023	<0.001	<0.001			<0.001		
2/3/2023			<0.001				
9/6/2023	<0.001						
9/7/2023		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2024		<0.001		<0.001			
1/31/2024	<0.001		<0.001			<0.001	<0.001
2/1/2024					<0.001		
9/4/2024	<0.001	<0.001	<0.001				
9/5/2024				<0.001	<0.001	<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
3/28/2017					202	39	90	
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			
8/8/2017						53		
10/24/2017					671 (O)	49	117	
11/15/2017					241		90	
2/27/2018						43	79	
3/8/2018					213			
7/10/2018						80	88	
7/12/2018					198			
11/6/2018						65	85	
11/7/2018					200			
1/30/2019				287				
3/12/2019						43	74	
3/13/2019					201			
10/15/2019						70	89	
10/16/2019					126			
10/21/2019				180				
3/2/2020						52	67	
3/9/2020					171			
9/22/2020					142	46	74	
9/24/2020				170				
9/25/2020	724							
12/9/2020		474						
3/1/2021						25	62	
3/8/2021	660	477						
3/12/2021				172	124			
4/15/2021			289					
9/8/2021							75	
9/9/2021				174	131	53		
9/13/2021	636							
9/15/2021		455						
9/16/2021			162					
1/18/2022						54	76	
1/19/2022		453	167					
1/20/2022				187				
1/21/2022	638							
1/28/2022					155			
6/6/2022								270
9/7/2022		479	153			34	82	
9/8/2022	606			160	129			261
1/31/2023						163	87	
2/1/2023		477	200		116			
2/2/2023	595			197				221
5/2/2023								69
9/6/2023	641					46	80	
9/7/2023		520	155	181	123			

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-121
9/8/2023								286
1/30/2024		307			130		86	
1/31/2024	582							220
2/1/2024			159	205				
5/20/2024								291
9/4/2024						61	97	276
9/5/2024	581	511						
9/9/2024			162	187				
9/11/2024					122			

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/4/2024 10:32 AM View: AP 1

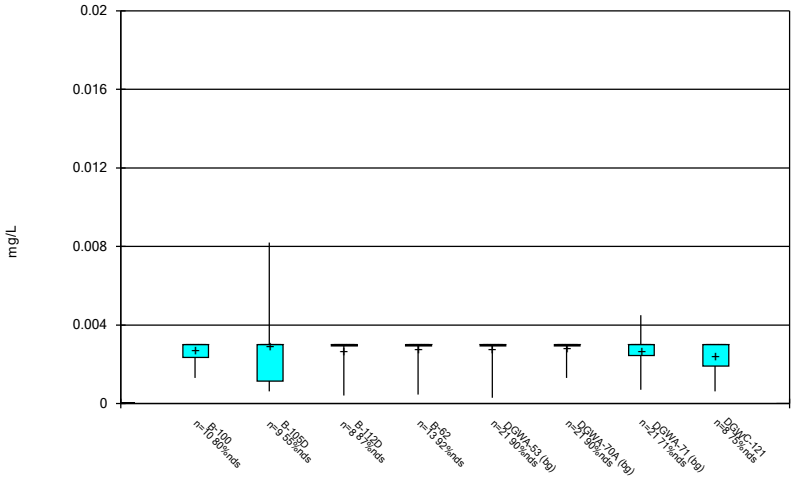
Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016				583 (O)			
9/8/2016	279	437	522				
12/7/2016	300	478	565				
12/8/2016				319			
3/30/2017	273	448	496	344			
3/31/2017					270		138
5/12/2017					287	300	243
6/16/2017					309	271	155
7/13/2017	312	504	508	386	275	246	122
8/8/2017						278	
10/26/2017	340	554	532	373	319	287	234
11/15/2017							188
3/1/2018	311	492	440				
3/2/2018				359	264	252	73
7/12/2018	290	478	463	365			
7/13/2018					297	275	95
11/8/2018	295	507	485	399	295	277	112
3/13/2019	286	487	526	351	278	267	95
10/16/2019						218	108
10/17/2019					281		
10/18/2019	269	494	489	360			
3/4/2020				400			
3/9/2020	357	554	508		209	188	115
9/23/2020				357	296	251	102
9/24/2020	280	489					
9/25/2020			460				
3/8/2021				346			
3/10/2021						232	78
3/11/2021	255	463	440		265		
9/14/2021				347			
9/15/2021		474					
9/16/2021	278				282	259	113
9/17/2021			446				
1/19/2022				336	272		
1/20/2022			416				
1/21/2022	316	482					
1/25/2022						259	84
9/7/2022			449	339		256	102
9/8/2022	300				252		
9/12/2022		468					
2/1/2023				343		243	79
2/2/2023	302	478			317		
2/3/2023			382				
9/6/2023	324						
9/7/2023		526	421	359	337	253	106
1/30/2024		492		348			
1/31/2024	310		387			261	82
2/1/2024					313		
9/4/2024	348	503	466				
9/5/2024				374	314	278	125

FIGURE B.

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

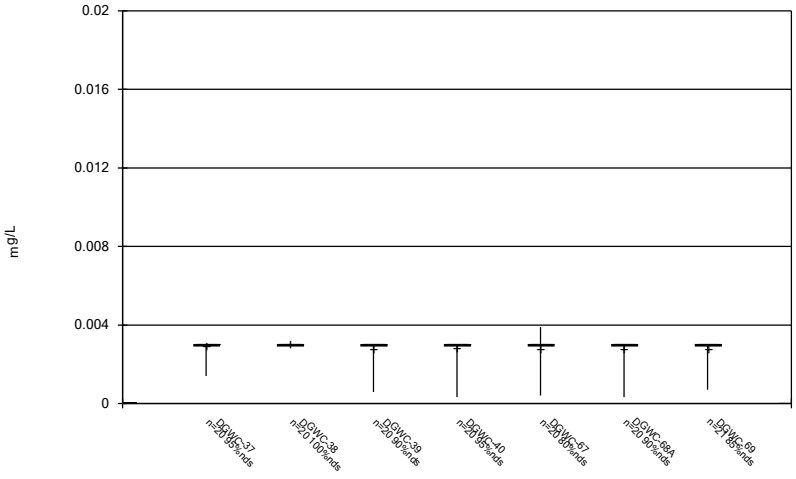
Box & Whiskers Plot



Constituent: Antimony Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

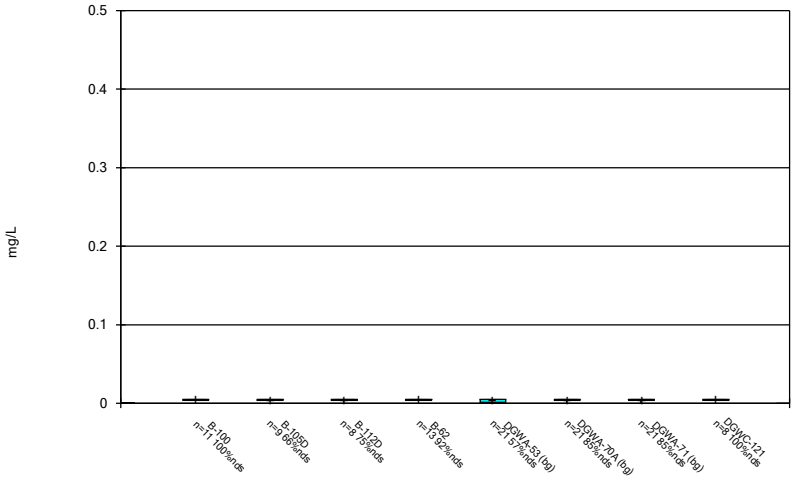
Box & Whiskers Plot



Constituent: Antimony Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

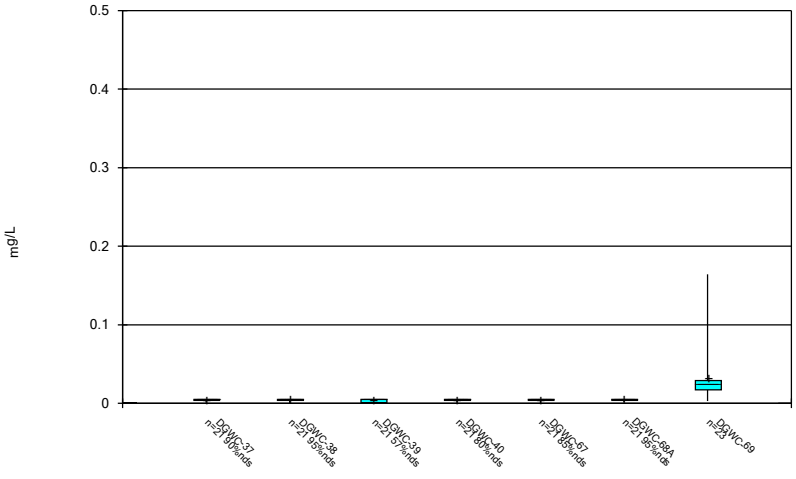
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

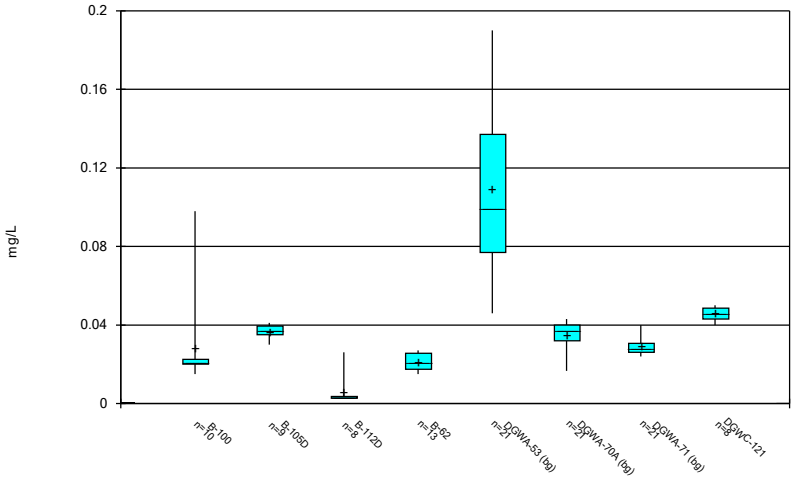
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

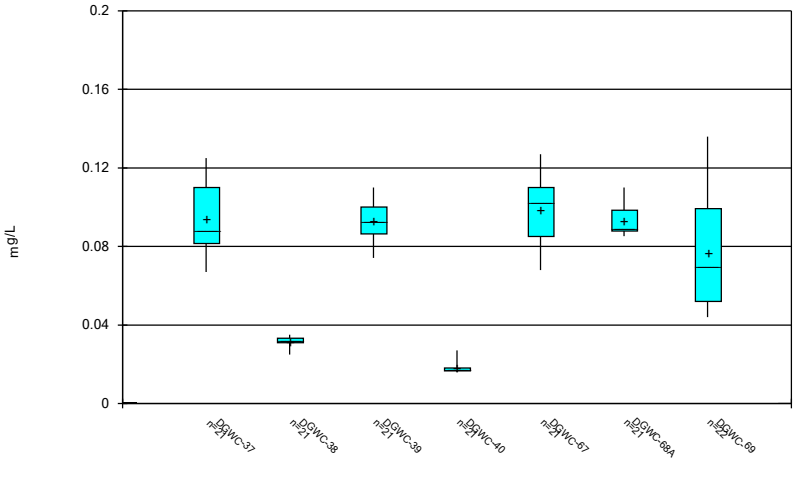
Box & Whiskers Plot



Constituent: Barium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

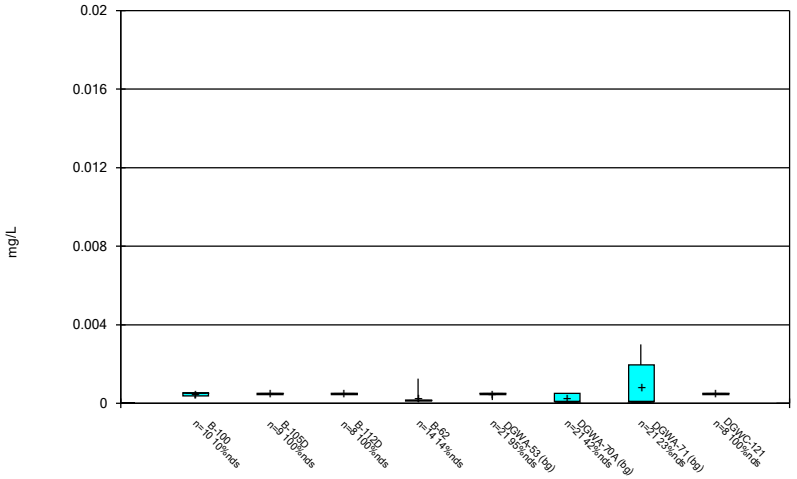
Box & Whiskers Plot



Constituent: Barium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

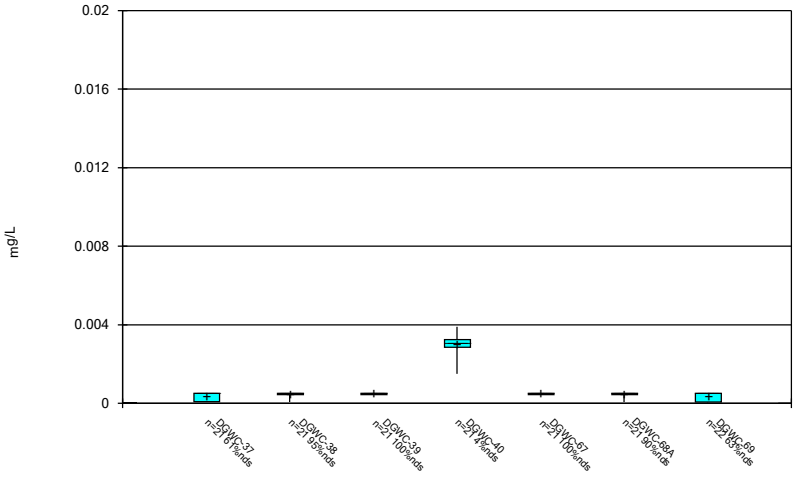
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

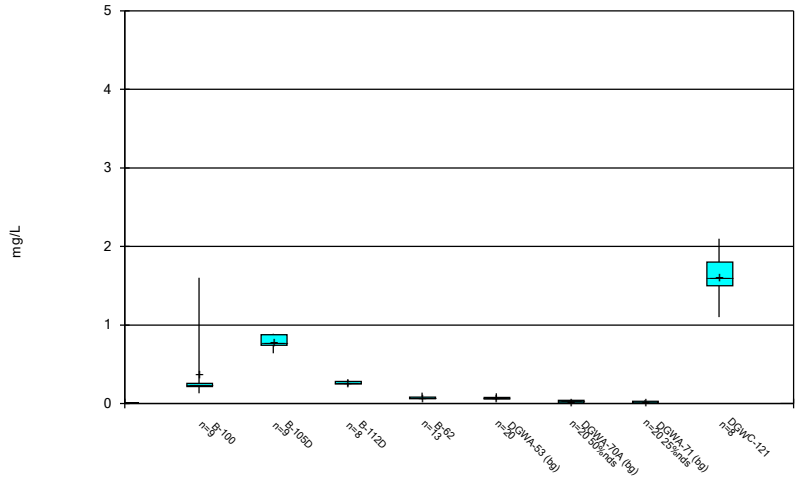
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

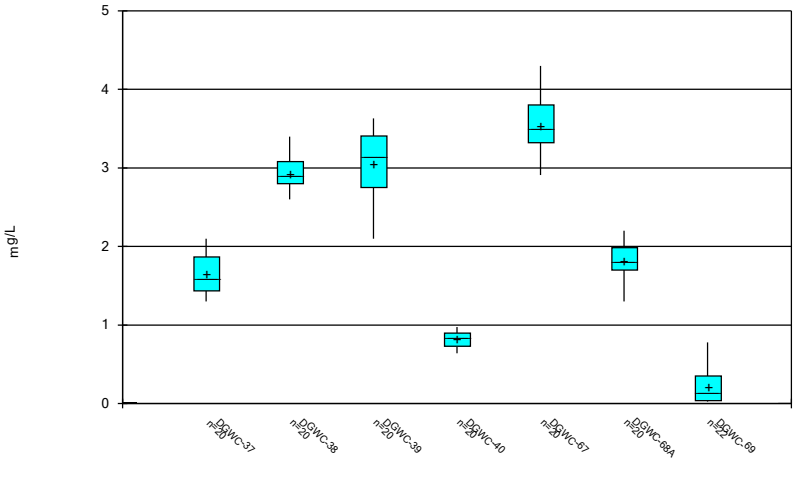
Box & Whiskers Plot



Constituent: Boron Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

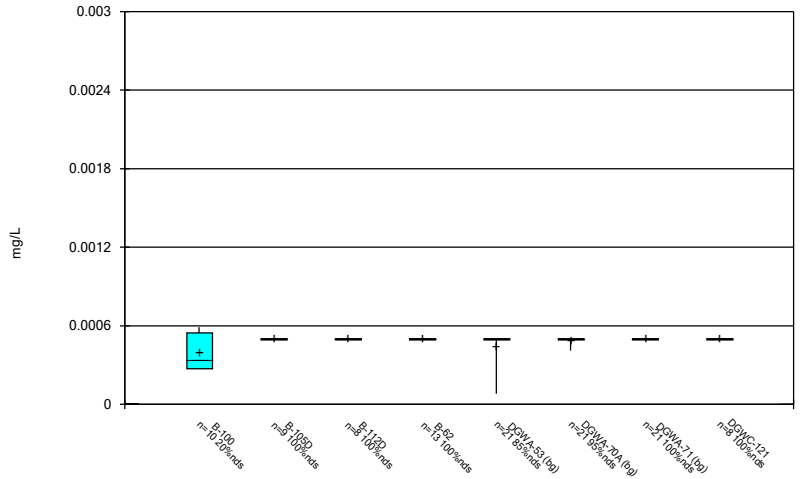
Box & Whiskers Plot



Constituent: Boron Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

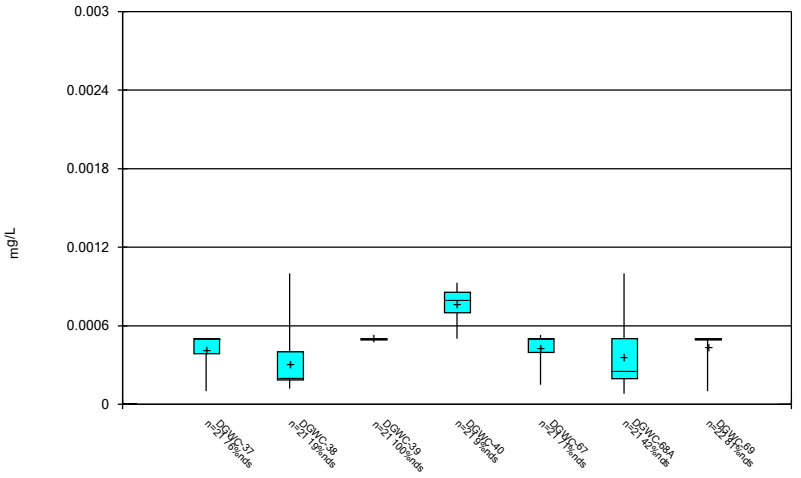
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

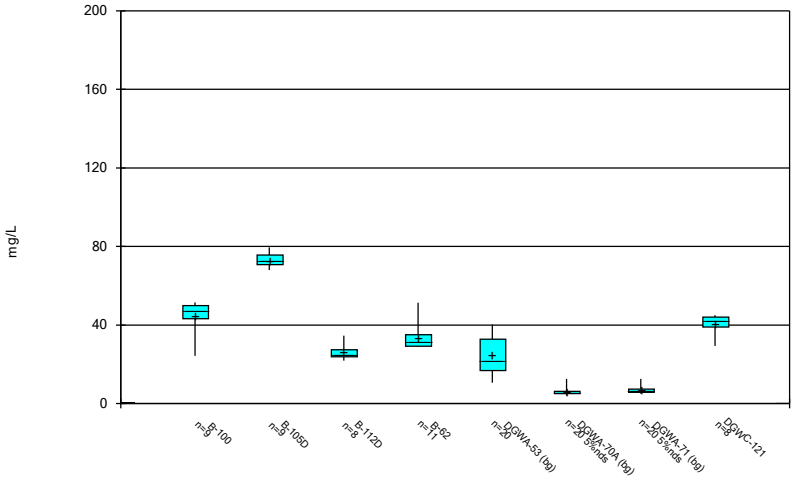
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

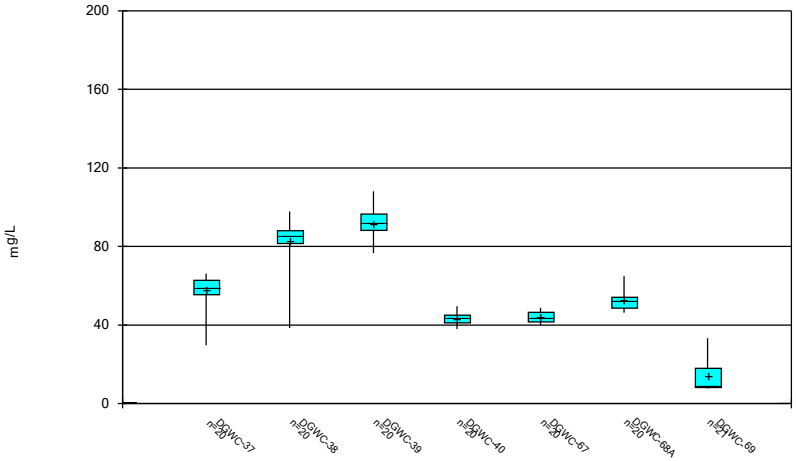
Box & Whiskers Plot



Constituent: Calcium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

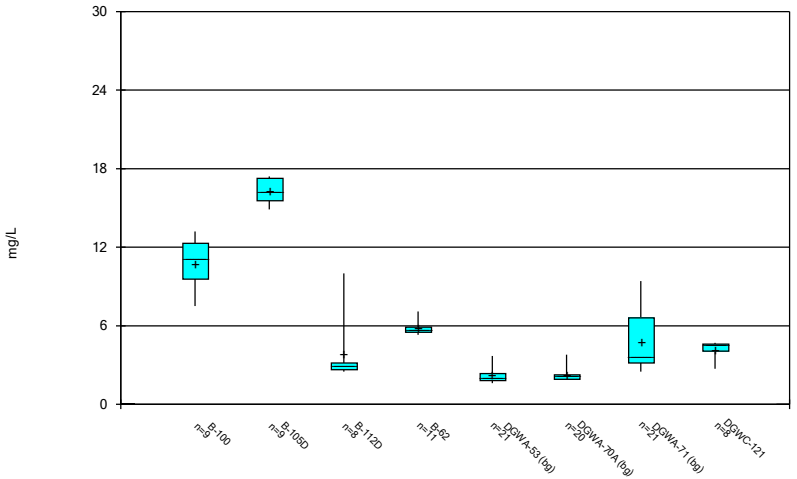
Box & Whiskers Plot



Constituent: Calcium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

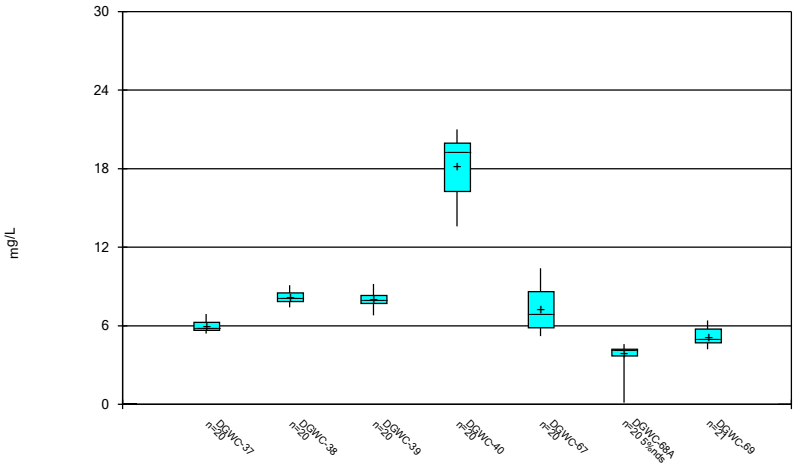
Box & Whiskers Plot



Constituent: Chloride Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

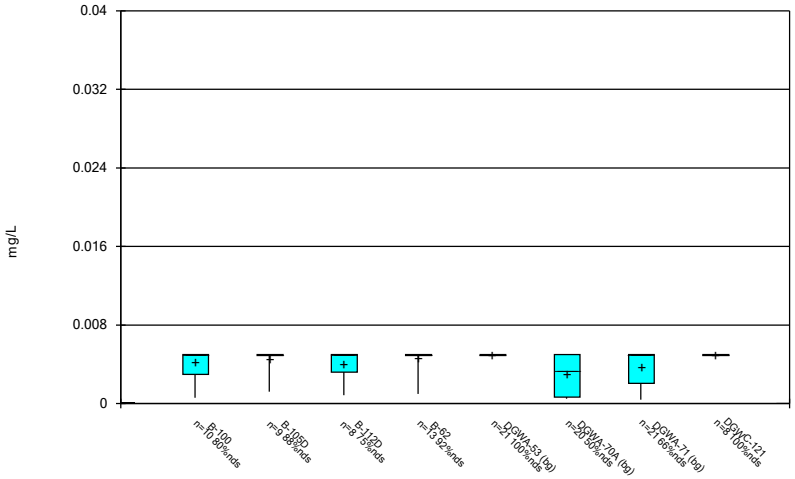
Box & Whiskers Plot



Constituent: Chloride Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

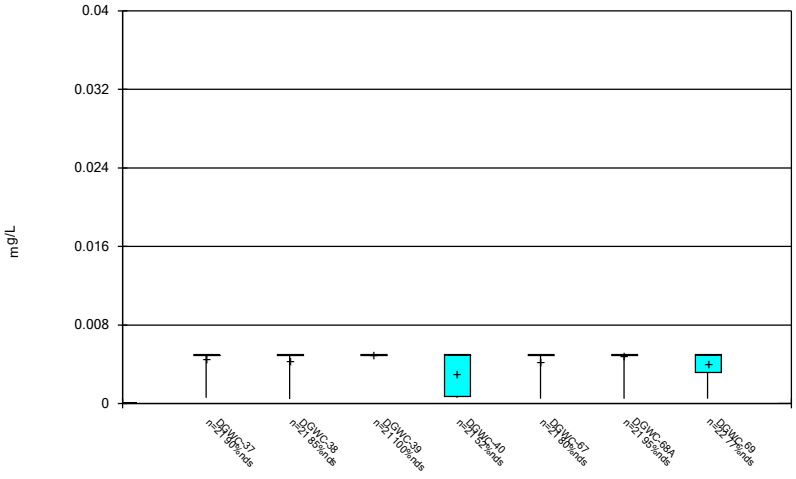
Box & Whiskers Plot



Constituent: Chromium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

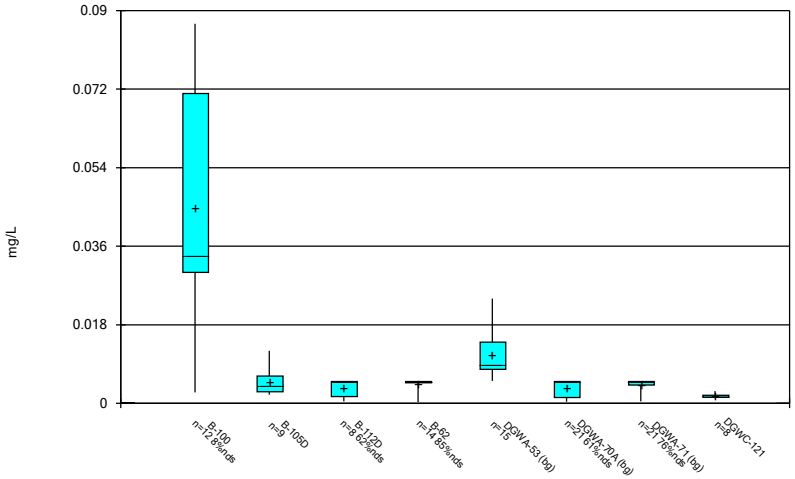
Box & Whiskers Plot



Constituent: Chromium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

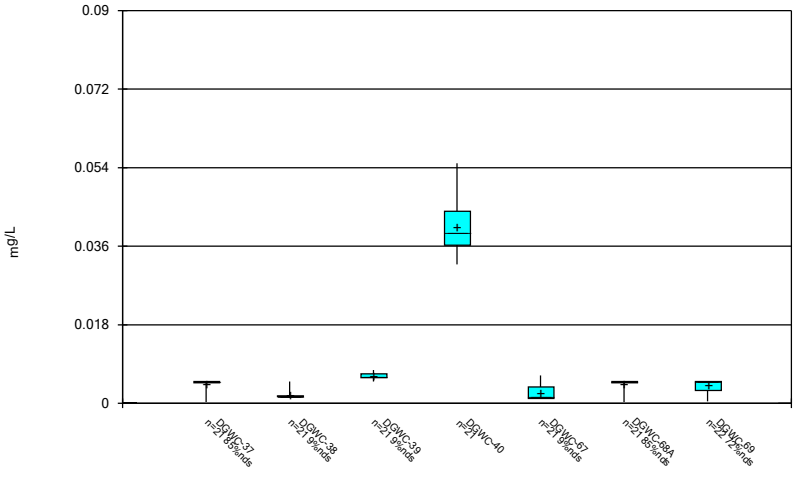
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

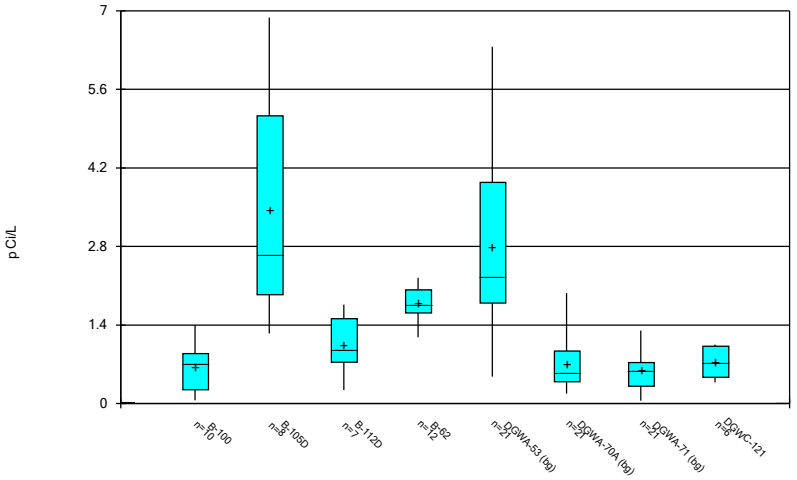
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

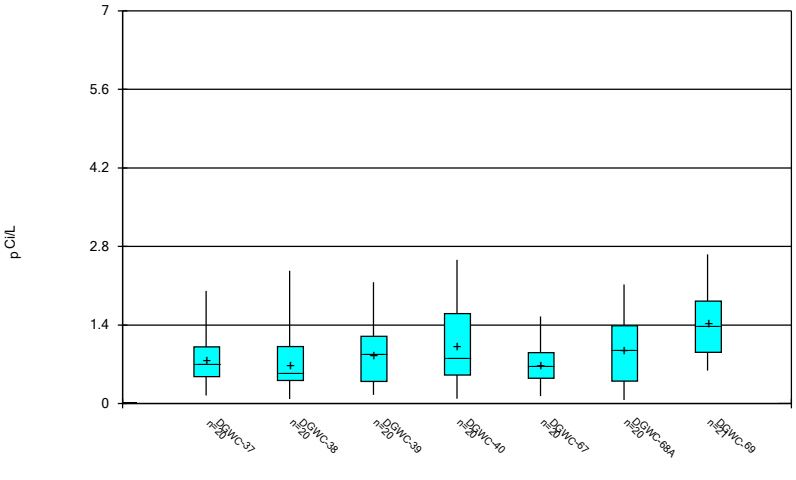
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

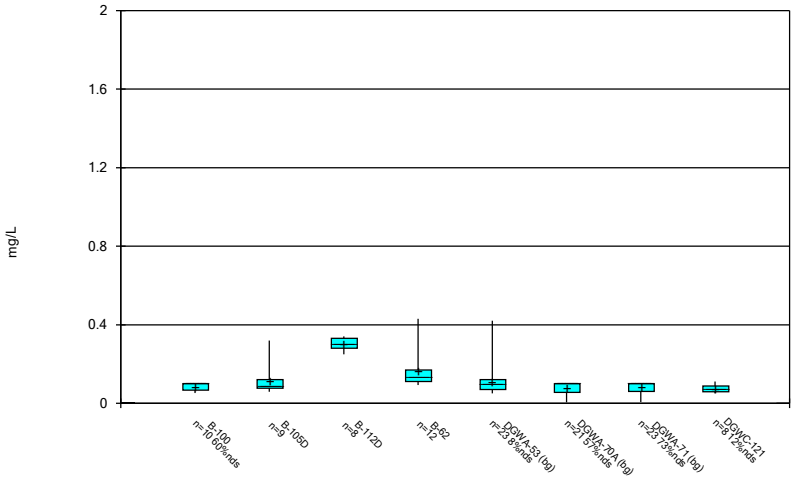
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

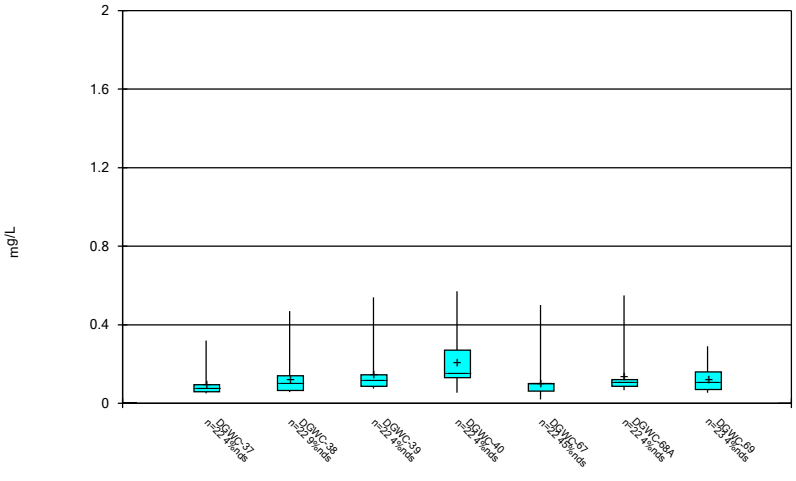
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

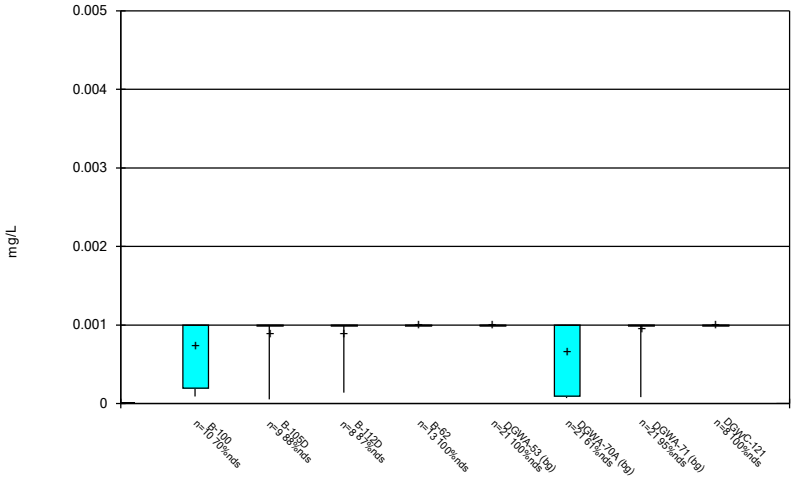
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

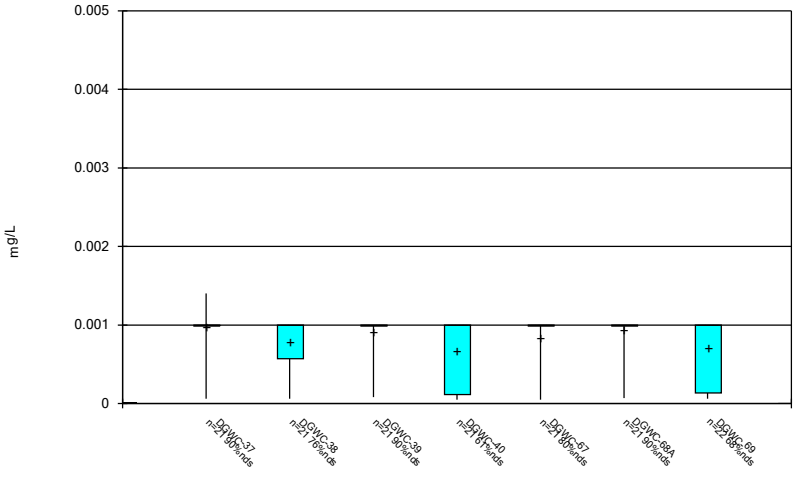
Box & Whiskers Plot



Constituent: Lead Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

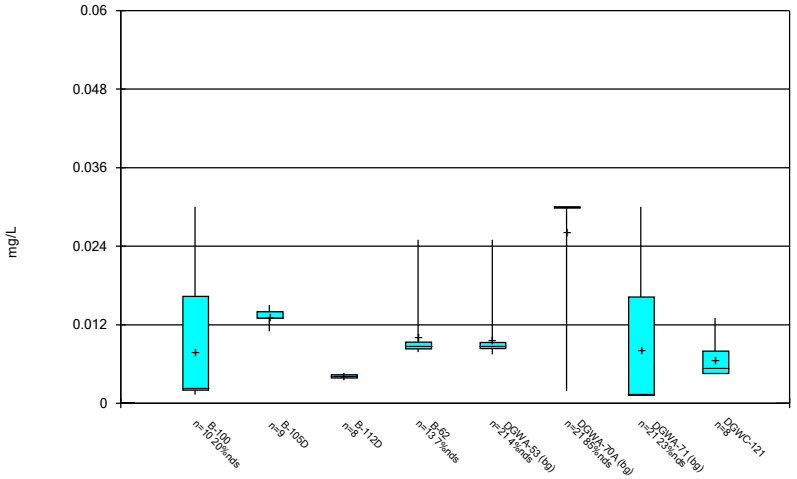
Box & Whiskers Plot



Constituent: Lead Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

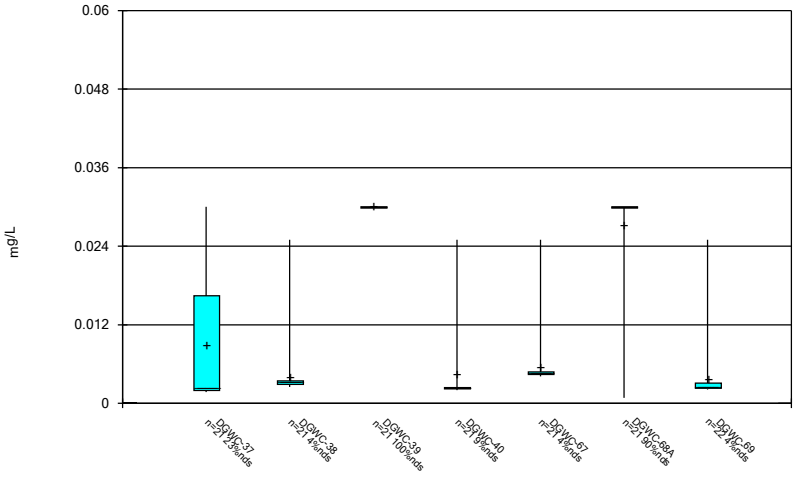
Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

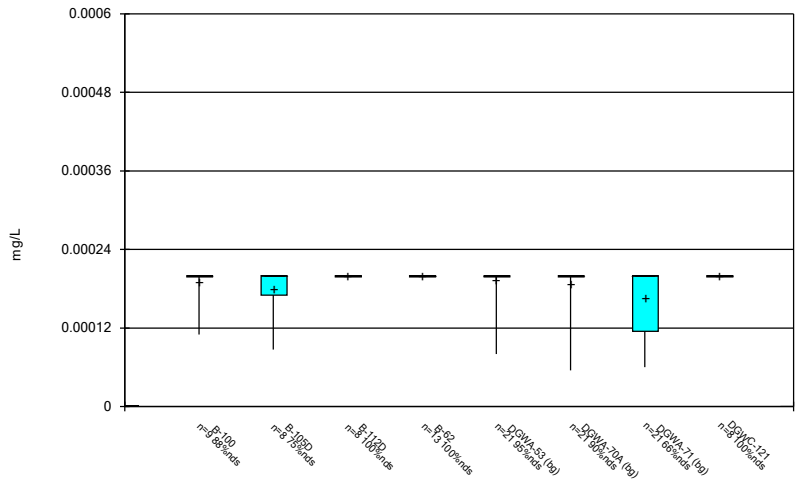
Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

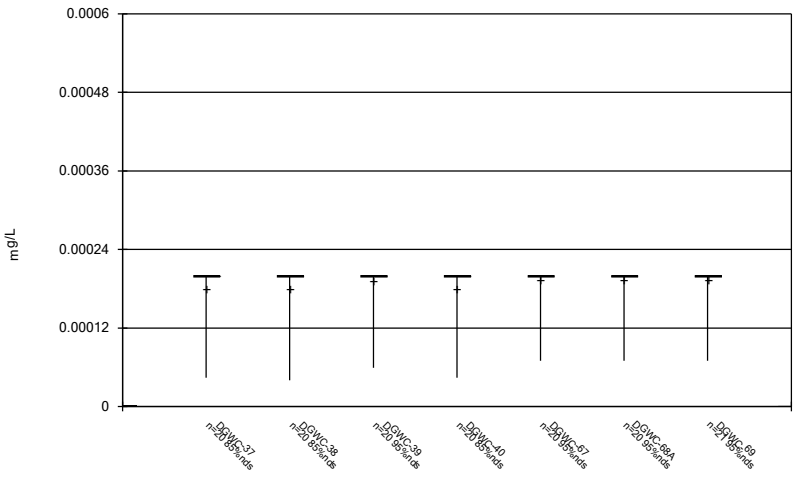
Box & Whiskers Plot



Constituent: Mercury Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

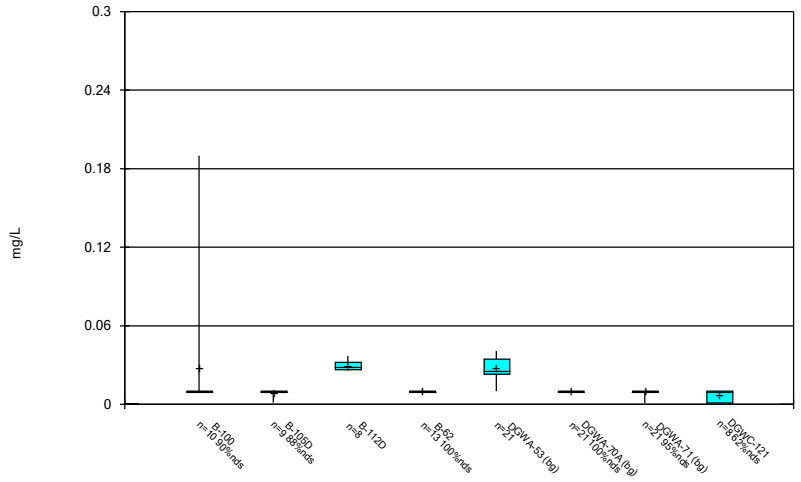
Box & Whiskers Plot



Constituent: Mercury Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

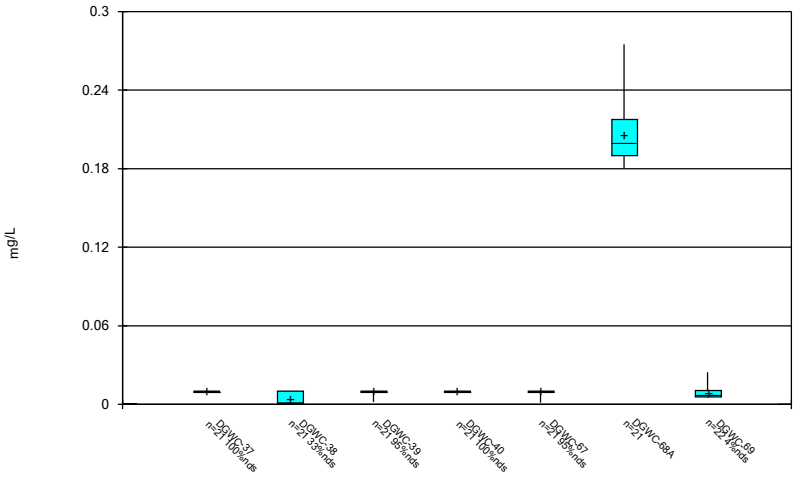
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

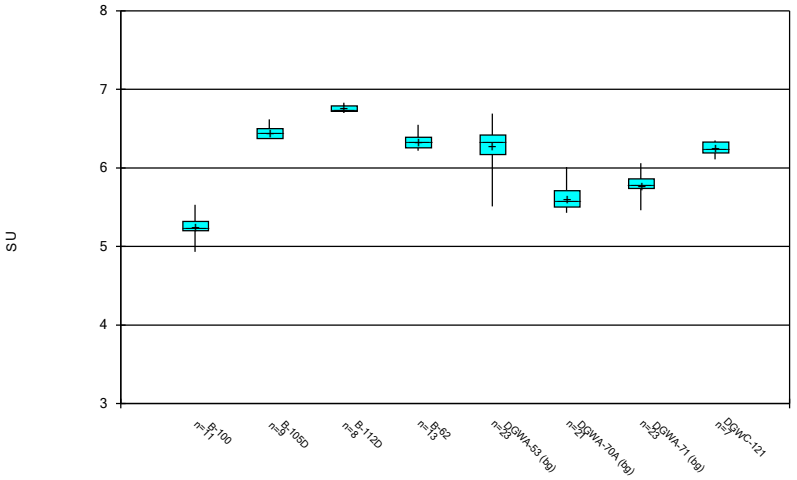
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

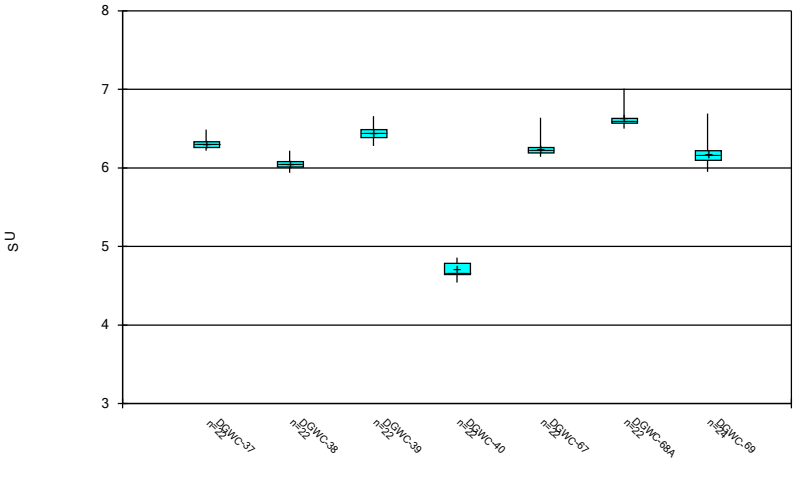
Box & Whiskers Plot



Constituent: pH, Field Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

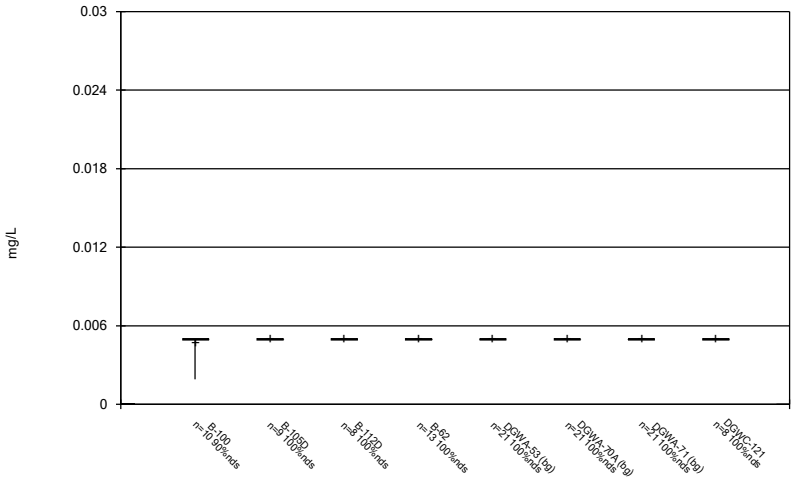
Box & Whiskers Plot



Constituent: pH, Field Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

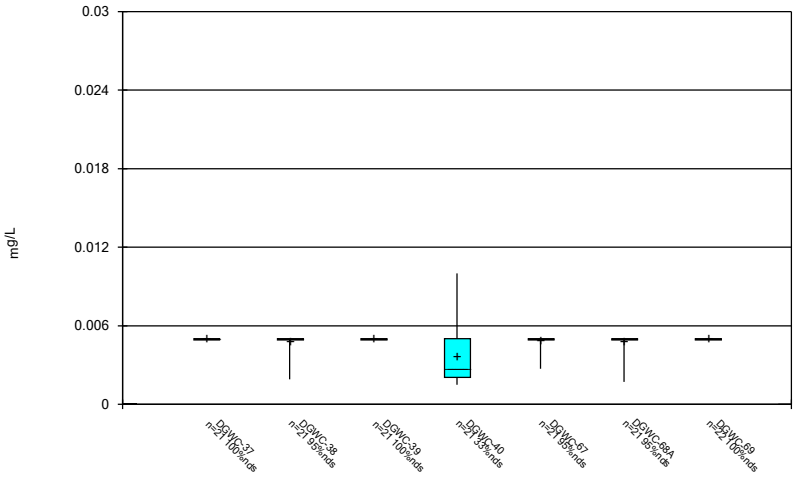
Box & Whiskers Plot



Constituent: Selenium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

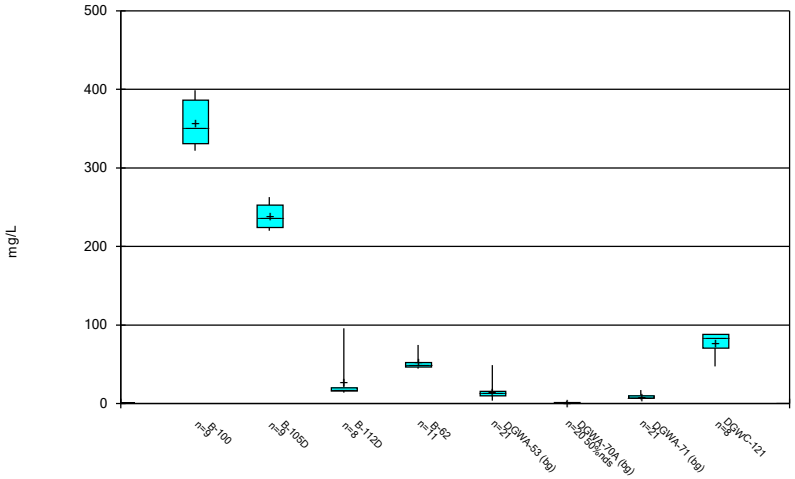
Box & Whiskers Plot



Constituent: Selenium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

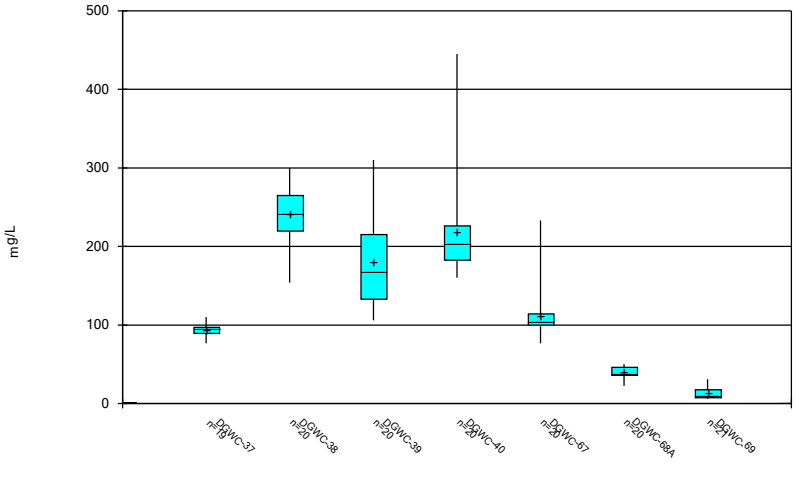
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

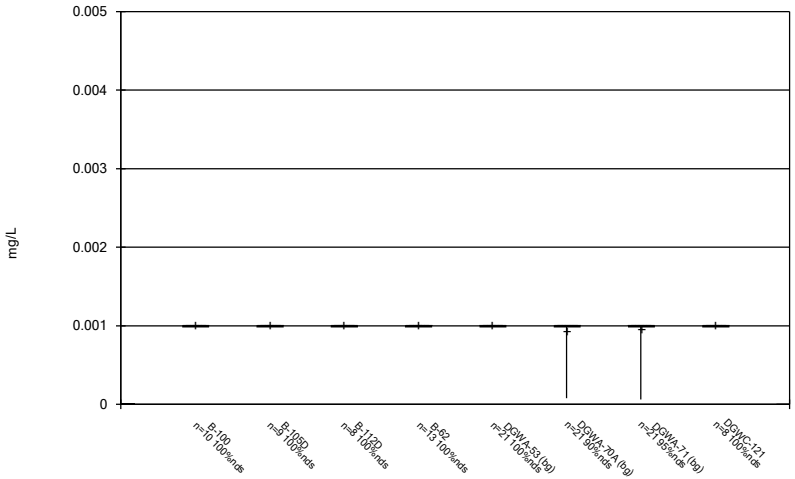
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

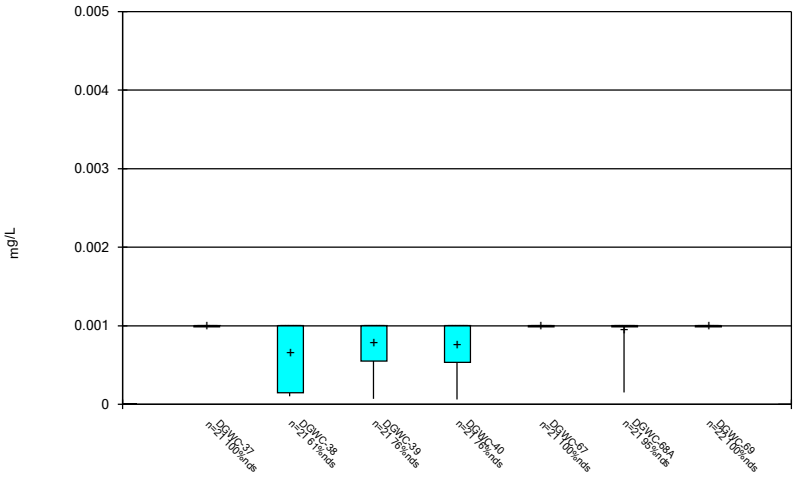
Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

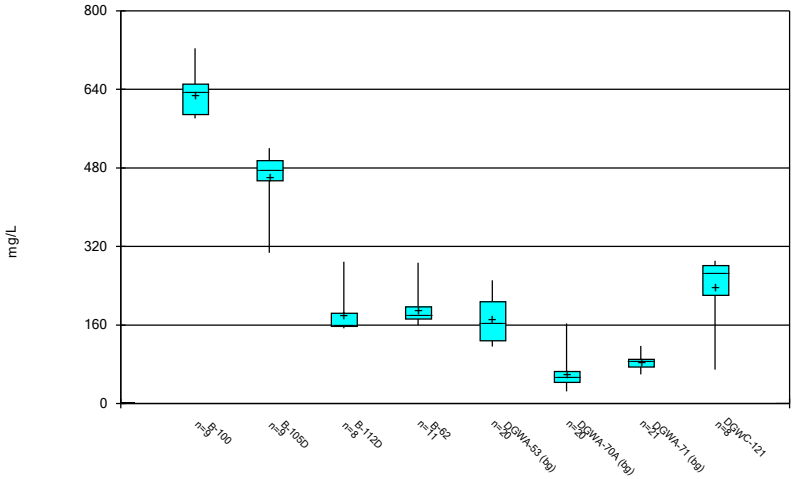
Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

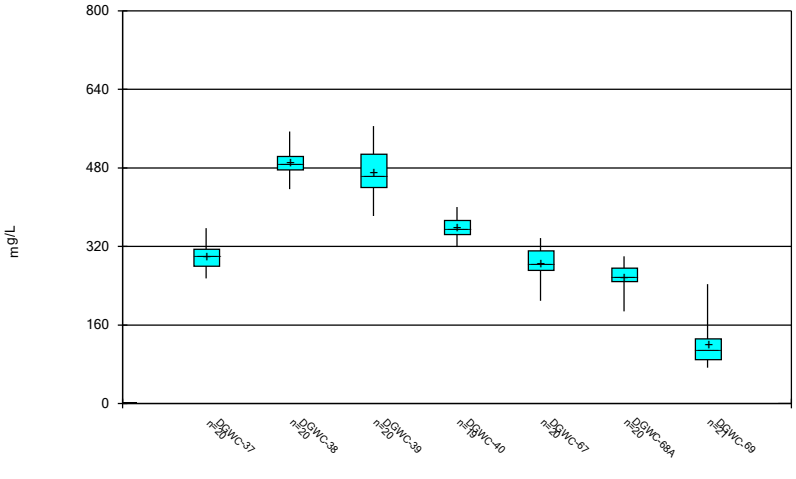
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:35 AM View: AP 1
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE C.

Outlier Summary

Plant McDonough Client: Southern Company Data: McDonough AP Printed 11/19/2024, 3:26 PM

	DGWC-68A Arsenic (mg/L)	DGWC-68A Barium (mg/L)	DGWA-70A Chromium (mg/L)	DGWC-68A Chromium (mg/L)	DGWC-68A Cobalt (mg/L)	DGWA-70A Fluoride (mg/L)	DGWC-68A pH, Field (SU)	DGWC-37 Sulfate (mg/L)	DGWA-53 Total Dissolved Solids [TDS] (mg/L)	DGWC-40 Total Dissolved Solids [TDS] (mg/L)
9/2/2016										583 (O)
3/28/2017						1.2 (O)				
7/13/2017							200 (O)			
10/24/2017								671 (O)		
10/15/2019			0.034 (O)							
9/16/2021	0.46 (o)	0.13 (o)		0.0014 (Jo)	0.0032 (Jo)	6.79 (o)				

FIGURE D.

Appendix III - Interwell Prediction Limits - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/9/2024, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	DGWC-121	0.13	n/a	9/4/2024	1.6	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-37	0.13	n/a	9/4/2024	1.5	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-38	0.13	n/a	9/4/2024	2.6	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-39	0.13	n/a	9/4/2024	2.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-40	0.13	n/a	9/5/2024	0.64	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-67	0.13	n/a	9/5/2024	3.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-68A	0.13	n/a	9/5/2024	1.7	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Boron (mg/L)	DGWC-69	0.13	n/a	9/5/2024	0.24	Yes	60	n/a	n/a	25	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-121	40.3	n/a	9/4/2024	41	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-37	40.3	n/a	9/4/2024	58.1	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-38	40.3	n/a	9/4/2024	83.2	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-39	40.3	n/a	9/4/2024	92	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-67	40.3	n/a	9/5/2024	44.6	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	DGWC-68A	40.3	n/a	9/5/2024	52.7	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-40	9.4	n/a	9/5/2024	14.4	Yes	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-67	9.4	n/a	9/5/2024	10.4	Yes	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-40	6.69	5.43	9/5/2024	4.6	Yes	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-121	49	n/a	9/4/2024	87.8	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-37	49	n/a	9/4/2024	95.2	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-38	49	n/a	9/4/2024	214	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-39	49	n/a	9/4/2024	142	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-40	49	n/a	9/5/2024	160	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-67	49	n/a	9/5/2024	107	Yes	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-121	231	n/a	9/4/2024	276	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	231	n/a	9/4/2024	348	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	231	n/a	9/4/2024	503	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-39	231	n/a	9/4/2024	466	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	231	n/a	9/5/2024	374	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	231	n/a	9/5/2024	314	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	231	n/a	9/5/2024	278	Yes	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/9/2024, 2:25 PM

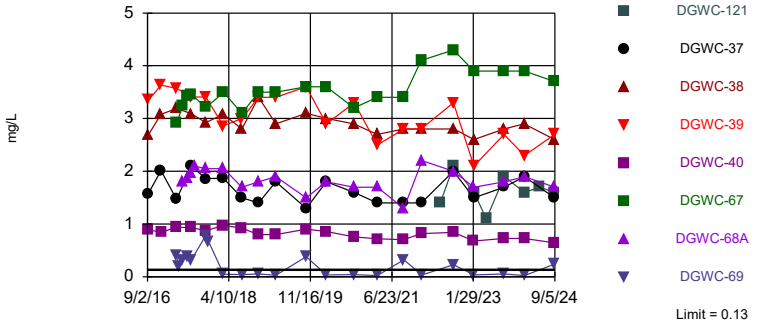
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**DGWC-121**	**0.13**	**n/a**	**9/4/2024**	**1.6**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-37**	**0.13**	**n/a**	**9/4/2024**	**1.5**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-38**	**0.13**	**n/a**	**9/4/2024**	**2.6**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-39**	**0.13**	**n/a**	**9/4/2024**	**2.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-40**	**0.13**	**n/a**	**9/5/2024**	**0.64**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-67**	**0.13**	**n/a**	**9/5/2024**	**3.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-68A**	**0.13**	**n/a**	**9/5/2024**	**1.7**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**DGWC-69**	**0.13**	**n/a**	**9/5/2024**	**0.24**	**Yes**	**60**	**n/a**	**n/a**	**25**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-121**	**40.3**	**n/a**	**9/4/2024**	**41**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-37**	**40.3**	**n/a**	**9/4/2024**	**58.1**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-38**	**40.3**	**n/a**	**9/4/2024**	**83.2**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-39**	**40.3**	**n/a**	**9/4/2024**	**92**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-40	40.3	n/a	9/5/2024	38.8	No	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Calcium (mg/L)	**DGWC-67**	**40.3**	**n/a**	**9/5/2024**	**44.6**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**DGWC-68A**	**40.3**	**n/a**	**9/5/2024**	**52.7**	**Yes**	**60**	**n/a**	**n/a**	**3.333**	**n/a**	**n/a**	**0.0005192**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	DGWC-69	40.3	n/a	9/5/2024	13.6	No	60	n/a	n/a	3.333	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-121	9.4	n/a	9/4/2024	4.7	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-37	9.4	n/a	9/4/2024	6	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-38	9.4	n/a	9/4/2024	9	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-39	9.4	n/a	9/4/2024	8.2	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	**DGWC-40**	**9.4**	**n/a**	**9/5/2024**	**14.4**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**DGWC-67**	**9.4**	**n/a**	**9/5/2024**	**10.4**	**Yes**	**62**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	DGWC-68A	9.4	n/a	9/5/2024	4.4	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Chloride (mg/L)	DGWC-69	9.4	n/a	9/5/2024	5	No	62	n/a	n/a	0	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-121	0.42	n/a	9/4/2024	0.082J	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-37	0.42	n/a	9/4/2024	0.1	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-38	0.42	n/a	9/4/2024	0.12	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-39	0.42	n/a	9/4/2024	0.14	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-40	0.42	n/a	9/5/2024	0.14	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-67	0.42	n/a	9/5/2024	0.071J	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-68A	0.42	n/a	9/5/2024	0.11	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Fluoride (mg/L)	DGWC-69	0.42	n/a	9/5/2024	0.11	No	67	n/a	n/a	46.27	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-37	6.69	5.43	9/4/2024	6.24	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-38	6.69	5.43	9/4/2024	6.01	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-39	6.69	5.43	9/4/2024	6.45	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	**DGWC-40**	**6.69**	**5.43**	**9/5/2024**	**4.6**	**Yes**	**67**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0008517**	**NP Inter (normality) 1 of 2**
pH, Field (SU)	DGWC-67	6.69	5.43	9/5/2024	6.19	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-68A	6.69	5.43	9/5/2024	6.53	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
pH, Field (SU)	DGWC-69	6.69	5.43	9/5/2024	6.17	No	67	n/a	n/a	0	n/a	n/a	0.0008517	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**DGWC-121**	**49**	**n/a**	**9/4/2024**	**87.8**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-37**	**49**	**n/a**	**9/4/2024**	**95.2**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-38**	**49**	**n/a**	**9/4/2024**	**214**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-39**	**49**	**n/a**	**9/4/2024**	**142**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-40**	**49**	**n/a**	**9/5/2024**	**160**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**DGWC-67**	**49**	**n/a**	**9/5/2024**	**107**	**Yes**	**62**	**n/a**	**n/a**	**16.13**	**n/a**	**n/a**	**0.0004925**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	DGWC-68A	49	n/a	9/5/2024	35.9	No	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Sulfate (mg/L)	DGWC-69	49	n/a	9/5/2024	14.9	No	62	n/a	n/a	16.13	n/a	n/a	0.0004925	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	**DGWC-121**	**231**	**n/a**	**9/4/2024**	**276**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-37**	**231**	**n/a**	**9/4/2024**	**348**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-38**	**231**	**n/a**	**9/4/2024**	**503**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**231**	**n/a**	**9/4/2024**	**466**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-40**	**231**	**n/a**	**9/5/2024**	**374**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-67**	**231**	**n/a**	**9/5/2024**	**314**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-68A**	**231**	**n/a**	**9/5/2024**	**278**	**Yes**	**61**	**9.822**	**2.747**	**0**	**None**	**sqrt(x)**	**0.0009403**	**Param Inter 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	DGWC-69	231	n/a	9/5/2024	125	No	61	9.822	2.747	0	None	sqrt(x)	0.0009403	Param Inter 1 of 2

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Exceeds Limit: DGWC-121, DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A, DGWC-69

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 25% NDs. Annual per-constituent alpha = 0.008276. Individual comparison alpha = 0.0005192 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 12/9/2024 2:22 PM View: AP 1 Appendix III

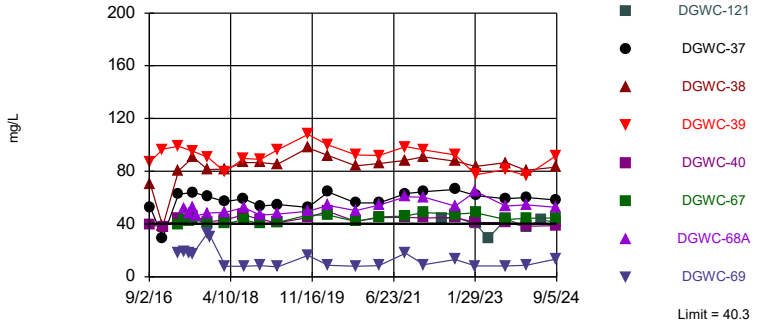
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Exceeds Limit: DGWC-121, DGWC-37, DGWC-38, DGWC-39, DGWC-67, DGWC-68A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 3.333% NDs. Annual per-constituent alpha = 0.008276. Individual comparison alpha = 0.0005192 (1 of 2). Comparing 8 points to limit.

Constituent: Calcium Analysis Run 12/9/2024 2:22 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

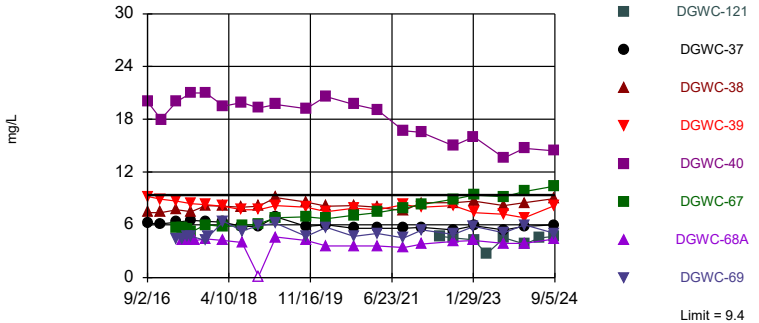
Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Exceeds Limit: DGWC-40, DGWC-67

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 62 background values. Annual per-constituent alpha = 0.007852. Individual comparison alpha = 0.0004925 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 12/9/2024 2:22 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

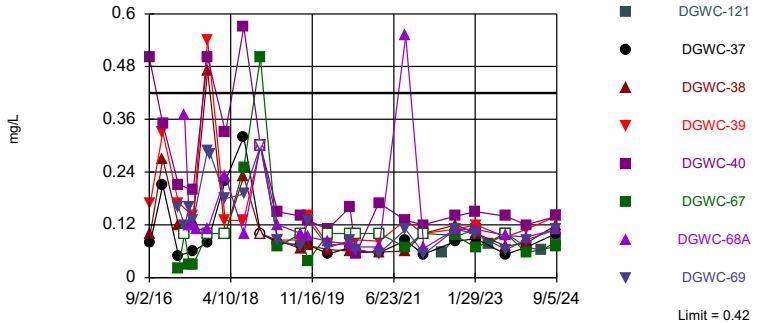
Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 67 background values. 46.27% NDs. Annual per-constituent alpha = 0.006792. Individual comparison alpha = 0.0004259 (1 of 2). Comparing 8 points to limit.

Constituent: Fluoride Analysis Run 12/9/2024 2:22 PM View: AP 1 Appendix III

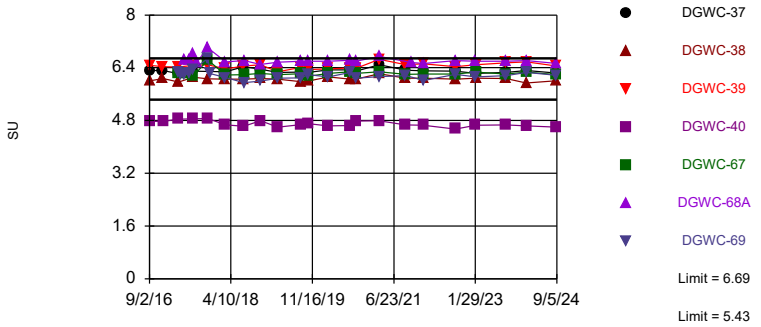
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Exceeds Limits: DGWC-40

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 67 background values. Annual per-constituent alpha = 0.01358. Individual comparison alpha = 0.0008517 (1 of 2). Comparing 7 points to limit. Assumes 1 future value.

Constituent: pH, Field Analysis Run 12/9/2024 2:23 PM View: AP 1 Appendix III

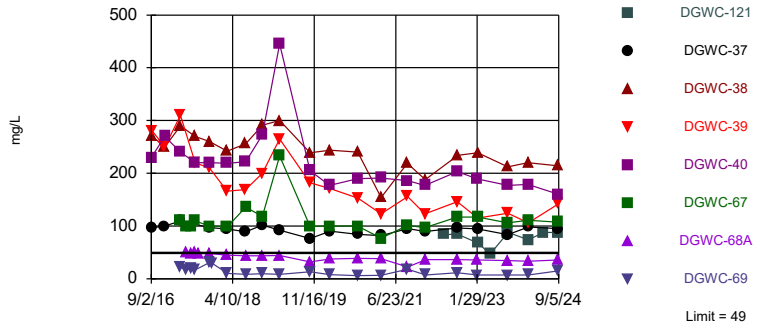
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Exceeds Limit: DGWC-121, DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 62 background values. 16.13% NDs. Annual per-constituent alpha = 0.007852. Individual comparison alpha = 0.0004925 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 12/9/2024 2:23 PM View: AP 1 Appendix III

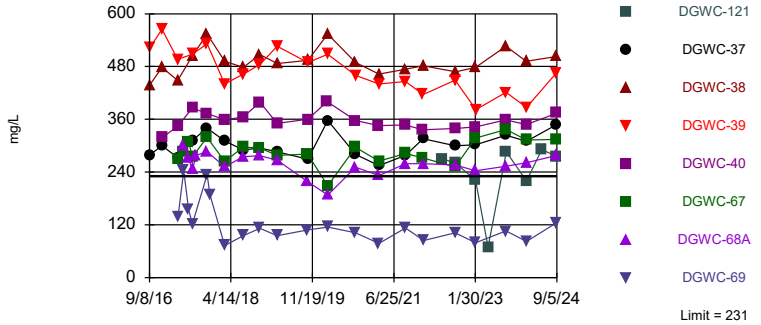
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Exceeds Limit: DGWC-121, DGWC-37, DGWC-38, DGWC-39, DGWC-40, DGWC-67, DGWC-68A

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.822, Std. Dev.=2.747, n=61. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9612, critical = 0.946. Kappa = 1.957 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009403. Comparing 8 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/9/2024 2:23 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/2/2016	0.895								
9/8/2016		1.58	2.69	3.35					
12/7/2016		2.01	3.08	3.63					
12/8/2016	0.841								
3/28/2017					0.0612	0.0067 (J)	0.0097 (J)		
3/30/2017	0.937	1.47	3.19	3.57					
3/31/2017								0.407	2.91
4/12/2017								0.207	
5/11/2017					0.0805				
5/12/2017							0.0082 (J)	0.311	3.24
5/15/2017						0.0073 (J)			
6/15/2017					0.0725	<0.04			
6/16/2017							0.0085 (J)	0.381	3.42
7/11/2017						<0.04	0.0077 (J)		
7/12/2017					0.0735				
7/13/2017	0.933	2.1	3.09	3.41				0.323	3.46
8/8/2017						<0.04			
10/24/2017					0.077	0.0082 (J)	0.0083 (J)		
10/26/2017	0.873	1.86	2.92	3.41				0.779	3.21
11/15/2017								0.667	
2/27/2018						0.0062 (J)	0.0069 (J)		
3/1/2018		1.87	3.08	2.86					
3/2/2018	0.974							0.0478	3.49
3/8/2018					0.13 (J)				
7/10/2018						0.0077 (J)	0.0059 (J)		
7/12/2018	0.92	1.5	2.8	3	0.076				
7/13/2018								0.043	3.1
11/6/2018						<0.04 (J)	<0.04 (J)		
11/7/2018					0.073				
11/8/2018	0.8	1.4	3.4	3.4				0.054	3.5
3/12/2019						0.0073 (J)	0.0068 (J)		
3/13/2019	0.8	1.8	2.9	3.4	0.08			0.028 (J)	3.5
10/15/2019						<0.04	0.0054 (J)		
10/16/2019					0.059			0.38	
10/17/2019									3.6
10/18/2019	0.9	1.3	3.1	3.6					
3/2/2020						0.0055 (J)	0.01 (J)		
3/4/2020	0.86								
3/9/2020		1.8	3	2.9	0.08 (J)			0.035 (J)	3.6
9/22/2020					0.056 (J)	<0.04	<0.04		
9/23/2020	0.76							0.041 (J)	3.2
9/24/2020		1.6	2.9						
9/25/2020				3.3					
3/1/2021						<0.04	0.0054 (J)		
3/8/2021	0.72								
3/10/2021								0.024 (J)	
3/11/2021		1.4	2.7	2.5					3.4
3/12/2021					0.064				
9/8/2021							<0.04		
9/9/2021					0.065	<0.04			
9/14/2021	0.7								
9/15/2021			2.8						

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/16/2021		1.4						0.32	3.4
9/17/2021				2.8					
1/18/2022						0.024 (J)	0.015 (J)		
1/19/2022	0.82								4.1
1/20/2022				2.8					
1/21/2022		1.4	2.8						
1/25/2022								0.035 (J)	
1/28/2022					0.062				
6/6/2022									
9/7/2022	0.84			3.3		<0.04	<0.04	0.23	
9/8/2022		2			0.054				4.3
9/12/2022			2.8						
1/31/2023						0.011 (J)	0.0097 (J)		
2/1/2023	0.68				0.051			0.035 (J)	
2/2/2023		1.5	2.6						3.9
2/3/2023				2.1					
5/2/2023									
9/6/2023		1.7				0.012 (J)	0.015 (J)		
9/7/2023	0.73		2.8	2.7	0.052			0.052	3.9
9/8/2023									
1/30/2024	0.73		2.9		0.065		0.015 (J)		
1/31/2024		1.9		2.3				0.025 (J)	
2/1/2024									3.9
5/20/2024									
9/4/2024		1.5	2.6	2.7		<0.04	<0.04		
9/5/2024	0.64							0.24	3.7
9/11/2024					0.042				

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017		
3/30/2017		
3/31/2017		
4/12/2017		
5/11/2017		
5/12/2017	1.8	
5/15/2017		
6/15/2017		
6/16/2017	1.88	
7/11/2017		
7/12/2017		
7/13/2017	1.97	
8/8/2017	2.1	
10/24/2017		
10/26/2017	2.05	
11/15/2017		
2/27/2018		
3/1/2018		
3/2/2018	2.05	
3/8/2018		
7/10/2018		
7/12/2018		
7/13/2018	1.7	
11/6/2018		
11/7/2018		
11/8/2018	1.8	
3/12/2019		
3/13/2019	1.9	
10/15/2019		
10/16/2019	1.5	
10/17/2019		
10/18/2019		
3/2/2020		
3/4/2020		
3/9/2020	1.8	
9/22/2020		
9/23/2020	1.7	
9/24/2020		
9/25/2020		
3/1/2021		
3/8/2021		
3/10/2021	1.7	
3/11/2021		
3/12/2021		
9/8/2021		
9/9/2021		
9/14/2021		
9/15/2021		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/16/2021	1.3	
9/17/2021		
1/18/2022		
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022	2.2	
1/28/2022		
6/6/2022		1.4
9/7/2022	2	
9/8/2022		2.1
9/12/2022		
1/31/2023		
2/1/2023	1.7	
2/2/2023		1.6
2/3/2023		
5/2/2023		1.1
9/6/2023		
9/7/2023	1.8	
9/8/2023		1.9
1/30/2024		
1/31/2024	1.9	1.6
2/1/2024		
5/20/2024		1.7
9/4/2024		1.6
9/5/2024	1.7	
9/11/2024		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/2/2016	39.6								
9/8/2016		52.5	70.3	87.2					
12/7/2016		29.7	38.4	96.7					
12/8/2016	37.9								
3/28/2017					5.14	30.8	8.31		
3/30/2017	43.9	62.6	80.3	98.9					
3/31/2017								18.6 (J)	39.9
5/11/2017						35.8			
5/12/2017							8.04	18.9 (J)	43.6
5/15/2017					6.5				
6/15/2017					5.38	36			
6/16/2017							7.66	17.7	42.5
7/11/2017					5.96		7.71		
7/12/2017						40.3			
7/13/2017	46.2	64.1	90.8	95				17.6	43.7
8/8/2017					5.2				
10/24/2017					4.93	30.3	6.86		
10/26/2017	41.8	60.8	81.3	90.6				33.3	40.4
11/15/2017								30.6	
2/27/2018					<25		<25		
3/1/2018		57	81.8	79.6					
3/2/2018	43.2							8.09	40.1
3/8/2018						39.8			
7/10/2018					5		5.7		
7/12/2018	47.1	59.1	86.7	89.8		34.7			
7/13/2018								7.9	43.3
11/6/2018					5.5		5.7		
11/7/2018						28.6			
11/8/2018	43.5	53.6	86.6	89				8.5	40.1
3/12/2019					5.1		5.5		
3/13/2019	41	54.8	85.3	96.3		26.7		7.6	41.2
10/15/2019					5.1		5.1		
10/16/2019						17.7		16.2	
10/17/2019									46.9
10/18/2019	44.9	52.5	97.8	108					
3/2/2020					5.3		5.8		
3/4/2020	49.6								
3/9/2020		64.2	91.9	100		23.7		8.6	46.9
9/22/2020					5	15.5	5.4		
9/23/2020	41.9							8	42
9/24/2020		55.9	84.1						
9/25/2020				92.5					
3/1/2021					4.1		5.9		
3/8/2021	44.9								
3/10/2021								8.5	
3/11/2021		56	85.8	91.9					45.4
3/12/2021						18.4			
9/8/2021							6.1		
9/9/2021					5.3	18.3			
9/14/2021	45.1								
9/15/2021			88.3						
9/16/2021		63						18	46

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/17/2021				98.6					
1/18/2022					6.1		6.6		
1/19/2022	44.7								48.8
1/20/2022				96.2					
1/21/2022		64.4	91						
1/25/2022								9.2	
1/28/2022						19.5			
6/6/2022									
9/7/2022	44.8			92.5	5.9		6.4	13.1	
9/8/2022		66.2				17.2			47.4
9/12/2022			87.6						
1/31/2023					6.2		5.7		
2/1/2023	41.1					14.1		8.3	
2/2/2023		61.7	83.6						48.6
2/3/2023				77.4					
5/2/2023									
9/6/2023		59.1			6.6		7		
9/7/2023	41		86.5	81.2		16.3		8.1	43.3
9/8/2023									
1/30/2024	38.2		80.8			13.7	6.1		
1/31/2024		60.1		76.6				8.8	
2/1/2024									44.4
5/20/2024									
9/4/2024		58.1	83.2	92	6.3		6.5		
9/5/2024	38.8							13.6	44.6
9/11/2024						10.6			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017		
3/30/2017		
3/31/2017		
5/11/2017		
5/12/2017	51.7	
5/15/2017		
6/15/2017		
6/16/2017	47.9	
7/11/2017		
7/12/2017		
7/13/2017	52.3	
8/8/2017	46.3	
10/24/2017		
10/26/2017	48.2	
11/15/2017		
2/27/2018		
3/1/2018		
3/2/2018	48.9	
3/8/2018		
7/10/2018		
7/12/2018		
7/13/2018	52.4	
11/6/2018		
11/7/2018		
11/8/2018	46.8	
3/12/2019		
3/13/2019	47.5	
10/15/2019		
10/16/2019	49.7	
10/17/2019		
10/18/2019		
3/2/2020		
3/4/2020		
3/9/2020	54	
9/22/2020		
9/23/2020	50.2	
9/24/2020		
9/25/2020		
3/1/2021		
3/8/2021		
3/10/2021	54.2	
3/11/2021		
3/12/2021		
9/8/2021		
9/9/2021		
9/14/2021		
9/15/2021		
9/16/2021	60.6	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/17/2021		
1/18/2022		
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022	60.4	
1/28/2022		
6/6/2022		44.1
9/7/2022	53.5	
9/8/2022		45
9/12/2022		
1/31/2023		
2/1/2023	64.8	
2/2/2023		40.1
2/3/2023		
5/2/2023		29.4
9/6/2023		
9/7/2023	53.6	
9/8/2023		43.9
1/30/2024		
1/31/2024	54.6	37.8
2/1/2024		
5/20/2024		43.4
9/4/2024		41
9/5/2024	52.7	
9/11/2024		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/2/2016	20								
9/8/2016		6.2	7.4	9.2					
12/7/2016		6.1	7.4	8.9					
12/8/2016	18								
3/28/2017					3.8	3.7	3.6		
3/30/2017	20	6.3	7.7	8.7					
3/31/2017								4.4	5.7
5/11/2017						2.3			
5/12/2017							3.8	4.4	5.6
5/15/2017					2.2				
6/15/2017					2	2.6			
6/16/2017							3.4	4.7	5.5
7/11/2017					2.1		3.1		
7/12/2017						2.3			
7/13/2017	21	6.5	7.5	8.4				4.7	5.2
8/8/2017					2.2				
10/24/2017					2.4	2.7	3.2		
10/26/2017	21	6.4	8.2	8.3				4.2	6
11/15/2017						2.2	3.1	4.7	
2/27/2018					2.5		3.2		
3/1/2018		6.3	8.1	8.1					
3/2/2018	19.5							6.4	5.8
3/8/2018						2.4			
7/10/2018					1.9		2.5		
7/12/2018	19.9	5.8	8	7.7		2.2			
7/13/2018								5.3	5.9
11/6/2018					2.3		2.6		
11/7/2018						2.3			
11/8/2018	19.3	5.8	8.1	7.7				5.9	6.1
3/12/2019					2.5		3.3		
3/13/2019	19.7	6.9	9.1	8.2		3.6		6.2	6.8
10/15/2019					2.2		3.3		
10/16/2019						2		4.7	
10/17/2019									6.9
10/18/2019	19.2	5.8	8.6	8					
3/2/2020					1.9		3		
3/4/2020	20.6								
3/9/2020		6	8.1	7.5		1.8		5.7	6.7
9/22/2020					1.9	1.6	5.2		
9/23/2020	19.7							4.7	7.1
9/24/2020		5.6	8.2						
9/25/2020				7.9					
3/1/2021					1.9		3.9		
3/8/2021	19.1								
3/10/2021								5	
3/11/2021		5.6	8	7.7					7.4
3/12/2021						2			
9/8/2021							5.9		
9/9/2021					1.9	1.8			
9/14/2021	16.7								
9/15/2021			7.6						
9/16/2021		5.6						4.5	7.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-69	DGWC-67
9/17/2021				8.3					
1/18/2022					1.9		5.9		
1/19/2022	16.5								8.3
1/20/2022				8					
1/21/2022		5.7	8.5						
1/25/2022								5.4	
1/28/2022						1.8			
6/6/2022									
9/7/2022	15			8.2	2.1		8.2	4.9	
9/8/2022		5.4				1.6			8.9
9/12/2022			8.5						
1/31/2023					2.2		7.3		
2/1/2023	16					1.9		5.8	
2/2/2023		5.9	8.7						9.4
2/3/2023				7.4					
5/2/2023									
9/6/2023		5.4			2.2		7.8		
9/7/2023	13.6		8.2	7.2		1.7		5.1	9.2
9/8/2023									
1/30/2024	14.7		8.5			1.6	8.2		
1/31/2024		5.8		6.8				6	
2/1/2024									9.8
5/20/2024									
9/4/2024		6	9	8.2	2.2		9.4		
9/5/2024	14.4							5	10.4
9/11/2024						1.8			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017		
3/30/2017		
3/31/2017		
5/11/2017		
5/12/2017	4.2	
5/15/2017		
6/15/2017		
6/16/2017	4.2	
7/11/2017		
7/12/2017		
7/13/2017	4.4	
8/8/2017	4.2	
10/24/2017		
10/26/2017	4.4	
11/15/2017		
2/27/2018		
3/1/2018		
3/2/2018	4.2	
3/8/2018		
7/10/2018		
7/12/2018		
7/13/2018	4	
11/6/2018		
11/7/2018		
11/8/2018	<0.25	
3/12/2019		
3/13/2019	4.6	
10/15/2019		
10/16/2019	4.2	
10/17/2019		
10/18/2019		
3/2/2020		
3/4/2020		
3/9/2020	3.6	
9/22/2020		
9/23/2020	3.6	
9/24/2020		
9/25/2020		
3/1/2021		
3/8/2021		
3/10/2021	3.6	
3/11/2021		
3/12/2021		
9/8/2021		
9/9/2021		
9/14/2021		
9/15/2021		
9/16/2021	3.4	

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/17/2021		
1/18/2022		
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022	3.8	
1/28/2022		
6/6/2022		4.7
9/7/2022	4.1	
9/8/2022		4.5
9/12/2022		
1/31/2023		
2/1/2023	4.2	
2/2/2023		4.3
2/3/2023		
5/2/2023		2.7
9/6/2023		
9/7/2023	3.9	
9/8/2023		4.5
1/30/2024		
1/31/2024	3.9	3.8
2/1/2024		
5/20/2024		4.5
9/4/2024		4.7
9/5/2024	4.4	
9/11/2024		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-37	DGWC-38	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/2/2016	0.5								
9/8/2016		0.17 (J)	0.08 (J)	0.1 (J)					
12/7/2016		0.33	0.21 (J)	0.27 (J)					
12/8/2016	0.35								
3/28/2017					0.12 (J)	0.06 (J)			
3/30/2017	0.21 (J)	0.17 (J)	0.05 (J)	0.12 (J)					
3/31/2017							0.02 (J)	0.16 (J)	
5/11/2017					0.07 (J)				
5/12/2017						<0.1	<0.1	0.12 (J)	0.37
5/15/2017									
6/15/2017					0.19 (J)				
6/16/2017						0.008 (J)	0.03 (J)	0.16 (J)	0.12 (J)
7/11/2017						0.007 (J)			
7/12/2017					0.1 (J)				
7/13/2017	0.2 (J)	0.14 (J)	0.06 (J)	0.13 (J)			0.03 (J)	0.13 (J)	0.12 (J)
8/8/2017									0.11 (J)
10/24/2017					0.06 (J)	<0.1			
10/26/2017	0.5	0.54	0.08 (J)	0.47			<0.1	0.29 (J)	0.11 (J)
11/15/2017					0.05 (J)	<0.1		0.28 (J)	
2/27/2018						<0.1			
3/1/2018		0.13	0.22	<0.1					
3/2/2018	0.33						<0.1	0.18	0.23
3/8/2018					<0.1				
7/10/2018						<0.1			
7/12/2018	0.57	0.13 (J)	0.32	0.23 (J)	0.071 (J)				
7/13/2018							0.25 (J)	0.19 (J)	0.099 (J)
11/6/2018						<0.1			
11/7/2018					<0.1				
11/8/2018	<0.3 (J)	<0.3 (J)	<0.1	<0.1			0.5	<0.3 (J)	<0.3 (J)
3/12/2019						<0.1			
3/13/2019	0.15 (J)	0.085 (J)	0.08 (J)	0.084 (J)	0.13 (J)		0.07 (J)	0.086 (J)	0.12 (J)
8/27/2019						<0.1			
8/28/2019	0.14	0.086 (J)	0.074 (J)	0.066 (J)	0.42		<0.1	0.07 (J)	0.1
10/15/2019						<0.1			
10/16/2019					0.11 (J)			0.13 (J)	0.093 (J)
10/17/2019							0.038 (J)		
10/18/2019	0.13 (J)	0.14 (J)	0.075 (J)	0.073 (J)					
3/2/2020						<0.1			
3/4/2020	0.11 (J)								
3/9/2020		0.075 (J)	0.054 (J)	0.064 (J)	0.1 (J)		<0.1	0.068 (J)	0.082 (J)
8/11/2020						<0.1			
8/13/2020	0.16	0.076 (J)	0.068 (J)	0.06 (J)	0.062 (J)		<0.1	0.084 (J)	0.076 (J)
9/22/2020					0.099 (J)	<0.1			
9/23/2020	0.054 (J)						<0.1	0.064 (J)	0.07 (J)
9/24/2020			0.061 (J)	0.057 (J)					
9/25/2020		0.086 (J)							
3/1/2021						<0.1			
3/8/2021	0.17								
3/10/2021								0.055 (J)	0.07 (J)
3/11/2021		0.083 (J)	0.057 (J)	0.058 (J)			<0.1		
3/12/2021					0.076 (J)				
9/8/2021						<0.1			

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-37	DGWC-38	DGWA-53 (bg)	DGWA-71 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/9/2021					0.099 (J)				
9/14/2021	0.13								
9/15/2021				0.06 (J)					
9/16/2021			0.084 (J)				0.069 (J)	0.11	0.55
9/17/2021		0.13							
1/18/2022						<0.1			
1/19/2022	0.12						<0.1		
1/20/2022		0.1							
1/21/2022			0.053 (J)	0.1					
1/25/2022								0.054 (J)	0.067 (J)
1/28/2022					0.08 (J)				
6/6/2022									
9/7/2022	0.14	0.11				0.056 (J)		0.11	0.11
9/8/2022			0.082 (J)		0.11		0.096 (J)		
9/12/2022				0.12					
1/31/2023						0.05 (J)			
2/1/2023	0.15				0.1			0.1	0.11
2/2/2023			0.089 (J)	0.1			0.068 (J)		
2/3/2023		0.12							
5/2/2023									
9/6/2023			0.053 (J)			<0.1			
9/7/2023	0.14	0.092 (J)		0.072 (J)	0.082 (J)		<0.1	0.063 (J)	0.096 (J)
9/8/2023									
1/30/2024	0.12			0.078 (J)	0.07 (J)	<0.1			
1/31/2024		0.11	0.069 (J)					0.086 (J)	0.092 (J)
2/1/2024							0.057 (J)		
5/20/2024									
9/4/2024		0.14	0.1	0.12		0.06 (J)			
9/5/2024	0.14						0.071 (J)	0.11	0.11
9/11/2024					0.06 (J)				

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (bg)	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017	1.2 (O)	
3/30/2017		
3/31/2017		
5/11/2017		
5/12/2017		
5/15/2017	0.005 (J)	
6/15/2017	0.02 (J)	
6/16/2017		
7/11/2017	0.06 (J)	
7/12/2017		
7/13/2017		
8/8/2017	0.04 (J)	
10/24/2017	<0.1	
10/26/2017		
11/15/2017		
2/27/2018	<0.1	
3/1/2018		
3/2/2018		
3/8/2018		
7/10/2018	0.082 (J)	
7/12/2018		
7/13/2018		
11/6/2018	<0.1	
11/7/2018		
11/8/2018		
3/12/2019	0.039 (J)	
3/13/2019		
8/27/2019	<0.1	
8/28/2019		
10/15/2019	<0.1	
10/16/2019		
10/17/2019		
10/18/2019		
3/2/2020	<0.1	
3/4/2020		
3/9/2020		
8/11/2020	<0.1	
8/13/2020		
9/22/2020	<0.1	
9/23/2020		
9/24/2020		
9/25/2020		
3/1/2021	<0.1	
3/8/2021		
3/10/2021		
3/11/2021		
3/12/2021		
9/8/2021		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (bg)	DGWC-121
9/9/2021	<0.1	
9/14/2021		
9/15/2021		
9/16/2021		
9/17/2021		
1/18/2022	<0.1	
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022		
1/28/2022		
6/6/2022		0.056 (J)
9/7/2022	0.061 (J)	
9/8/2022		0.093 (J)
9/12/2022		
1/31/2023	0.053 (J)	
2/1/2023		
2/2/2023		0.11
2/3/2023		
5/2/2023		0.076 (J)
9/6/2023	<0.1	
9/7/2023		
9/8/2023		<0.1
1/30/2024		
1/31/2024		0.07 (J)
2/1/2024		
5/20/2024		0.062 (J)
9/4/2024	0.059 (J)	0.082 (J)
9/5/2024		
9/11/2024		

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/2/2016	4.77								
9/8/2016		6.47	6.01	6.32					
12/7/2016		6.43	6.07	6.32					
12/8/2016	4.77								
3/28/2017					5.94	6.29			
3/30/2017	4.84	6.42	5.97	6.22					
3/31/2017							6.25	6.26	
4/12/2017								6.19	
5/11/2017						6.6			
5/12/2017					5.46		6.23	6.2	6.63
5/15/2017									
6/15/2017						6.41			
6/16/2017					5.81		6.22	6.22	6.63
7/11/2017					5.74				
7/12/2017						5.91			
7/13/2017	4.85	6.47	6.11	6.3			6.15	6.35	6.84
8/8/2017									6.57
10/24/2017					5.86	5.51			
10/26/2017	4.86	6.49	6.06				6.64	6.69	7.01
11/15/2017					5.77	6.5		6.22	
2/27/2018					5.66				
3/1/2018		6.37	6.05	6.28					
3/2/2018	4.67						6.18	6.1	6.58
3/8/2018						6.18			
7/10/2018					5.63				
7/12/2018	4.63	6.45	6.05	6.43		6.33			
7/13/2018							6.19	5.95	6.62
11/6/2018					5.79				
11/7/2018						6.22			
11/8/2018	4.79	6.49	6.07	6.36			6.23	6	6.5
3/12/2019					5.74				
3/13/2019	4.6	6.28	6.05	6.26		6	6.19	6.08	6.57
8/27/2019					5.87				
8/28/2019	4.68	6.41	5.98	6.27		6.04	6.22	6.09	6.6
10/15/2019					5.88				
10/16/2019						6.69		6.19	6.6
10/17/2019							6.14		
10/18/2019	4.71	6.35	6	6.26					
3/2/2020					5.77				
3/4/2020	4.64								
3/9/2020		6.37	6.12	6.34		6.41	6.23	6.12	6.6
8/11/2020					5.96				
8/13/2020	4.65	6.39	6.05	6.34		6.17	6.28	6.26	6.63
9/22/2020					6.06	6.43			
9/23/2020	4.78						6.23	6.08	6.6
9/24/2020			6.05	6.3					
9/25/2020		6.38							
3/1/2021					5.8				
3/8/2021	4.79								
3/10/2021								6.13	6.74
3/11/2021		6.66	6.22	6.49			6.28		
3/12/2021						6.38			

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-39	DGWC-38	DGWC-37	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69	DGWC-68A
9/8/2021					5.76				
9/9/2021						6.41			
9/14/2021	4.67								
9/15/2021			6.08						
9/16/2021				6.33			6.2	6.16	6.79 (o)
9/17/2021		6.49							
10/27/2021									6.56
1/18/2022					5.51				
1/19/2022	4.66						6.21		
1/20/2022		6.52							
1/21/2022			6.08	6.31					
1/25/2022								6.02	6.53
1/28/2022						6.35			
9/7/2022	4.54	6.43			5.65			6.2	6.62
9/8/2022				6.3		6.32	6.21		
9/9/2022				6.3					
9/12/2022			6.05						
1/31/2023					5.78				
2/1/2023	4.66					6.42		6.12	6.6
2/2/2023			6.08	6.23			6.27		
2/3/2023		6.49							
9/6/2023				6.26	5.82	6.51			
9/7/2023	4.67	6.55	6.07				6.21	6.16	6.6
1/30/2024	4.64		5.94		5.79	6.28			
1/31/2024		6.58		6.32				6.26	6.62
2/1/2024							6.27		
9/4/2024		6.45	6.01	6.24	5.85				
9/5/2024	4.6						6.19	6.17	6.53
9/11/2024						6.1			

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (bg)
9/2/2016	
9/8/2016	
12/7/2016	
12/8/2016	
3/28/2017	
3/30/2017	
3/31/2017	
4/12/2017	
5/11/2017	
5/12/2017	
5/15/2017	5.72
6/15/2017	5.74
6/16/2017	
7/11/2017	5.62
7/12/2017	
7/13/2017	
8/8/2017	5.6
10/24/2017	5.71
10/26/2017	
11/15/2017	
2/27/2018	5.5
3/1/2018	
3/2/2018	
3/8/2018	
7/10/2018	5.44
7/12/2018	
7/13/2018	
11/6/2018	5.71
11/7/2018	
11/8/2018	
3/12/2019	5.52
3/13/2019	
8/27/2019	5.53
8/28/2019	
10/15/2019	5.61
10/16/2019	
10/17/2019	
10/18/2019	
3/2/2020	5.54
3/4/2020	
3/9/2020	
8/11/2020	5.86
8/13/2020	
9/22/2020	6.01
9/23/2020	
9/24/2020	
9/25/2020	
3/1/2021	5.43
3/8/2021	
3/10/2021	
3/11/2021	
3/12/2021	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWA-70A (bg)
9/8/2021	
9/9/2021	5.5
9/14/2021	
9/15/2021	
9/16/2021	
9/17/2021	
10/27/2021	
1/18/2022	5.5
1/19/2022	
1/20/2022	
1/21/2022	
1/25/2022	
1/28/2022	
9/7/2022	5.6
9/8/2022	
9/9/2022	
9/12/2022	
1/31/2023	5.59
2/1/2023	
2/2/2023	
2/3/2023	
9/6/2023	5.5
9/7/2023	
1/30/2024	
1/31/2024	
2/1/2024	
9/4/2024	5.51
9/5/2024	
9/11/2024	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/2/2016	230								
9/8/2016		97	270	280					
12/7/2016		100	250	250					
12/8/2016	270								
3/28/2017					2.7	17	49		
3/30/2017	240	110	290	310					
3/31/2017								110	21
5/11/2017							21		
5/12/2017						17		100	17
5/15/2017					1				
6/15/2017					0.86 (J)		16		
6/16/2017						11		100	20
7/11/2017					1.4	11			
7/12/2017							10		
7/13/2017	220	200 (O)	270	220				110	17
8/8/2017					1.5				
10/24/2017					1.4	9.6	15		
10/26/2017	220	97	260	210				100	31
11/15/2017						7.8	3.8		29
2/27/2018					0.54 (J)	7.4			
3/1/2018		94.6	242	166					
3/2/2018	219							98.5	10.1
3/8/2018							9.7		
7/10/2018					0.25 (J)	7.2			
7/12/2018	222	89.2	256	169			8		
7/13/2018								136	8.6
11/6/2018					<1 (J)	7.3			
11/7/2018							12.8		
11/8/2018	273	102	291	200				118	9.7
3/12/2019					0.35 (J)	7			
3/13/2019	445	92.2	300	265			23.7	233	8.4
10/15/2019					0.16 (J)	7.4			
10/16/2019							15.1		13.3
10/17/2019								99.4	
10/18/2019	205	76.4	239	182					
3/2/2020					<1	8.5			
3/4/2020	177								
3/9/2020		90.3	244	171			9.5	100	7.6
9/22/2020					<1	6.5	13.5		
9/23/2020	190							99.8	5.9
9/24/2020		84.1	240						
9/25/2020				153					
3/1/2021					<1	5.2			
3/8/2021	191								
3/10/2021									6.4
3/11/2021		81.9	154	123				76.7	
3/12/2021							8.8		
9/8/2021						6.1			
9/9/2021					<1		11.9		
9/14/2021	186								
9/15/2021			219						
9/16/2021		95						101	17.9

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J): PQL.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-37	DGWC-38	DGWC-39	DGWA-70A (bg)	DGWA-71 (bg)	DGWA-53 (bg)	DGWC-67	DGWC-69
9/17/2021				156					
1/18/2022					<1	6.3			
1/19/2022	177							97.2	
1/20/2022				123					
1/21/2022		89.8	188						
1/25/2022									7.1
1/28/2022							13.1		
6/6/2022									
9/7/2022	203			146	<1	7			11.6
9/8/2022		96.6					12	117	
9/12/2022			234						
1/31/2023					<1	6.8			
2/1/2023	189						13.3		6.9
2/2/2023		94.3	239					117	
2/3/2023				115					
5/2/2023									
9/6/2023		83.4			<1	7.2			
9/7/2023	177		212	124			15.4	106	6.9
9/8/2023									
1/30/2024	179		220			7.9	13.4		
1/31/2024		98.4		106					7.2
2/1/2024								111	
5/20/2024									
9/4/2024		95.2	214	142	<1	9.9			
9/5/2024	160							107	14.9
9/11/2024							11.5		

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017		
3/30/2017		
3/31/2017		
5/11/2017		
5/12/2017	50	
5/15/2017		
6/15/2017		
6/16/2017	47	
7/11/2017		
7/12/2017		
7/13/2017	49	
8/8/2017	48	
10/24/2017		
10/26/2017	48	
11/15/2017		
2/27/2018		
3/1/2018		
3/2/2018	44.7	
3/8/2018		
7/10/2018		
7/12/2018		
7/13/2018	43.3	
11/6/2018		
11/7/2018		
11/8/2018	43.5	
3/12/2019		
3/13/2019	44.1	
10/15/2019		
10/16/2019	32.1	
10/17/2019		
10/18/2019		
3/2/2020		
3/4/2020		
3/9/2020	37.4	
9/22/2020		
9/23/2020	38.7	
9/24/2020		
9/25/2020		
3/1/2021		
3/8/2021		
3/10/2021	38.4	
3/11/2021		
3/12/2021		
9/8/2021		
9/9/2021		
9/14/2021		
9/15/2021		
9/16/2021	22.3	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/17/2021		
1/18/2022		
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022	36.3	
1/28/2022		
6/6/2022		83.9
9/7/2022	36.5	
9/8/2022		84.8
9/12/2022		
1/31/2023		
2/1/2023	35.6	
2/2/2023		67.6
2/3/2023		
5/2/2023		47.3
9/6/2023		
9/7/2023	34.2	
9/8/2023		87.8
1/30/2024		
1/31/2024	33.2	73.7
2/1/2024		
5/20/2024		88
9/4/2024		87.8
9/5/2024	35.9	
9/11/2024		

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-67	DGWC-69
9/2/2016				583 (O)					
9/8/2016	279	437	522						
12/7/2016	300	478	565						
12/8/2016				319					
3/28/2017					202	39	90		
3/30/2017	273	448	496	344					
3/31/2017								270	138
5/11/2017					241				
5/12/2017							92	287	243
5/15/2017						88			
6/15/2017					251	65			
6/16/2017							100	309	155
7/11/2017						25	59		
7/12/2017					218				
7/13/2017	312	504	508	386				275	122
8/8/2017						53			
10/24/2017					671 (O)	49	117		
10/26/2017	340	554	532	373				319	234
11/15/2017					241		90		188
2/27/2018						43	79		
3/1/2018	311	492	440						
3/2/2018				359				264	73
3/8/2018					213				
7/10/2018						80	88		
7/12/2018	290	478	463	365	198				
7/13/2018								297	95
11/6/2018						65	85		
11/7/2018					200				
11/8/2018	295	507	485	399				295	112
3/12/2019						43	74		
3/13/2019	286	487	526	351	201			278	95
10/15/2019						70	89		
10/16/2019					126				108
10/17/2019								281	
10/18/2019	269	494	489	360					
3/2/2020						52	67		
3/4/2020				400					
3/9/2020	357	554	508		171			209	115
9/22/2020					142	46	74		
9/23/2020				357				296	102
9/24/2020	280	489							
9/25/2020			460						
3/1/2021						25	62		
3/8/2021				346					
3/10/2021									78
3/11/2021	255	463	440					265	
3/12/2021					124				
9/8/2021							75		
9/9/2021					131	53			
9/14/2021				347					
9/15/2021		474							
9/16/2021	278							282	113

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-37	DGWC-38	DGWC-39	DGWC-40	DGWA-53 (bg)	DGWA-70A (bg)	DGWA-71 (bg)	DGWC-67	DGWC-69
9/17/2021			446						
1/18/2022						54	76		
1/19/2022				336				272	
1/20/2022			416						
1/21/2022	316	482							
1/25/2022									84
1/28/2022					155				
6/6/2022									
9/7/2022			449	339		34	82		102
9/8/2022	300				129			252	
9/12/2022		468							
1/31/2023						163	87		
2/1/2023				343	116				79
2/2/2023	302	478						317	
2/3/2023			382						
5/2/2023									
9/6/2023	324					46	80		
9/7/2023		526	421	359	123			337	106
9/8/2023									
1/30/2024		492		348	130		86		
1/31/2024	310		387						82
2/1/2024								313	
5/20/2024									
9/4/2024	348	503	466			61	97		
9/5/2024				374				314	125
9/11/2024					122				

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/2/2016		
9/8/2016		
12/7/2016		
12/8/2016		
3/28/2017		
3/30/2017		
3/31/2017		
5/11/2017		
5/12/2017	300	
5/15/2017		
6/15/2017		
6/16/2017	271	
7/11/2017		
7/12/2017		
7/13/2017	246	
8/8/2017	278	
10/24/2017		
10/26/2017	287	
11/15/2017		
2/27/2018		
3/1/2018		
3/2/2018	252	
3/8/2018		
7/10/2018		
7/12/2018		
7/13/2018	275	
11/6/2018		
11/7/2018		
11/8/2018	277	
3/12/2019		
3/13/2019	267	
10/15/2019		
10/16/2019	218	
10/17/2019		
10/18/2019		
3/2/2020		
3/4/2020		
3/9/2020	188	
9/22/2020		
9/23/2020	251	
9/24/2020		
9/25/2020		
3/1/2021		
3/8/2021		
3/10/2021	232	
3/11/2021		
3/12/2021		
9/8/2021		
9/9/2021		
9/14/2021		
9/15/2021		
9/16/2021	259	

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/9/2024 2:25 PM View: AP 1 Appendix III

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-68A	DGWC-121
9/17/2021		
1/18/2022		
1/19/2022		
1/20/2022		
1/21/2022		
1/25/2022	259	
1/28/2022		
6/6/2022		270
9/7/2022	256	
9/8/2022		261
9/12/2022		
1/31/2023		
2/1/2023	243	
2/2/2023		221
2/3/2023		
5/2/2023		69
9/6/2023		
9/7/2023	253	
9/8/2023		286
1/30/2024		
1/31/2024	261	220
2/1/2024		
5/20/2024		291
9/4/2024		276
9/5/2024	278	
9/11/2024		

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 10:55 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003796**	**-90**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-39**	**-0.1201**	**-111**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.0296**	**-112**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.09001**	**100**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.284**	**-142**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**DGWC-68A**	**1.006**	**94**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1275**	**-132**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-71 (bg)**	**0.7154**	**111**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7927**	**-125**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.6324**	**168**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.4673**	**-91**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-38**	**-7.296**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-18.26**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.742**	**-116**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-16.99**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-15.62**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

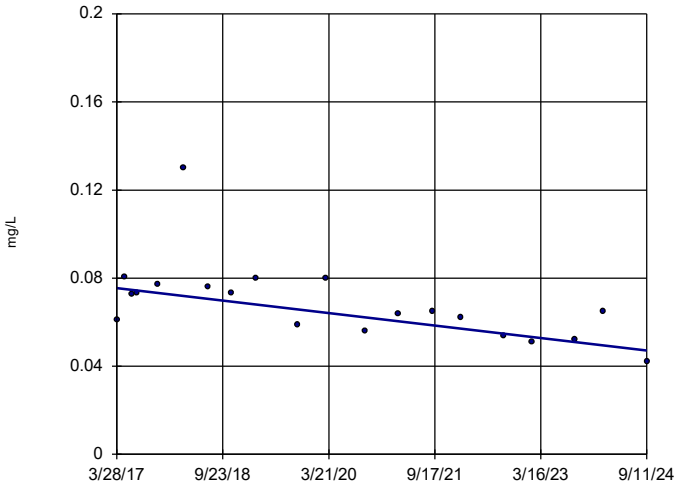
Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 10:55 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**DGWA-53 (bg)**	**-0.003796**	**-90**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWA-70A (bg)	0	28	81	No	20	50	n/a	n/a	0.01	NP
Boron (mg/L)	DGWA-71 (bg)	0.001028	49	81	No	20	25	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-121	0	1	21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-37	-0.02083	-26	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-38	-0.04688	-77	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	**DGWC-39**	**-0.1201**	**-111**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-40**	**-0.0296**	**-112**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**DGWC-67**	**0.09001**	**100**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	DGWC-68A	-0.02294	-38	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	DGWC-69	-0.02253	-86	-92	No	22	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWA-53 (bg)**	**-3.284**	**-142**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	DGWA-70A (bg)	0.08606	31	81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWA-71 (bg)	-0.2068	-38	-81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-121	-1.021	-8	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-37	0.6315	42	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-38	0.7345	34	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-39	-0.8265	-33	-81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	DGWC-67	0.6643	79	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**DGWC-68A**	**1.006**	**94**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWA-53 (bg)**	**-0.1275**	**-132**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	DGWA-70A (bg)	-0.01924	-36	-81	No	20	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**DGWA-71 (bg)**	**0.7154**	**111**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-40**	**-0.7927**	**-125**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**DGWC-67**	**0.6324**	**168**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, Field (SU)	DGWA-53 (bg)	0.01147	18	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-70A (bg)	-0.02084	-54	-87	No	21	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWA-71 (bg)	0.005537	22	98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	DGWC-40	-0.02096	-87	-92	No	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-53 (bg)	-0.3077	-24	-87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWA-70A (bg)	0	-22	-81	No	20	50	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWA-71 (bg)**	**-0.4673**	**-91**	**-87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-121	1.99	9	21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	DGWC-37	-0.8383	-36	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**DGWC-38**	**-7.296**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-39**	**-18.26**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**DGWC-40**	**-8.742**	**-116**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	DGWC-67	0	6	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWA-53 (bg)**	**-16.99**	**-135**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWA-70A (bg)	0	3	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWA-71 (bg)	-0.8828	-30	-87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-121	7.344	4	21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-37	2.994	33	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-38	1.9	21	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	**DGWC-39**	**-15.62**	**-104**	**-81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids [TDS] (mg/L)	DGWC-40	-1.663	-18	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-67	2.661	26	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	DGWC-68A	-3.048	-38	-81	No	20	0	n/a	n/a	0.01	NP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 20

Slope = -0.003796 units per year.

Mann-Kendall statistic = -90 critical = -81

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests

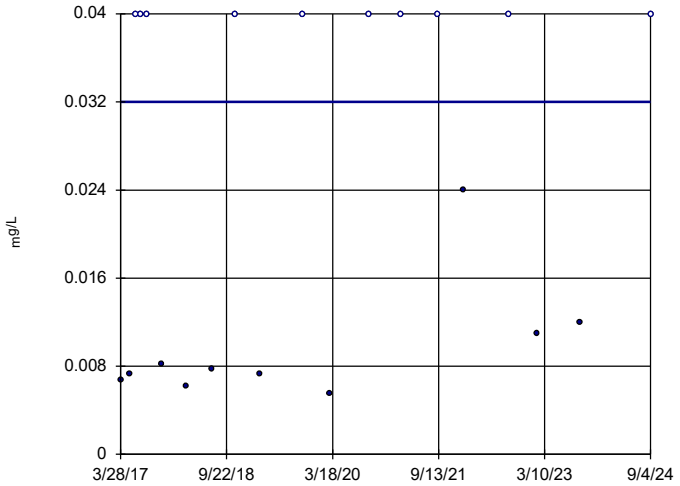
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = 0 units per year.

Mann-Kendall statistic = 28 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests

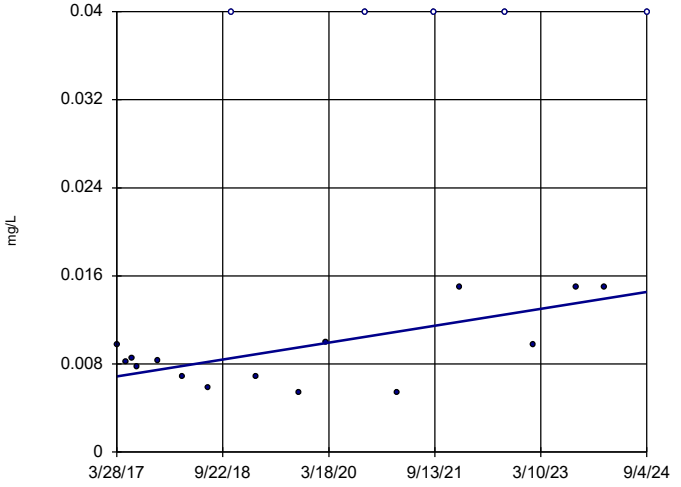
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 20

Slope = 0.001028 units per year.

Mann-Kendall statistic = 49 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

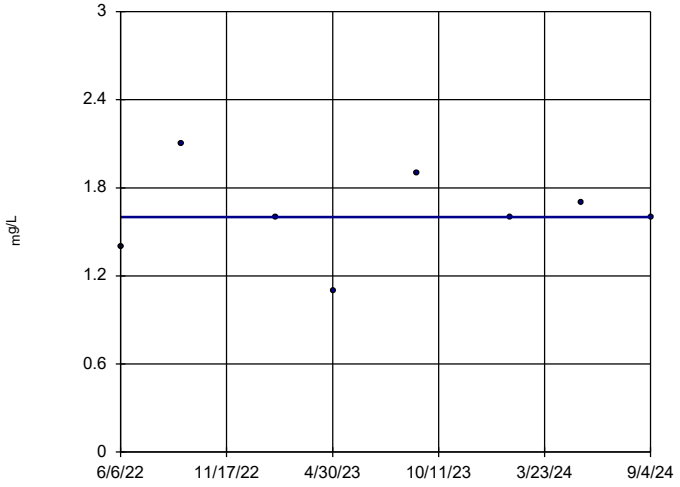
Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-121



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 1 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

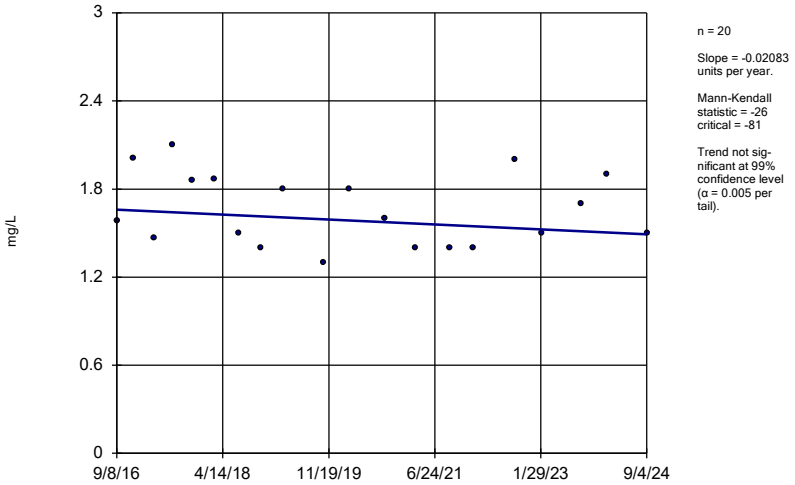
Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 20

Slope = -0.02083 units per year.

Mann-Kendall statistic = -26
critical = -81

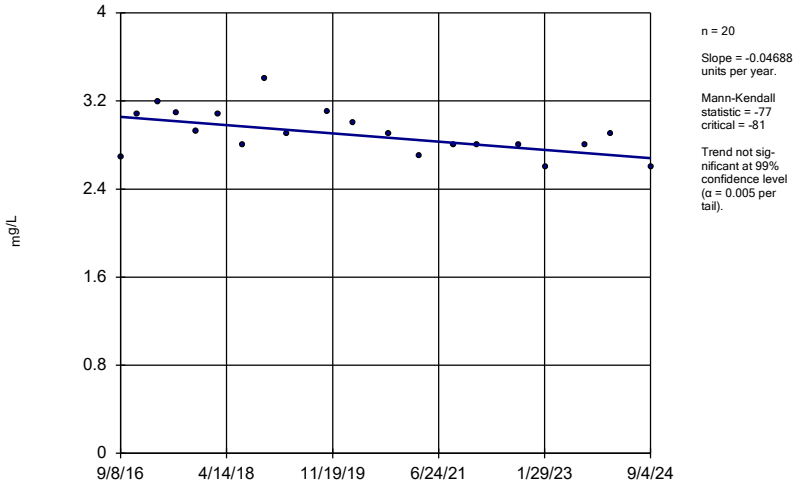
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 20

Slope = -0.04688 units per year.

Mann-Kendall statistic = -77
critical = -81

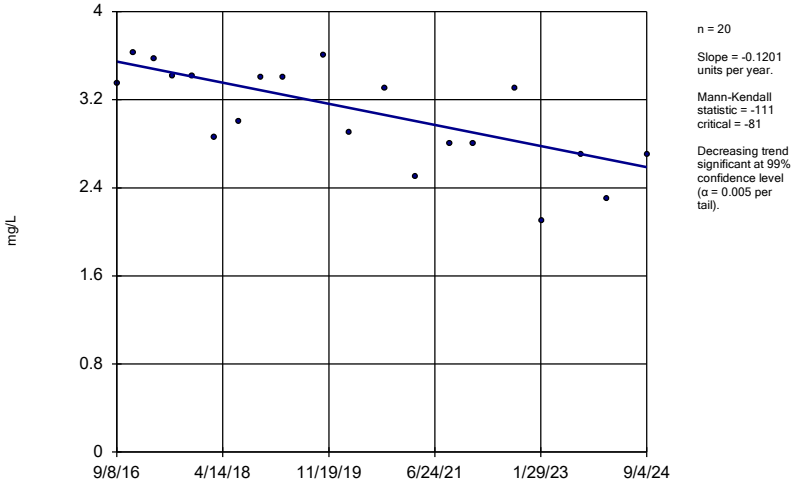
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 20

Slope = -0.1201 units per year.

Mann-Kendall statistic = -111
critical = -81

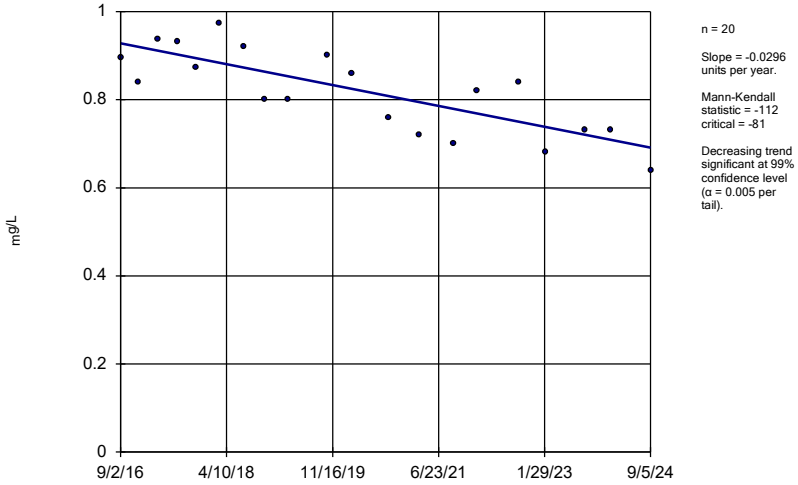
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 20

Slope = -0.0296 units per year.

Mann-Kendall statistic = -112
critical = -81

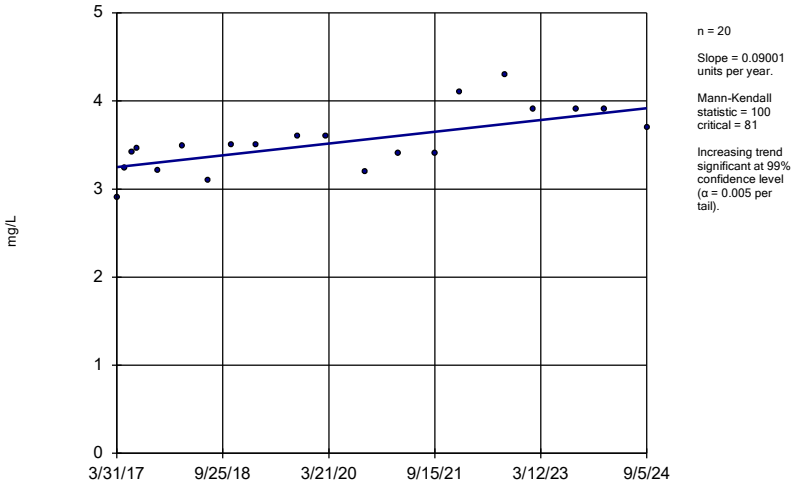
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 20

Slope = 0.09001 units per year.

Mann-Kendall statistic = 100 critical = 81

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

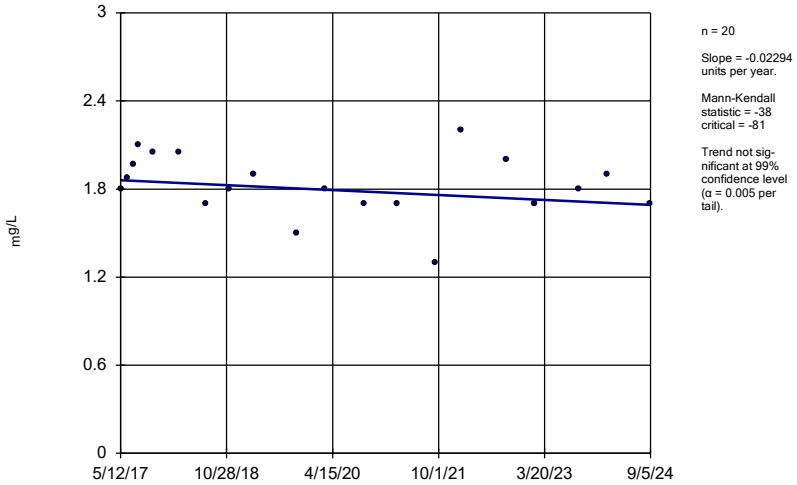
Constituent: Boron Analysis Run 12/4/2024 10:53 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 20

Slope = -0.02294 units per year.

Mann-Kendall statistic = -38 critical = -81

Trend not significant at 99% confidence level (α = 0.005 per tail).

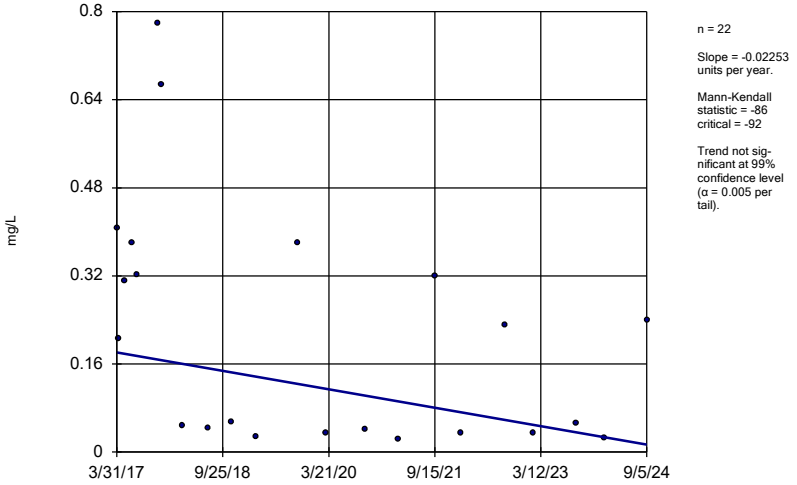
Constituent: Boron Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-69



n = 22

Slope = -0.02253 units per year.

Mann-Kendall statistic = -86 critical = -92

Trend not significant at 99% confidence level (α = 0.005 per tail).

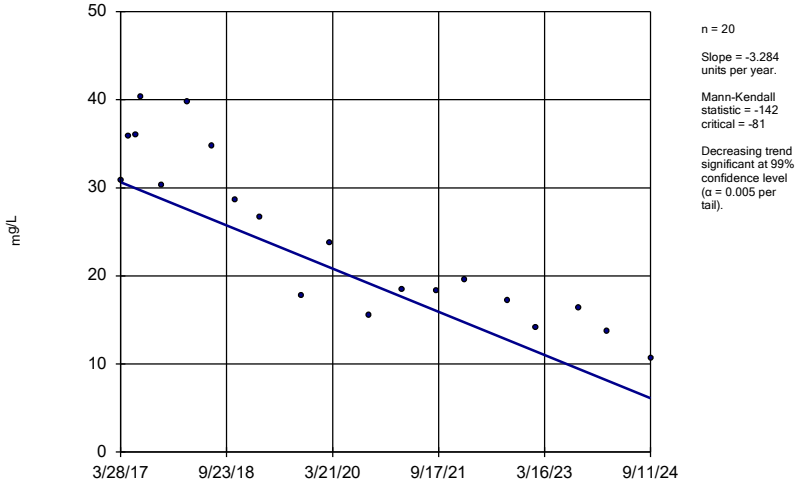
Constituent: Boron Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 20

Slope = -3.284 units per year.

Mann-Kendall statistic = -142 critical = -81

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

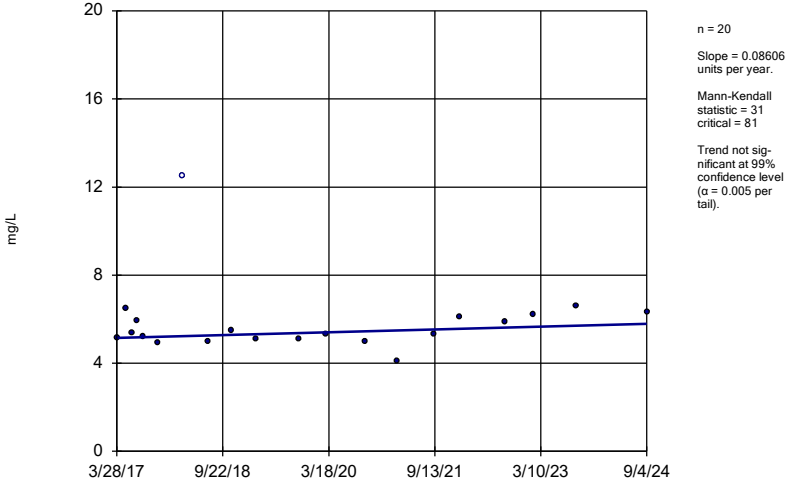
Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = 0.08606 units per year.

Mann-Kendall statistic = 31
critical = 81

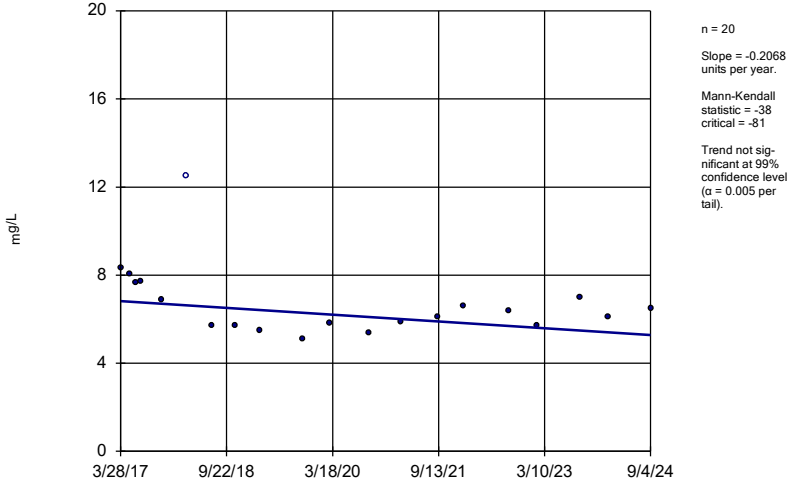
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 20

Slope = -0.2068 units per year.

Mann-Kendall statistic = -38
critical = -81

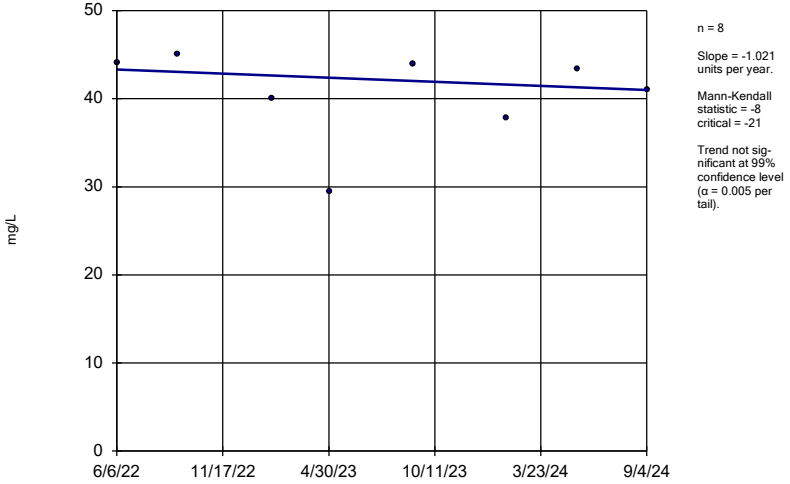
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-121



n = 8

Slope = -1.021 units per year.

Mann-Kendall statistic = -8
critical = -21

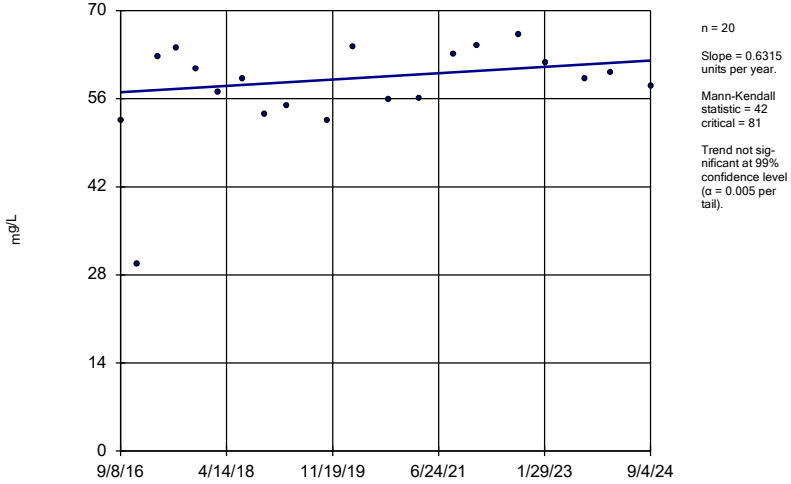
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 20

Slope = 0.6315 units per year.

Mann-Kendall statistic = 42
critical = 81

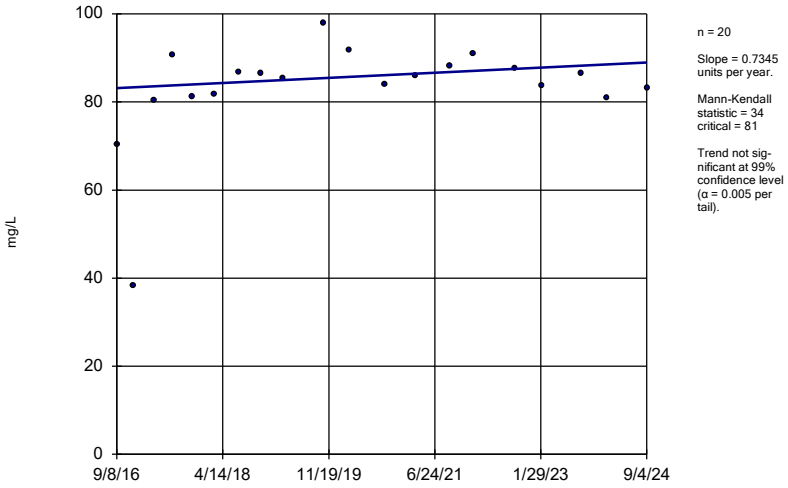
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 20

Slope = 0.7345 units per year.

Mann-Kendall statistic = 34 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

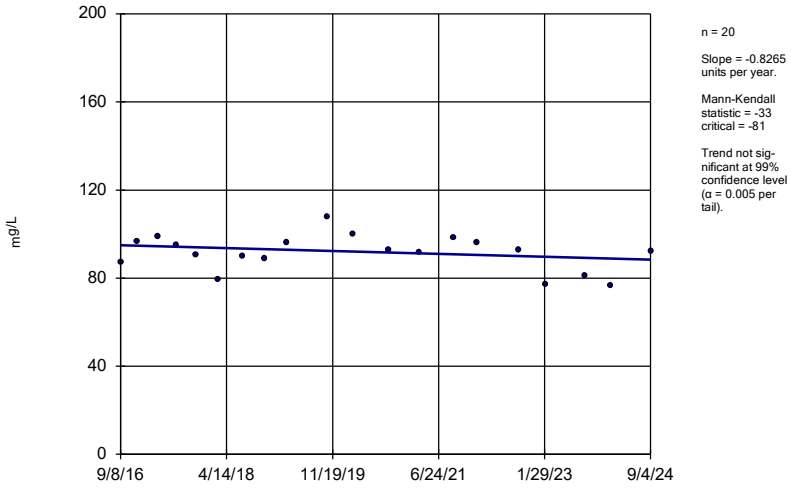
Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 20

Slope = -0.8265 units per year.

Mann-Kendall statistic = -33 critical = -81

Trend not significant at 99% confidence level (α = 0.005 per tail).

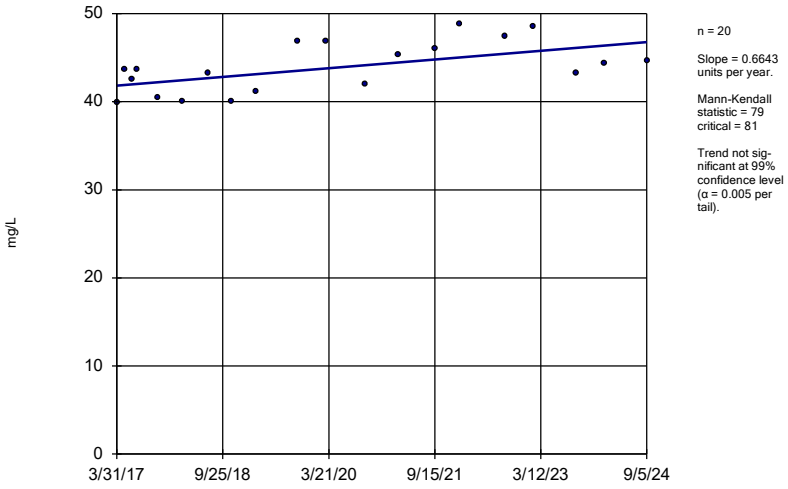
Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 20

Slope = 0.6643 units per year.

Mann-Kendall statistic = 79 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

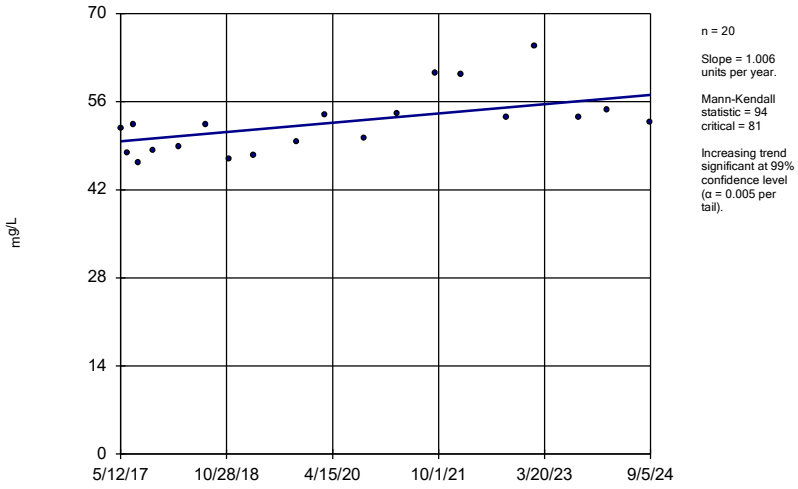
Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 20

Slope = 1.006 units per year.

Mann-Kendall statistic = 94 critical = 81

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

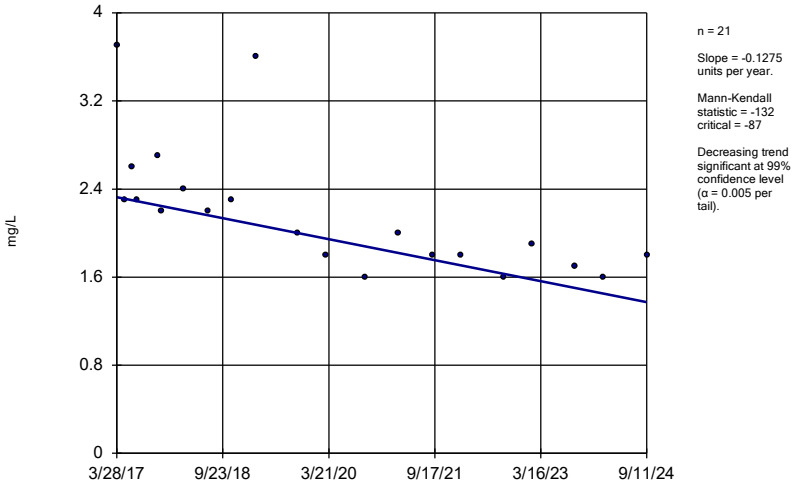
Constituent: Calcium Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = -0.1275 units per year.

Mann-Kendall statistic = -132
critical = -87

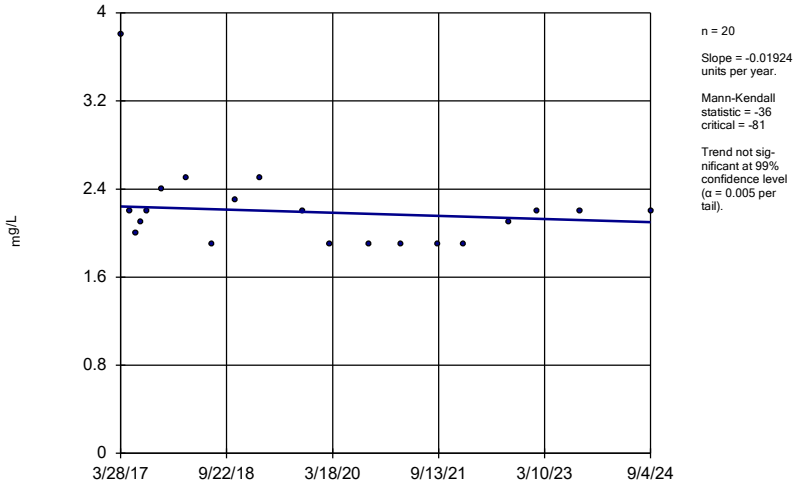
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = -0.01924 units per year.

Mann-Kendall statistic = -36
critical = -81

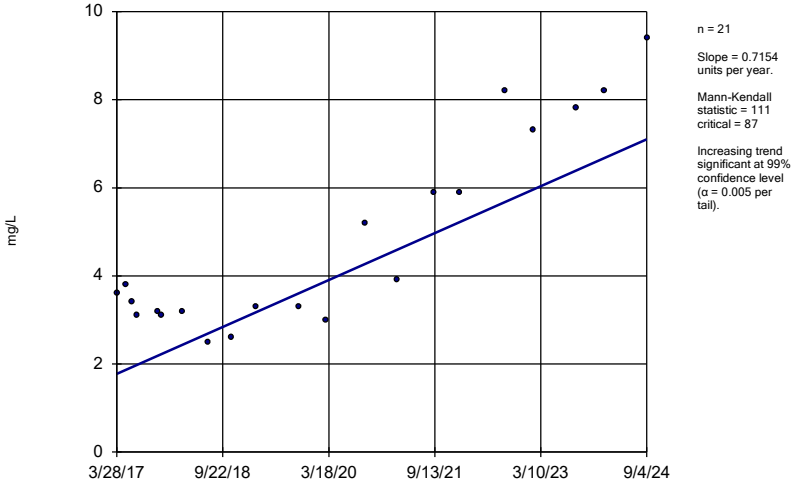
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = 0.7154 units per year.

Mann-Kendall statistic = 111
critical = 87

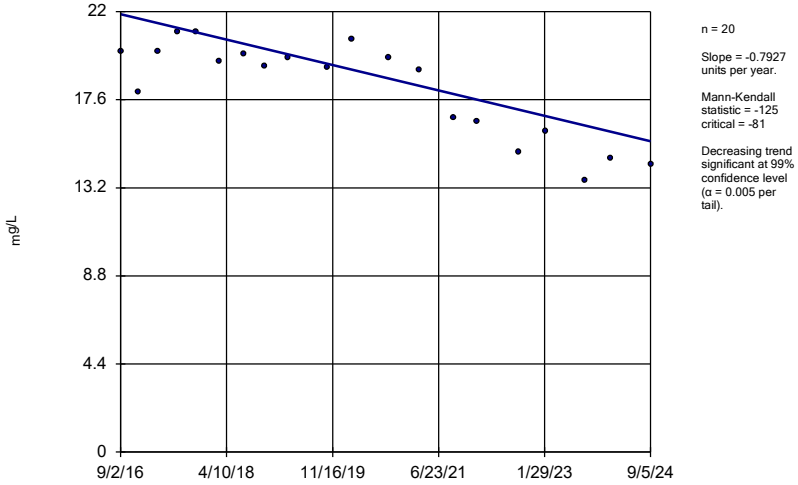
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 20

Slope = -0.7927 units per year.

Mann-Kendall statistic = -125
critical = -81

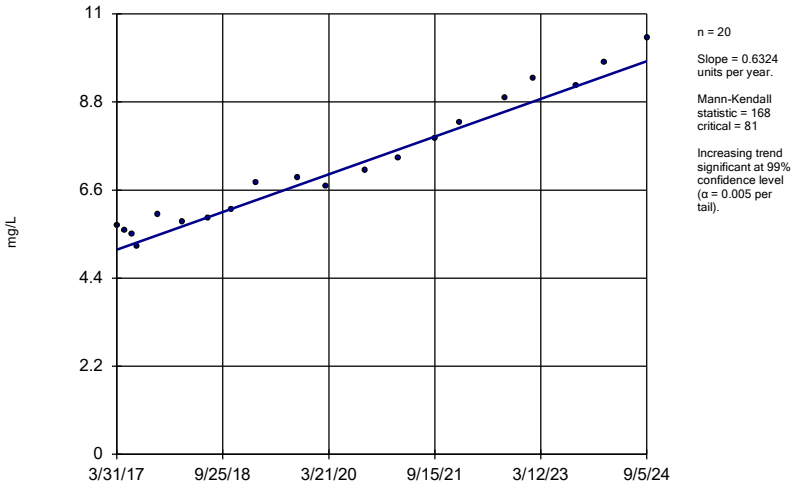
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 20

Slope = 0.6324 units per year.

Mann-Kendall statistic = 168 critical = 81

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

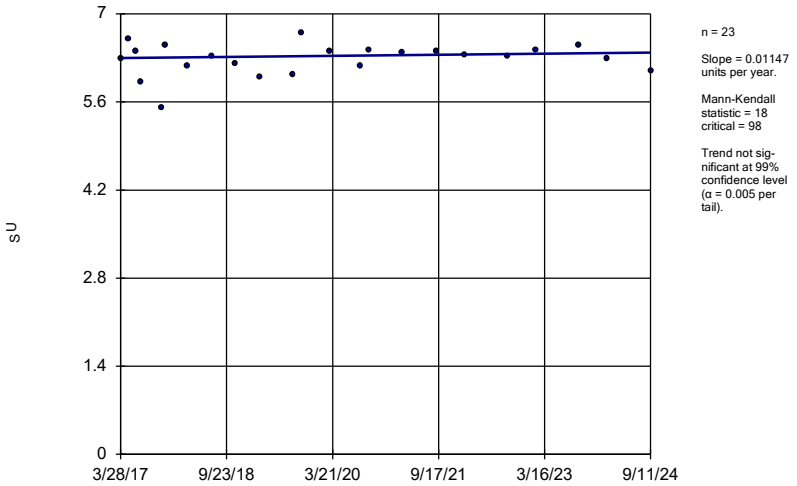
Constituent: Chloride Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 23

Slope = 0.01147 units per year.

Mann-Kendall statistic = 18 critical = 98

Trend not significant at 99% confidence level (α = 0.005 per tail).

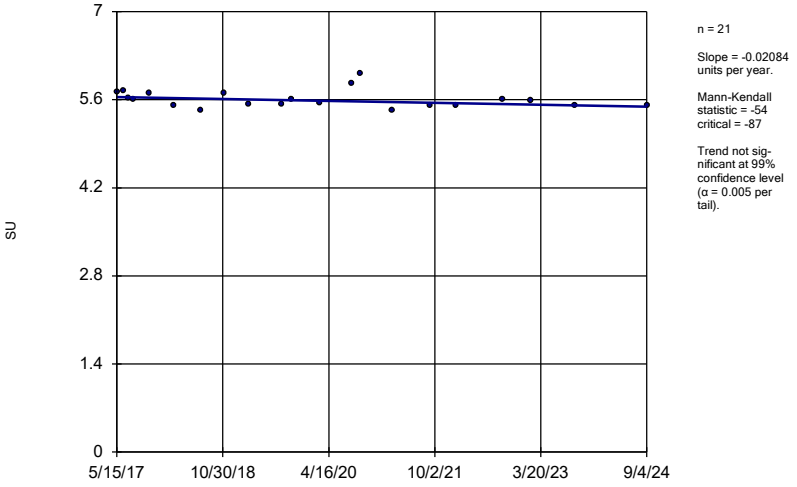
Constituent: pH, Field Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-70A (bg)



n = 21

Slope = -0.02084 units per year.

Mann-Kendall statistic = -54 critical = -87

Trend not significant at 99% confidence level (α = 0.005 per tail).

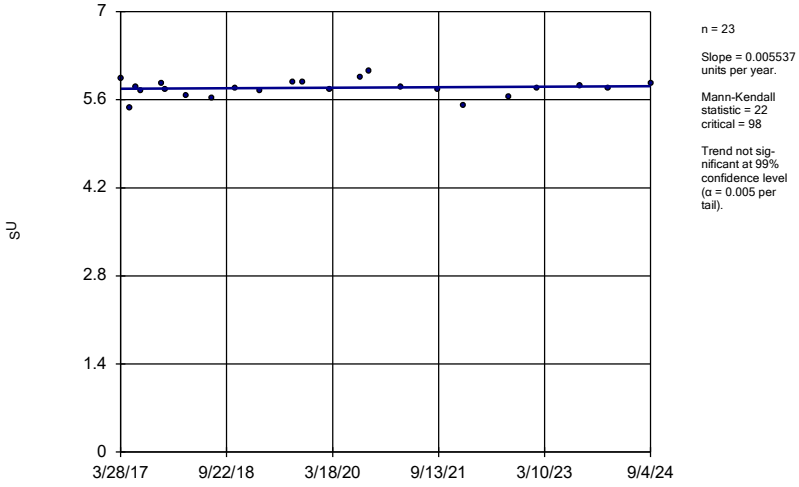
Constituent: pH, Field Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 23

Slope = 0.005537 units per year.

Mann-Kendall statistic = 22 critical = 98

Trend not significant at 99% confidence level (α = 0.005 per tail).

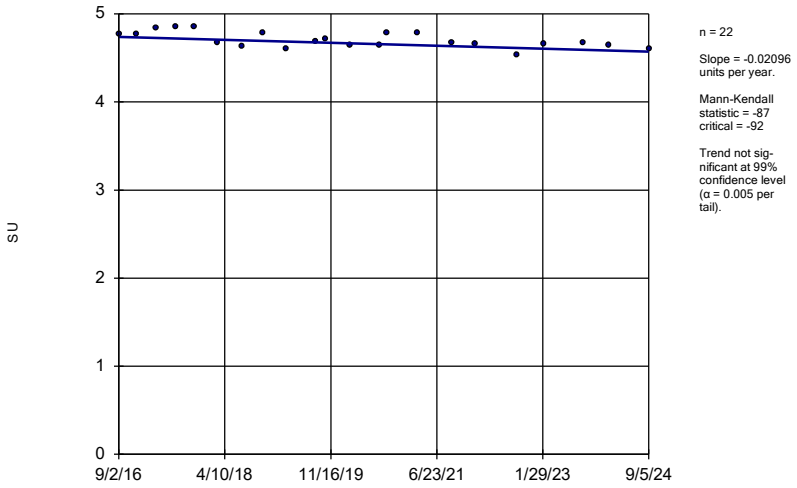
Constituent: pH, Field Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 22

Slope = -0.02096 units per year.

Mann-Kendall statistic = -87 critical = -92

Trend not significant at 99% confidence level (α = 0.005 per tail).

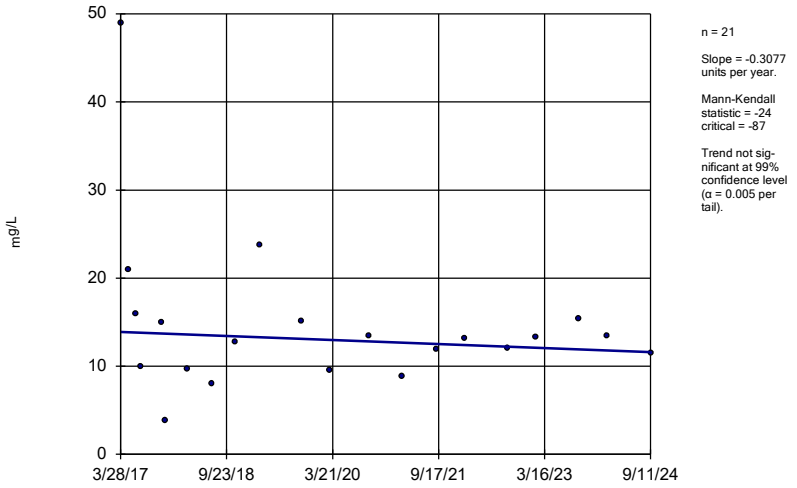
Constituent: pH, Field Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = -0.3077 units per year.

Mann-Kendall statistic = -24 critical = -87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

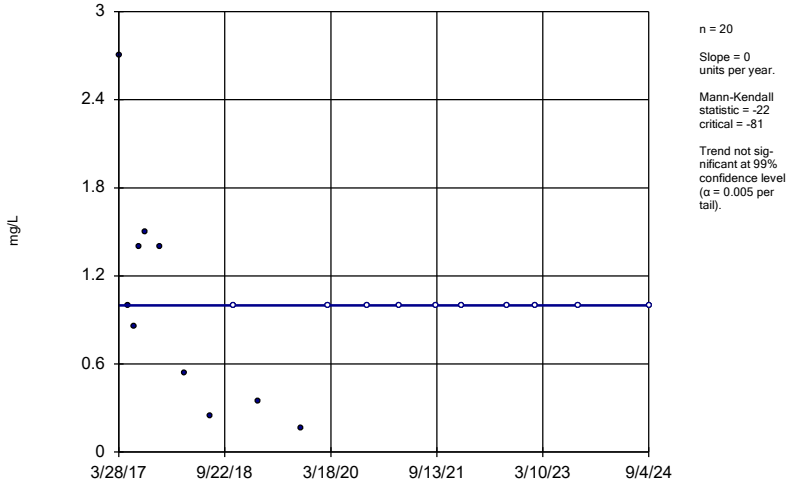
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = 0 units per year.

Mann-Kendall statistic = -22 critical = -81

Trend not significant at 99% confidence level (α = 0.005 per tail).

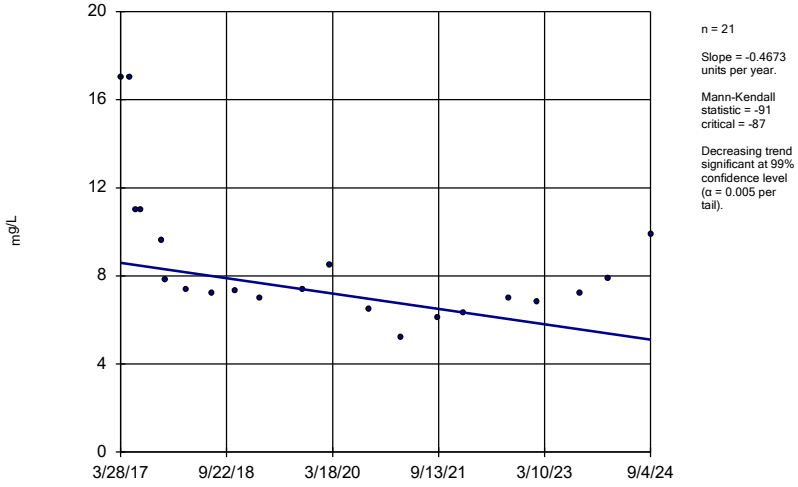
Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = -0.4673 units per year.

Mann-Kendall statistic = -91 critical = -87

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

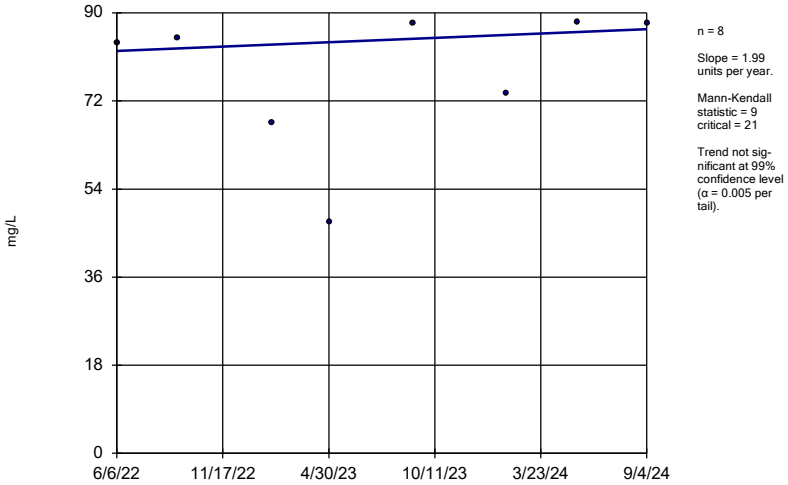
Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-121



n = 8

Slope = 1.99 units per year.

Mann-Kendall statistic = 9
critical = 21

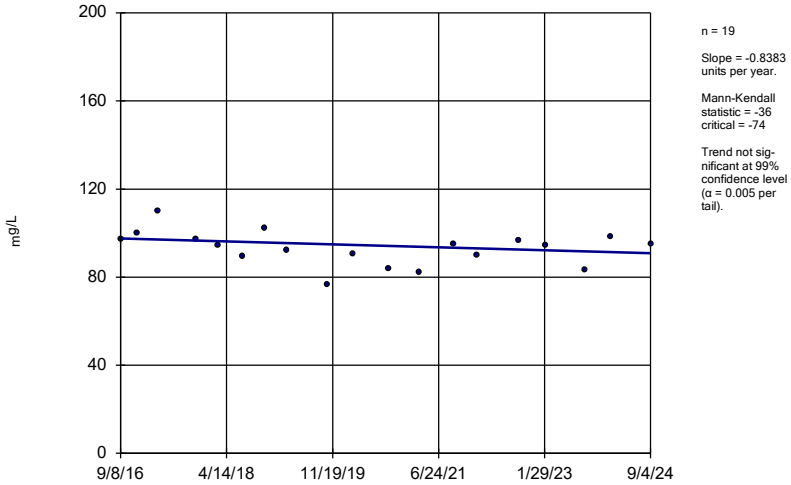
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 19

Slope = -0.8383 units per year.

Mann-Kendall statistic = -36
critical = -74

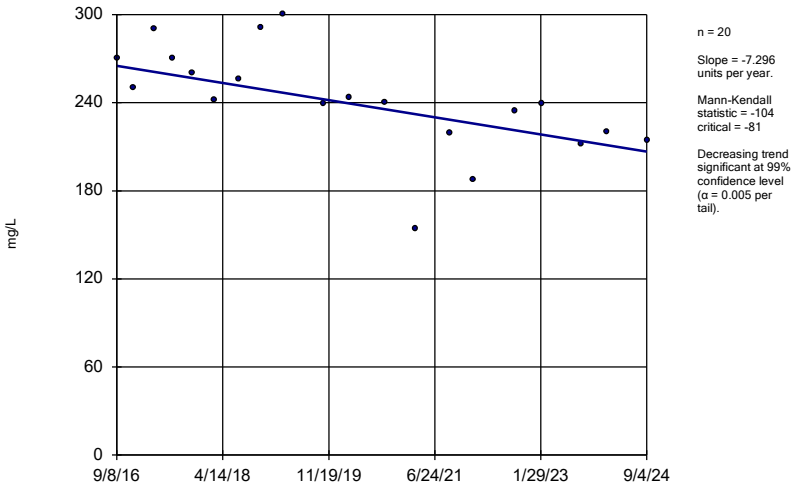
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 20

Slope = -7.296 units per year.

Mann-Kendall statistic = -104
critical = -81

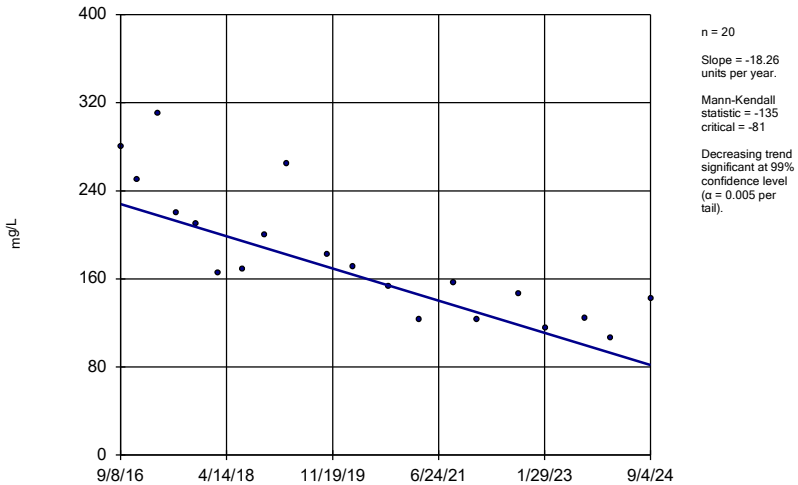
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 20

Slope = -18.26 units per year.

Mann-Kendall statistic = -135
critical = -81

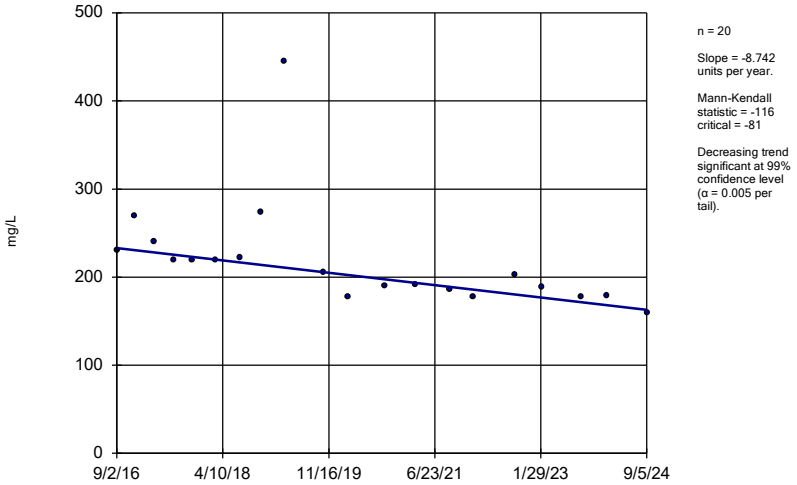
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 20

Slope = -8.742 units per year.

Mann-Kendall statistic = -116 critical = -81

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

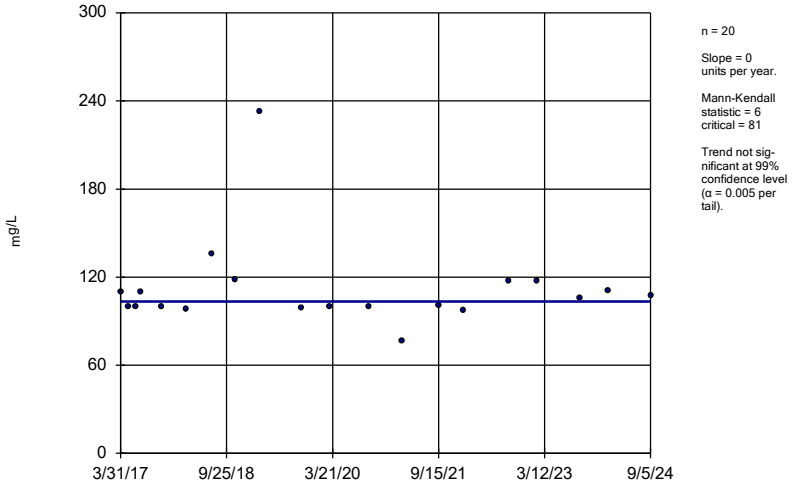
Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 20

Slope = 0 units per year.

Mann-Kendall statistic = 6 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

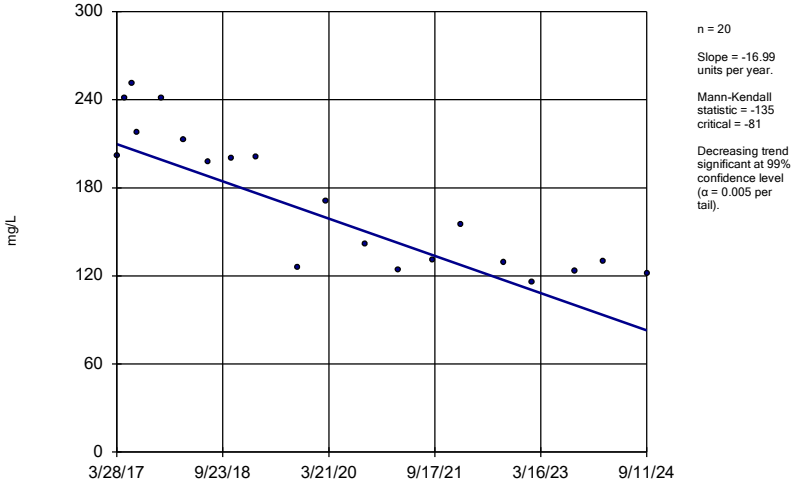
Constituent: Sulfate Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 20

Slope = -16.99 units per year.

Mann-Kendall statistic = -135 critical = -81

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

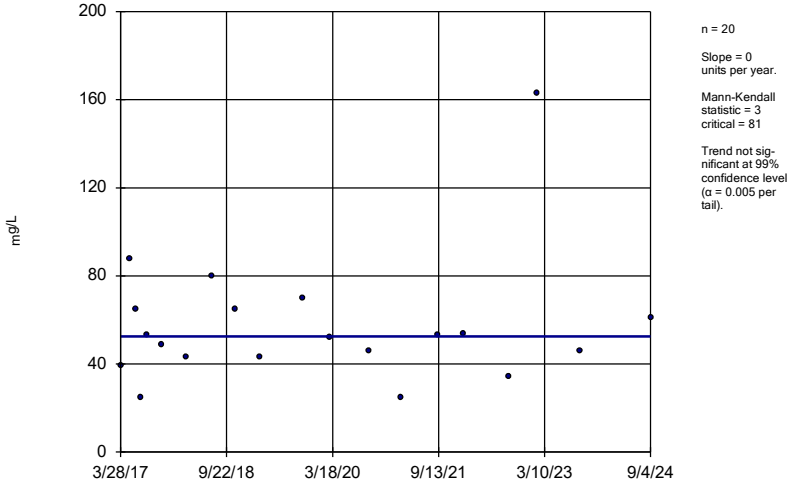
Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-70A (bg)



n = 20

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

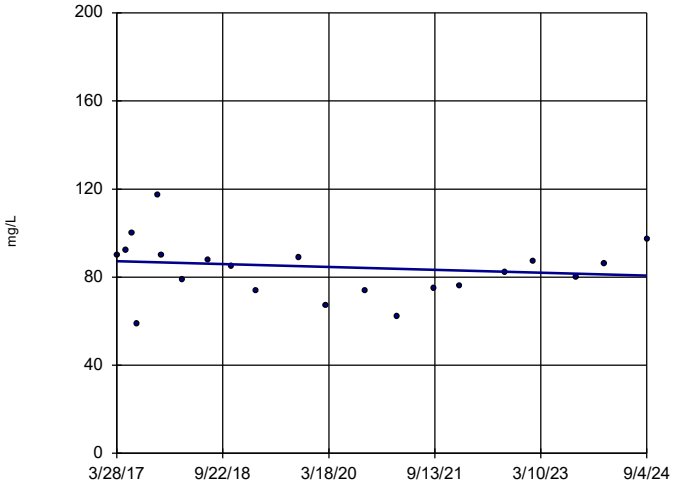
Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren

Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = -0.8828 units per year.

Mann-Kendall statistic = -30
critical = -87

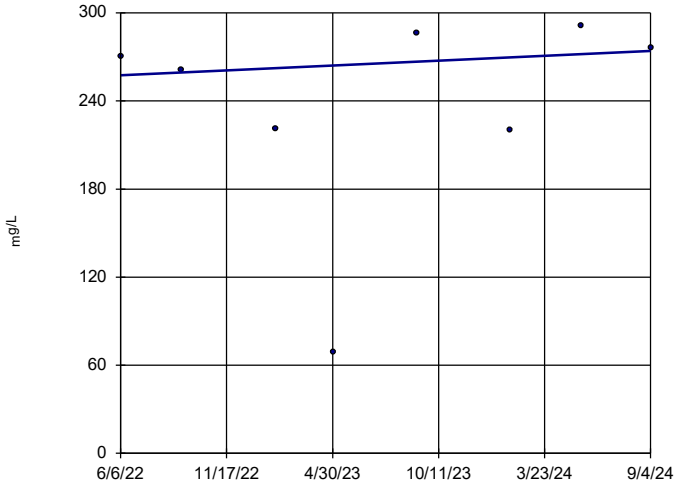
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-121



n = 8

Slope = 7.344 units per year.

Mann-Kendall statistic = 4
critical = 21

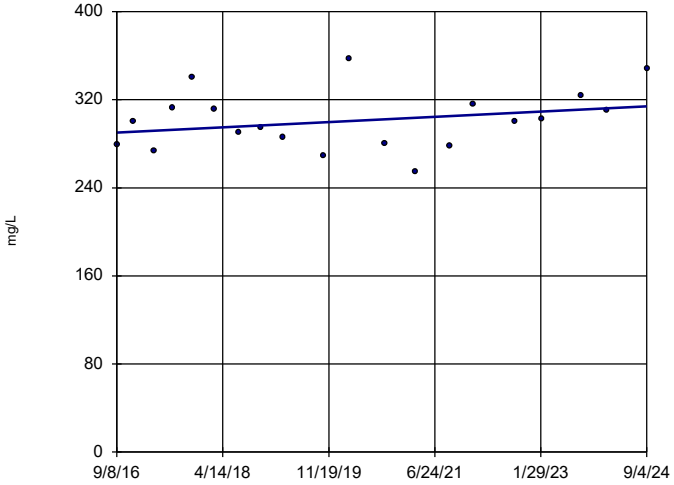
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-37



n = 20

Slope = 2.994 units per year.

Mann-Kendall statistic = 33
critical = 81

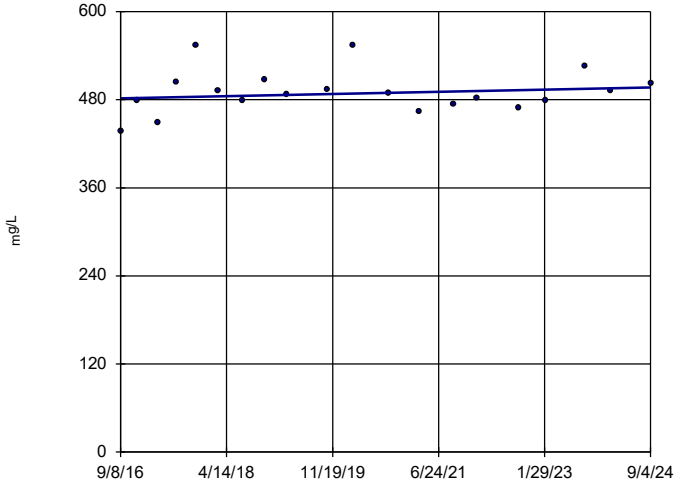
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-38



n = 20

Slope = 1.9 units per year.

Mann-Kendall statistic = 21
critical = 81

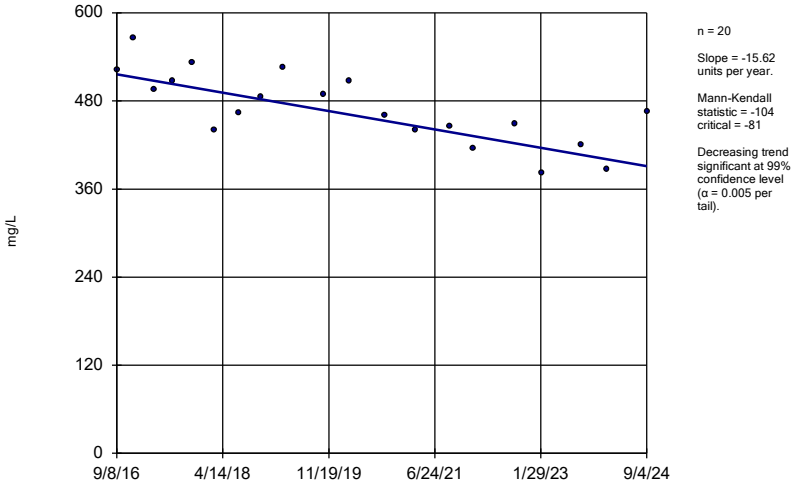
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-39



n = 20

Slope = -15.62 units per year.

Mann-Kendall statistic = -104
critical = -81

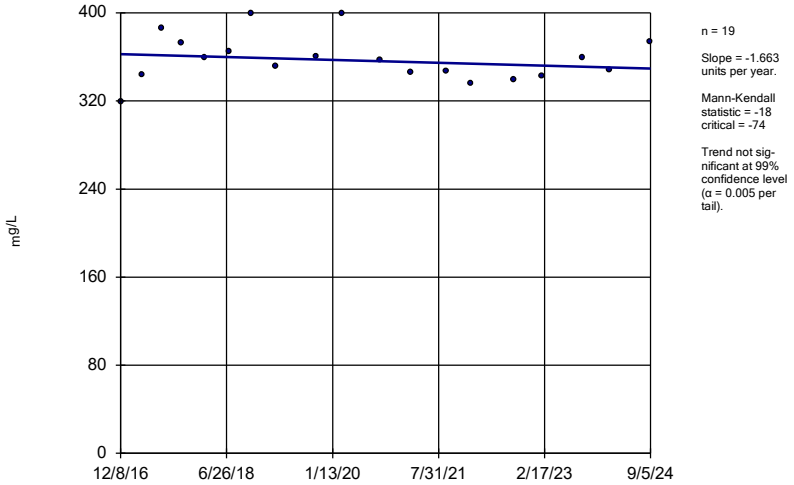
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 19

Slope = -1.663 units per year.

Mann-Kendall statistic = -18
critical = -74

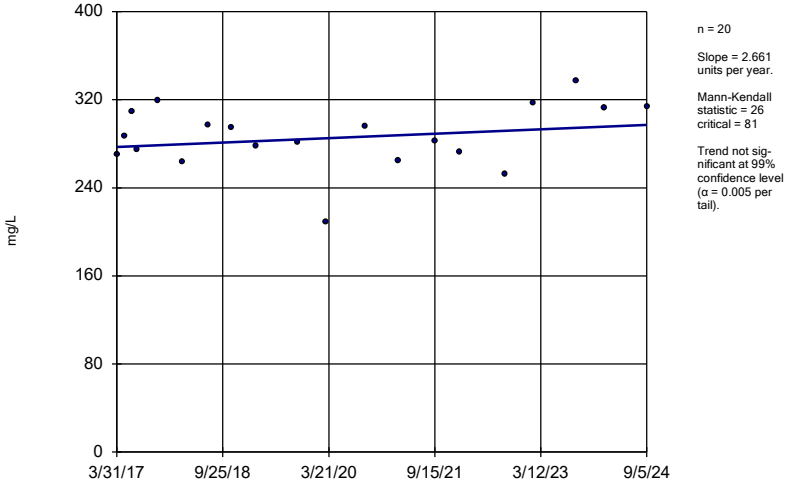
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-67



n = 20

Slope = 2.661 units per year.

Mann-Kendall statistic = 26
critical = 81

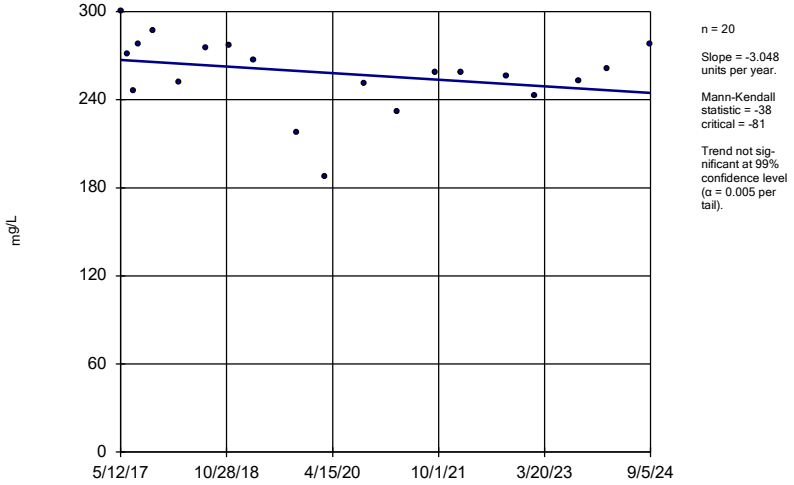
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 20

Slope = -3.048 units per year.

Mann-Kendall statistic = -38
critical = -81

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 12/4/2024 10:54 AM View: AP 1 Appendix III Tren
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE F.

Trend Test Summary - Cobalt DGWA-53

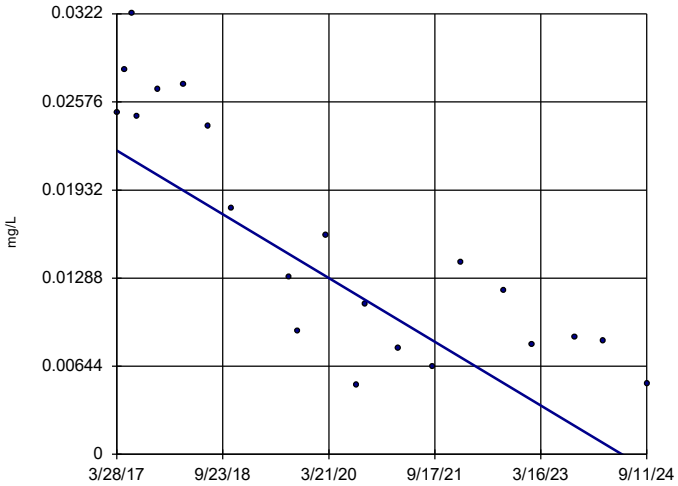
Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 10:58 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = -0.00312 units per year.

Mann-Kendall statistic = -136
critical = -66

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 12/5/2024 10:49 AM View: AP 1 Trend Tests

Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE G.

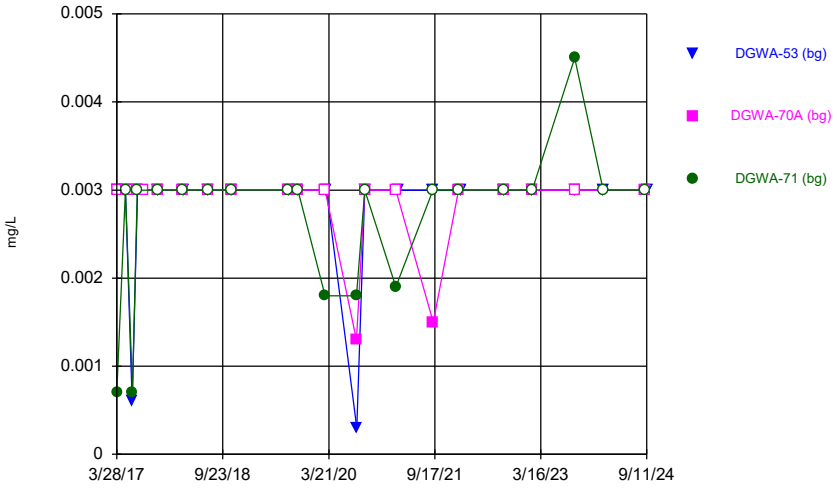
Upper Tolerance Limits Summary Table

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/4/2024, 11:00 AM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.0045	n/a	n/a	n/a	n/a	63	84.13	n/a	0.0395	NP Inter(NDs)
Arsenic (mg/L)	0.0054	n/a	n/a	n/a	n/a	63	76.19	n/a	0.0395	NP Inter(NDs)
Barium (mg/L)	0.19	n/a	n/a	n/a	n/a	63	0	n/a	0.0395	NP Inter(normality)
Beryllium (mg/L)	0.0009	n/a	n/a	n/a	n/a	63	53.97	n/a	0.0395	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	n/a	63	93.65	n/a	0.0395	NP Inter(NDs)
Chromium (mg/L)	0.005	n/a	n/a	n/a	n/a	62	72.58	n/a	0.04158	NP Inter(NDs)
Cobalt (mg/L)	0.024	n/a	n/a	n/a	n/a	57	50.88	n/a	0.05373	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	4.624	n/a	n/a	n/a	n/a	63	0	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.42	n/a	n/a	n/a	n/a	67	46.27	n/a	0.03217	NP Inter(normality)
Lead (mg/L)	0.001	n/a	n/a	n/a	n/a	63	85.71	n/a	0.0395	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	n/a	63	38.1	n/a	0.0395	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	63	84.13	n/a	0.0395	NP Inter(NDs)
Molybdenum (mg/L)	0.0409	n/a	n/a	n/a	n/a	63	65.08	n/a	0.0395	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	63	100	n/a	0.0395	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	63	95.24	n/a	0.0395	NP Inter(NDs)

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

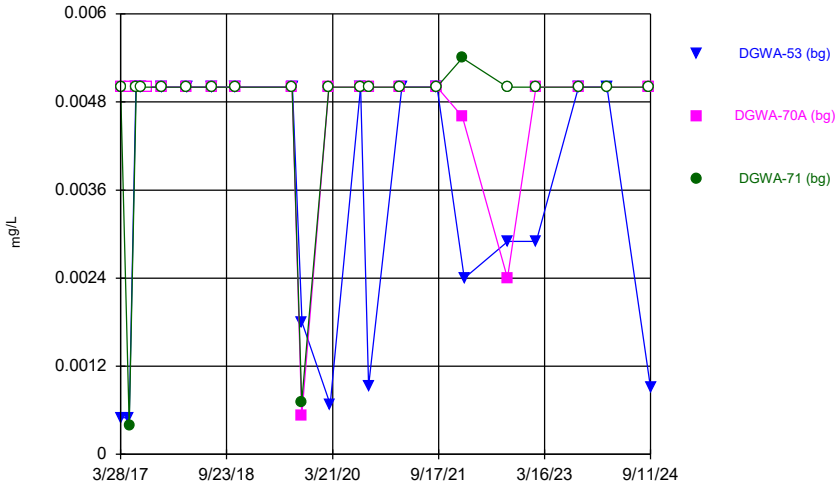
Time Series



Constituent: Antimony Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

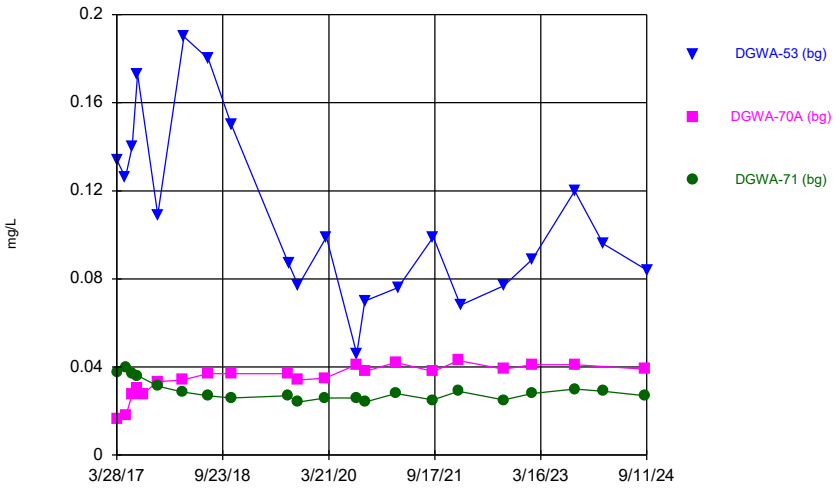
Time Series



Constituent: Arsenic Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

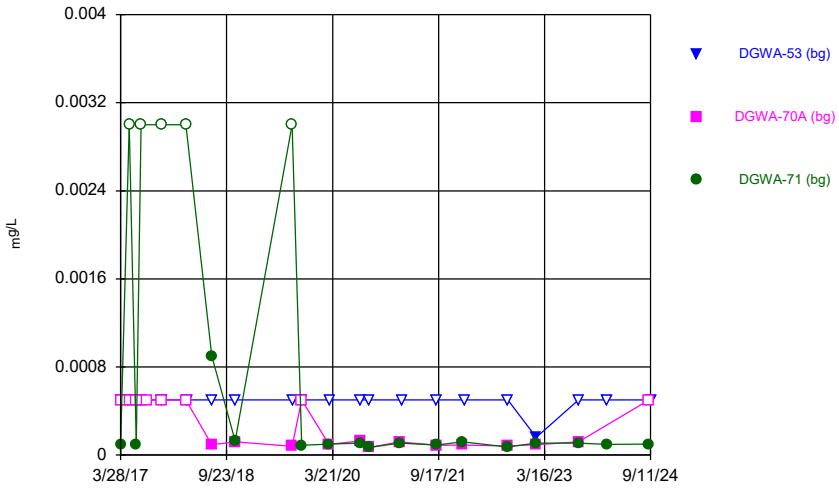
Time Series



Constituent: Barium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

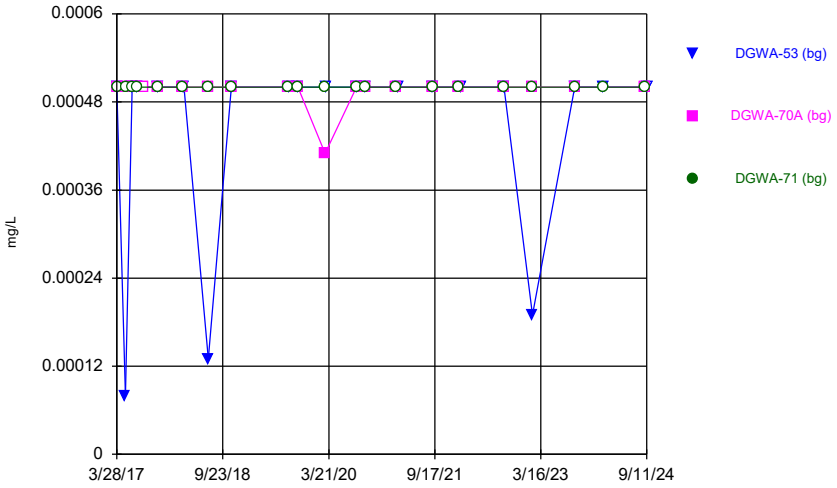
Time Series



Constituent: Beryllium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

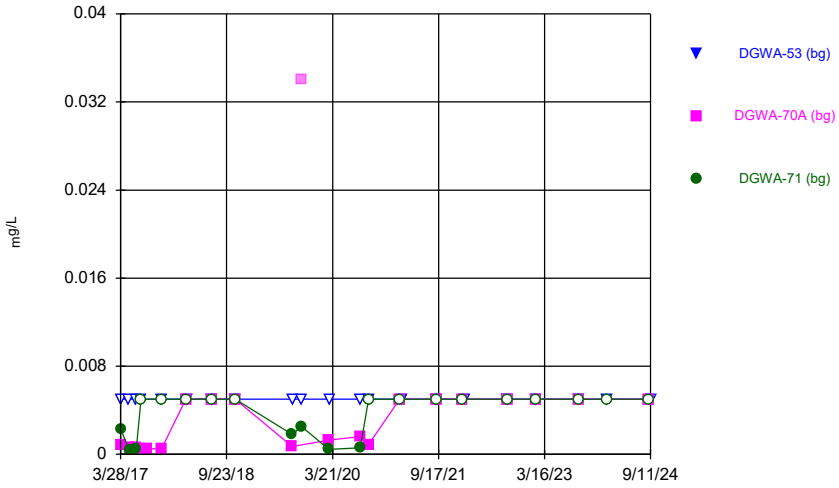
Time Series



Constituent: Cadmium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

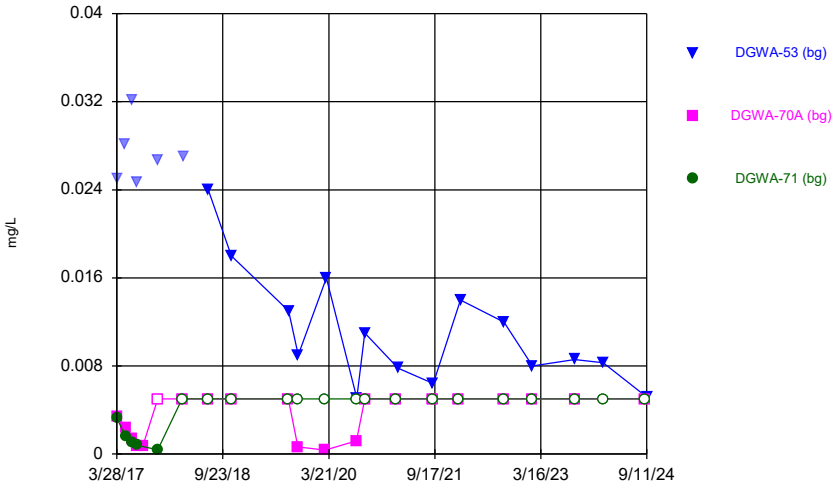
Time Series



Constituent: Chromium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

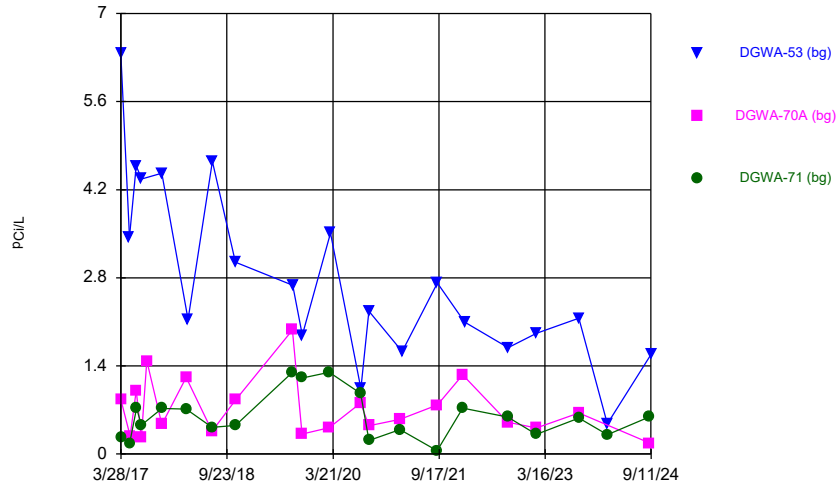
Time Series



Constituent: Cobalt Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

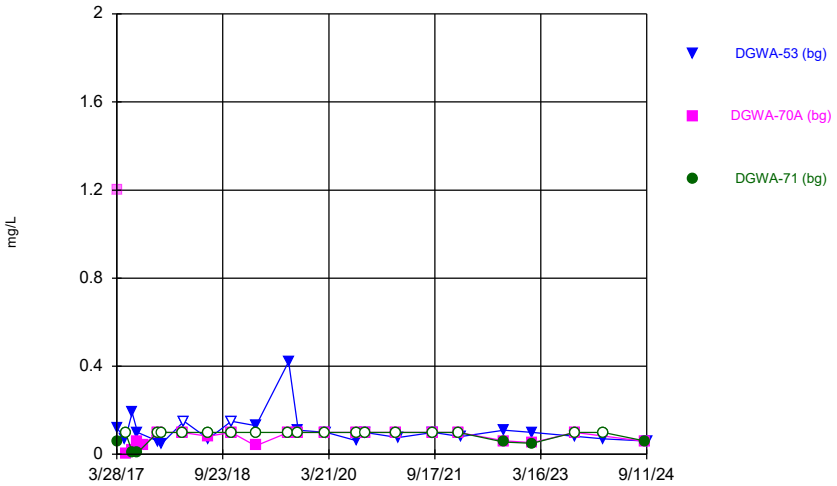
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

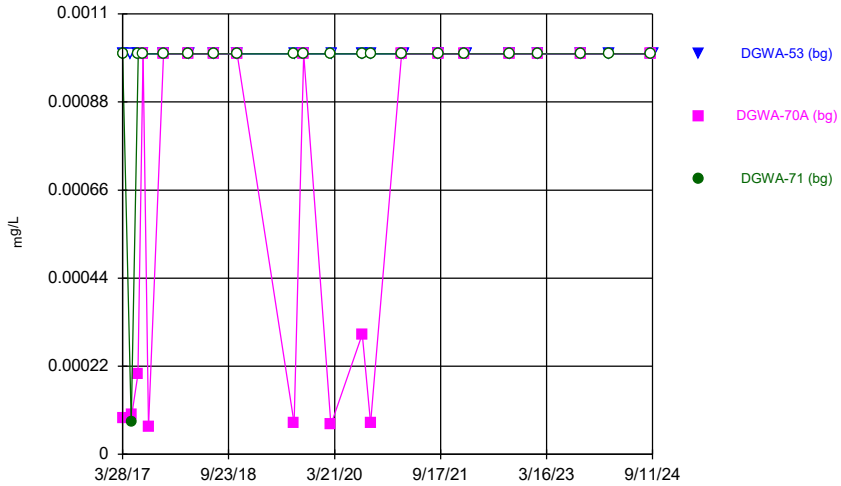
Time Series



Constituent: Fluoride Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

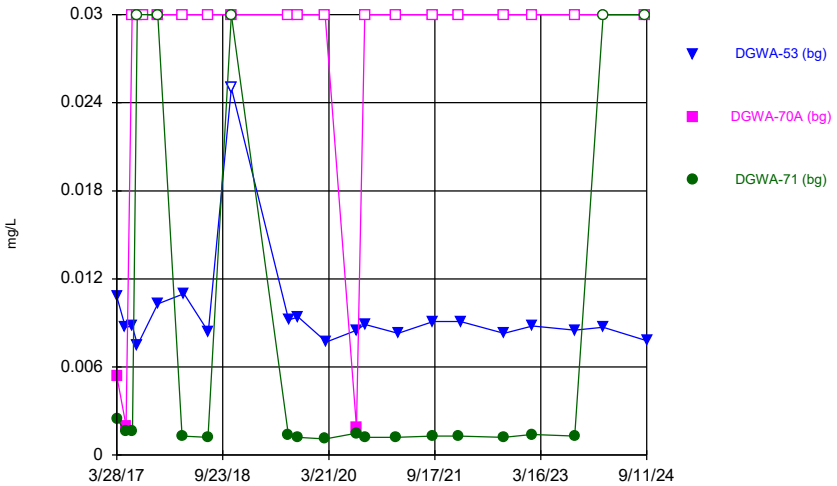
Time Series



Constituent: Lead Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

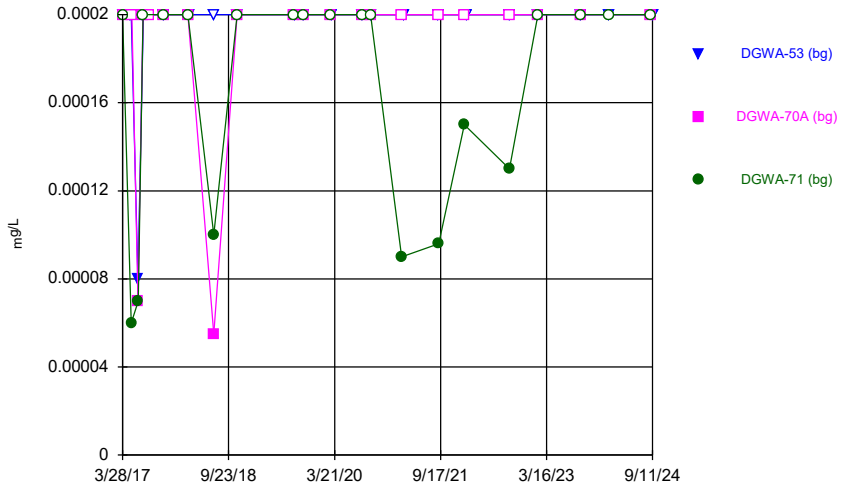
Time Series



Constituent: Lithium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

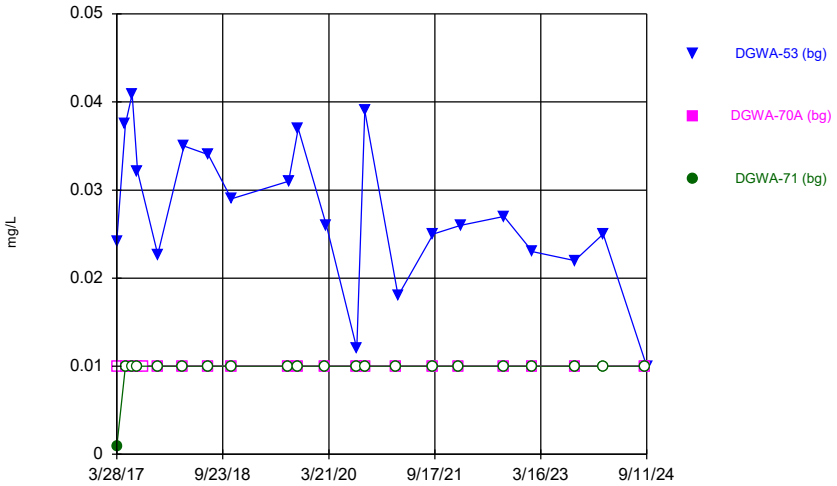
Time Series



Constituent: Mercury Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

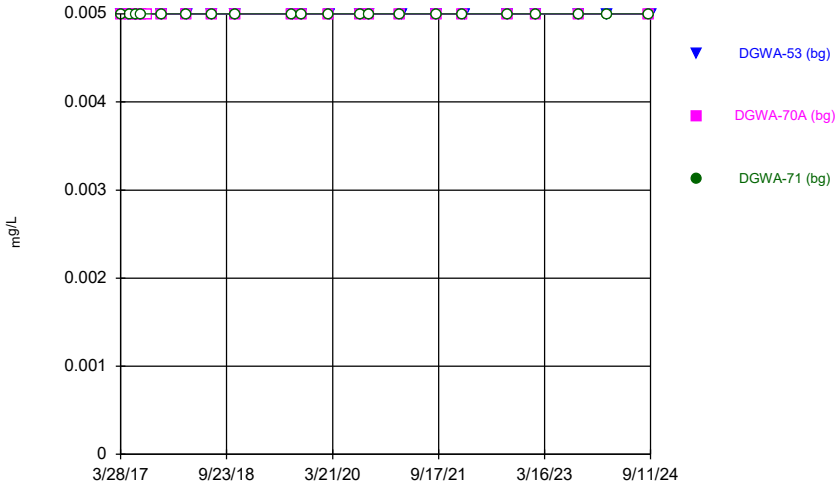
Time Series



Constituent: Molybdenum Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

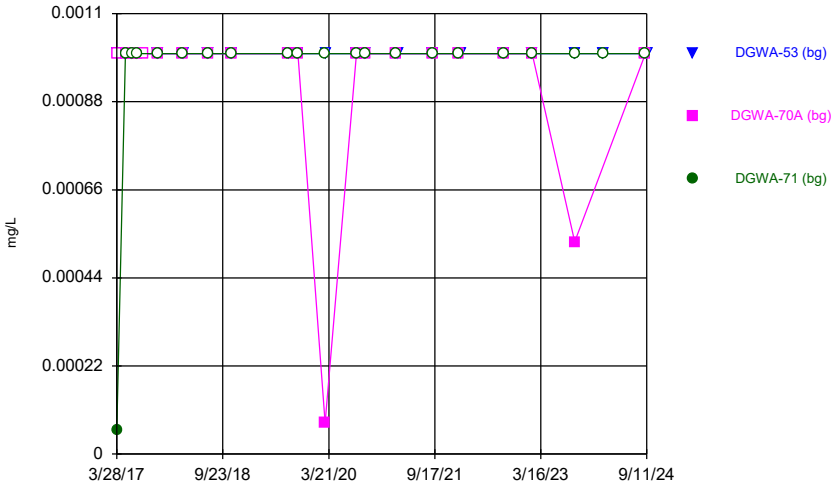
Time Series



Constituent: Selenium Analysis Run 12/4/2024 10:58 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

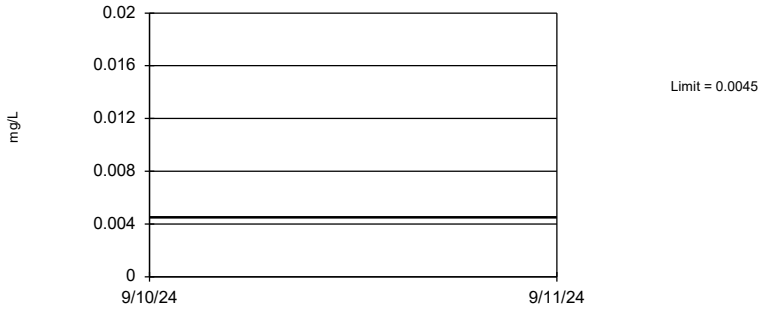


Constituent: Thallium Analysis Run 12/4/2024 10:59 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



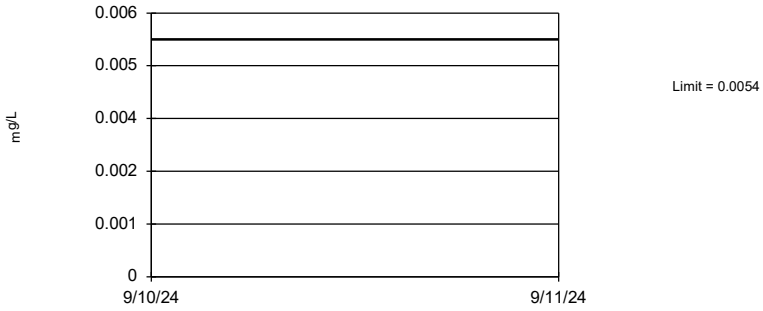
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 84.13% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Antimony Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



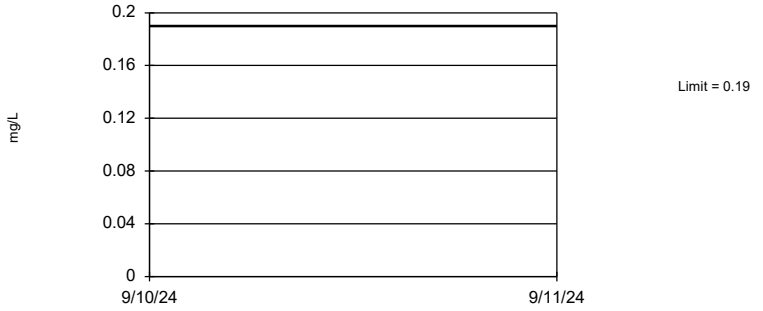
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 76.19% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Arsenic Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



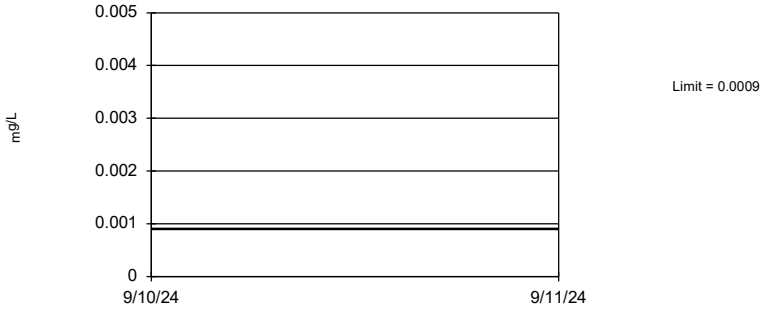
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 63 background values. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Barium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



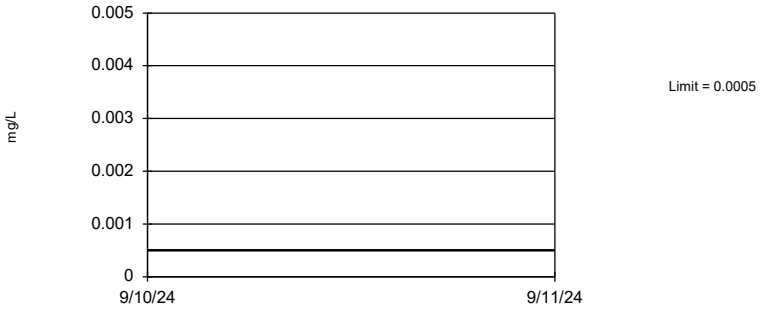
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 53.97% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Beryllium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 93.65% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Cadmium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

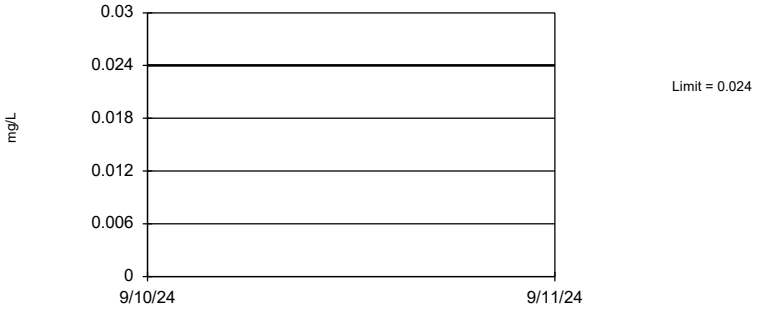
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 62 background values. 72.58% NDs. 92.77% coverage at alpha=0.01; 95.12% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.04158.

Constituent: Chromium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



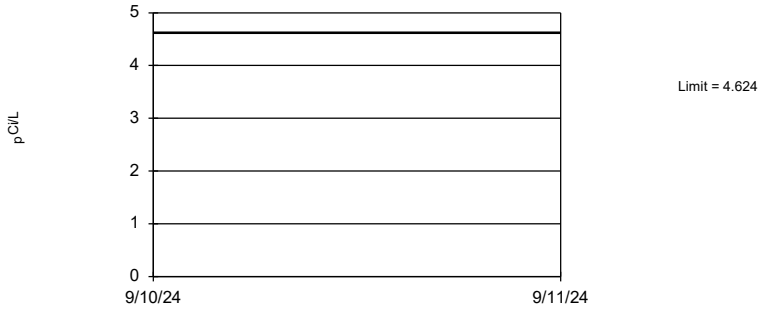
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 57 background values. 50.88% NDs. 92.38% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05373.

Constituent: Cobalt Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Parametric



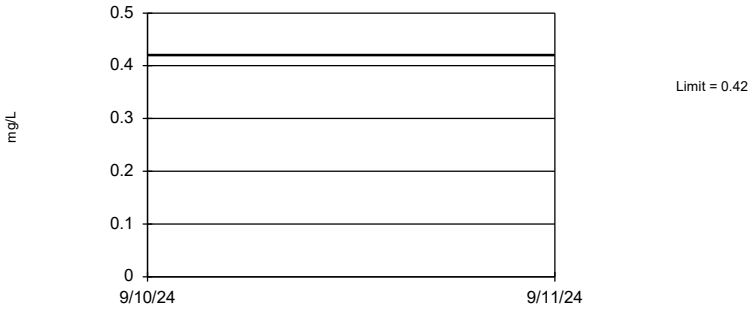
95% coverage. Background Data Summary (based on cube root transformation): Mean=1.01, Std. Dev.=0.3267, n=63. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9615, critical = 0.947. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



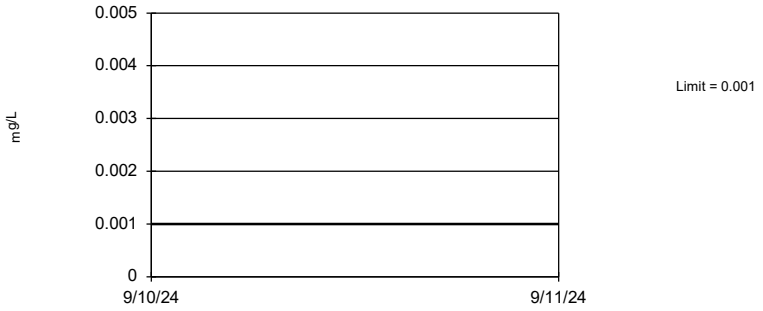
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 67 background values. 46.27% NDs. 93.16% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03217.

Constituent: Fluoride Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 85.71% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Lead Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

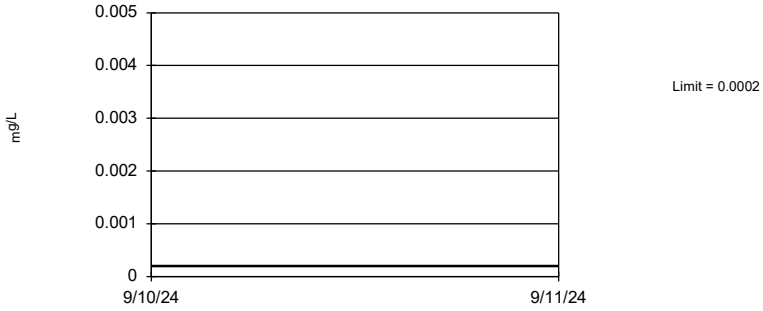
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 63 background values. 38.1% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Lithium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 84.13% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Mercury Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 65.08% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Molybdenum Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

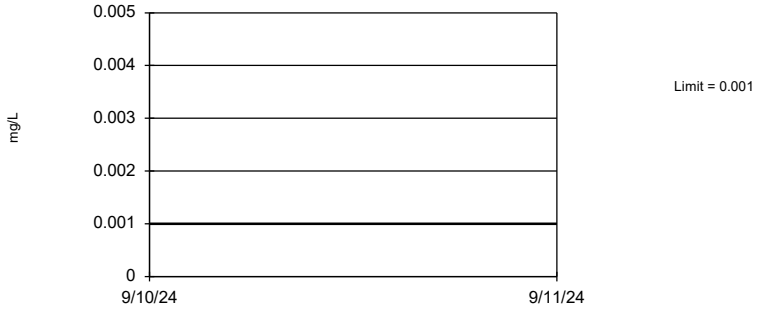
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Selenium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 63 background values. 95.24% NDs. 92.77% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0395.

Constituent: Thallium Analysis Run 12/4/2024 10:57 AM View: AP 1 UTLs
Plant McDonough Client: Southern Company Data: McDonough AP

FIGURE H.

PLANT MCDONOUGH ASH POND AP-1 GWPS TABLE				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0045	0.006
Arsenic, Total (mg/L)	0.01		0.0054	0.01
Barium, Total (mg/L)	2		0.19	2
Beryllium, Total (mg/L)	0.004		0.0009	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.005	0.1
Cobalt, Total (mg/L)		0.006	0.024	0.024
Combined Radium, Total (pCi/L)	5		4.62	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)		0.015	0.001	0.015
Lithium, Total (mg/L)		0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)		0.1	0.041	0.1
Selenium, Total (mg/L)	0.05		0.005	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 Residual*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Appendix IV - Confidence Intervals - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**DGWC-69**	**0.029**	**0.017**	**0.01**	**Yes**	**23**	**0.03564**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Cobalt (mg/L)	**DGWC-40**	**0.04344**	**0.03726**	**0.024**	**Yes**	**21**	**0.005603**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**DGWC-68A**	**0.2169**	**0.1942**	**0.1**	**Yes**	**21**	**0.02129**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**

Appendix IV - Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	B-100	0.003	0.0017	0.006	No	10	0.0006394	80	None	No	0.011	NP (NDs)
Antimony (mg/L)	B-105D	0.0082	0.00062	0.006	No	9	0.002234	55.56	None	No	0.002	NP (NDs)
Antimony (mg/L)	B-112D	0.003	0.00041	0.006	No	8	0.0009157	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	B-62	0.003	0.00046	0.006	No	13	0.0007045	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-121	0.003	0.00062	0.006	No	8	0.001057	75	None	No	0.004	NP (NDs)
Antimony (mg/L)	DGWC-37	0.003	0.0014	0.006	No	20	0.0003578	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-39	0.003	0.00088	0.006	No	20	0.0007004	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-40	0.003	0.00033	0.006	No	20	0.000597	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-67	0.0039	0.0023	0.006	No	20	0.0007895	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-68A	0.003	0.0008	0.006	No	20	0.000755	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	DGWC-69	0.003	0.0019	0.006	No	21	0.0005887	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	B-105D	0.0051	0.0025	0.01	No	9	0.001087	66.67	None	No	0.002	NP (NDs)
Arsenic (mg/L)	B-112D	0.005	0.00078	0.01	No	8	0.001492	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	B-62	0.005	0.0033	0.01	No	13	0.0004715	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-37	0.005	0.0019	0.01	No	21	0.001089	90.48	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-38	0.005	0.0005	0.01	No	21	0.000982	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-39	0.005	0.00087	0.01	No	21	0.002097	57.14	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-40	0.005	0.003	0.01	No	21	0.001537	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-67	0.005	0.0033	0.01	No	21	0.001347	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DGWC-68A	0.005	0.0016	0.01	No	21	0.0007419	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	**DGWC-69**	**0.029**	**0.017**	**0.01**	**Yes**	**23**	**0.03564**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Barium (mg/L)	B-100	0.023	0.019	2	No	10	0.02459	0	None	No	0.011	NP (normality)
Barium (mg/L)	B-105D	0.03997	0.03358	2	No	9	0.003308	0	None	No	0.01	Param.
Barium (mg/L)	B-112D	0.026	0.0026	2	No	8	0.008134	0	None	No	0.004	NP (normality)
Barium (mg/L)	B-62	0.02401	0.01799	2	No	13	0.004041	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-121	0.04934	0.04191	2	No	8	0.003503	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-37	0.1033	0.08514	2	No	21	0.01649	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-38	0.033	0.03052	2	No	21	0.002504	0	None	x^3	0.01	Param.
Barium (mg/L)	DGWC-39	0.09823	0.08738	2	No	21	0.009834	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-40	0.018	0.0163	2	No	21	0.002323	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-67	0.1067	0.09007	2	No	21	0.01507	0	None	No	0.01	Param.
Barium (mg/L)	DGWC-68A	0.099	0.0878	2	No	21	0.007476	0	None	No	0.01	NP (normality)
Barium (mg/L)	DGWC-69	0.09072	0.06189	2	No	22	0.02686	0	None	No	0.01	Param.
Beryllium (mg/L)	B-100	0.0005558	0.0003722	0.004	No	10	0.0001029	10	None	No	0.01	Param.
Beryllium (mg/L)	B-62	0.00018	0.00009	0.004	No	14	0.0004091	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	DGWC-37	0.0005	0.00007	0.004	No	21	0.0002132	61.9	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-38	0.0005	0.000058	0.004	No	21	0.00009645	95.24	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-40	0.003271	0.002834	0.004	No	21	0.0004474	4.762	None	x^2	0.01	Param.
Beryllium (mg/L)	DGWC-68A	0.0005	0.000084	0.004	No	21	0.0001286	90.48	None	No	0.01	NP (NDs)
Beryllium (mg/L)	DGWC-69	0.0005	0.00007	0.004	No	22	0.0002146	63.64	None	No	0.01	NP (NDs)
Cadmium (mg/L)	B-100	0.00059	0.00027	0.005	No	10	0.0001343	20	None	No	0.011	NP (normality)
Cadmium (mg/L)	DGWC-37	0.0005	0.00027	0.005	No	21	0.000152	76.19	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-38	0.0003	0.00017	0.005	No	21	0.0002323	19.05	None	No	0.01	NP (normality)
Cadmium (mg/L)	DGWC-40	0.0008267	0.000699	0.005	No	21	0.0001157	9.524	None	No	0.01	Param.
Cadmium (mg/L)	DGWC-67	0.0005	0.00029	0.005	No	21	0.0001342	71.43	None	No	0.01	NP (NDs)
Cadmium (mg/L)	DGWC-68A	0.0002347	0.0001547	0.005	No	21	0.0002103	42.86	Kaplan-Meier	sqrt(x)	0.01	Param.
Cadmium (mg/L)	DGWC-69	0.0005	0.0002	0.005	No	22	0.0001325	81.82	None	No	0.01	NP (NDs)
Chromium (mg/L)	B-100	0.005	0.00094	0.1	No	10	0.001792	80	None	No	0.011	NP (NDs)
Chromium (mg/L)	B-105D	0.005	0.0012	0.1	No	9	0.001267	88.89	None	No	0.002	NP (NDs)
Chromium (mg/L)	B-112D	0.005	0.00085	0.1	No	8	0.0018	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	B-62	0.005	0.00098	0.1	No	13	0.001115	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-37	0.005	0.0007	0.1	No	21	0.001312	90.48	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-38	0.005	0.00092	0.1	No	21	0.001573	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-40	0.005	0.0007	0.1	No	21	0.00212	52.38	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-67	0.005	0.0014	0.1	No	21	0.001669	80.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-68A	0.005	0.0005	0.1	No	21	0.000982	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	DGWC-69	0.005	0.0013	0.1	No	22	0.001722	77.27	None	No	0.01	NP (NDs)
Cobalt (mg/L)	B-100	0.06544	0.02158	0.024	No	12	0.02689	8.333	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-105D	0.007474	0.002337	0.024	No	9	0.003058	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	B-112D	0.005	0.0004	0.024	No	8	0.002091	62.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	B-62	0.005	0.00031	0.024	No	14	0.001705	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-121	0.002229	0.001146	0.024	No	8	0.0005111	0	None	No	0.01	Param.
Cobalt (mg/L)	DGWC-37	0.005	0.0005	0.024	No	21	0.001662	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	DGWC-38	0.0017	0.0015	0.024	No	21	0.001037	9.524	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-39	0.00659	0.005819	0.024	No	21	0.0006989	9.524	None	No	0.01	Param.
Cobalt (mg/L)	**DGWC-40**	**0.04344**	**0.03726**	**0.024**	**Yes**	**21**	**0.005603**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	DGWC-67	0.0037	0.0011	0.024	No	21	0.001641	9.524	None	No	0.01	NP (normality)
Cobalt (mg/L)	DGWC-68A	0.005	0.0015	0.024	No	21	0.001531	85.71	None	No	0.01	NP (NDs)

Appendix IV - Confidence Intervals - All Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	DGWC-69	0.005	0.0031	0.024	No	22	0.001534	72.73	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	B-100	0.9945	0.2768	5	No	10	0.4022	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-105D	5.69	1.21	5	No	8	2.114	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-112D	1.651	0.4476	5	No	7	0.5067	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	B-62	2.033	1.519	5	No	12	0.3271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-37	1.008	0.5234	5	No	20	0.4268	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-38	0.9119	0.3624	5	No	20	0.5428	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-39	1.166	0.5656	5	No	20	0.5285	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-40	1.381	0.6332	5	No	20	0.6582	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-67	0.8997	0.4917	5	No	20	0.3593	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-68A	1.28	0.6054	5	No	20	0.5943	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	DGWC-69	1.718	1.135	5	No	21	0.5282	0	None	No	0.01	Param.
Fluoride (mg/L)	B-100	0.1	0.063	4	No	10	0.01928	60	None	No	0.011	NP (NDs)
Fluoride (mg/L)	B-105D	0.32	0.058	4	No	9	0.07949	0	None	No	0.002	NP (normality)
Fluoride (mg/L)	B-112D	0.335	0.2675	4	No	8	0.03182	0	None	No	0.01	Param.
Fluoride (mg/L)	B-62	0.2054	0.1057	4	No	12	0.0924	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-121	0.09599	0.05376	4	No	8	0.01992	12.5	None	No	0.01	Param.
Fluoride (mg/L)	DGWC-37	0.089	0.06	4	No	22	0.0678	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-38	0.1401	0.0777	4	No	22	0.09473	9.091	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-39	0.15	0.086	4	No	22	0.1033	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-40	0.2429	0.1315	4	No	22	0.143	4.545	None	ln(x)	0.01	Param.
Fluoride (mg/L)	DGWC-67	0.1	0.068	4	No	22	0.09945	45.45	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-68A	0.12	0.092	4	No	22	0.1128	4.545	None	No	0.01	NP (normality)
Fluoride (mg/L)	DGWC-69	0.1494	0.08849	4	No	23	0.06446	4.348	None	sqrt(x)	0.01	Param.
Lead (mg/L)	B-100	0.001	0.00018	0.015	No	10	0.0004072	70	None	No	0.011	NP (NDs)
Lead (mg/L)	B-105D	0.001	0.000052	0.015	No	9	0.000316	88.89	None	No	0.002	NP (NDs)
Lead (mg/L)	B-112D	0.001	0.00014	0.015	No	8	0.0003041	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	DGWC-37	0.0014	0.000061	0.015	No	21	0.0002267	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-38	0.001	0.00014	0.015	No	21	0.0003918	76.19	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-39	0.001	0.00022	0.015	No	21	0.0002566	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-40	0.001	0.000081	0.015	No	21	0.0004427	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-67	0.001	0.00025	0.015	No	21	0.0003597	80.95	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-68A	0.001	0.00035	0.015	No	21	0.0002422	90.48	None	No	0.01	NP (NDs)
Lead (mg/L)	DGWC-69	0.001	0.00017	0.015	No	22	0.0004225	68.18	None	No	0.01	NP (NDs)
Lithium (mg/L)	B-100	0.03	0.0019	0.04	No	10	0.01175	20	None	No	0.011	NP (normality)
Lithium (mg/L)	B-105D	0.01428	0.01217	0.04	No	9	0.001093	0	None	No	0.01	Param.
Lithium (mg/L)	B-112D	0.004426	0.003849	0.04	No	8	0.0002722	0	None	No	0.01	Param.
Lithium (mg/L)	B-62	0.0094	0.0082	0.04	No	13	0.004551	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-121	0.013	0.0045	0.04	No	8	0.003153	0	None	No	0.004	NP (normality)
Lithium (mg/L)	DGWC-37	0.0029	0.0019	0.04	No	21	0.01213	23.81	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-38	0.0034	0.0029	0.04	No	21	0.004793	4.762	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-40	0.0024	0.0022	0.04	No	21	0.006833	9.524	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-67	0.005	0.0044	0.04	No	21	0.004452	4.762	None	No	0.01	NP (normality)
Lithium (mg/L)	DGWC-68A	0.03	0.0016	0.04	No	21	0.008661	90.48	None	No	0.01	NP (NDs)
Lithium (mg/L)	DGWC-69	0.0031	0.0023	0.04	No	22	0.004781	4.545	None	No	0.01	NP (normality)
Mercury (mg/L)	B-100	0.0002	0.00011	0.002	No	9	0.00003	88.89	None	No	0.002	NP (NDs)
Mercury (mg/L)	B-105D	0.0002	0.000087	0.002	No	8	0.00004247	75	None	No	0.004	NP (NDs)
Mercury (mg/L)	DGWC-37	0.0002	0.000091	0.002	No	20	0.00005006	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-38	0.0002	0.000085	0.002	No	20	0.00005001	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-39	0.0002	0.000059	0.002	No	20	0.00003153	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-40	0.0002	0.00009	0.002	No	20	0.00005211	85	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-67	0.0002	0.00007	0.002	No	20	0.00002907	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-68A	0.0002	0.00007	0.002	No	20	0.00002907	95	None	No	0.01	NP (NDs)
Mercury (mg/L)	DGWC-69	0.0002	0.00007	0.002	No	21	0.00002837	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	B-100	0.01	0.01	0.1	No	10	0.05692	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	B-105D	0.01	0.0011	0.1	No	9	0.002967	88.89	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	B-112D	0.03379	0.02571	0.1	No	8	0.003808	0	None	No	0.01	Param.
Molybdenum (mg/L)	DGWC-121	0.01	0.00089	0.1	No	8	0.004703	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	DGWC-38	0.01	0.001	0.1	No	21	0.004262	33.33	None	No	0.01	NP (normality)
Molybdenum (mg/L)	DGWC-39	0.01	0.0016	0.1	No	21	0.001833	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	DGWC-67	0.01	0.0013	0.1	No	21	0.001898	95.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	**DGWC-68A**	**0.2169**	**0.1942**	**0.1**	**Yes**	**21**	**0.02129**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**
Molybdenum (mg/L)	DGWC-69	0.01	0.0057	0.1	No	22	0.005347	4.545	None	No	0.01	NP (normality)
Selenium (mg/L)	B-100	0.005	0.005	0.05	No	10	0.0009803	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	DGWC-38	0.005	0.0019	0.05	No	21	0.0006765	95.24	None	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-40	0.003117	0.001862	0.05	No	21	0.002111	33.33	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	DGWC-67	0.005	0.0027	0.05	No	21	0.0005019	95.24	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	DGWC-68A	0.005	0.0017	0.05	No	21	0.0007201	95.24	Kaplan-Meier	No	0.01	NP (NDs)

Appendix IV - Confidence Intervals - All Results

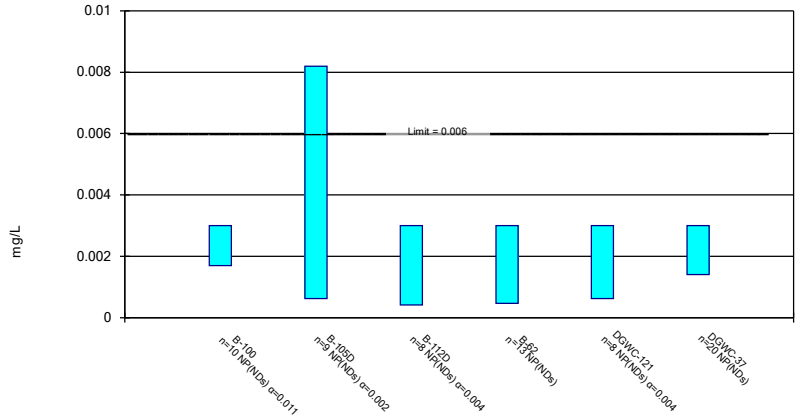
Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/6/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Thallium (mg/L)	DGWC-38	0.001	0.00014	0.002	No	21	0.0004351	61.9	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-39	0.001	0.0001	0.002	No	21	0.000399	76.19	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-40	0.001	0.00007	0.002	No	21	0.0004078	76.19	None	No	0.01	NP (NDs)
Thallium (mg/L)	DGWC-68A	0.001	0.00015	0.002	No	21	0.0001855	95.24	None	No	0.01	NP (NDs)

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

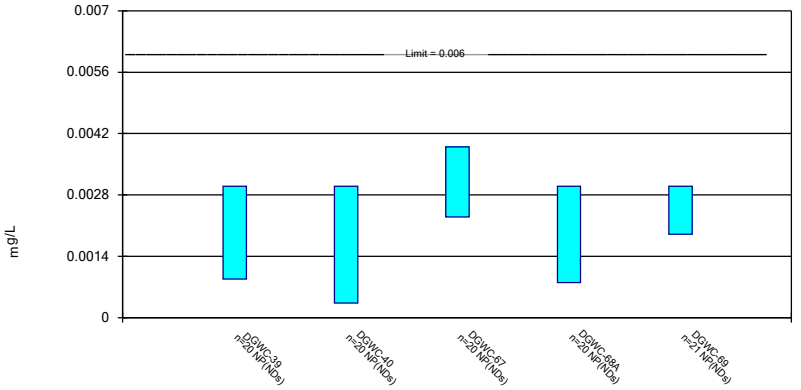


Constituent: Antimony Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

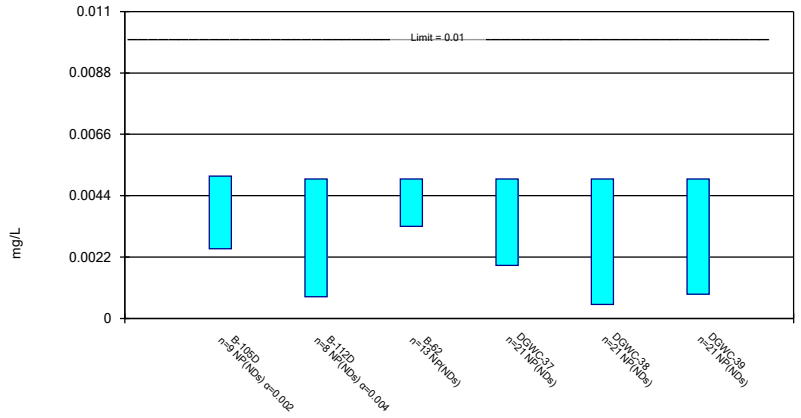


Constituent: Antimony Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

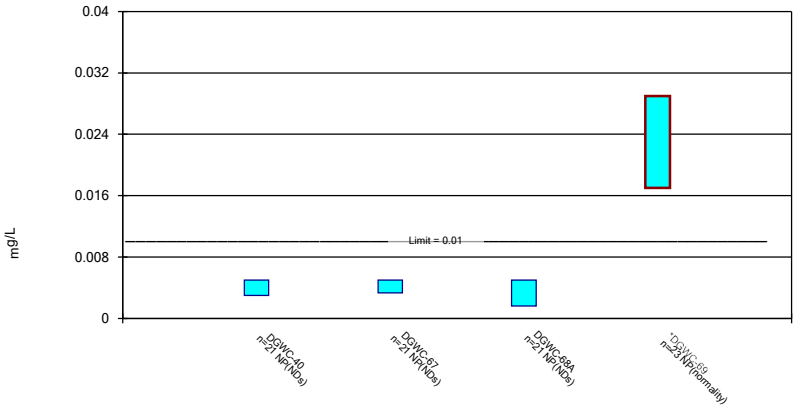


Constituent: Arsenic Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01.

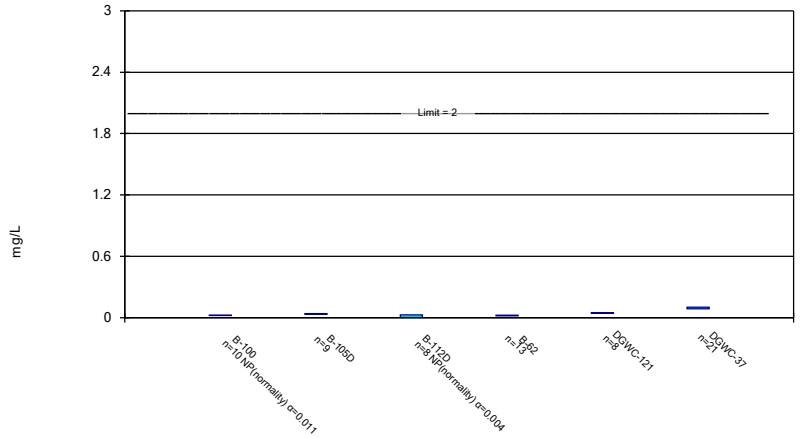


Constituent: Arsenic Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

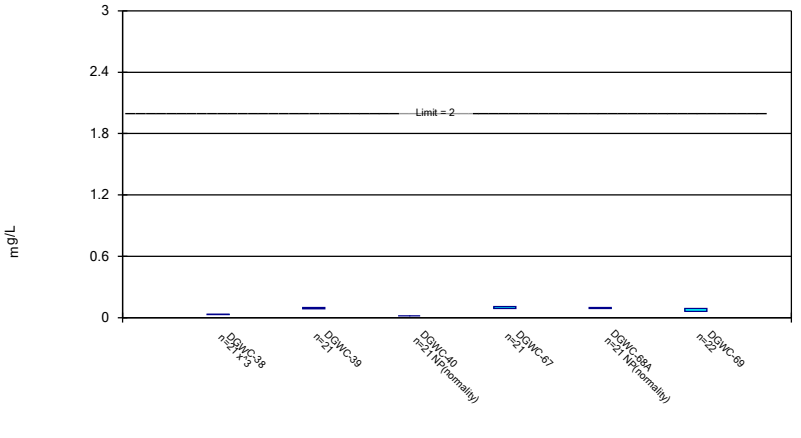


Constituent: Barium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

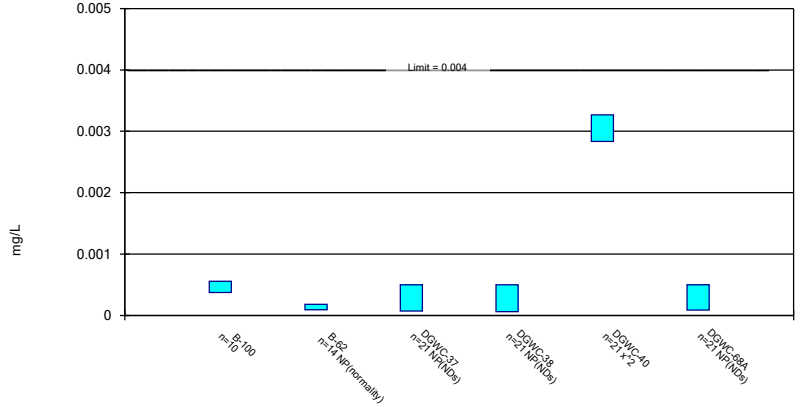


Constituent: Barium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

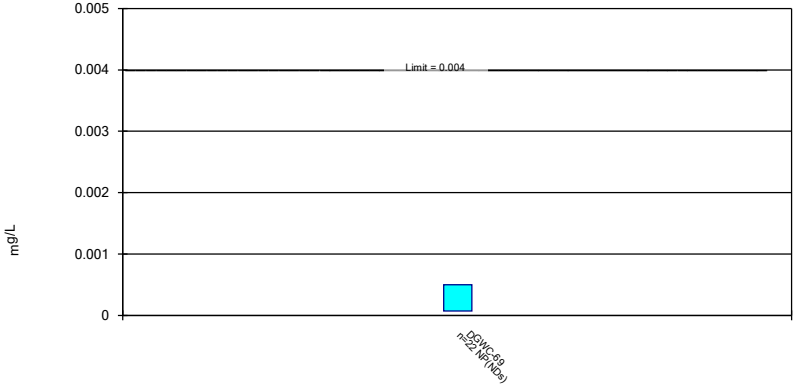


Constituent: Beryllium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

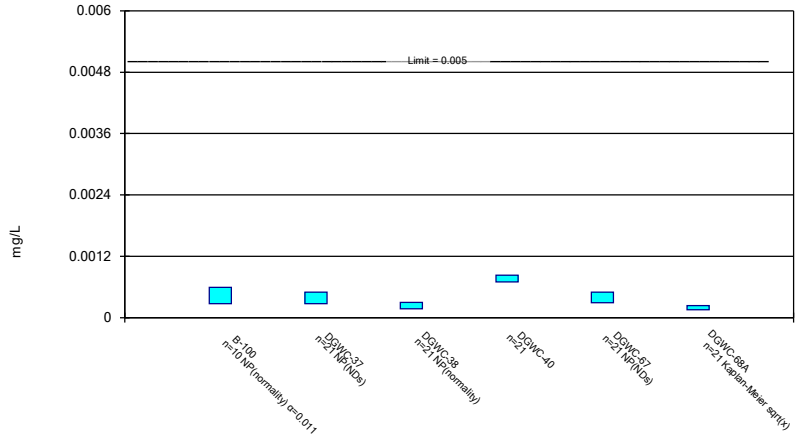


Constituent: Beryllium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

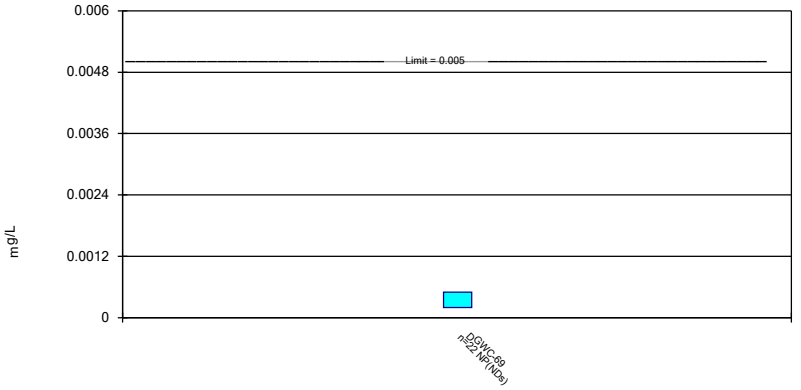


Constituent: Cadmium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

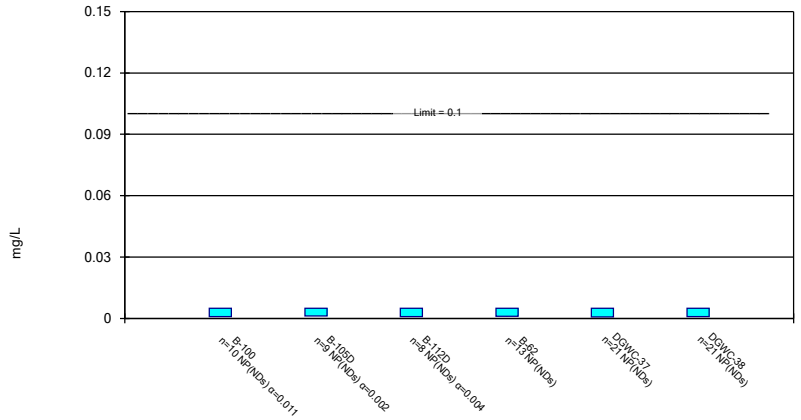


Constituent: Cadmium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

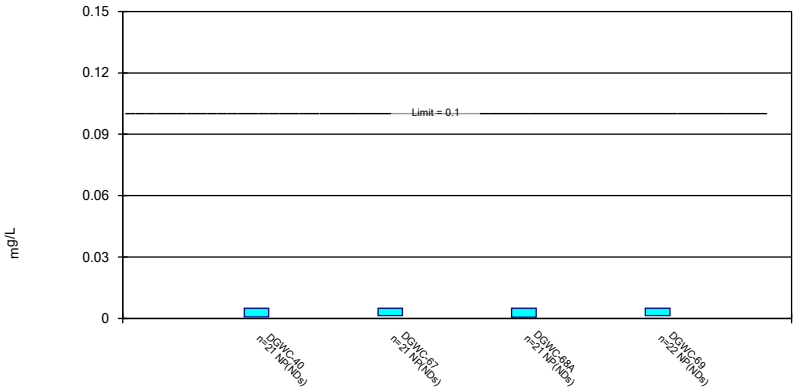


Constituent: Chromium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

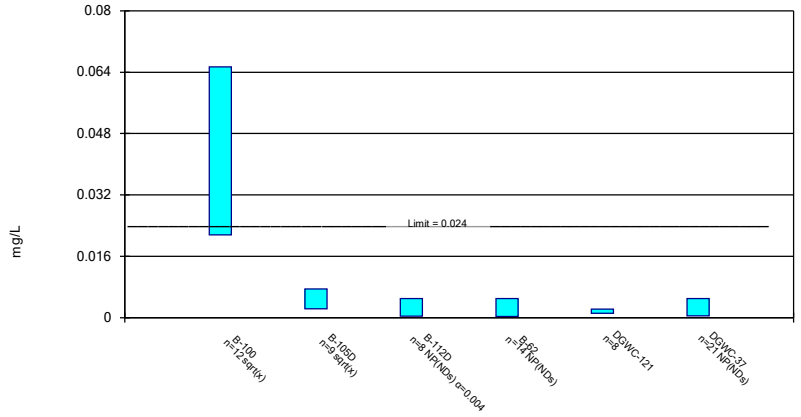


Constituent: Chromium Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

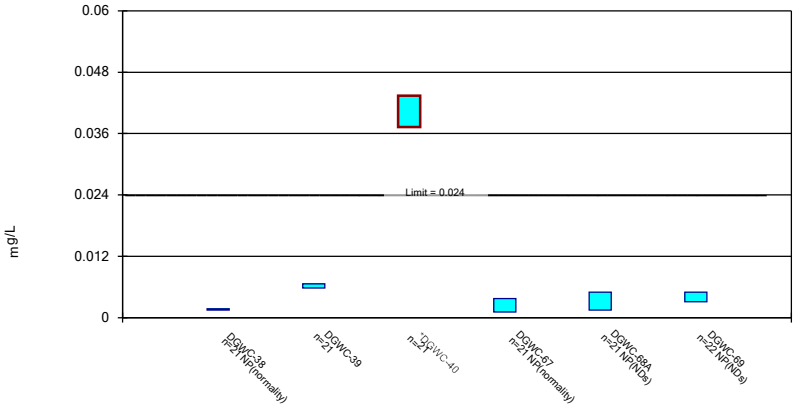


Constituent: Cobalt Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

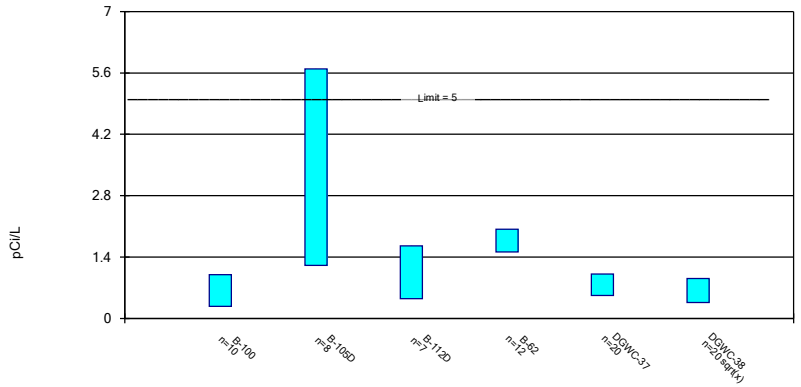


Constituent: Cobalt Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric Confidence Interval

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

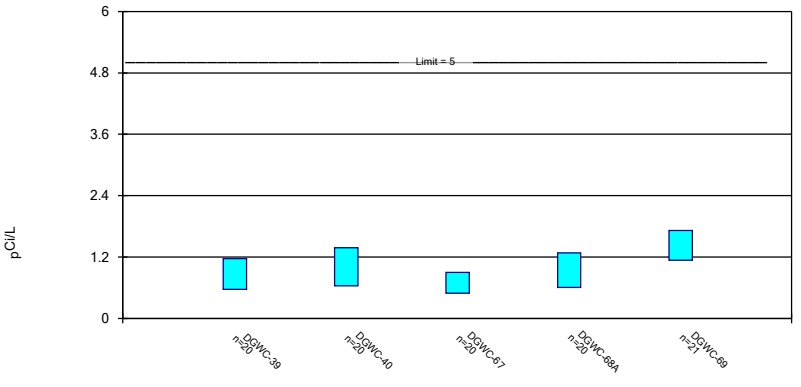


Constituent: Combined Radium 226 + 228 Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric Confidence Interval

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

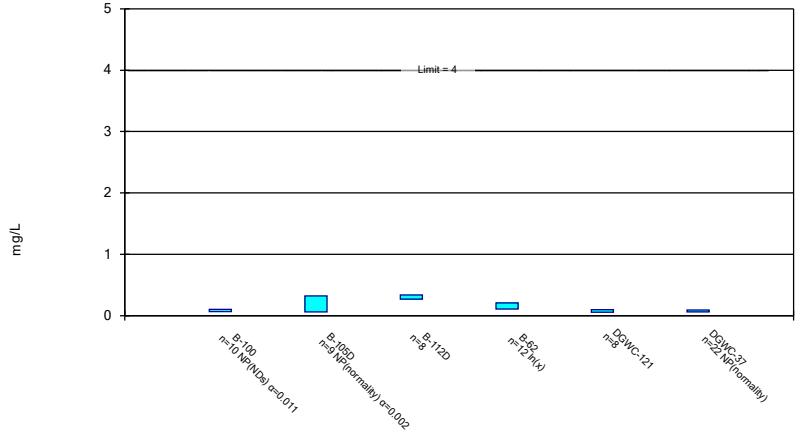


Constituent: Combined Radium 226 + 228 Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Inter
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

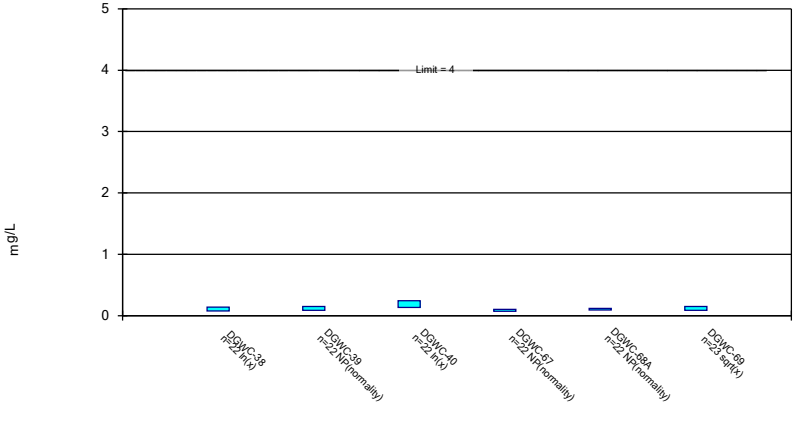


Constituent: Fluoride Analysis Run 12/6/2024 12:08 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

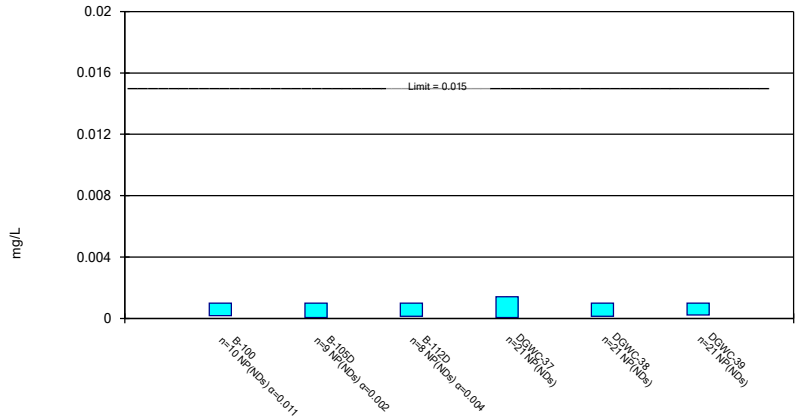


Constituent: Fluoride Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

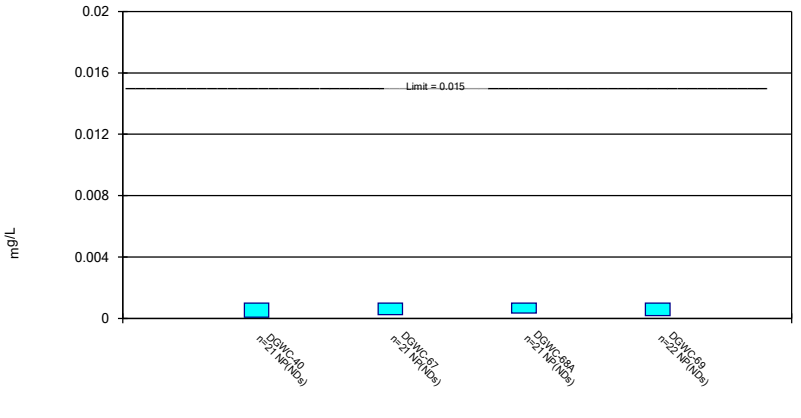


Constituent: Lead Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

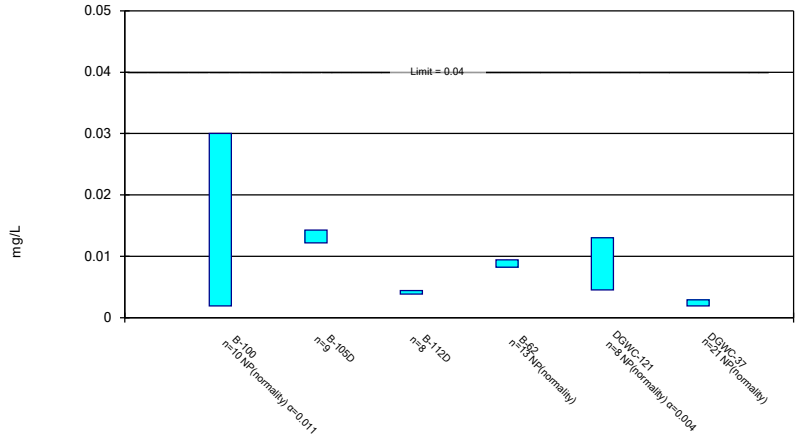


Constituent: Lead Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

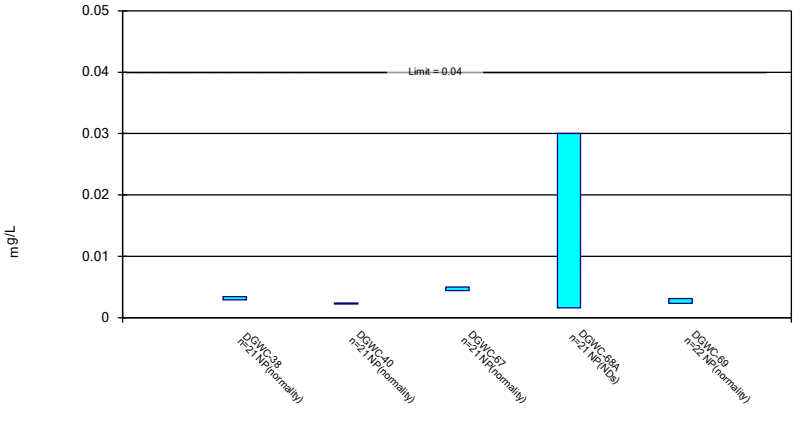


Constituent: Lithium Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

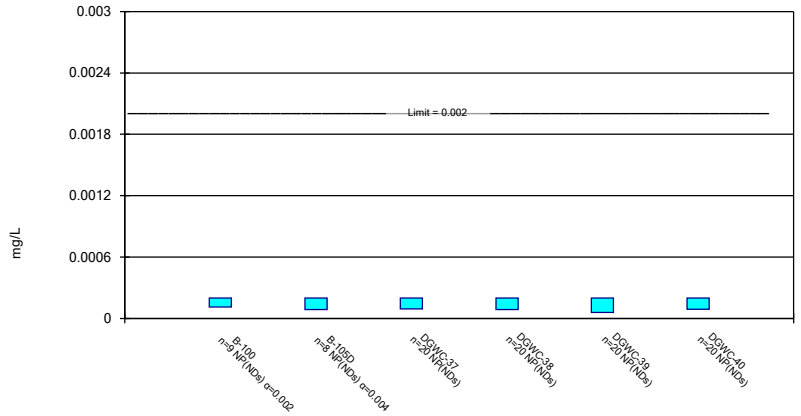


Constituent: Lithium Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

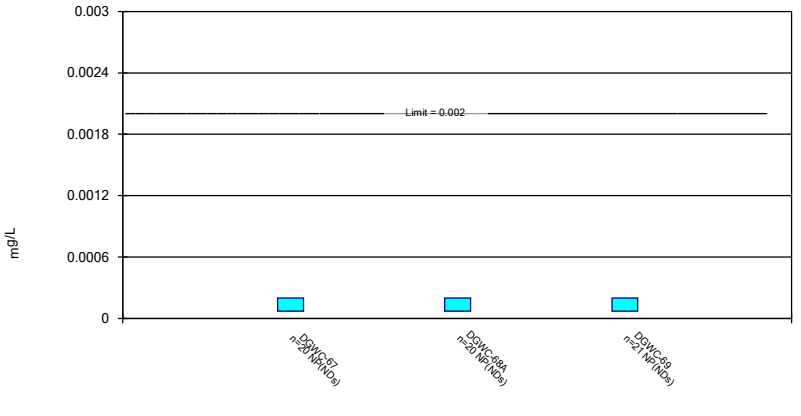


Constituent: Mercury Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

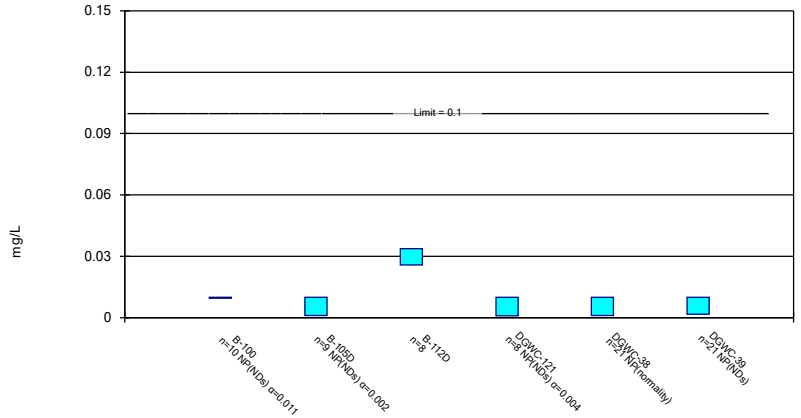


Constituent: Mercury Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

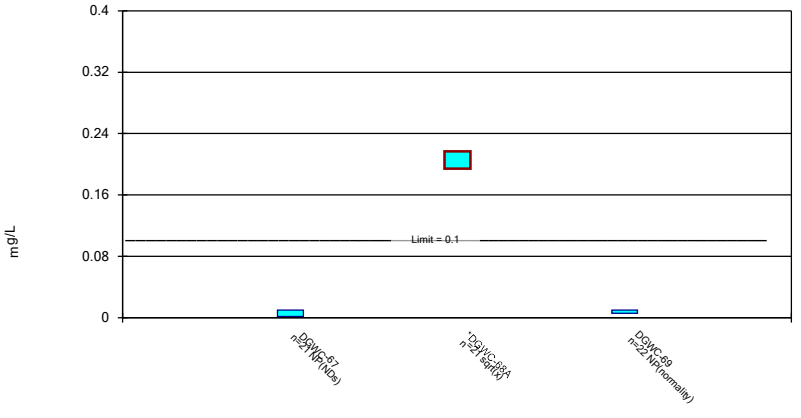


Constituent: Molybdenum Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

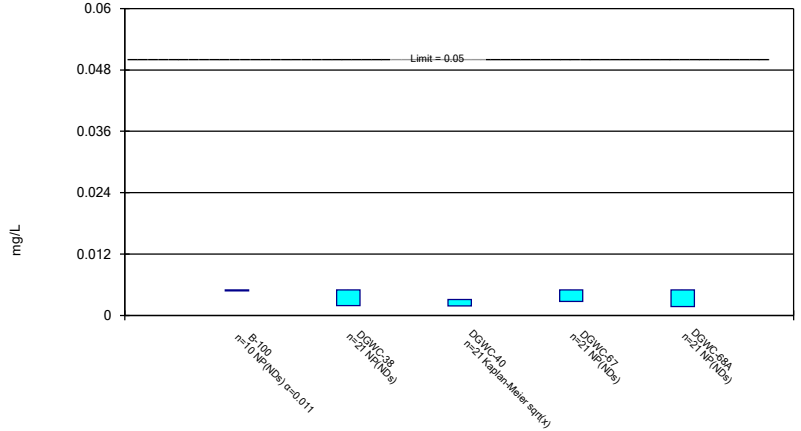


Constituent: Molybdenum Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

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.

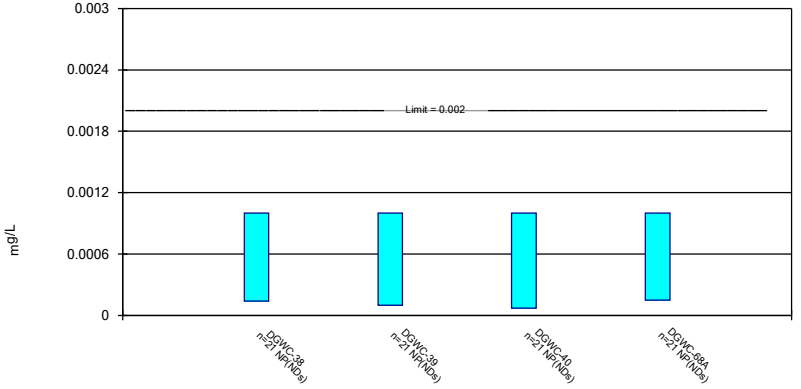


Constituent: Selenium Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 12/6/2024 12:09 PM View: AP 1 Confidence Intervals
Plant McDonough Client: Southern Company Data: McDonough AP

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
9/8/2016						<0.003
12/7/2016						<0.003
3/30/2017						<0.003
7/13/2017						<0.003
10/26/2017						<0.003
3/1/2018						<0.003
7/12/2018						<0.003
11/8/2018						<0.003
1/30/2019				<0.003		
8/28/2019						<0.003
9/11/2019				<0.003		
10/21/2019				<0.003		
3/9/2020						<0.003
8/13/2020				<0.003		<0.003
8/17/2020	0.0013 (J)					
9/24/2020				0.00046 (J)		<0.003
9/25/2020	<0.003					
12/9/2020		<0.003				
3/8/2021	0.0017 (J)	0.00069 (J)				
3/11/2021						<0.003
3/12/2021				<0.003		
4/15/2021			0.00041 (J)			
9/9/2021				<0.003		
9/13/2021	<0.003					
9/15/2021		0.0082				
9/16/2021			<0.003			<0.003
1/19/2022		<0.003	<0.003			
1/20/2022				<0.003		
1/21/2022	<0.003					<0.003
6/6/2022					<0.003	
9/7/2022		<0.003	<0.003			
9/8/2022	<0.003			<0.003	<0.003	<0.003
2/1/2023		0.0016 (J)	<0.003			
2/2/2023	<0.003			<0.003	<0.003	<0.003
5/2/2023					0.00082 (J)	
9/6/2023	<0.003					0.0014 (J)
9/7/2023		<0.003	<0.003	<0.003		
9/8/2023					<0.003	
1/30/2024		<0.003				
1/31/2024	<0.003				<0.003	<0.003
2/1/2024			<0.003	<0.003		
5/20/2024					0.00062 (J)	
9/4/2024					<0.003	<0.003
9/5/2024	<0.003	0.00062 (J)				
9/9/2024			<0.003	<0.003		
Mean	0.0027	0.002901	0.002676	0.002805	0.00243	0.00292
Std. Dev.	0.0006394	0.002234	0.0009157	0.0007045	0.001057	0.0003578
Upper Lim.	0.003	0.0082	0.003	0.003	0.003	0.003
Lower Lim.	0.0017	0.00062	0.00041	0.00046	0.00062	0.0014

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		<0.003			
9/8/2016	<0.003				
12/7/2016	<0.003				
12/8/2016		<0.003			
3/30/2017	<0.003	<0.003			
3/31/2017			0.0004 (J)		<0.003
5/12/2017			<0.003	<0.003	<0.003
6/16/2017			0.0008 (J)	0.0008 (J)	0.0007 (J)
7/13/2017	<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2017				<0.003	
10/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003
11/15/2017					<0.003
3/1/2018	<0.003				
3/2/2018		<0.003	<0.003	<0.003	<0.003
7/12/2018	<0.003	<0.003			
7/13/2018			0.0023 (J)	<0.003	<0.003
11/8/2018	<0.003	<0.003	<0.003	<0.003	<0.003
8/28/2019	<0.003	<0.003	<0.003	<0.003	<0.003
3/4/2020		<0.003			
3/9/2020	<0.003		<0.003	<0.003	<0.003
8/13/2020	<0.003	<0.003	<0.003	<0.003	0.0019 (J)
9/23/2020		<0.003	<0.003	<0.003	<0.003
9/25/2020	<0.003				
3/8/2021		0.00033 (J)			
3/10/2021				0.00032 (J)	0.0018 (J)
3/11/2021	<0.003		<0.003		
9/14/2021		<0.003			
9/16/2021			<0.003	<0.003	<0.003
9/17/2021	<0.003				
1/19/2022		<0.003	<0.003		
1/20/2022	<0.003				
1/25/2022				<0.003	<0.003
9/7/2022	<0.003	<0.003		<0.003	<0.003
9/8/2022			<0.003		
2/1/2023		<0.003		<0.003	<0.003
2/2/2023			<0.003		
2/3/2023	<0.003				
9/7/2023	<0.003	<0.003	0.0039	<0.003	<0.003
1/30/2024		<0.003			
1/31/2024	0.00058 (J)			<0.003	<0.003
2/1/2024			<0.003		
9/4/2024	0.00088 (J)				
9/5/2024		<0.003	<0.003	<0.003	<0.003
Mean	0.002773	0.002867	0.00277	0.002756	0.002781
Std. Dev.	0.0007004	0.000597	0.0007895	0.000755	0.0005887
Upper Lim.	0.003	0.003	0.0039	0.003	0.003
Lower Lim.	0.00088	0.00033	0.0023	0.0008	0.0019

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-105D	B-112D	B-62	DGWC-37	DGWC-38	DGWC-39
9/8/2016				<0.005	<0.005	<0.005
12/7/2016				0.0019 (J)	<0.005	<0.005
3/30/2017				<0.005	<0.005	0.0007 (J)
7/13/2017				<0.005	0.0005 (J)	0.0009 (J)
10/26/2017				<0.005	<0.005	<0.005
3/1/2018				<0.005	<0.005	0.0011 (J)
7/12/2018				<0.005	<0.005	0.00057 (J)
11/8/2018				<0.005	<0.005	<0.005
1/30/2019			<0.005			
8/28/2019				<0.005	<0.005	<0.005
9/11/2019			<0.005			
10/18/2019				<0.005	<0.005	0.00075 (J)
10/21/2019			<0.005			
3/9/2020				<0.005	<0.005	0.00039 (J)
8/13/2020			<0.005	<0.005	<0.005	<0.005
9/24/2020			<0.005	<0.005	<0.005	
9/25/2020						0.00087 (J)
12/9/2020	<0.005					
3/8/2021	0.0025 (J)					
3/11/2021				<0.005	<0.005	<0.005
3/12/2021			<0.005			
4/15/2021		0.00078 (J)				
9/9/2021			<0.005			
9/15/2021	<0.005				<0.005	
9/16/2021		<0.005		<0.005		
9/17/2021						<0.005
1/19/2022	0.0051	0.005				
1/20/2022			0.0033 (J)			0.0019 (J)
1/21/2022				<0.005	<0.005	
9/7/2022	0.0026 (J)	<0.005				<0.005
9/8/2022			<0.005	<0.005		
9/12/2022					<0.005	
2/1/2023	<0.005	<0.005				
2/2/2023			<0.005	<0.005	<0.005	
2/3/2023						<0.005
9/6/2023				<0.005		
9/7/2023	<0.005	<0.005	<0.005		<0.005	<0.005
1/30/2024	<0.005				<0.005	
1/31/2024				<0.005		<0.005
2/1/2024		<0.005	<0.005			
9/4/2024				0.00093 (J)	<0.005	0.00091 (J)
9/5/2024	<0.005					
9/9/2024		<0.005	<0.005			
Mean	0.004467	0.004472	0.004869	0.004659	0.004786	0.003242
Std. Dev.	0.001087	0.001492	0.0004715	0.001089	0.000982	0.002097
Upper Lim.	0.0051	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0025	0.00078	0.0033	0.0019	0.0005	0.00087

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.005			
12/8/2016	<0.005			
3/30/2017	0.0006 (J)			
3/31/2017		<0.005		0.0239
4/12/2017				0.0077
5/12/2017		<0.005	<0.005	0.0097
6/16/2017		<0.005	<0.005	0.0113
7/13/2017	<0.005	<0.005	<0.005	0.0029 (J)
8/8/2017			<0.005	
10/26/2017	<0.005	<0.005	<0.005	0.114
11/15/2017				0.164
3/2/2018	0.0011 (J)	<0.005	<0.005	0.0127
7/12/2018	<0.005			
7/13/2018		<0.005	<0.005	0.017
11/8/2018	<0.005	<0.005	<0.005 (J)	0.02
8/28/2019	<0.005	<0.005	<0.005	0.025
10/16/2019			<0.005	0.023
10/17/2019		0.00042 (J)		
10/18/2019	<0.005			
3/4/2020	0.00065 (J)			
3/9/2020		<0.005	<0.005	0.029
8/13/2020	<0.005	<0.005	<0.005	0.029
9/23/2020	<0.005	<0.005	<0.005	0.032
3/8/2021	<0.005			
3/10/2021			<0.005	0.028
3/11/2021		0.0008 (J)		
9/14/2021	<0.005			
9/16/2021		<0.005	0.46 (o)	0.023
10/27/2021			0.0016 (J)	
1/19/2022	0.003 (J)	0.0033 (J)		
1/25/2022			<0.005	0.028
9/7/2022	<0.005		<0.005	0.024
9/8/2022		<0.005		
2/1/2023	<0.005		<0.005	0.021
2/2/2023		<0.005		
9/7/2023	<0.005	<0.005	<0.005	0.029
1/30/2024	<0.005			
1/31/2024			<0.005	0.026
2/1/2024		<0.005		
9/5/2024	<0.005	<0.005	<0.005	0.02
Mean	0.004302	0.004501	0.004838	0.03131
Std. Dev.	0.001537	0.001347	0.0007419	0.03564
Upper Lim.	0.005	0.005	0.005	0.029
Lower Lim.	0.003	0.0033	0.0016	0.017

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
9/8/2016						0.123
12/7/2016						0.125
3/30/2017						0.11
7/13/2017						0.11
10/26/2017						0.112
3/1/2018						0.102
7/12/2018						0.11
11/8/2018						0.11
1/30/2019				0.018		
8/28/2019						0.086
9/11/2019				0.023		
10/18/2019						0.079
10/21/2019				0.026		
3/9/2020						0.092
8/13/2020				0.026		0.088
8/17/2020	0.015					
9/24/2020				0.025		0.094
9/25/2020	0.022					
12/9/2020		0.03				
3/8/2021	0.022	0.041				
3/11/2021						0.075
3/12/2021				0.027		
4/15/2021			0.026			
9/9/2021				0.021		
9/13/2021	0.021					
9/15/2021		0.037				
9/16/2021			0.0032 (J)			0.083
1/19/2022		0.04	0.0034 (J)			
1/20/2022				0.021		
1/21/2022	0.023					0.085
6/6/2022					0.04	
9/7/2022		0.035	0.0026 (J)			
9/8/2022	0.021			0.018	0.042	0.079
2/1/2023		0.036	0.0028 (J)			
2/2/2023	0.098			0.019	0.049	0.081
5/2/2023					0.048	
9/6/2023	0.021					0.082
9/7/2023		0.035	0.0027 (J)	0.015		
9/8/2023					0.047	
1/30/2024		0.039				
1/31/2024	0.019				0.05	0.086
2/1/2024			0.0028 (J)	0.017		
5/20/2024					0.044	
9/4/2024					0.045	0.067
9/5/2024	0.021	0.038				
9/9/2024			0.0036 (J)	0.017		
Mean	0.0283	0.03678	0.005888	0.021	0.04563	0.09424
Std. Dev.	0.02459	0.003308	0.008134	0.004041	0.003503	0.01649
Upper Lim.	0.023	0.03997	0.026	0.02401	0.04934	0.1033
Lower Lim.	0.019	0.03358	0.0026	0.01799	0.04191	0.08514

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0171			
9/8/2016	0.0333	0.0978				
12/7/2016	0.0336	0.0844				
12/8/2016			0.0163			
3/30/2017	0.0325	0.0858	0.0177			
3/31/2017				0.111		0.0872
5/12/2017				0.127	0.089	0.0929
6/16/2017				0.11	0.0855	0.1
7/13/2017	0.0332	0.0919	0.017	0.102	0.0859	0.0985
8/8/2017					0.0852	
10/26/2017	0.0333	0.0899	0.0168	0.105	0.0878	0.136
11/15/2017						0.107
3/1/2018	0.0333	0.0742				
3/2/2018			0.0169	0.104	0.0878	0.0671
7/12/2018	0.034	0.094	0.018			
7/13/2018				0.11	0.091	0.074
11/8/2018	0.035	0.1	0.017	0.11	0.092	0.072
8/28/2019	0.033	0.099	0.017	0.11	0.089	0.061
10/16/2019					0.089	0.1
10/17/2019				0.1		
10/18/2019	0.032	0.1	0.019			
3/4/2020			0.018			
3/9/2020	0.032	0.076		0.11	0.088	0.057
8/13/2020	0.032	0.089	0.018	0.095	0.088	0.13
9/23/2020			0.019	0.1	0.094	0.055
9/24/2020	0.032					
9/25/2020		0.1				
3/8/2021			0.016			
3/10/2021					0.09	0.048
3/11/2021	0.032	0.078		0.11		
9/14/2021			0.027			
9/15/2021	0.032					
9/16/2021				0.088	0.13 (o)	0.078
9/17/2021		0.09				
10/27/2021					0.086	
1/19/2022			0.018	0.091		
1/20/2022		0.093				
1/21/2022	0.031					
1/25/2022					0.1	0.049
9/7/2022		0.099	0.016		0.098	0.065
9/8/2022				0.082		
9/12/2022	0.027					
2/1/2023			0.017		0.099	0.044
2/2/2023	0.03			0.08		
2/3/2023		0.087				
9/7/2023	0.027	0.11	0.016	0.076	0.11	0.047
1/30/2024	0.031		0.017			
1/31/2024		0.1			0.11	0.048
2/1/2024				0.077		
9/4/2024	0.025	0.11				
9/5/2024			0.016	0.068	0.1	0.062
Mean	0.03163	0.09281	0.01766	0.09838	0.09263	0.0763

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
Std. Dev.	0.002504	0.009834	0.002323	0.01507	0.007476	0.02686
Upper Lim.	0.033	0.09823	0.018	0.1067	0.099	0.09072
Lower Lim.	0.03052	0.08738	0.0163	0.09007	0.0878	0.06189

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62	DGWC-37	DGWC-38	DGWC-40	DGWC-68A
9/2/2016					0.0028 (J)	
9/8/2016			<0.0005	<0.0005		
10/6/2016		9E-05 (J)				
12/7/2016			<0.0005	<0.0005		
12/8/2016					0.0026 (J)	
3/30/2017			<0.0005	<0.0005	0.003	
5/12/2017						<0.0005
6/16/2017						<0.0005
7/13/2017			<0.0005	<0.0005	0.003 (J)	<0.0005
8/8/2017						<0.0005
10/26/2017			<0.0005	<0.0005	0.0027 (J)	<0.0005
3/1/2018			<0.0005	<0.0005		
3/2/2018					0.0033	<0.0005
7/12/2018			7E-05 (J)	<0.0005	0.0032	
7/13/2018						8.4E-05 (J)
11/8/2018			<0.0005	<0.0005	<0.003 (J)	<0.0005
1/30/2019		<0.0025				
8/28/2019			8.6E-05 (J)	<0.0005	0.0032	<0.0005
9/11/2019		0.00012 (J)				
10/16/2019						<0.0005
10/18/2019			<0.0005	<0.0005	0.0033	
10/21/2019		7.8E-05 (J)				
3/4/2020					0.0039	
3/9/2020			<0.0005	<0.0005		<0.0005
8/13/2020		0.00011 (J)	0.0001 (J)	<0.0005	0.0033	<0.0005
8/17/2020	0.0004 (J)					
9/23/2020					0.0031	<0.0005
9/24/2020		0.00013 (J)	8.8E-05 (J)	5.8E-05 (J)		
9/25/2020	0.00035 (J)					
3/8/2021	0.00046 (J)				0.003	
3/10/2021						6.1E-05 (J)
3/11/2021			<0.0005	<0.0005		
3/12/2021		<0.0025				
9/9/2021		0.00014 (J)				
9/13/2021	0.00053					
9/14/2021					0.0032	
9/15/2021				<0.0005		
9/16/2021			5.9E-05 (J)			<0.0005
1/19/2022					0.0034	
1/20/2022		0.00015 (J)				
1/21/2022	0.00053		5.9E-05 (J)	<0.0005		
1/25/2022						<0.0005
9/7/2022					0.0031	<0.0005
9/8/2022	0.00058	0.00013 (J)	5.7E-05 (J)			
9/12/2022				<0.0005		
2/1/2023					0.0028	<0.0005
2/2/2023	<0.0005	0.00012 (J)	<0.0005	<0.0005		
9/6/2023	0.00054		5.8E-05 (J)			
9/7/2023		0.00011 (J)		<0.0005	0.0031	<0.0005
1/30/2024				<0.0005	0.0032	
1/31/2024	0.00047 (J)		<0.0005			<0.0005
2/1/2024		0.00015 (J)				

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-62	DGWC-37	DGWC-38	DGWC-40	DGWC-68A
9/4/2024			<0.0005	<0.0005		
9/5/2024	0.00053				0.0029	<0.0005
9/9/2024		0.00018 (J)				
Mean	0.000464	0.0002863	0.000337	0.000479	0.003029	0.0004593
Std. Dev.	0.0001029	0.0004091	0.0002132	9.645E-05	0.0004474	0.0001286
Upper Lim.	0.0005558	0.00018	0.0005	0.0005	0.003271	0.0005
Lower Lim.	0.0003722	9E-05	7E-05	5.8E-05	0.002834	8.4E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	7E-05 (J)
5/12/2017	<0.0005
6/16/2017	<0.0005
7/13/2017	<0.0005
10/26/2017	<0.0005
11/15/2017	<0.0005
3/2/2018	<0.0005
7/13/2018	5.8E-05 (J)
11/8/2018	<0.0005
8/28/2019	<0.0005
10/16/2019	<0.0005
3/9/2020	7.5E-05 (J)
8/13/2020	6.3E-05 (J)
9/23/2020	6.1E-05 (J)
3/10/2021	5E-05 (J)
9/16/2021	<0.0005
1/25/2022	5.9E-05 (J)
9/7/2022	<0.0005
2/1/2023	<0.0005
9/7/2023	7.8E-05 (J)
1/31/2024	<0.0005
9/5/2024	<0.0005
Mean	0.0003415
Std. Dev.	0.0002146
Upper Lim.	0.0005
Lower Lim.	7E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
9/2/2016				0.0008 (J)		
9/8/2016		0.0002 (J)	0.0002 (J)			
12/7/2016		0.0001 (J)	0.0002 (J)			
12/8/2016				0.0007 (J)		
3/30/2017		0.0001 (J)	0.0002 (J)	0.0007 (J)		
3/31/2017					<0.0005	
5/12/2017					<0.0005	8E-05 (J)
6/16/2017					<0.0005	<0.0005
7/13/2017		<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005
8/8/2017						<0.0005
10/26/2017		<0.0005	0.0002 (J)	0.0008 (J)	<0.0005	<0.0005
3/1/2018		<0.0005	<0.0005			
3/2/2018				<0.001	<0.0005	<0.0005
7/12/2018		<0.0005	0.00024 (J)	0.00087 (J)		
7/13/2018					<0.0005	0.00019 (J)
11/8/2018		<0.0005	<0.001 (J)	<0.001 (J)	<0.0005	<0.001 (J)
8/28/2019		<0.0005	0.0003 (J)	0.00087 (J)	0.00017 (J)	0.00017 (J)
10/16/2019						0.00017 (J)
10/17/2019					<0.0005	
10/18/2019		<0.0005	0.00016 (J)	0.00088 (J)		
3/4/2020				0.00093 (J)		
3/9/2020		<0.0005	0.00017 (J)		0.00021 (J)	0.00026 (J)
8/13/2020		<0.0005	0.00021 (J)	0.00084 (J)	0.00015 (J)	0.00021 (J)
8/17/2020	0.00059 (J)					
9/23/2020				0.0008 (J)	0.00018 (J)	0.00024 (J)
9/24/2020		0.00027 (J)	0.00081 (J)			
9/25/2020	0.00027 (J)					
3/8/2021	0.00027 (J)			0.00072		
3/10/2021						<0.0005
3/11/2021		<0.0005	<0.0005		0.00053	
9/13/2021	0.00029 (J)					
9/14/2021				0.00086		
9/15/2021			0.00021 (J)			
9/16/2021		0.00013 (J)			<0.0005	<0.0005
1/19/2022				0.00085	<0.0005	
1/21/2022	0.00059	<0.0005	0.0002 (J)			
1/25/2022						0.00035 (J)
9/7/2022				0.00081		0.0002 (J)
9/8/2022	0.00027 (J)	<0.0005			<0.0005	
9/12/2022			0.00013 (J)			
2/1/2023				0.00063		<0.0005
2/2/2023	<0.0005	<0.0005	<0.0005		<0.0005	
9/6/2023	0.00035 (J)	<0.0005				
9/7/2023			0.00013 (J)	0.00074	<0.0005	0.00015 (J)
1/30/2024			0.00024 (J)	0.00073		
1/31/2024	0.00033 (J)	<0.0005				0.00026 (J)
2/1/2024					<0.0005	
9/4/2024		<0.0005	0.00012 (J)			
9/5/2024	<0.0005			0.00069	0.00029 (J)	0.00025 (J)
Mean	0.000396	0.000419	0.0003057	0.0007629	0.00043	0.0003586
Std. Dev.	0.0001343	0.000152	0.0002323	0.0001157	0.0001342	0.0002103
Upper Lim.	0.00059	0.0005	0.0003	0.0008267	0.0005	0.0002347

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	DGWC-37	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
Lower Lim.	0.00027	0.00027	0.00017	0.000699	0.00029	0.0001547

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-69
3/31/2017	0.0001 (J)
5/12/2017	0.0002 (J)
6/16/2017	0.0002 (J)
7/13/2017	<0.0005
10/26/2017	<0.0005
11/15/2017	<0.0005
3/2/2018	<0.0005
7/13/2018	<0.0005
11/8/2018	<0.0005
8/28/2019	<0.0005
10/16/2019	0.00017 (J)
3/9/2020	<0.0005
8/13/2020	<0.0005
9/23/2020	<0.0005
3/10/2021	<0.0005
9/16/2021	<0.0005
1/25/2022	<0.0005
9/7/2022	<0.0005
2/1/2023	<0.0005
9/7/2023	<0.0005
1/31/2024	<0.0005
9/5/2024	<0.0005
Mean	0.0004395
Std. Dev.	0.0001325
Upper Lim.	0.0005
Lower Lim.	0.0002

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					<0.005	<0.005
12/7/2016					<0.005	<0.005
3/30/2017					<0.005	<0.005
7/13/2017					<0.005	<0.005
10/26/2017					0.0007 (J)	0.0005 (J)
3/1/2018					<0.005	<0.005
7/12/2018					<0.005	<0.005
11/8/2018					<0.005	<0.005
1/30/2019				<0.005		
8/28/2019					<0.005	<0.005
9/11/2019				<0.005		
10/18/2019					<0.005	0.00092 (J)
10/21/2019				0.00098 (J)		
3/9/2020					<0.005	0.00044 (J)
8/13/2020				<0.005	0.00058 (J)	<0.005
8/17/2020	<0.005					
9/24/2020				<0.005	<0.005	<0.005
9/25/2020	0.00094 (J)					
12/9/2020		<0.005				
3/8/2021	0.00057 (J)	<0.005				
3/11/2021					<0.005	<0.005
3/12/2021				<0.005		
4/15/2021			0.00085 (J)			
9/9/2021				<0.005		
9/13/2021	<0.005					
9/15/2021		0.0012 (J)				<0.005
9/16/2021			0.0014 (J)		<0.005	
1/19/2022		<0.005	<0.005			
1/20/2022				<0.005		
1/21/2022	<0.005				<0.005	<0.005
9/7/2022		<0.005	<0.005			
9/8/2022	<0.005			<0.005	<0.005	
9/12/2022						<0.005
2/1/2023		<0.005	<0.005			
2/2/2023	<0.005			<0.005	<0.005	<0.005
9/6/2023	<0.005				<0.005	
9/7/2023		<0.005	<0.005	<0.005		<0.005
1/30/2024		<0.005				<0.005
1/31/2024	<0.005				<0.005	
2/1/2024			<0.005	<0.005		
9/4/2024					<0.005	<0.005
9/5/2024	<0.005	<0.005				
9/9/2024			<0.005	<0.005		
Mean	0.004151	0.004578	0.004031	0.004691	0.004585	0.004374
Std. Dev.	0.001792	0.001267	0.0018	0.001115	0.001312	0.001573
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00094	0.0012	0.00085	0.00098	0.0007	0.00092

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.005			
12/8/2016	<0.005			
3/30/2017	0.0007 (J)			
3/31/2017		0.0005 (J)		<0.005
5/12/2017		0.0007 (J)	<0.005	<0.005
6/16/2017		<0.005	<0.005	<0.005
7/13/2017	0.0006 (J)	<0.005	0.0005 (J)	<0.005
8/8/2017			<0.005	
10/26/2017	0.0007 (J)	<0.005	<0.005	<0.005
11/15/2017				<0.005
3/2/2018	<0.005	<0.005	<0.005	<0.005
7/12/2018	<0.005			
7/13/2018		<0.005	<0.005	<0.005
11/8/2018	<0.005	<0.005	<0.005	<0.005
8/28/2019	0.00061 (J)	<0.005	<0.005	0.00049 (J)
10/16/2019			<0.005	<0.005
10/17/2019		<0.005		
10/18/2019	0.00078 (J)			
3/4/2020	0.0011 (J)			
3/9/2020		0.00088 (J)	<0.005	0.0012 (J)
8/13/2020	0.00072 (J)	<0.005	<0.005	<0.005
9/23/2020	0.0011 (J)	<0.005	<0.005	0.0011 (J)
3/8/2021	0.0006 (J)			
3/10/2021			<0.005	0.0009 (J)
3/11/2021		0.0014 (J)		
9/14/2021	0.0021 (J)			
9/16/2021		<0.005	0.0014 (Jo)	<0.005
10/27/2021			<0.005	
1/19/2022	<0.005	<0.005		
1/25/2022			<0.005	0.0013 (J)
9/7/2022	<0.005		<0.005	<0.005
9/8/2022		<0.005		
2/1/2023	<0.005		<0.005	<0.005
2/2/2023		<0.005		
9/7/2023	<0.005	<0.005	<0.005	<0.005
1/30/2024	<0.005			
1/31/2024			<0.005	<0.005
2/1/2024		<0.005		
9/5/2024	<0.005	<0.005	<0.005	<0.005
Mean	0.003048	0.004213	0.004786	0.00409
Std. Dev.	0.00212	0.001669	0.000982	0.001722
Upper Lim.	0.005	0.005	0.005	0.005
Lower Lim.	0.0007	0.0014	0.0005	0.0013

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
9/8/2016						<0.005
12/7/2016						0.0005 (J)
3/30/2017						<0.005
7/13/2017						0.0003 (J)
10/26/2017						0.0003 (J)
3/1/2018						<0.005
7/12/2018						<0.005
11/8/2018						<0.005
1/30/2019				<0.005		
8/28/2019						<0.005
9/11/2019				0.0003 (J)		
10/18/2019						<0.005
10/21/2019				0.00031 (J)		
3/9/2020						<0.005
7/23/2020	0.086					
8/3/2020	0.087					
8/13/2020				<0.005		<0.005
8/17/2020	0.077					
9/24/2020				<0.005		<0.005
9/25/2020	0.034					
12/9/2020		0.012				
3/8/2021	0.029	0.0042 (J)				
3/11/2021						<0.005
3/12/2021				<0.005		
4/15/2021			0.0025 (J)			
9/9/2021				<0.005		
9/13/2021	0.035					
9/15/2021		0.0065				
9/16/2021			0.00054 (J)			<0.005
1/19/2022		0.006	<0.005			
1/20/2022				<0.005		
1/21/2022	0.034					<0.005
6/6/2022					0.0028 (J)	
9/7/2022		0.004 (J)	<0.005			
9/8/2022	0.028			<0.005	0.0019 (J)	<0.005
9/9/2022				<0.005		
2/1/2023		0.004 (J)	<0.005			
2/2/2023	<0.005			<0.005	0.0016 (J)	<0.005
5/2/2023					0.0017 (J)	
9/6/2023	0.031					<0.005
9/7/2023		0.0027 (J)	0.0004 (J)	<0.005		
9/8/2023					0.0016 (J)	
1/30/2024		0.0026 (J)				
1/31/2024	0.065				0.0015 (J)	<0.005
2/1/2024			<0.005	<0.005		
5/20/2024					0.0013 (J)	
9/4/2024					0.0011 (J)	<0.005
9/5/2024	0.031	0.002 (J)				
9/9/2024			<0.005	<0.005		
Mean	0.04496	0.004889	0.003555	0.004329	0.001688	0.004338
Std. Dev.	0.02689	0.003058	0.002091	0.001705	0.0005111	0.001662
Upper Lim.	0.06544	0.007474	0.005	0.005	0.002229	0.005

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
Lower Lim.	0.02158	0.002337	0.0004	0.00031	0.001146	0.0005

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.0382			
9/8/2016	0.0015 (J)	0.0068 (J)				
12/7/2016	0.0017 (J)	0.0071 (J)				
12/8/2016			0.0318			
3/30/2017	0.0016 (J)	0.006 (J)	0.0364			
3/31/2017				0.0064 (J)		0.0022 (J)
5/12/2017				0.0037 (J)	0.0015 (J)	0.0016 (J)
6/16/2017				0.0041 (J)	0.0003 (J)	0.0009 (J)
7/13/2017	0.0016 (J)	0.0063 (J)	0.0394	0.0037 (J)	0.0005 (J)	0.0004 (J)
8/8/2017					<0.005	
10/26/2017	0.0016 (J)	0.0062 (J)	0.0371	0.0022 (J)	<0.005	0.0031 (J)
11/15/2017						0.0028 (J)
3/1/2018	<0.01	<0.01				
3/2/2018			0.0425	<0.01	<0.005	<0.005
7/12/2018	0.0015 (J)	0.0059 (J)	0.044			
7/13/2018				0.0017 (J)	<0.005	<0.005
11/8/2018	<0.01 (J)	<0.01 (J)	0.036	<0.01 (J)	<0.005	<0.005
8/28/2019	0.0016 (J)	0.0067	0.044	0.0013 (J)	<0.005	<0.005
10/16/2019					<0.005	<0.005
10/17/2019				0.0013 (J)		
10/18/2019	0.0016 (J)	0.007	0.043			
3/4/2020			0.055			
3/9/2020	0.0016 (J)	0.007		0.0015 (J)	<0.005	<0.005
8/13/2020	0.0014 (J)	0.006	0.044	0.0015 (J)	<0.005	<0.005
9/23/2020			0.046	0.0011 (J)	<0.005	<0.005
9/24/2020	0.0013 (J)					
9/25/2020		0.0061				
3/8/2021			0.039			
3/10/2021					<0.005	<0.005
3/11/2021	0.0017 (J)	0.0058		0.0016 (J)		
9/14/2021			0.05			
9/15/2021	0.0016 (J)					
9/16/2021				0.0012 (J)	0.0032 (Jo)	<0.005
9/17/2021		0.0076				
10/27/2021					<0.005	
1/19/2022			0.042	0.0011 (J)		
1/20/2022		0.0061				
1/21/2022	0.0017 (J)					
1/25/2022					<0.005	<0.005
9/7/2022		0.0065	0.037		<0.005	<0.005
9/8/2022				0.001 (J)		
9/12/2022	0.0014 (J)					
2/1/2023			0.035		<0.005	<0.005
2/2/2023	0.0017 (J)			0.0014 (J)		
2/3/2023		0.005				
9/7/2023	0.0015 (J)	0.0059	0.035	0.001 (J)	<0.005	<0.005
1/30/2024	0.002 (J)		0.037			
1/31/2024		0.0058			<0.005	<0.005
2/1/2024				0.0011 (J)		
9/4/2024	0.0015 (J)	0.0065				
9/5/2024			0.035	0.0011 (J)	<0.005	<0.005
Mean	0.00191	0.006205	0.04035	0.002286	0.004395	0.004136

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
Std. Dev.	0.001037	0.0006989	0.005603	0.001641	0.001531	0.001534
Upper Lim.	0.0017	0.00659	0.04344	0.0037	0.005	0.005
Lower Lim.	0.0015	0.005819	0.03726	0.0011	0.0015	0.0031

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-37	DGWC-38
9/8/2016					0.827 (U)	1.48
12/7/2016					0.56 (U)	0.22 (U)
3/30/2017					0.302 (U)	0.519 (U)
7/13/2017					0.731 (U)	1.11
10/26/2017					1.04 (U)	1.13 (U)
3/1/2018					0.344 (U)	0.985 (U)
7/12/2018					0.566 (U)	0.615 (U)
11/8/2018					0.623 (U)	0.58 (U)
1/30/2019				1.97 (U)		
8/28/2019					1.24 (U)	0.517 (U)
10/21/2019				1.82		
1/6/2020					2.01	0.527 (U)
3/9/2020					0.499 (U)	1.04
8/13/2020				1.63	0.99	0.132 (U)
8/17/2020	1.4 (U)					
9/24/2020				1.28 (U)	1.03 (U)	0.593 (U)
9/25/2020	0.799 (U)					
12/9/2020		1.25 (U)				
3/8/2021	0.168 (U)	1.87				
3/11/2021					0.956 (U)	0.0784 (U)
3/12/2021				1.18 (U)		
4/15/2021			0.945 (U)			
9/9/2021				1.7		
9/13/2021	0.774 (U)					
9/15/2021		2.01				2.37
9/16/2021			0.241 (U)		0.691 (U)	
1/19/2022		2.45	0.738 (U)			
1/20/2022				1.71		
1/21/2022	0.769 (U)				0.343 (U)	0.0873 (U)
9/8/2022	0.643 (U)					
9/9/2022				1.96		
2/1/2023		6.88	1.76			
2/2/2023	0.981			1.6	1.23	0.462 (U)
9/6/2023	0.326 (U)				0.732 (U)	
9/7/2023		2.88	0.902	2.24		0.358 (U)
1/30/2024		6.38				0.606 (U)
1/31/2024	0.0563 (U)				0.14 (U)	
2/1/2024			1.25	2.08		
9/4/2024					0.461 (U)	0.546 (U)
9/5/2024	0.44 (U)	3.88				
9/9/2024			1.51	2.14		
Mean	0.6356	3.45	1.049	1.776	0.7658	0.6978
Std. Dev.	0.4022	2.114	0.5067	0.3271	0.4268	0.5428
Upper Lim.	0.9945	5.69	1.651	2.033	1.008	0.9119
Lower Lim.	0.2768	1.21	0.4476	1.519	0.5234	0.3624

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		1.44			
9/8/2016	1.44				
12/7/2016	2.16				
12/8/2016		2.56			
3/30/2017	0.264 (U)	0.0844 (U)			
3/31/2017			0.404 (U)		1.39
5/12/2017			0.206 (U)	1.18	1.29
6/16/2017			0.966 (U)	0.332 (U)	1.61
7/13/2017	0.517 (U)	0.963 (U)	0.387 (U)	0.304 (U)	1.14
8/8/2017				1.4	
10/26/2017	0.875 (U)	0.748 (U)	0.619 (U)	0.477 (U)	2.04
11/15/2017					1.99
3/1/2018	1.24				
3/2/2018		0.485 (U)	1.31	1.13	0.918 (U)
7/12/2018	0.935 (U)	0.231 (U)			
7/13/2018			0.667 (U)	0.407 (U)	1.36 (U)
11/8/2018	1.15 (U)	0.465 (U)	0.911 (U)	0.393 (U)	0.719 (U)
8/28/2019	1.15 (U)	0.592 (U)	0.751 (U)	1.77	1.38
10/16/2019				2.12	0.826 (U)
1/6/2020	1.4	1.6	0.965 (U)		
3/4/2020		1.62			
3/9/2020	1.36		0.819 (U)	1.33	1.39
8/13/2020	0.626 (U)	1.6	0.897 (U)	1.46	2.66
9/23/2020		1.28 (U)	0.131 (U)	0.563 (U)	1.8
9/25/2020	0.181 (U)				
3/8/2021		0.714 (U)			
3/10/2021				0.568 (U)	1.6
3/11/2021	0.969 (U)		1.55		
9/14/2021		1.8			
9/16/2021			0.201 (U)	1.74	2.06
9/17/2021	0.911 (U)				
1/19/2022		1.7	0.853 (U)		
1/20/2022	0.172 (U)				
1/25/2022				0.323 (U)	0.834 (U)
2/1/2023		0.603 (U)		1.37	1.85
2/2/2023			0.498 (U)		
2/3/2023	0.878 (U)				
9/7/2023	0.728 (U)	0.902 (U)	0.565 (U)	0.782 (U)	0.91
1/30/2024		0.534 (U)			
1/31/2024	0.156 (U)			0.0595 (U)	0.588 (U)
2/1/2024			0.667 (U)		
9/4/2024	0.203 (U)				
9/5/2024		0.217 (U)	0.547 (U)	1.15	1.6
Mean	0.8658	1.007	0.6957	0.9429	1.426
Std. Dev.	0.5285	0.6582	0.3593	0.5943	0.5282
Upper Lim.	1.166	1.381	0.8997	1.28	1.718
Lower Lim.	0.5656	0.6332	0.4917	0.6054	1.135

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
9/8/2016						0.08 (J)
12/7/2016						0.21 (J)
3/30/2017						0.05 (J)
7/13/2017						0.06 (J)
10/26/2017						0.08 (J)
3/1/2018						0.22
7/12/2018						0.32
11/8/2018						<0.3
1/30/2019				0.43		
3/13/2019						0.08 (J)
8/28/2019						0.074 (J)
10/18/2019						0.075 (J)
10/21/2019				0.23 (J)		
3/9/2020						0.054 (J)
8/13/2020				0.11		0.068 (J)
8/17/2020	<0.1					
9/24/2020				0.093 (J)		0.061 (J)
9/25/2020	<0.1					
12/9/2020		0.075 (J)				
3/8/2021	<0.1	0.32				
3/11/2021						0.057 (J)
3/12/2021				0.11		
4/15/2021			0.3			
9/9/2021				0.14		
9/13/2021	<0.1					
9/15/2021		0.078 (J)				
9/16/2021			0.34			0.084 (J)
1/19/2022		0.058 (J)	0.25			
1/20/2022				0.099 (J)		
1/21/2022	<0.1					0.053 (J)
6/6/2022					0.056 (J)	
9/7/2022		0.11	0.27			
9/8/2022	0.072 (J)			0.13	0.093 (J)	0.082 (J)
2/1/2023		0.089 (J)	0.3			
2/2/2023	0.052 (J)			0.16	0.11	0.089 (J)
5/2/2023					0.076 (J)	
9/6/2023	<0.1					0.053 (J)
9/7/2023		0.1	0.32	0.13		
9/8/2023					<0.1	
1/30/2024		0.081 (J)				
1/31/2024	0.063 (J)				0.07 (J)	0.069 (J)
2/1/2024			0.29	0.14		
5/20/2024					0.062 (J)	
9/4/2024					0.082 (J)	0.1
9/5/2024	0.069 (J)	0.13				
9/9/2024			0.34	0.18		
Mean	0.0856	0.1157	0.3013	0.1627	0.07488	0.09859
Std. Dev.	0.01928	0.07949	0.03182	0.0924	0.01992	0.0678
Upper Lim.	0.1	0.32	0.335	0.2054	0.09599	0.089
Lower Lim.	0.063	0.058	0.2675	0.1057	0.05376	0.06

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016			0.5			
9/8/2016	0.1 (J)	0.17 (J)				
12/7/2016	0.27 (J)	0.33				
12/8/2016			0.35			
3/30/2017	0.12 (J)	0.17 (J)	0.21 (J)			
3/31/2017				0.02 (J)		0.16 (J)
5/12/2017				<0.1	0.37	0.12 (J)
6/16/2017				0.03 (J)	0.12 (J)	0.16 (J)
7/13/2017	0.13 (J)	0.14 (J)	0.2 (J)	0.03 (J)	0.12 (J)	0.13 (J)
8/8/2017					0.11 (J)	
10/26/2017	0.47	0.54	0.5	<0.1	0.11 (J)	0.29 (J)
11/15/2017						0.28 (J)
3/1/2018	<0.3	0.13				
3/2/2018			0.33	<0.1	0.23	0.18
7/12/2018	0.23 (J)	0.13 (J)	0.57			
7/13/2018				0.25 (J)	0.099 (J)	0.19 (J)
11/8/2018	<0.3	<0.3 (J)	<0.3 (J)	0.5	<0.3 (J)	<0.3 (J)
3/13/2019	0.084 (J)	0.085 (J)	0.15 (J)	0.07 (J)	0.12 (J)	0.086 (J)
8/28/2019	0.066 (J)	0.086 (J)	0.14	<0.1	0.1	0.07 (J)
10/16/2019					0.093 (J)	0.13 (J)
10/17/2019				0.038 (J)		
10/18/2019	0.073 (J)	0.14 (J)	0.13 (J)			
3/4/2020			0.11 (J)			
3/9/2020	0.064 (J)	0.075 (J)		<0.1	0.082 (J)	0.068 (J)
8/13/2020	0.06 (J)	0.076 (J)	0.16	<0.1	0.076 (J)	0.084 (J)
9/23/2020			0.054 (J)	<0.1	0.07 (J)	0.064 (J)
9/24/2020	0.057 (J)					
9/25/2020		0.086 (J)				
3/8/2021			0.17			
3/10/2021					0.07 (J)	0.055 (J)
3/11/2021	0.058 (J)	0.083 (J)		<0.1		
9/14/2021			0.13			
9/15/2021	0.06 (J)					
9/16/2021				0.069 (J)	0.55	0.11
9/17/2021		0.13				
1/19/2022			0.12	<0.1		
1/20/2022		0.1				
1/21/2022	0.1					
1/25/2022					0.067 (J)	0.054 (J)
9/7/2022		0.11	0.14		0.11	0.11
9/8/2022				0.096 (J)		
9/12/2022	0.12					
2/1/2023			0.15		0.11	0.1
2/2/2023	0.1			0.068 (J)		
2/3/2023		0.12				
9/7/2023	0.072 (J)	0.092 (J)	0.14	<0.1	0.096 (J)	0.063 (J)
1/30/2024	0.078 (J)		0.12			
1/31/2024		0.11			0.092 (J)	0.086 (J)
2/1/2024				0.057 (J)		
9/4/2024	0.12	0.14				
9/5/2024			0.14	0.071 (J)	0.11	0.11
Mean	0.1242	0.1451	0.212	0.1045	0.1389	0.1239

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
Std. Dev.	0.09473	0.1033	0.143	0.09945	0.1128	0.06446
Upper Lim.	0.1401	0.15	0.2429	0.1	0.12	0.1494
Lower Lim.	0.0777	0.086	0.1315	0.068	0.092	0.08849

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	DGWC-37	DGWC-38	DGWC-39
9/8/2016				<0.001	<0.001	<0.001
12/7/2016				<0.001	<0.001	<0.001
3/30/2017				0.0014 (J)	<0.001	<0.001
7/13/2017				<0.001	<0.001	<0.001
10/26/2017				<0.001	0.0001 (J)	<0.001
3/1/2018				<0.001	<0.001	<0.001
7/12/2018				<0.001	<0.001	<0.001
11/8/2018				<0.001	<0.001	<0.001
8/28/2019				6.1E-05 (J)	<0.001	8E-05 (J)
10/18/2019				<0.001	7.4E-05 (J)	<0.001
3/9/2020				<0.001	6.1E-05 (J)	<0.001
8/13/2020				<0.001	<0.001	<0.001
8/17/2020	8.8E-05 (J)					
9/24/2020				<0.001	0.00014 (J)	
9/25/2020	0.00021 (J)					0.00022 (J)
12/9/2020		5.2E-05 (J)				
3/8/2021	0.00018 (J)	<0.001				
3/11/2021				<0.001	0.00014 (J)	<0.001
4/15/2021			0.00014 (J)			
9/13/2021	<0.001					
9/15/2021		<0.001			<0.001	
9/16/2021			<0.001	<0.001		
9/17/2021						<0.001
1/19/2022		<0.001	<0.001			
1/20/2022						<0.001
1/21/2022	<0.001			<0.001	<0.001	
9/7/2022		<0.001	<0.001			<0.001
9/8/2022	<0.001			<0.001		
9/12/2022					<0.001	
2/1/2023		<0.001	<0.001			
2/2/2023	<0.001			<0.001	<0.001	
2/3/2023						<0.001
9/6/2023	<0.001			<0.001		
9/7/2023		<0.001	<0.001		<0.001	<0.001
1/30/2024		<0.001			<0.001	
1/31/2024	<0.001			<0.001		<0.001
2/1/2024			<0.001			
9/4/2024				<0.001	<0.001	<0.001
9/5/2024	<0.001	<0.001				
9/9/2024			<0.001			
Mean	0.0007478	0.0008947	0.0008925	0.0009743	0.0007864	0.000919
Std. Dev.	0.0004072	0.000316	0.0003041	0.0002267	0.0003918	0.0002566
Upper Lim.	0.001	0.001	0.001	0.0014	0.001	0.001
Lower Lim.	0.00018	5.2E-05	0.00014	6.1E-05	0.00014	0.00022

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016	<0.001			
12/8/2016	<0.001			
3/30/2017	7E-05 (J)			
3/31/2017		<0.001		<0.001
5/12/2017		9E-05 (J)	<0.001	0.0001 (J)
6/16/2017		<0.001	<0.001	<0.001
7/13/2017	<0.001	<0.001	<0.001	<0.001
8/8/2017			<0.001	
10/26/2017	7E-05 (J)	<0.001	<0.001	<0.001
11/15/2017				9E-05 (J)
3/2/2018	<0.001	<0.001	<0.001	<0.001
7/12/2018	<0.001			
7/13/2018		<0.001	<0.001	<0.001
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	8.1E-05 (J)	<0.001	<0.001	<0.001
10/16/2019			<0.001	<0.001
10/17/2019		<0.001		
10/18/2019	0.00015 (J)			
3/4/2020	0.00017 (J)			
3/9/2020		4.7E-05 (J)	<0.001	9E-05 (J)
8/13/2020	4.9E-05 (J)	5.6E-05 (J)	<0.001	5.9E-05 (J)
9/23/2020	0.00028 (J)	<0.001	0.00035 (J)	0.00017 (J)
3/8/2021	5.4E-05 (J)			
3/10/2021			6.7E-05 (J)	0.0001 (J)
3/11/2021		0.00025 (J)		
9/14/2021	<0.001			
9/16/2021		<0.001	<0.001	<0.001
1/19/2022	<0.001	<0.001		
1/25/2022			<0.001	<0.001
9/7/2022	<0.001		<0.001	<0.001
9/8/2022		<0.001		
2/1/2023	<0.001		<0.001	<0.001
2/2/2023		<0.001		
9/7/2023	<0.001	<0.001	<0.001	0.0002 (J)
1/30/2024	<0.001			
1/31/2024			<0.001	<0.001
2/1/2024		<0.001		
9/5/2024	<0.001	<0.001	<0.001	<0.001
Mean	0.000663	0.0008306	0.0009246	0.0007186
Std. Dev.	0.0004427	0.0003597	0.0002422	0.0004225
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	8.1E-05	0.00025	0.00035	0.00017

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	B-62	DGWC-121	DGWC-37
9/8/2016						<0.03
12/7/2016						<0.03
3/30/2017						0.0029 (J)
7/13/2017						<0.03
10/26/2017						0.0018 (J)
3/1/2018						0.0024 (J)
7/12/2018						0.0028 (J)
11/8/2018						<0.03
1/30/2019				<0.05		
8/28/2019						0.0025 (J)
9/11/2019				0.0078 (J)		
10/18/2019						0.0026 (J)
10/21/2019				0.0078 (J)		
3/9/2020						0.0017 (J)
8/13/2020				0.0087 (J)		0.0023 (J)
8/17/2020	0.0013 (J)					
9/24/2020				0.0084 (J)		0.0021 (J)
9/25/2020	0.0027 (J)					
12/9/2020		0.014 (J)				
3/8/2021	0.0024 (J)	0.015 (J)				
3/11/2021						0.0024 (J)
3/12/2021				0.0087 (J)		
4/15/2021			0.0045 (J)			
9/9/2021				0.0094 (J)		
9/13/2021	0.0022 (J)					
9/15/2021		0.014 (J)				
9/16/2021			0.0038 (J)			0.0021 (J)
1/19/2022		0.013 (J)	0.0044 (J)			
1/20/2022				0.0092 (J)		
1/21/2022	0.0021 (J)					0.002 (J)
6/6/2022					0.013 (J)	
9/7/2022		0.013 (J)	0.0039 (J)			
9/8/2022	0.0023 (J)			0.0085 (J)	0.01 (J)	0.0019 (J)
2/1/2023		0.013 (J)	0.0038 (J)			
2/2/2023	<0.03			0.0082 (J)	0.0059 (J)	0.0018 (J)
5/2/2023					0.0045 (J)	
9/6/2023	0.0023 (J)					0.0021 (J)
9/7/2023		0.013 (J)	0.0043 (J)	0.0092 (J)		
9/8/2023					0.0055 (J)	
1/30/2024		0.013 (J)				
1/31/2024	<0.03				0.0045 (J)	<0.03
2/1/2024			0.0042 (J)	0.0094 (J)		
5/20/2024					0.005 (J)	
9/4/2024					0.0046 (J)	0.0019 (J)
9/5/2024	0.0019 (J)	0.011 (J)				
9/9/2024			0.0042 (J)	0.0093 (J)		
Mean	0.00772	0.01322	0.004138	0.009969	0.006625	0.008824
Std. Dev.	0.01175	0.001093	0.0002722	0.004551	0.003153	0.01213
Upper Lim.	0.03	0.01428	0.004426	0.0094	0.013	0.0029
Lower Lim.	0.0019	0.01217	0.003849	0.0082	0.0045	0.0019

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-40	DGWC-67	DGWC-68A	DGWC-69
9/2/2016		0.0022 (J)			
9/8/2016	0.0032 (J)				
12/7/2016	0.0035 (J)				
12/8/2016		<0.05			
3/30/2017	0.0035 (J)	0.0023 (J)			
3/31/2017			0.0052 (J)		0.0031 (J)
5/12/2017			0.0054 (J)	0.0016 (J)	0.003 (J)
6/16/2017			0.0048 (J)	<0.03	0.0031 (J)
7/13/2017	0.0032 (J)	0.0023 (J)	0.0044 (J)	<0.03	0.0029 (J)
8/8/2017				<0.03	
10/26/2017	0.0034 (J)	0.0021 (J)	0.0043 (J)	<0.03	0.0034 (J)
11/15/2017					0.0034 (J)
3/1/2018	0.0033 (J)				
3/2/2018		0.0023 (J)	0.0047 (J)	<0.03	0.0028 (J)
7/12/2018	0.0034 (J)	0.0022 (J)			
7/13/2018			0.0041 (J)	<0.03	0.0026 (J)
11/8/2018	<0.05	<0.05	<0.05	<0.03	<0.05
8/28/2019	0.0034 (J)	0.0022 (J)	0.0046 (J)	<0.03	0.0024 (J)
10/16/2019				<0.03	0.0032 (J)
10/17/2019			0.0047 (J)		
10/18/2019	0.0032 (J)	0.0024 (J)			
3/4/2020		0.0027 (J)			
3/9/2020	0.0033 (J)		0.0048 (J)	<0.03	0.0025 (J)
8/13/2020	0.0028 (J)	0.0022 (J)	0.0044 (J)	<0.03	0.0031 (J)
9/23/2020		0.0022 (J)	0.0043 (J)	<0.03	0.0023 (J)
9/24/2020	0.0029 (J)				
3/8/2021		0.0022 (J)			
3/10/2021				<0.03	0.0023 (J)
3/11/2021	0.003 (J)		0.005 (J)		
9/14/2021		0.003 (J)			
9/15/2021	0.0029 (J)				
9/16/2021			0.0044 (J)	0.00082 (J)	0.0023 (J)
1/19/2022		0.0024 (J)	0.0046 (J)		
1/21/2022	0.0025 (J)				
1/25/2022				<0.03	0.0026 (J)
9/7/2022		0.0023 (J)		<0.03	0.0025 (J)
9/8/2022			0.0048 (J)		
9/12/2022	0.003 (J)				
2/1/2023		0.0021 (J)		<0.03	0.0021 (J)
2/2/2023	0.0026 (J)		0.0048 (J)		
9/7/2023	0.0026 (J)	0.0022 (J)	0.0046 (J)	<0.03	0.0022 (J)
1/30/2024	0.003 (J)	0.0023 (J)			
1/31/2024				<0.03	0.0021 (J)
2/1/2024			0.0045 (J)		
9/4/2024	0.0029 (J)				
9/5/2024		0.002 (J)	0.0045 (J)	<0.03	0.0021 (J)
Mean	0.004124	0.004457	0.005614	0.02726	0.003682
Std. Dev.	0.004793	0.006833	0.004452	0.008661	0.004781
Upper Lim.	0.0034	0.0024	0.005	0.03	0.0031
Lower Lim.	0.0029	0.0022	0.0044	0.0016	0.0023

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	DGWC-37	DGWC-38	DGWC-39	DGWC-40
9/2/2016						4.4E-05 (J)
9/8/2016			<0.0002	<0.0002	<0.0002	
12/7/2016			<0.0002	<0.0002	<0.0002	
12/8/2016						<0.0002
3/30/2017			6E-05 (J)	7E-05 (J)	5.9E-05 (J)	9E-05 (J)
7/13/2017			<0.0002	<0.0002	<0.0002	<0.0002
10/26/2017			<0.0002	<0.0002	<0.0002	<0.0002
3/1/2018			<0.0002	<0.0002	<0.0002	
3/2/2018						<0.0002
7/12/2018			4.4E-05 (J)	4E-05 (J)	<0.0002	4.5E-05 (J)
11/8/2018			<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019			<0.0002	<0.0002	<0.0002	<0.0002
10/18/2019			<0.0002	<0.0002	<0.0002	<0.0002
3/4/2020						<0.0002
3/9/2020			<0.0002	<0.0002	<0.0002	
8/13/2020			<0.0002	<0.0002	<0.0002	<0.0002
8/17/2020	0.00011 (J)					
9/23/2020						<0.0002
9/24/2020			9.1E-05 (J)	8.5E-05 (J)		
9/25/2020	<0.0002				<0.0002	
12/9/2020		8.7E-05 (J)				
9/13/2021	<0.0002					
9/14/2021						<0.0002
9/15/2021		<0.0002		<0.0002		
9/16/2021			<0.0002			
9/17/2021					<0.0002	
1/19/2022		<0.0002				<0.0002
1/20/2022					<0.0002	
1/21/2022	<0.0002		<0.0002	<0.0002		
9/7/2022		0.00014 (J)			<0.0002	<0.0002
9/8/2022	<0.0002		<0.0002			
9/12/2022				<0.0002		
2/1/2023		<0.0002				<0.0002
2/2/2023	<0.0002		<0.0002	<0.0002		
2/3/2023					<0.0002	
9/6/2023	<0.0002		<0.0002			
9/7/2023		<0.0002		<0.0002	<0.0002	<0.0002
1/30/2024		<0.0002		<0.0002		<0.0002
1/31/2024	<0.0002		<0.0002		<0.0002	
9/4/2024			<0.0002	<0.0002	<0.0002	
9/5/2024	<0.0002	<0.0002				<0.0002
Mean	0.00019	0.0001784	0.0001797	0.0001797	0.0001929	0.0001789
Std. Dev.	3E-05	4.247E-05	5.006E-05	5.001E-05	3.153E-05	5.211E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00011	8.7E-05	9.1E-05	8.5E-05	5.9E-05	9E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-67	DGWC-68A	DGWC-69
3/31/2017	<0.0002		<0.0002
5/12/2017	<0.0002	<0.0002	<0.0002
6/16/2017	7E-05 (J)	7E-05 (J)	7E-05 (J)
7/13/2017	<0.0002	<0.0002	<0.0002
8/8/2017		<0.0002	
10/26/2017	<0.0002	<0.0002	<0.0002
11/15/2017			<0.0002
3/2/2018	<0.0002	<0.0002	<0.0002
7/13/2018	<0.0002	<0.0002	<0.0002
11/8/2018	<0.0002	<0.0002	<0.0002
8/28/2019	<0.0002	<0.0002	<0.0002
10/16/2019		<0.0002	<0.0002
10/17/2019	<0.0002		
3/9/2020	<0.0002	<0.0002	<0.0002
8/13/2020	<0.0002	<0.0002	<0.0002
9/23/2020	<0.0002	<0.0002	<0.0002
9/16/2021	<0.0002	<0.0002	<0.0002
1/19/2022	<0.0002		
1/25/2022		<0.0002	<0.0002
9/7/2022		<0.0002	<0.0002
9/8/2022	<0.0002		
2/1/2023		<0.0002	<0.0002
2/2/2023	<0.0002		
9/7/2023	<0.0002	<0.0002	<0.0002
1/31/2024		<0.0002	<0.0002
2/1/2024	<0.0002		
9/5/2024	<0.0002	<0.0002	<0.0002
Mean	0.0001935	0.0001935	0.0001938
Std. Dev.	2.907E-05	2.907E-05	2.837E-05
Upper Lim.	0.0002	0.0002	0.0002
Lower Lim.	7E-05	7E-05	7E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	B-105D	B-112D	DGWC-121	DGWC-38	DGWC-39
9/8/2016					<0.01	<0.01
12/7/2016					<0.01	<0.01
3/30/2017					0.0011 (J)	<0.01
7/13/2017					0.0012 (J)	<0.01
10/26/2017					0.0011 (J)	<0.01
3/1/2018					<0.01	<0.01
7/12/2018					<0.01	<0.01
11/8/2018					<0.01	<0.01
8/28/2019					<0.01	<0.01
10/18/2019					<0.01	<0.01
3/9/2020					0.001 (J)	<0.01
8/13/2020					0.00098 (J)	<0.01
8/17/2020	<0.01					
9/24/2020					0.001 (J)	
9/25/2020	<0.01					<0.01
12/9/2020		<0.01				
3/8/2021	<0.01	0.0011 (J)				
3/11/2021					0.00092 (J)	<0.01
4/15/2021			0.037			
9/13/2021	<0.01					
9/15/2021		<0.01			0.00099 (J)	
9/16/2021			0.032			
9/17/2021						<0.01
1/19/2022		<0.01	0.032			
1/20/2022						<0.01
1/21/2022	<0.01				0.0013 (J)	
6/6/2022				0.00093 (J)		
9/7/2022		<0.01	0.028			<0.01
9/8/2022	<0.01			<0.01		
9/12/2022					0.0012 (J)	
2/1/2023		<0.01	0.03			
2/2/2023	0.19			<0.01	0.0015 (J)	
2/3/2023						<0.01
5/2/2023				0.00089 (J)		
9/6/2023	<0.01					
9/7/2023		<0.01	0.026		0.0013 (J)	0.0016 (J)
9/8/2023				<0.01		
1/30/2024		<0.01			0.0018 (J)	
1/31/2024	<0.01			0.00092 (J)		<0.01
2/1/2024			0.027			
5/20/2024				<0.01		
9/4/2024				<0.01	0.0012 (J)	<0.01
9/5/2024	<0.01	<0.01				
9/9/2024			0.026			
Mean	0.028	0.009011	0.02975	0.006592	0.004123	0.0096
Std. Dev.	0.05692	0.002967	0.003808	0.004703	0.004262	0.001833
Upper Lim.	0.01	0.01	0.03379	0.01	0.01	0.01
Lower Lim.	0.01	0.0011	0.02571	0.00089	0.001	0.0016

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-67	DGWC-68A	DGWC-69
3/31/2017	<0.01		0.0124
5/12/2017	<0.01	0.275	0.0117
6/16/2017	<0.01	0.19	0.0087 (J)
7/13/2017	<0.01	0.211	0.0053 (J)
8/8/2017		0.207	
10/26/2017	<0.01	0.226	0.0244
11/15/2017			0.0237
3/2/2018	<0.01	0.215	0.0072 (J)
7/13/2018	<0.01	0.22	0.007 (J)
11/8/2018	<0.01	0.2	<0.01 (J)
8/28/2019	<0.01	0.21	0.0059 (J)
10/16/2019		0.22	0.01
10/17/2019	<0.01		
3/9/2020	<0.01	0.19	0.0062 (J)
8/13/2020	<0.01	0.19	0.011
9/23/2020	<0.01	0.2	0.0056 (J)
3/10/2021		0.2	0.0056 (J)
3/11/2021	<0.01		
9/16/2021	<0.01	0.18	0.009 (J)
1/19/2022	<0.01		
1/25/2022		0.23	0.0057 (J)
9/7/2022		0.2	0.0067 (J)
9/8/2022	<0.01		
2/1/2023		0.19	0.0058 (J)
2/2/2023	<0.01		
9/7/2023	0.0013 (J)	0.18	0.0056 (J)
1/31/2024		0.2	0.0066 (J)
2/1/2024	<0.01		
9/5/2024	<0.01	0.19	0.0076 (J)
Mean	0.009586	0.2059	0.008941
Std. Dev.	0.001898	0.02129	0.005347
Upper Lim.	0.01	0.2169	0.01
Lower Lim.	0.0013	0.1942	0.0057

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
9/2/2016			0.0019 (J)		
9/8/2016		<0.005			
12/7/2016		<0.005			
12/8/2016			0.0022 (J)		
3/30/2017		<0.005	0.0023 (J)		
3/31/2017				<0.005	
5/12/2017				<0.005	<0.005
6/16/2017				<0.005	<0.005
7/13/2017		<0.005	0.0025 (J)	<0.005	<0.005
8/8/2017					<0.005
10/26/2017		<0.005	0.0036 (J)	<0.005	<0.005
3/1/2018		<0.005			
3/2/2018			<0.005	<0.005	<0.005
7/12/2018		<0.005	<0.005		
7/13/2018				<0.005	<0.005
11/8/2018		<0.005	<0.01 (J)	<0.005	<0.005
8/28/2019		<0.005	0.0017 (J)	<0.005	<0.005
10/16/2019					<0.005
10/17/2019				<0.005	
10/18/2019		<0.005	0.0027 (J)		
3/4/2020			0.0049 (J)		
3/9/2020		<0.005		<0.005	<0.005
8/13/2020		<0.005	0.0018 (J)	<0.005	<0.005
8/17/2020	<0.005				
9/23/2020			0.0067 (J)	<0.005	<0.005
9/24/2020		<0.005			
9/25/2020	<0.005				
3/8/2021	0.0019 (J)		0.0023 (J)		
3/10/2021					0.0017 (J)
3/11/2021		0.0019 (J)		0.0027 (J)	
9/13/2021	<0.005				
9/14/2021			0.0015 (J)		
9/15/2021		<0.005			
9/16/2021				<0.005	<0.005
1/19/2022			<0.005	<0.005	
1/21/2022	<0.005	<0.005			
1/25/2022					<0.005
9/7/2022			0.0018 (J)		<0.005
9/8/2022	<0.005			<0.005	
9/12/2022		<0.005			
2/1/2023			<0.005		<0.005
2/2/2023	<0.005	<0.005		<0.005	
9/6/2023	<0.005				
9/7/2023		<0.005	<0.005	<0.005	<0.005
1/30/2024		<0.005	0.0027 (J)		
1/31/2024	<0.005				<0.005
2/1/2024				<0.005	
9/4/2024		<0.005			
9/5/2024	<0.005		<0.005	<0.005	<0.005
Mean	0.00469	0.004852	0.003743	0.00489	0.004843
Std. Dev.	0.0009803	0.0006765	0.002111	0.0005019	0.0007201
Upper Lim.	0.005	0.005	0.003117	0.005	0.005

ND substitution: RL or RL/2 if <15% NDs. Substitution method for trace values of the form <PQL(J or TR): PQL.

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	B-100	DGWC-38	DGWC-40	DGWC-67	DGWC-68A
Lower Lim.	0.005	0.0019	0.001862	0.0027	0.0017

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/6/2024 12:13 PM View: AP 1 Confidence Intervals

Plant McDonough Client: Southern Company Data: McDonough AP

	DGWC-38	DGWC-39	DGWC-40	DGWC-68A
9/2/2016			<0.001	
9/8/2016	<0.001	<0.001		
12/7/2016	<0.001	<0.001		
12/8/2016			<0.001	
3/30/2017	0.0001 (J)	0.0001 (J)	6E-05 (J)	
5/12/2017				<0.001
6/16/2017				<0.001
7/13/2017	0.0001 (J)	9E-05 (J)	6E-05 (J)	<0.001
8/8/2017				<0.001
10/26/2017	0.0001 (J)	0.0001 (J)	7E-05 (J)	<0.001
3/1/2018	<0.001	<0.001		
3/2/2018			<0.001	<0.001
7/12/2018	<0.001	<0.001	<0.001	
7/13/2018				0.00015 (J)
11/8/2018	<0.001	<0.001	<0.001	<0.001
8/28/2019	0.00014 (J)	6.9E-05 (J)	7E-05 (J)	<0.001
10/16/2019				<0.001
10/18/2019	0.0001 (J)	<0.001	<0.001	
3/4/2020			6.8E-05 (J)	
3/9/2020	0.00016 (J)	7.1E-05 (J)		<0.001
8/13/2020	0.00016 (J)	<0.001	<0.001	<0.001
9/23/2020			<0.001	<0.001
9/24/2020	0.00015 (J)			
9/25/2020		<0.001		
3/8/2021			<0.001	
3/10/2021				<0.001
3/11/2021	<0.001	<0.001		
9/14/2021			<0.001	
9/15/2021	<0.001			
9/16/2021				<0.001
9/17/2021		<0.001		
1/19/2022			<0.001	
1/20/2022		<0.001		
1/21/2022	<0.001			
1/25/2022				<0.001
9/7/2022		<0.001	<0.001	<0.001
9/12/2022	<0.001			
2/1/2023			<0.001	<0.001
2/2/2023	<0.001			
2/3/2023		<0.001		
9/7/2023	<0.001	<0.001	<0.001	<0.001
1/30/2024	<0.001		<0.001	
1/31/2024		<0.001		<0.001
9/4/2024	<0.001	<0.001		
9/5/2024			<0.001	<0.001
Mean	0.0006671	0.0007824	0.0007775	0.0009595
Std. Dev.	0.0004351	0.000399	0.0004078	0.0001855
Upper Lim.	0.001	0.001	0.001	0.001
Lower Lim.	0.00014	0.0001	7E-05	0.00015

ND substitution: RL or RL/2 if <15% NDs.

FIGURE J.

Appendix IV Trend Tests - Significant Results

Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 11:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**70**	**66**	**Yes**	**21**	**76.19**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWA-53 (bg)**	**-0.001936**	**-82**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	**DGWC-68A**	**-0.003807**	**-78**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Appendix IV Trend Tests - All Results

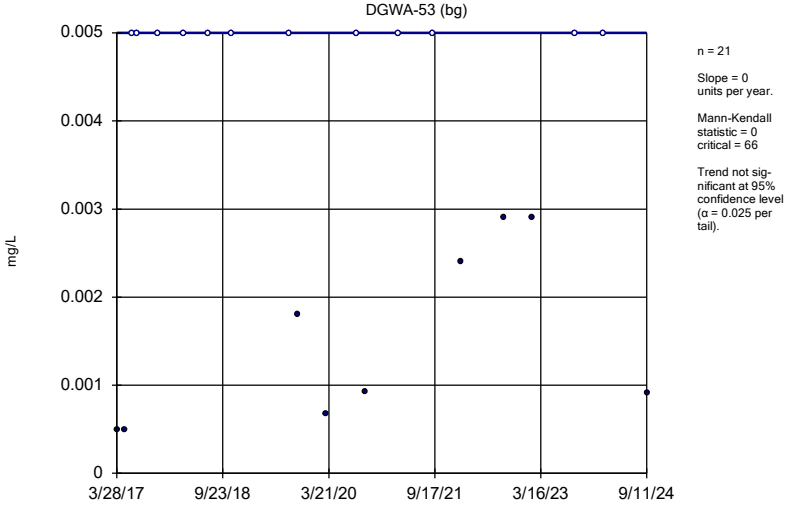
Plant McDonough Client: Southern Company Data: McDonough AP Printed 12/5/2024, 11:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	DGWA-53 (bg)	0	0	66	No	21	57.14	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-70A (bg)	0	-25	-66	No	21	85.71	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWA-71 (bg)	0	29	66	No	21	85.71	n/a	n/a	0.05	NP
Arsenic (mg/L)	DGWC-69	0.001661	63	76	No	23	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-53 (bg)**	**-0.00312**	**-136**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWA-70A (bg)	0	55	66	No	21	61.9	n/a	n/a	0.05	NP
Cobalt (mg/L)	**DGWA-71 (bg)**	**0**	**70**	**66**	**Yes**	**21**	**76.19**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt (mg/L)	DGWC-40	-0.00001825	-9	-66	No	21	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWA-53 (bg)**	**-0.001936**	**-82**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Molybdenum (mg/L)	DGWA-70A (bg)	0	0	66	No	21	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	DGWA-71 (bg)	0	20	66	No	21	95.24	n/a	n/a	0.05	NP
Molybdenum (mg/L)	**DGWC-68A**	**-0.003807**	**-78**	**-66**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.05**	**NP**

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 66

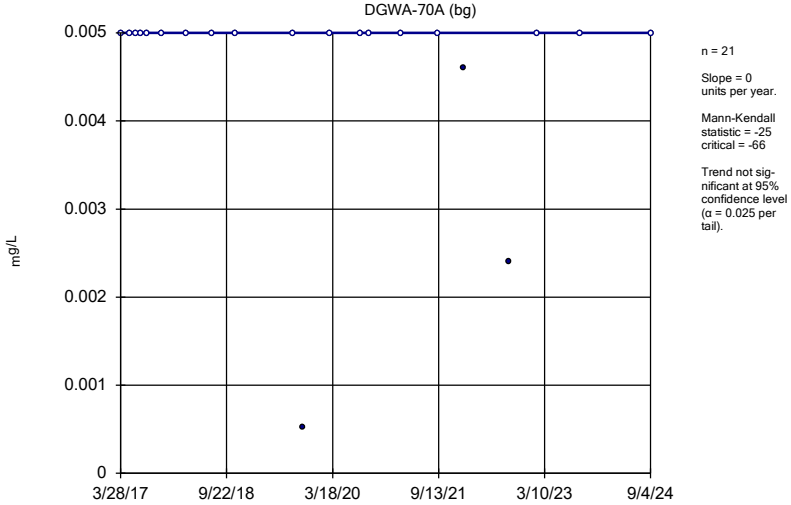
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = -25 critical = -66

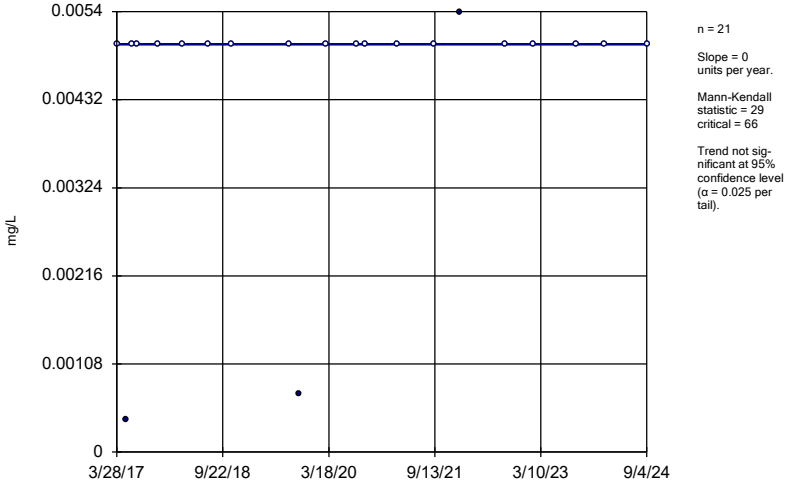
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 29 critical = 66

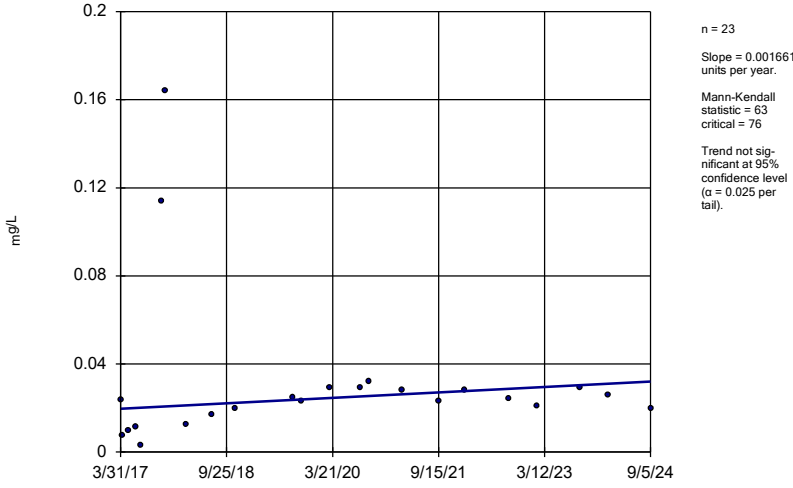
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-69



n = 23

Slope = 0.001661 units per year.

Mann-Kendall statistic = 63 critical = 76

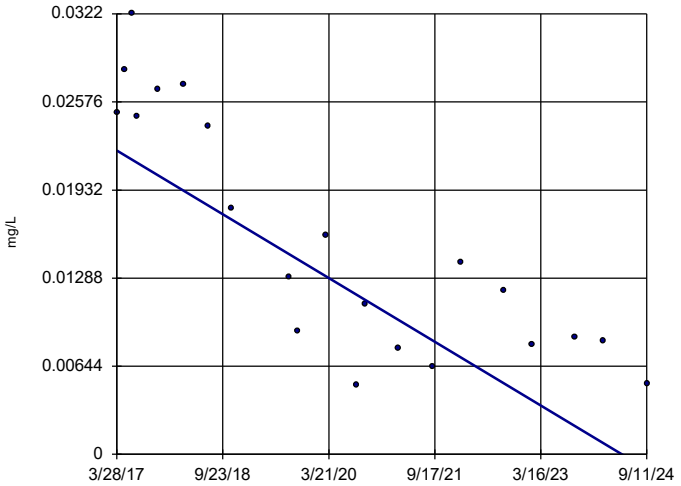
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = -0.00312 units per year.

Mann-Kendall statistic = -136
critical = -66

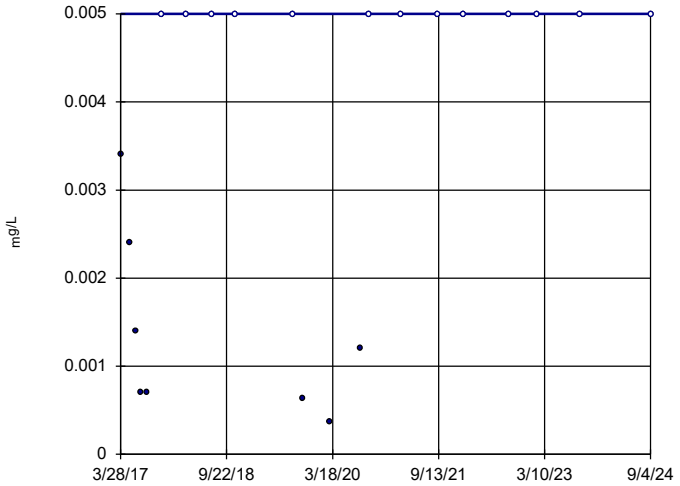
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 55
critical = 66

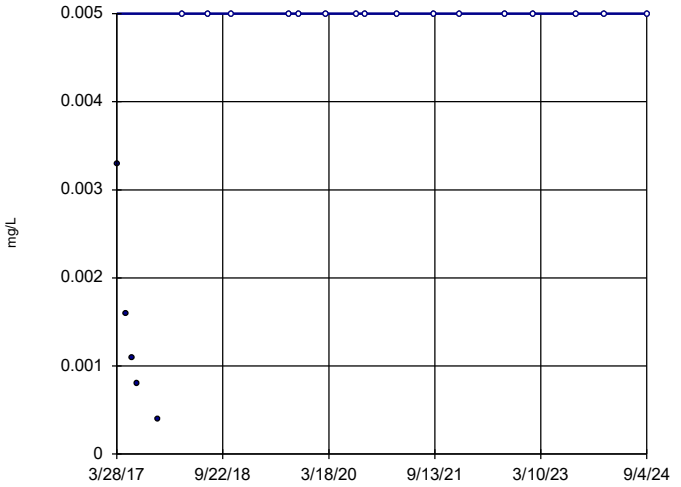
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 70
critical = 66

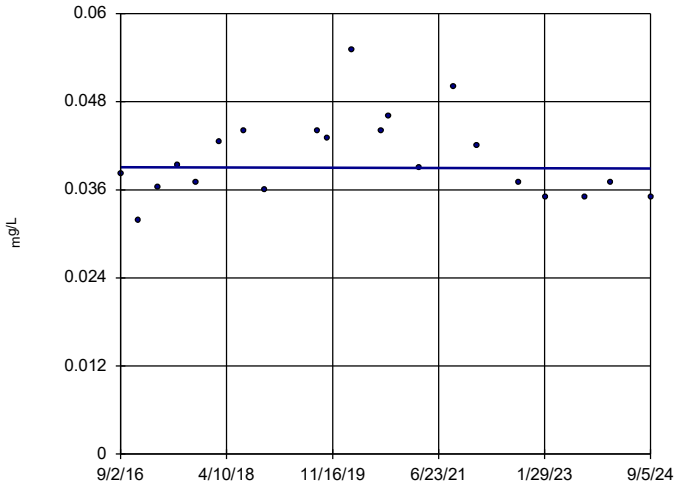
Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-40



n = 21

Slope = -0.00001825 units per year.

Mann-Kendall statistic = -9
critical = -66

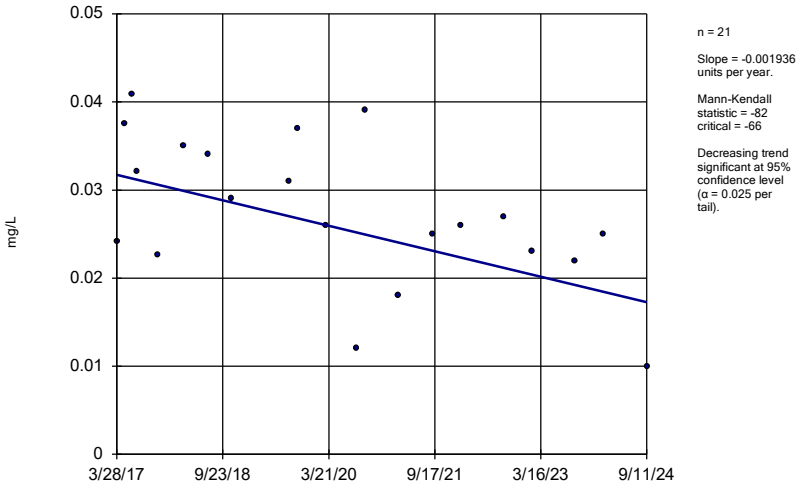
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWA-53 (bg)



n = 21

Slope = -0.001936 units per year.

Mann-Kendall statistic = -82
critical = -66

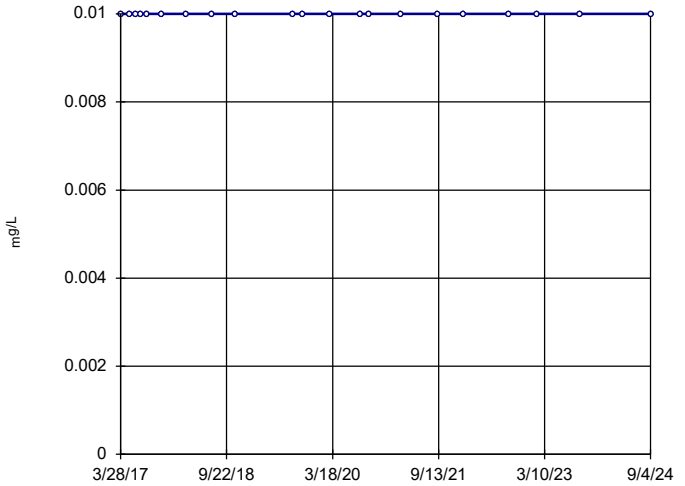
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-70A (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 66

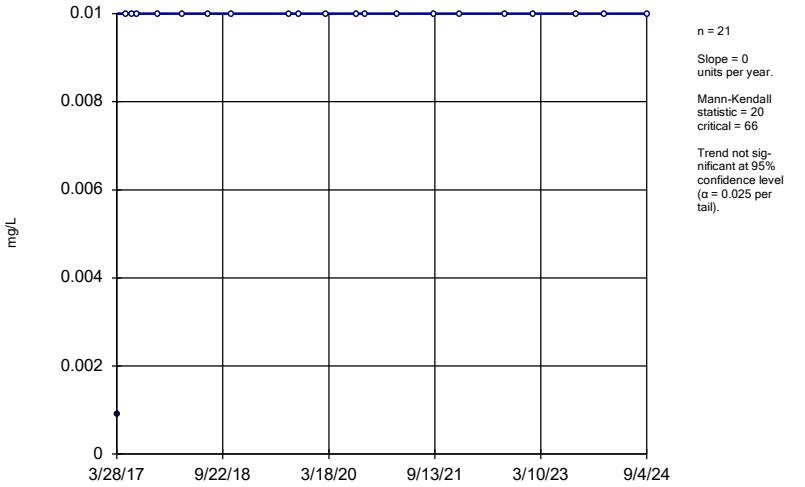
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

DGWA-71 (bg)



n = 21

Slope = 0 units per year.

Mann-Kendall statistic = 20
critical = 66

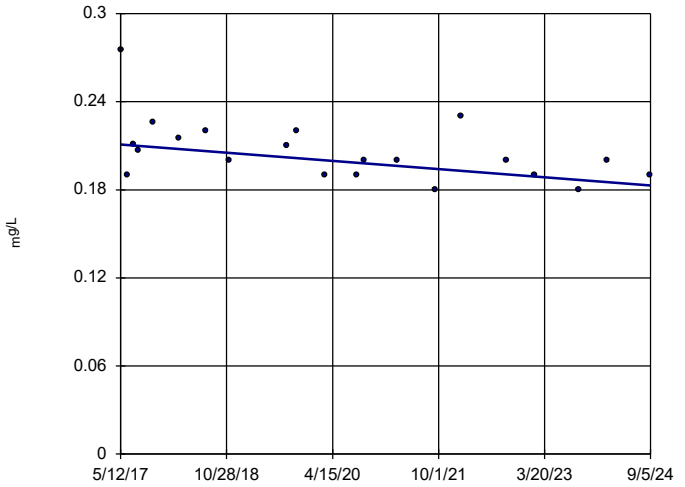
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

Sanitas™ v.10.0.23 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

DGWC-68A



n = 21

Slope = -0.003807 units per year.

Mann-Kendall statistic = -78
critical = -66

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum Analysis Run 12/5/2024 11:11 AM View: AP 1 Appendix IV Trend Tests
Plant McDonough Client: Southern Company Data: McDonough AP

APPENDIX F

Plant McDonough Ash Pond Pre-Design Investigation Technical Memorandum

REPORT

PLANT MCDONOUGH ASH POND PRE-DESIGN INVESTIGATION

Plant McDonough-Atkinson CCR Unit AP-1

Submitted to:

Georgia Power Company

241 Ralph McGill Blvd NE
Atlanta, Georgia 30308

Submitted by:

WSP USA Inc.

5170 Peachtree Road, Building 100, Atlanta, Georgia USA 30341

T: +1 770 496-1893

January 10, 2025

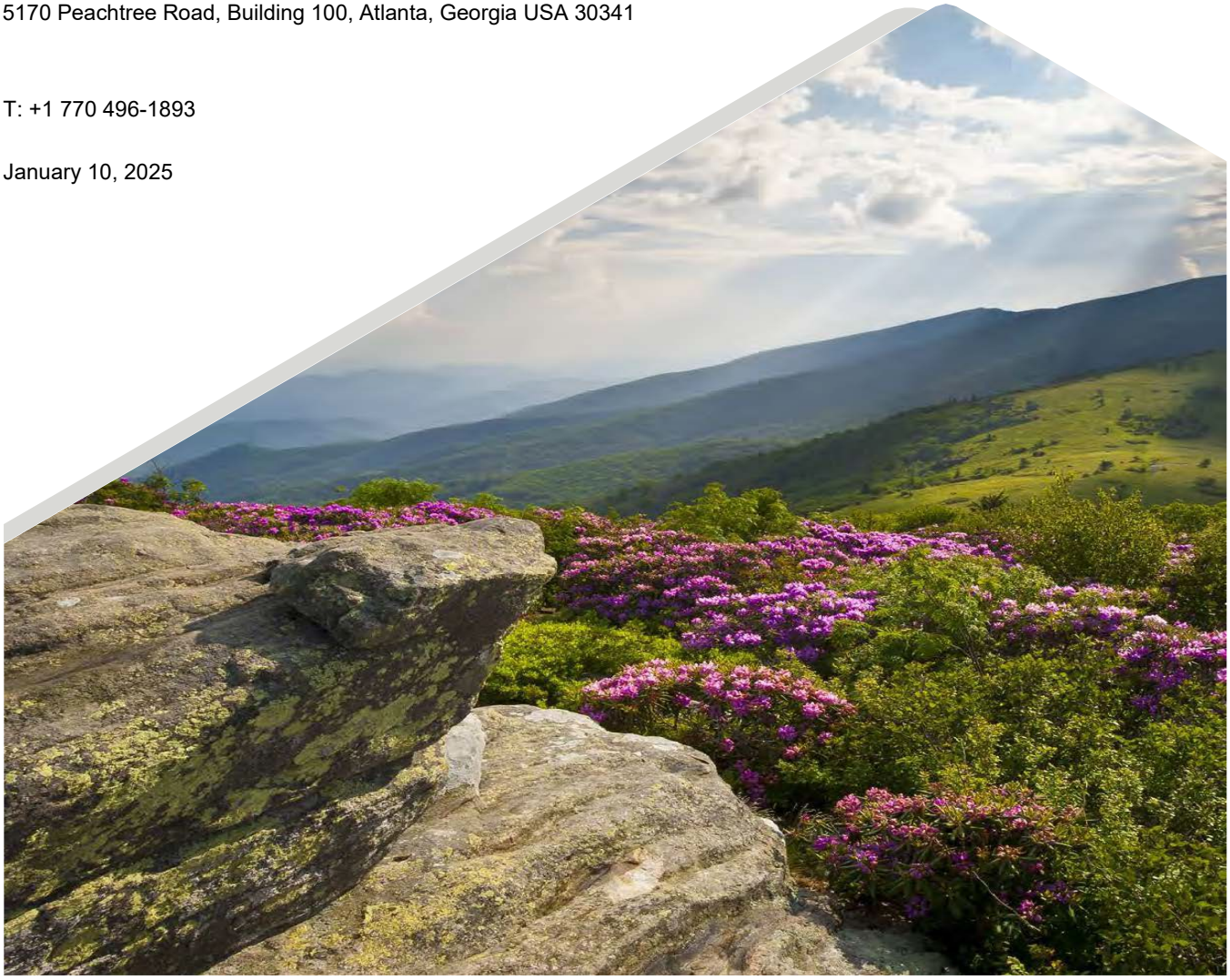


Table of Contents

1.0 BACKGROUND AND PURPOSE....1

2.0 INVESTIGATION ACTIVITIES....1

3.0 INVESTIGATION RESULTS....2

TABLES

Table 1 Pre-Design Investigation Boring Locations
Table 2 Summary of Groundwater Field Parameters
Table 3 Summary of Groundwater Analytical Data

FIGURES

Figure 1 Pre-Design Investigation Boring Locations
Figure 2 Pre-Design Investigation Arsenic Concentration Data

APPENDICES

Appendix A Waterloo^{APS} Logs
Appendix B Analytical Laboratory Report

1.0 BACKGROUND AND PURPOSE

On behalf of Georgia Power Company (Georgia Power), WSP USA Inc. (WSP) has prepared this Technical Memorandum (Memo) to document the pre-design investigation (PDI) field activities and the results of the Plant McDonough Ash Pond 1 (AP-1; Site). In-situ geochemical injections, coupled with monitored natural attenuation (MNA) have been proposed as corrective measures to address concentrations of arsenic and cobalt reported at statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS).

Design of in-situ geochemical injection corrective measures includes multiple assessment and design components, including a pre-design investigation (PDI) to characterize and refine proposed treatment areas. This Memo provides a summary of the PDI field activities and the results of the investigation. The information collected during the PDI will inform in-situ injection pilot studies and groundwater remedy design activities.

2.0 INVESTIGATION ACTIVITIES

PDI activities were conducted from March 20th through 21st, 2024. Cascade advanced three (3) direct push technology (DPT) Waterloo Aquifer Profiling System (Waterloo^{APS}) borings at the locations shown on **Figure 1**. Surveyed PDI boring locations are presented in **Table 1**. The Waterloo^{APS} tooling continuously logged vertical hydrostratigraphic profiles of relative hydraulic conductivity (i.e., Index of Hydraulic Conductivity, or I_k) from ground surface to depths ranging between 15.8 and 16.8 feet (ft) below ground surface (bgs), corresponding with DPT refusal. WaterlooAPS boring logs are included in **Attachment 1**.

A depth-discrete groundwater screening sample was collected at PDI location AP1-HRSC24-03 using stainless-steel Waterloo^{APS} tooling and a peristaltic pump. Attempts were made to collect groundwater samples from each of the PDI boring locations, but insufficient yield did not allow for the collection of all planned samples. As the Waterloo^{APS} tooling advanced, attempts were made to collect samples at various depths below the water table. Groundwater recovery was generally less successful at deeper depths. The only sample to be successfully collected occurred at an elevation of 744.5 feet.

Groundwater was purged at a low-flow rate of approximately 20 milliliters per minute (mL/min) prior to sampling. The groundwater sample was collected once stabilization criteria was met. The following stabilization criteria were applied:

- pH ± 0.1 standard units (SU)
- Conductivity ± 5%
- Dissolved oxygen (DO) ± 0.2 milligrams per liter (mg/L) or ± 10% (whichever is greater) for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 10 nephelometric turbidity units (NTU)

The groundwater sample was field filtered using a 0.45-micron filter. During purging, groundwater quality field parameters (i.e., pH, conductivity, turbidity, dissolved oxygen (DO), temperature, and oxidation reduction potential (ORP)) were monitored using an AquaTroll 400 logger and Hach turbidity meter and manually recorded on field sample logs. Sulfide and ferrous iron field kits were used during sample collection to assess geochemical conditions in real time. Results from the field tests and stabilized field parameters are provided in **Table 2**.

The groundwater samples were collected in appropriately preserved laboratory-supplied sample containers and kept on ice while in the field and then shipped to Pace Analytical Services, LLC (Pace Analytical) in Atlanta,

Georgia following chain-of-custody protocols. WSP personnel managed the collection, documentation, and shipment of the groundwater samples. Samples were analyzed for arsenic, as well as Appendix III constituents, major cations and anions (sodium, magnesium, potassium, chloride, and alkalinity [total/carbonate/bicarbonate]), iron, manganese, sulfide, phosphate, and total organic carbon by Pace Analytical. Analytical results are presented in **Table 3** and the laboratory analytical report is included in **Attachment 2**.

Completed soil borings were abandoned to the ground surface with bentonite, and subsequently surveyed by Metro Engineering and Surveying Co., Inc. The surveyed coordinates for each of the locations is provided in **Table 1**.

3.0 INVESTIGATION RESULTS

The Waterloo^{APS} vertical profiles of I_K (**Attachment 1**) for AP-1 PDI locations indicate relatively high I_K values interlayered with lower I_K intervals between approximately 5 and 15 feet below ground surface in the area of DGWC-68A and DGWC-69. Analytical results from borings advanced in the AP-1 vicinity are shown on **Figure 2**. Arsenic concentrations were non-detect in PDI groundwater sample AP1-HRSC24-03.

Signature Page

WSP USA Inc.

Nicholas McMillan, P.G.
Senior Consultant Geologist

Dawn L. Prell
Senior Consultant Hydrogeologist

Tables

TABLE 1
PRE-DESIGN INVESTIGATION BORING LOCATIONS
Georgia Power Company - Plant McDonough AP-1
Cobb County, Georgia

PDI Boring	Northing[(1)]	Easting[(1)]	Sample Elevation[(1)] (ft)
AP1-HRSC24-01	1391568.0	2200638.3	759.9
AP1-HRSC24-02	1391433.7	2200669.3	759.1
AP1-HRSC24-03	1391287.5	2200711.7	758.1

Notes:

(1) Boring locations surveyed by Metro Engineering and Surveying Co., Inc. on May 28, 2024 Coordinates in North American Datum (NAD) 1983. State Plane, Georgia-West, feet. Elevations referenced to North American Vertical Datum of 1988 (NAVD88).

TABLE 2
SUMMARY OF GROUNDWATER FIELD DATA
Georgia Power Company - Plant McDonough-Atkinson
Ash Pond 1
Cobb County, Georgia

PDI Boring	Sample Date	Sample Elevation[(1)] (ft)	Sample Depth (ft bgs)	Field Parameters							
				Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH S.U.	ORP (mV)	Temperature (C°)	Turbidity[(3)] (NTU)	Ferrous Iron (mg/L)	Sulfide (mg/L)
AP1-HRSC24-03[(2)]	3/21/2024	744.5	13.6	355	2.7	6.46	59.0	33.0	--	0.0	0.0

Notes:
ft = feet
bgs = below ground surface
µS/cm = microsiemens per centimeter
mg/L = milligrams per liter
S.U. = Standard Units
mV = millivolts
C° = degrees Celsius
NTU = Nephelometric Turbidity Unit
ft = feet
bgs = below ground surface
(1) Boring locations surveyed by Metro Engineering and Surveying Co., Inc. on May 28, 2024. Elevations referenced to North American Vertical Datum of 1988 (NAVD88).
(2) Field parameters were provided by Cascade.
(3) Records of turbidity readings were lost during field activities for AP1-HRSC24-03

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA
Georgia Power Company - Plant McDonough AP-1
Cobb County, Georgia

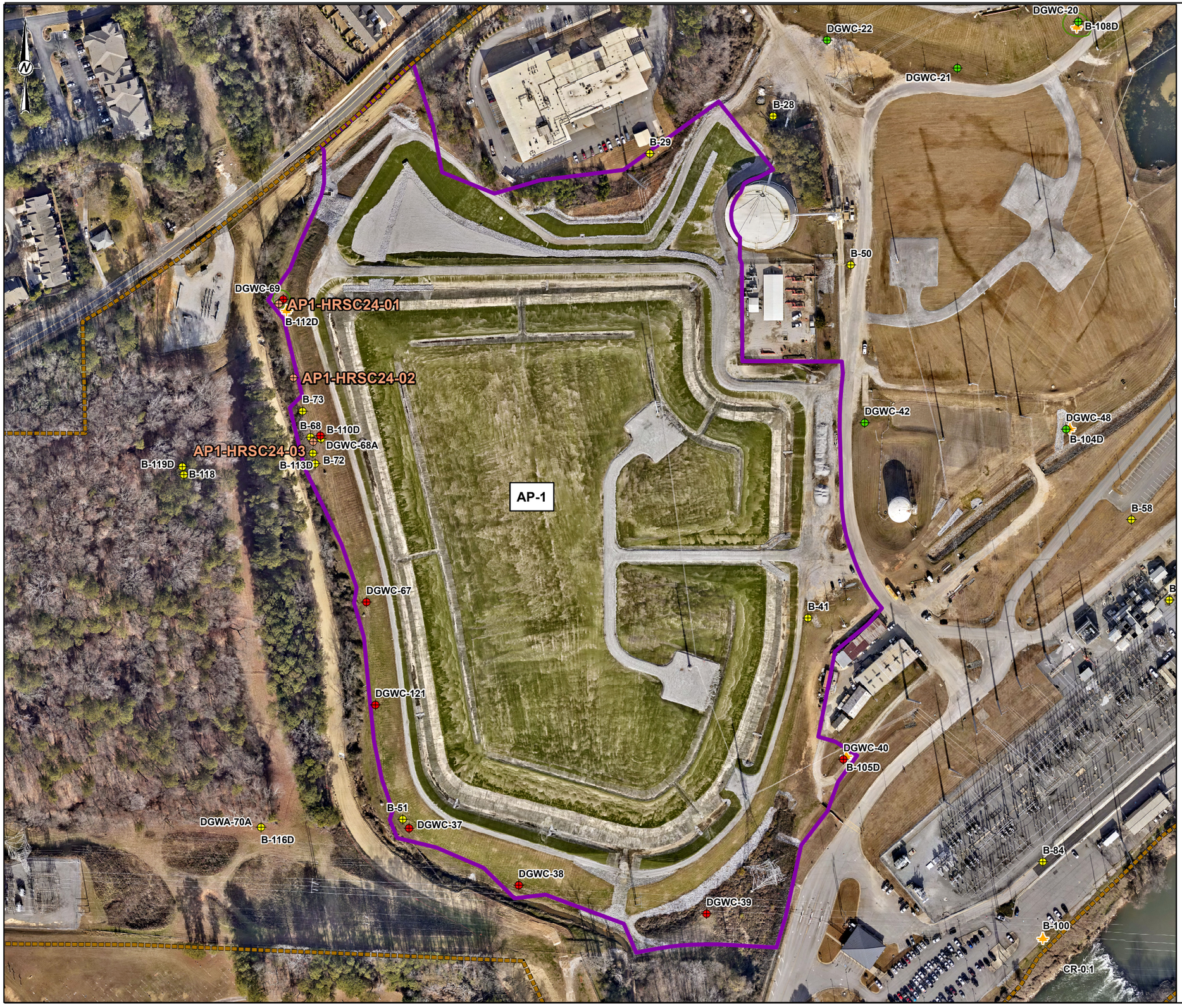
Analyte	Units	Waterloo PDI Boring ID
		MCD-AP1-HRSC24-03-13.6
		3/21/2024
SAMPLE COLLECTION DEPTH (FT BGS)		13.60
Appendix III		
BORON, TOTAL	mg/L	1.9
CALCIUM, TOTAL	mg/L	49.2
pH	S.U.	6.71
Appendix IV		
ARSENIC, TOTAL	mg/L	< 0.00084
Additional Parameters		
MAGNESIUM	mg/L	19.5
MANGANESE	mg/L	0.060
ORTHOPHOSPHATE AS P	mg/L	< 0.0091
POTASSIUM	mg/L	3.9
SODIUM	mg/L	8.9
IRON, TOTAL	mg/L	0.5
SULFIDE	mg/L	< 0.022
Field Results		
IRON, FERROUS	mg/L	0
SULFIDE	mg/L	0

Notes:

1. Depth discrete groundwater screening samples collected via WaterlooAPS and field filtered.
2. ft bgs - feet below ground surface
3. mg/L - milligrams per Liter
4. S.U. - Standard Units
5. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.

Created by: JMB 07/15/2024
Checked by: NJM 7/15/2024

Figures



LEGEND

- PDI BORING LOCATION
- AP-2,3/4 MONITORING WELL
- AP-1 MONITORING WELL
- ASSESSMENT MONITORING WELLS
- PIEZOMETER
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. BORING LOCATIONS SURVEYED BY METRO ENGINEERING & SURVEYING ON MAY 28, 2024.
2. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JANUARY 25, 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.

0 300 600

1 IN= 300 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
PRE-DESIGN INVESTIGATION BORING LOCATIONS

CONSULTANT

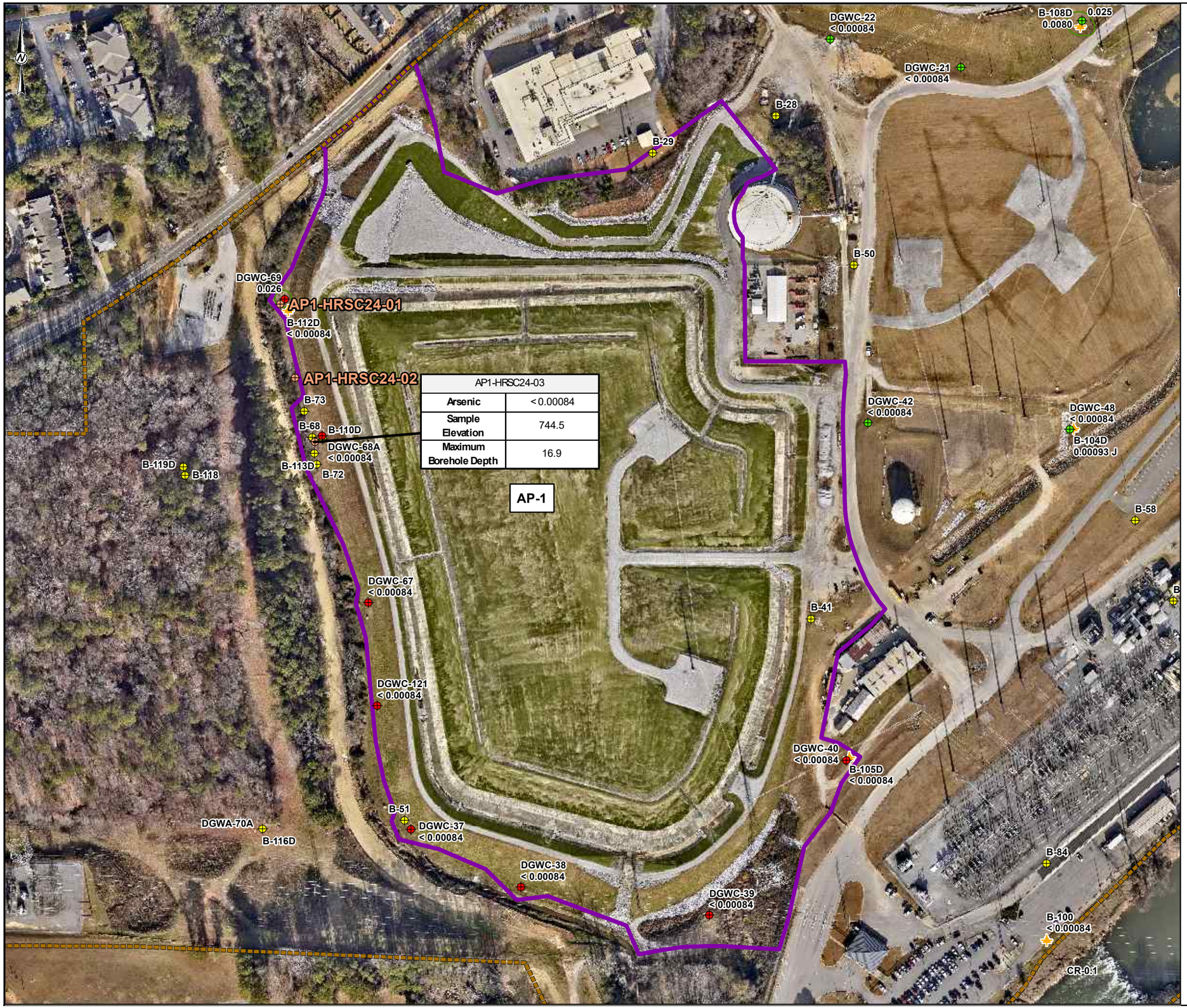
wsp

YYYY-MM-DD	2025-01-08
PREPARED	JMB
DESIGN	NJM
CHECKED	NJM
REVIEWED/APPROVED	DLP

PROJECT No. 31406440

Rev. 1

FIGURE 1



LEGEND

- PDI BORING LOCATION
- AP-2,3/4 MONITORING WELL
- AP-1 MONITORING WELL
- ASSESSMENT MONITORING WELLS
- PIEZOMETER
- PROPERTY BOUNDARY
- PERMIT BOUNDARY

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. BORING LOCATIONS SURVEYED BY METRO ENGINEERING & SURVEYING ON MAY 28, 2024.
2. ANALYTICAL DATA ARE IN UNITS OF MILLIGRAMS PER LITER (MG/L), SAMPLE ELEVATIONS ARE IN FEET (FT) REFERENCED TO NORTH AMERICAN DATUM OF 1988 (NAVD88), AND MAXIMUM BOREHOLE DEPTH IS FEET BELOW GROUND SURFACE.
<= PARAMETER NOT DETECTED ABOVE THE REPORTING LIMIT (RL).
3. PDI SCREENING GROUNDWATER SAMPLES WERE FIELD FILTERED USING A 0.45 MICRON FILTER.
4. THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR ARSENIC IS 0.01 MG/L.
5. AERIAL IMAGERY DATE FOR AP-1, AP-2, AND AP-3/4 PROVIDED BY GEORGIA POWER, JANUARY 25, 2024; AND SURROUNDING AREAS SOURCED BY PLEXEARTH, DATED SEPTEMBER 28, 2023.

0 200 400

1 IN= 200 FT

CLIENT
GEORGIA POWER COMPANY
PLANT MCDONOUGH-ATKINSON

Georgia Power

PROJECT
PLANT MCDONOUGH-ATKINSON ASH POND 1

TITLE
PRE-DESIGN INVESTIGATION ARSENIC CONCENTRATION DATA

CONSULTANT

wsp

YYYY-MM-DD	2025-01-08
PREPARED	JMB
DESIGN	NJM
CHECKED	NJM
REVIEWED/APPROVED	DLP

PROJECT No. 31406440 | Rev. 1 | FIGURE 2

APPENDIX A

Waterloo^{APS} Logs

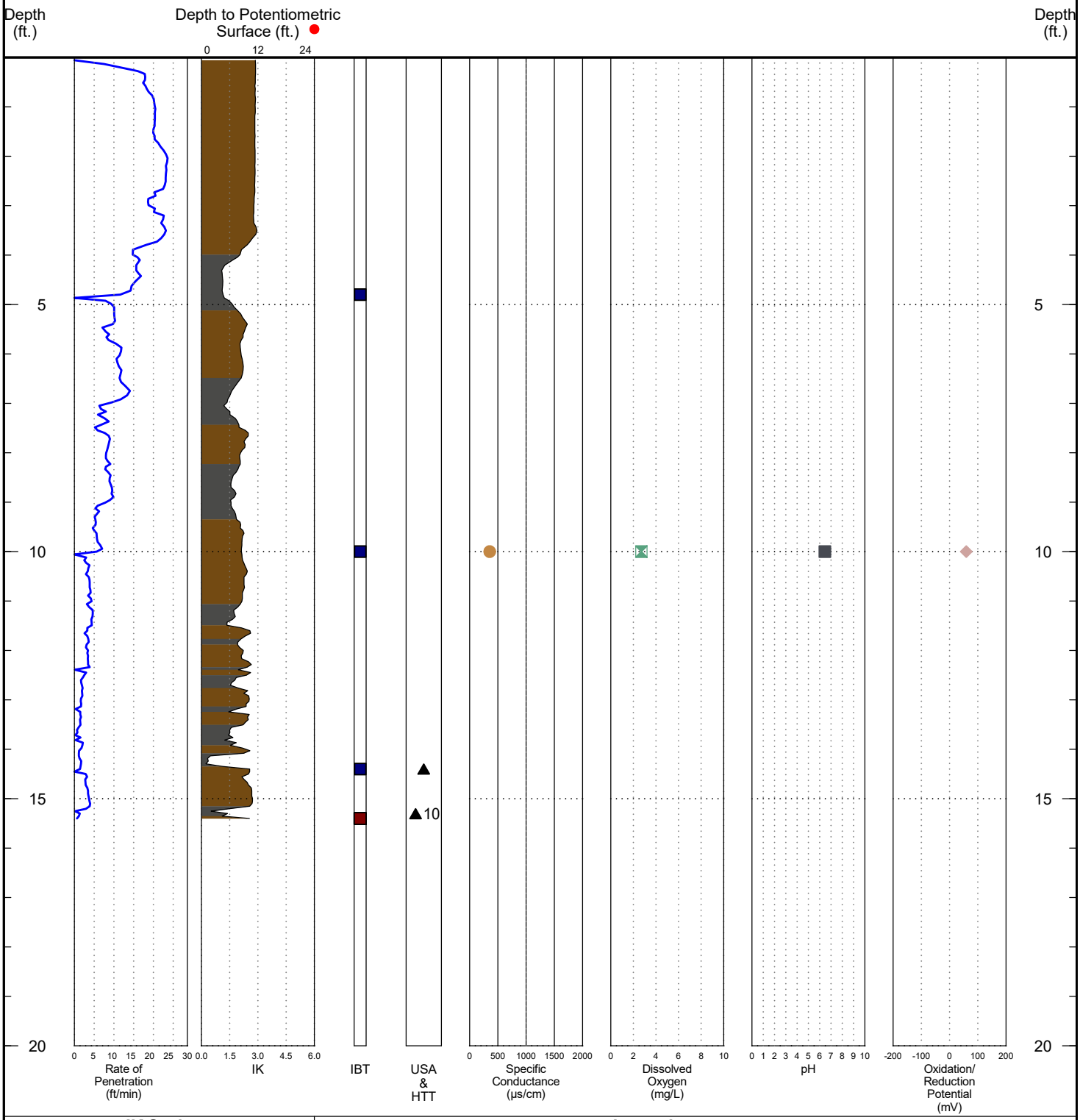
BORING NAME: AP1-HRSC24-01

Total Depth -15.2 ft.

Waterloo APS-D™
ADVANCED PROFILING SYSTEM

Project Name Plant McDonough
Client Southern Company
Project Number 206-24-1009
Project Location Smyrna, GA

Date Completed 3/20/2024
Sampler(s) JE
Drilling Contractor Cascade
Gas Drive or Peri Pump Peri Pump



IK Scale

0 to 0.1
0.1 to 2
2 to 4
4 to 6
>6

Legend

IBT = IK Behavior Type
- = IK increase when hammer stops
- = IK decrease when hammer stops
- = No change when hammer stops

USA = Unsuccessful Sample Attempt
- ✳ = Could not produce water
- ▲ = Yield deemed too slow
- ■ = Equipment issue

HTT = Hole Termination Type
- 7 = Broken downhole equipment
- 8 = Reached Target Depth
- 9 = ROP dropped below threshold
- 10 = Sudden Hard Refusal

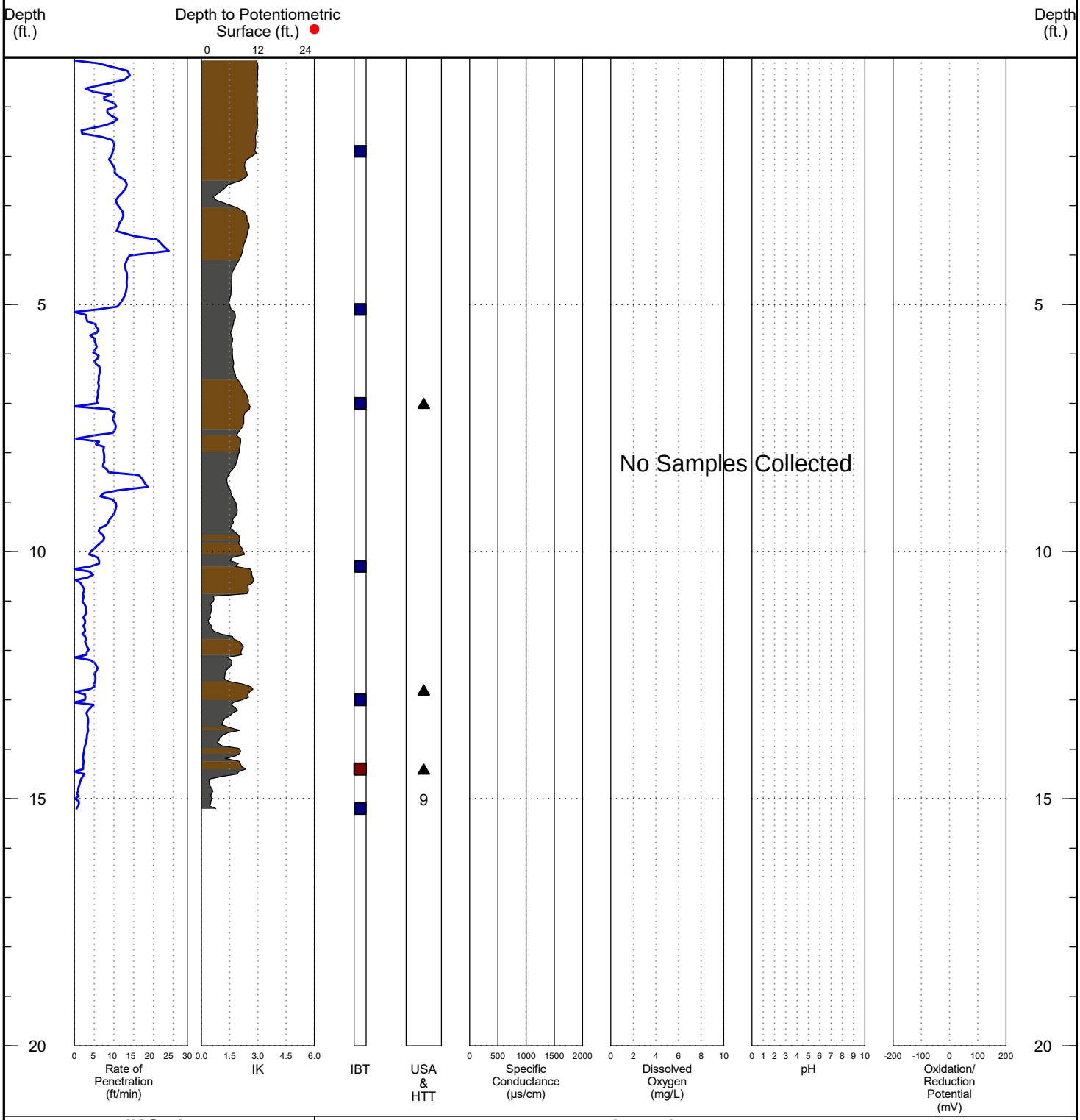
BORING NAME: AP1-HRSC24-02

Total Depth -15.2 ft.

Waterloo APS-D™
ADVANCED PROFILING SYSTEM

Project Name Plant McDonough
Client Southern Company
Project Number 206-24-1009
Project Location Smyrna, GA

Date Completed 3/20/2024
Sampler(s) JE
Drilling Contractor Cascade
Gas Drive or Peri Pump Peri Pump



IK Scale

0 to 0.1
0.1 to 2
2 to 4
4 to 6
>6

Legend

IBT = IK Behavior Type
- = IK increase when hammer stops
- = IK decrease when hammer stops
- = No change when hammer stops

USA = Unsuccessful Sample Attempt
- ✳ = Could not produce water
- ▲ = Yield deemed too slow
- ■ = Equipment issue

HTT = Hole Termination Type
- 7 = Broken downhole equipment
- 8 = Reached Target Depth
- 9 = ROP dropped below threshold
- 10 = Sudden Hard Refusal

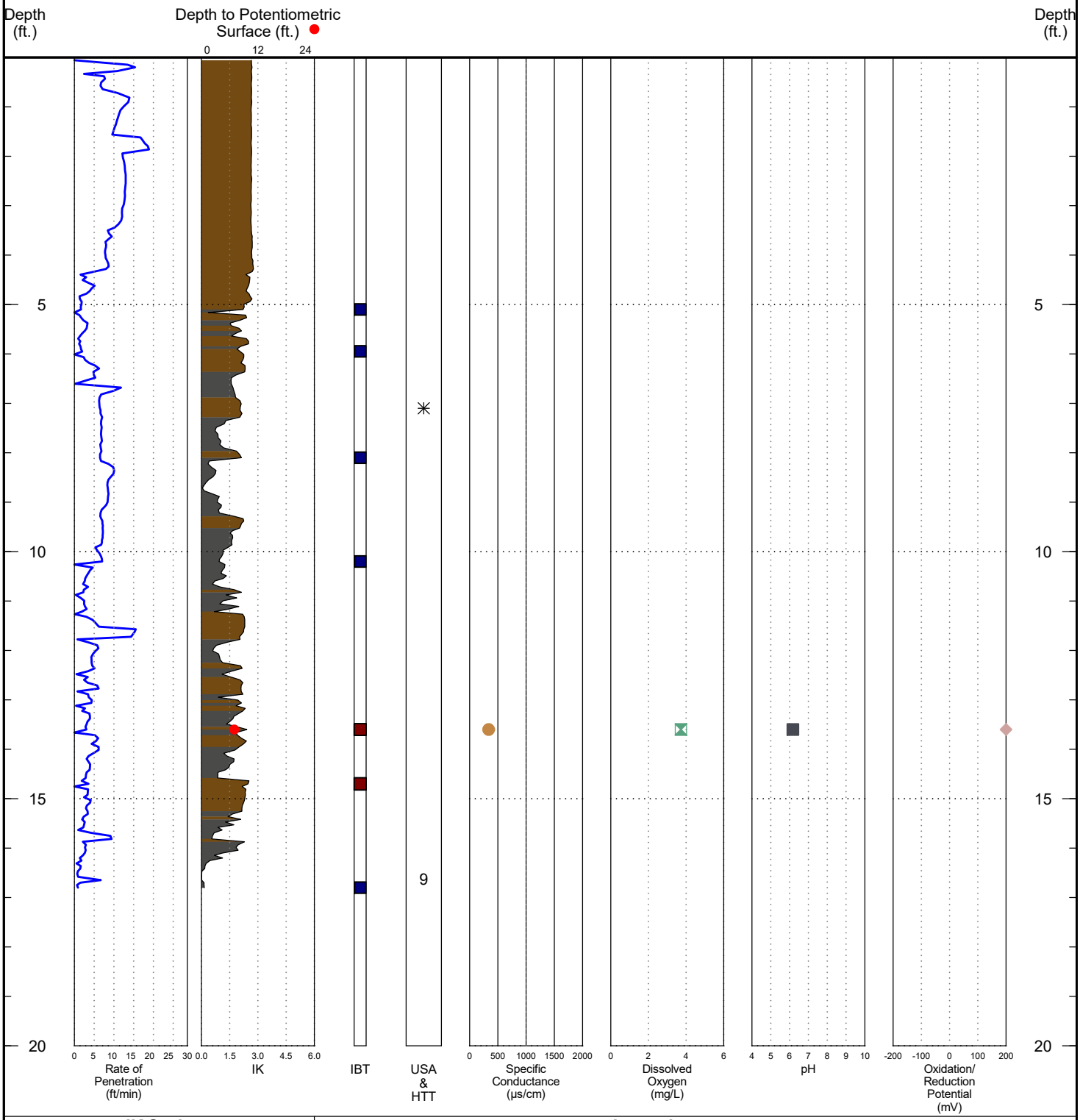
BORING NAME: AP1-HRSC24-03

Total Depth 16.8 ft.

Waterloo APS-D™ ADVANCED PROFILING SYSTEM

Project Name Plant McDonough
Client Southern Company
Project Number 206-24-1009
Project Location Smyrna, GA

Date Completed 3/21/2024
Sampler(s) JE
Drilling Contractor Cascade
Gas Drive or Peri Pump Peri Pump



IK Scale

0 to 0.1
0.1 to 2
2 to 4
4 to 6
>6

Legend

IBT = IK Behavior Type
- = IK increase when hammer stops
- = IK decrease when hammer stops
- = No change when hammer stops

USA = Unsuccessful Sample Attempt
- ✳ = Could not produce water
- ▲ = Yield deemed too slow
- ■ = Equipment issue

HTT = Hole Termination Type
- 7 = Broken downhole equipment
- 8 = Reached Target Depth
- 9 = ROP dropped below threshold
- 10 = Sudden Hard Refusal

APPENDIX B

Analytical Laboratory Report

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

April 04, 2024

Lauren Hartley
Southern Co.
241 Ralph McGill Blvd
NE, Bin 10160
Atlanta, GA 30308

RE: Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Dear Lauren Hartley:

Enclosed are the analytical results for sample(s) received by the laboratory on March 23, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Yong Cheng, WSP
Daniela Herrera, WSP
Andrea McClure, WSP
Laura Midkiff, Southern Co.
Dawn Prell, WSP USA E&I Inc - Atlanta

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92721027001	**MCD-AP1-HRSC24-03-13.6**	Water	03/21/24 10:45	03/23/24 09:20

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92721027001	**MCD-AP1-HRSC24-03-13.6**	EPA 6010D	DRB	6
		EPA 6020B	MT1	2
		SM 4500-P E-2011	TLB1	1
		SM 4500-S2D-2011	JP1	1

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Sample: MCD-AP1-HRSC24-03-13.6 **Lab ID: 92721027001** Collected: 03/21/24 10:45 Received: 03/23/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.50**	mg/L	0.040	0.025	1	03/28/24 18:16	04/01/24 16:58	7439-89-6	
Manganese	**0.060**	mg/L	0.040	0.011	1	03/28/24 18:16	04/01/24 16:58	7439-96-5	
Potassium	**3.9**	mg/L	0.50	0.15	1	03/28/24 18:16	04/01/24 16:58	7440-09-7	
Sodium	**8.9**	mg/L	1.0	0.58	1	03/28/24 18:16	04/01/24 16:58	7440-23-5	
Calcium	**49.2**	mg/L	1.0	0.12	1	03/28/24 18:16	04/01/24 16:58	7440-70-2	
Magnesium	**19.5**	mg/L	0.050	0.012	1	03/28/24 18:16	04/01/24 16:58	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Arsenic	ND	mg/L	0.0050	0.00084	1	03/27/24 13:16	03/28/24 17:50	7440-38-2	
Boron	**1.9**	mg/L	0.040	0.012	1	03/27/24 13:16	03/28/24 17:50	7440-42-8	
SM4500P-E, Phosphate, Ortho	Analytical Method: SM 4500-P E-2011 Pace Analytical Services - Peachtree Corners, GA								
Orthophosphate as P	ND	mg/L	0.020	0.0091	1		03/26/24 11:22		H1
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.022	1		03/26/24 04:44	18496-25-8	

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

QC Batch: 842684
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92721027001

METHOD BLANK: 4352280 Matrix: Water
Associated Lab Samples: 92721027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	04/01/24 16:28	
Iron	mg/L	ND	0.040	0.025	04/01/24 16:28	
Magnesium	mg/L	ND	0.050	0.012	04/01/24 16:28	
Manganese	mg/L	ND	0.040	0.011	04/01/24 16:28	
Potassium	mg/L	ND	0.50	0.15	04/01/24 16:28	
Sodium	mg/L	ND	1.0	0.58	04/01/24 16:28	

LABORATORY CONTROL SAMPLE: 4352281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	100	80-120	
Iron	mg/L	1	1.0	100	80-120	
Magnesium	mg/L	1	1.0	100	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	0.87	87	80-120	
Sodium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4352282 4352283

Parameter	Units	92721713001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	1980 ug/L	1	1	2.9	2.9	94	91	75-125	1	20	
Iron	mg/L	98.6 ug/L	1	1	1.1	1.1	99	98	75-125	1	20	
Magnesium	mg/L	1530 ug/L	1	1	2.5	2.5	98	98	75-125	0	20	
Manganese	mg/L	ND	1	1	0.98	0.98	95	95	75-125	0	20	
Potassium	mg/L	989 ug/L	1	1	2.1	2.1	109	111	75-125	1	20	
Sodium	mg/L	5090 ug/L	1	1	6.1	6.2	102	109	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

QC Batch: 842176
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92721027001

METHOD BLANK: 4349540 Matrix: Water
Associated Lab Samples: 92721027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00084	03/28/24 17:20	
Boron	mg/L	ND	0.040	0.012	03/28/24 17:20	

LABORATORY CONTROL SAMPLE: 4349541

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4349542 4349543

Parameter	Units	92720846001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.098	98	97	75-125	1	20	
Boron	mg/L	53.0 ug/L	1	1	1.0	1.0	95	95	75-125	0	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

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

QC Batch: 841788
QC Batch Method: SM 4500-P E-2011
Analysis Method: SM 4500-P E-2011
Analysis Description: SM4500P-E Phosphorus, Ortho
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92721027001

METHOD BLANK: 4347578 Matrix: Water
Associated Lab Samples: 92721027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.0091	03/26/24 11:13	

LABORATORY CONTROL SAMPLE: 4347579

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.55	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4347726 4347727

Parameter	Units	92721067001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.56	0.55	111	110	80-120	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

QC Batch: 841695
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92721027001

METHOD BLANK: 4347213 Matrix: Water
Associated Lab Samples: 92721027001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	03/26/24 04:33	

LABORATORY CONTROL SAMPLE: 4347214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4347215 4347216

Parameter	Units	92720812015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.54	105	108	80-120	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4347217 4347218

Parameter	Units	92721018002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	100	101	80-120	1	10	

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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H1 Analysis conducted outside the EPA method holding time.

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

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCD-AP-1 PDI Boring Locations
Pace Project No.: 92721027

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92721027001	**MCD-AP1-HRSC24-03-13.6**	EPA 3010A	842684	EPA 6010D	842723
92721027001	**MCD-AP1-HRSC24-03-13.6**	EPA 3005A	842176	EPA 6020B	842276
92721027001	**MCD-AP1-HRSC24-03-13.6**	SM 4500-P E-2011	841788		
92721027001	**MCD-AP1-HRSC24-03-13.6**	SM 4500-S2D-2011	841695		

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

DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

WO# : 92721027

92721027

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

Courier: ☑ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No ☑ N/A

Date/Initials Person Examining Contents: SG 3/28/24

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 5.4 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.5

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

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

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

Field Data Required? ☐ Yes ☐ No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

WO# : 92721027

PM: BV Due Date: 04/08/24
CLIENT: 92-GA Power

Project #

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

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

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)*	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		—				1	1																						
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace® Location Requested (City/State):
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100, Huntersville, NC 28078

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

9272/027

Scan QR Code for instructions

Company Name:	Georgia Power- McDonough	Contact/Report To:	Lauren Hartley
Street Address:	241 Ralph McGill Blvd, Atlanta, GA 30308	Phone #:	(470)620-6176
		E-Mail:	laucoker@southernco.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	MCD-AP-1 PDI Boring Locations	Invoice To:	Account Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	GPC82474-0004
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

County / State origin of sample(s): Georgia

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [✓] Yes [ ] No

Analysis: All

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 4 7 3

Identify Container Preservative Type***: 6 2 1

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2320B Alkalinity	2540C Total Dissolved Solids	300.0 IC-SO4, Cl, F	4500S2D Sulfide Water	5310B TOC	App III 6010/6020	Iron, ~~Ferrous~~ TOTAL	SM4500P-E, Phosphate, Ortho			Preservation non-conformance identified for sample.
AP1-HRSC-24-03-13.6	WG	G	3-21-24	10:45	—	—	3	—	—				1		1		1			3 TNJ

**Container Size: (1) 1L, (2) 500ml, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Bonnie Vang

AcctNum / Client ID:

Table #:

Profile / Template: 16474

Prelog / Bottle Ord. ID: EZ 3087446

Sample Comment

Additional Instructions from Pace®:
Appendix III, As, Mn, Mg, Fe, Fe2+, Na, K, S2-, Alkalinity (total/carbonate/bicarbonate), PO4, Total Organic Carbon. ~~+Co Be Li~~ TNJ

Collected By: (Printed Name) THOMAS M. KEKRA

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
KL / WSP	3-23-24/ 8:40	Courier NW	3-23-24 8:40	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
		/ Pace	3/23/24 09:20	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

wsp.com

APPENDIX G

Batch and Column Treatability Studies

June 14, 2024

Todd Rees and Nicholas McMillan
WSP

TERRA SYSTEMS FINAL REPORT FOR WSP FOR COAL ASH RESIDUALS BATCH AND COLUMN TREATABILITY STUDIES FOR GEORGIA POWER PLANT MCDONOUGH, GA VERSION 2

1.0 INTRODUCTION

This bench-scale treatability evaluated neutralization/precipitation with three reagents chosen by WSP to treat arsenic, beryllium, cobalt, and lithium. The Plant McDonough groundwater protection standards (GWPS) are:

- arsenic 0.010 mg/L
- beryllium 0.004 mg/L
- cobalt 0.024 mg/L[1]
- lithium 0.040 mg/L

2.0 BENCH-SCALE STUDY SCOPE FOR ONE GROUNDWATER

The following phases were conducted for the treatability study:

2.1 Bench-scale Groundwater and Soil Collection

Groundwater samples were collected from two wells; Plant McDonough AP-1 DGWC-69 and AP-2, 3/4 DGWC-48. Soil samples were collected from soil borings adjacent to each monitoring well. The volumes of groundwater and soil collected for the initial characterization, titration, and columns are shown in Table 1. For the DGWC-48 treatability studies, there was a total of 54.6 kg of groundwater and 52.4 kg of soil; this includes the containers. For the DGWC-69 treatability studies, there was a total of 10.7 kg of groundwater and 21.5 kg of soil. The samples were delivered to Terra Systems (TS) under chain-of-custodies (Figures 1-3). The soil samples were sieved to remove rocks and debris larger than 0.475 cm and then mixed with an electric drill and auger. After removing rocks and debris, there was 15.8 kg of the DGWC-69 soil with 5.0 kg of rock (24.0%) and 38.3 kg of the DGWC-48 soil with 13.1 kg rock (25.5%). The geochemistry of the site is thought to be aerobic. The soil sieving and all tests were conducted on the bench with exposure to the atmosphere.

Tables 2 and 3 have the estimated volumes of soil and groundwater required for the initial characterization, titration, and columns. The initial characterization required 1.1 L of DGWC-48 groundwater. The titrations tests with the DGWC-48 groundwater and soil plus groundwater and the three reagents required 0.5 L groundwater and 0.3 kg of soil. For the DGWC-48 column

[1] When the treatability study began, the GWPS for cobalt was 0.0322 mg/L. As of February 2024, the GWPS has been updated to 0.024 mg/L due to a truncated background dataset.

studies, assuming 36 inch long by 3-inch diameter columns with soils having a density of 1.67 g/cm^3 and 30% porosity operated at 0.27 ft/day for 42 days, each column required about 7.0 kg of soil and 4.8 L groundwater. As seen in Table 2, with a 25% contingency, the DGWC-48 groundwater requirements are estimated to be 26 L (7 gallons) and the soil requirements are estimated to be 28 kg (62 pounds or equivalent to about 4.4 gallons of soil assuming a density of 1.67 g/cm^3).

The initial characterization required 1.1 L of DGWC-69 groundwater. The titrations tests with the DGWC-69 groundwater and soil plus groundwater and the two reagents required 0.4 L groundwater and 0.2 kg of soil. For the DGWC-69 batch studies, assuming 1,000 mL reactors with 50% groundwater by volume, each batch reactor required about 0.9 kg of soil and 0.5 L groundwater. As seen in Table 3, with a 25% contingency, the DGWC-69 groundwater requirements are estimated to be 7.5 L (2 gallons) and the soil requirements are estimated to be 10.5 kg (23 pounds or equivalent to about 1.5 gallons of soil assuming a density of 1.8 g/cm^3).

terrasystems

Figure 1. Chain-of-Custody Form For MCD-DGWC-48 Groundwater

No. __ of _

TERRA SYSTEMS, INC. — **Chain of Custody**

130 Hickman Road, Suite 1, Claymont, DE 19703 phone 302-798-9553 fax 302-798-9554

Client: WSP USA, Inc. | Project Name: McDonough PDI

Project Description: McDonough Pre-Design Investigation | Project Manager/Contact: Dawn Prell | Lot:

Location: Plant McDonough-Atkinson | Phone:

Sampler: Mark Mann

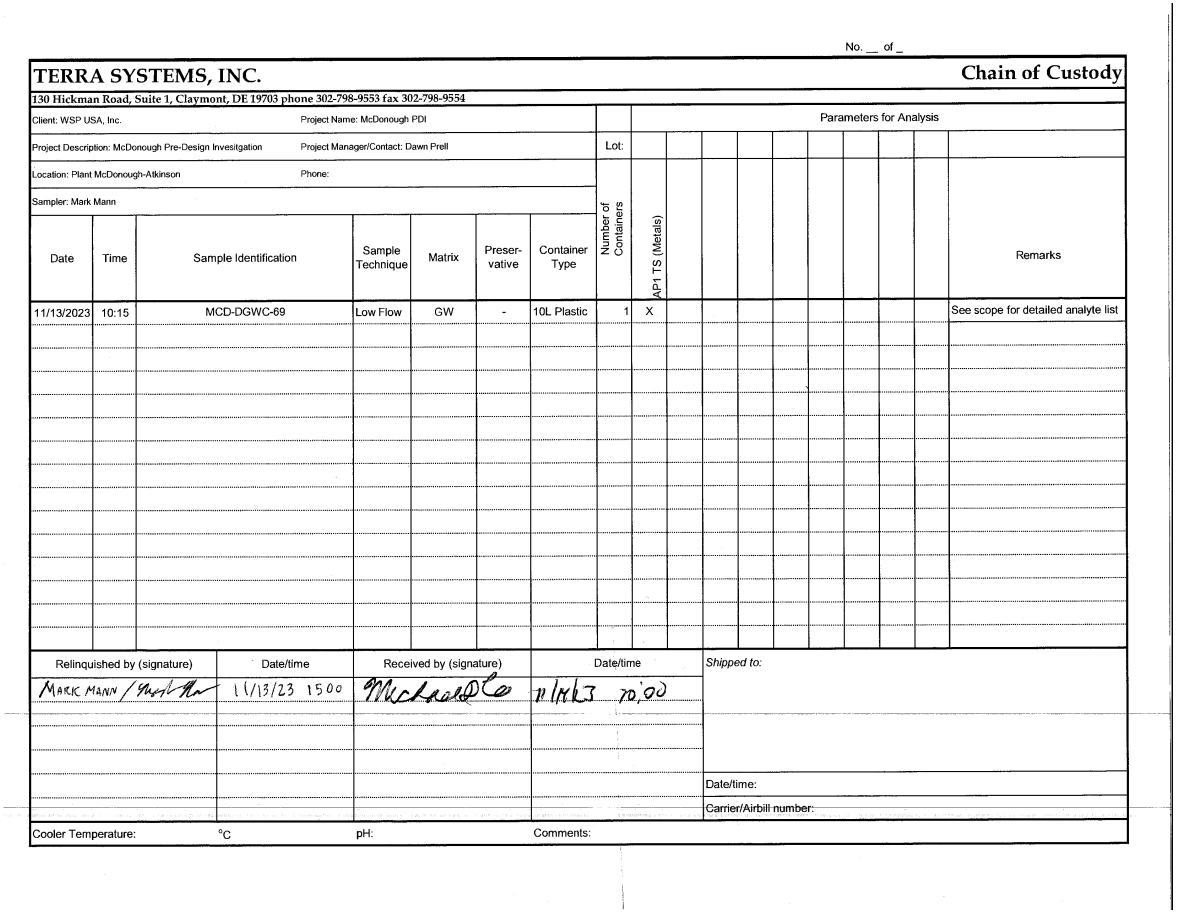
Parameters for Analysis

Date	Time	Sample Identification	Sample Technique	Matrix	Preser-vative	Container Type	Number of Containers	AP1 TS (Metals)									Remarks
11/14/2023	9:57	MCD-DGWC-48	Low Flow	GW	-	Plastic	3	X									See scope for detailed analyte list

Relinquished by (signature)	Date/time	Received by (signature)	Date/time	*Shipped to:*
MARK MANN	11/14/23 1530	[signature]	11/15/23 10:30	
				Date/time:
				Carrier/Airbill number:

Cooler Temperature: °C | pH: | Comments:

Figure 2. Chain-of-Custody Form For MCD-DGWC-69 Groundwater



No. __ of _

TERRA SYSTEMS, INC. — **Chain of Custody**

130 Hickman Road, Suite 1, Claymont, DE 19703 phone 302-798-9553 fax 302-798-9554

Client: WSP USA, Inc. | Project Name: McDonough PDI

Project Description: McDonough Pre-Design Invesitgation | Project Manager/Contact: Dawn Prell

Location: Plant McDonough-Atkinson | Phone:

Sampler: Mark Mann

Lot:

Parameters for Analysis

Date	Time	Sample Identification	Sample Technique	Matrix	Preser-vative	Container Type	Number of Containers	API TS (Metals)	Remarks
11/13/2023	10:15	MCD-DGWC-69	Low Flow	GW	-	10L Plastic	1	X	See scope for detailed analyte list

Relinquished by (signature)	Date/time	Received by (signature)	Date/time
Mark Mann	11/13/23 1500		11/14/23 10:00

Shipped to:

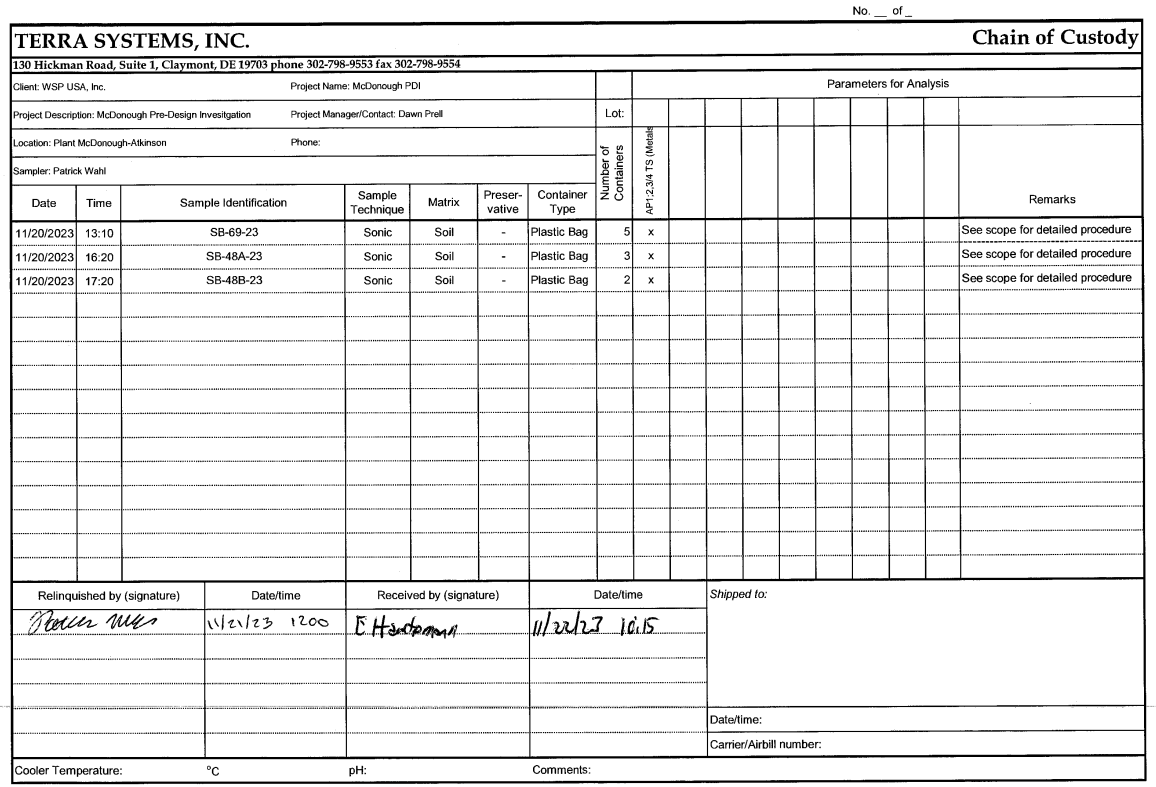
Date/time:

Carrier/Airbill number:

Cooler Temperature: °C | pH: | Comments:

terrasystems

Figure 3. Chain-of-Custody Form for SB-DGWC-69 and SB-DGWC-48A and SB-DGWC-48B Soils



No. __ of _

TERRA SYSTEMS, INC. — **Chain of Custody**

130 Hickman Road, Suite 1, Claymont, DE 19703 phone 302-798-9553 fax 302-798-9554

Client: WSP USA, Inc. | Project Name: McDonough PDI

Project Description: McDonough Pre-Design Invesitgation | Project Manager/Contact: Dawn Prell

Location: Plant McDonough-Atkinson | Phone:

Sampler: Patrick Wahl

Lot:

Parameters for Analysis

Date	Time	Sample Identification	Sample Technique	Matrix	Preser-vative	Container Type	Number of Containers	AP1,2,3/4 TS (Metals)	Remarks
11/20/2023	13:10	SB-69-23	Sonic	Soil	-	Plastic Bag	5	x	See scope for detailed procedure
11/20/2023	16:20	SB-48A-23	Sonic	Soil	-	Plastic Bag	3	x	See scope for detailed procedure
11/20/2023	17:20	SB-48B-23	Sonic	Soil	-	Plastic Bag	2	x	See scope for detailed procedure

Relinquished by (signature)	Date/time	Received by (signature)	Date/time
[signature]	11/21/23 1200	E Hardmann	11/22/23 10:15

Shipped to:

Date/time:

Carrier/Airbill number:

Cooler Temperature: °C pH: Comments:

Table 1. Volumes of Groundwater and Soil

Groundwater Sample	Volume (kg)	Date Received	Soil Sample	Volume (kg)	Date Received
MCD-DGWC-69	10.7	11/14/23	SB-48B 19.6-22’	13.2	11/22/23
MCD-DGWC-48	54.6	11/15/23	SB-48B 22-24’	5.9	11/22/23
			SB-48A 19.6-22’	3.0	11/22/23
			SB-48A 19.6-22	14.5	11/22/23
			SB-48A 22-24’	15.1	11/22/23
			SB-69 11.3-13.3’	3.9	11/22/23
			SB-69 13.3-15.3’	4.5	11/22/23
			SB-69 15.3-17.3’	4.4	11/22/23
			SB-69 17.3-19.3’	5.1	11/22/23
			SB-69 19.3-21.3	3.6	11/22/23

terrasystems

Table 2. Volumes of Groundwater and Soil Required for DGWC-48 Tests

Initial Characterization	GW Volume	Preservative	Bottle	**Method**
	L			
GW Dissolved As, Ba, Be, B, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, Tl	0.25	Nitric Acid	Plastic 250 mL	ICP/MS 6020B
Sulfate, Chloride, and Fluoride	0.05	None	Plastic Vial 50 mL	EPA 300.0 R2.1
Total Dissolved Solids and pH	0.5	None	Plastic 250 mL	SM 2540C
Field Parameters	0.05			
Total	1.0625			
Initial Characterization	Soil Volume			
	kg			
Soil As, Ba, Be, B, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, Tl + Moisture	0.1	None	Plastic 250 mL	ICP/MS 6020B

DGWC-48 Dosage Tests	GW Volume	Soil Volume
	L	kg
Groundwater KHCO3	0.1	
Groundwater + Soil KHCO3	0.072	0.086
Groundwater $FeSO_4$	0.1	
Groundwater + Soil $FeSO_4$	0.072	0.086
Groundwater + ADA Carbon	0.1	
Groundwater + ADA Carbon	0.072	0.086
Total	0.516	0.258

Column Width	in	3
Column Length	in	36
Groundwater Flowrate	ft/day	0.27
Column Volume	cm^3	4,168
Soil Quantity Per Column 1.67 g/cm^3	g	6,960
Pore Volume (30%) Porosity	mL	1,250
Retention Times	days	11.1
Flow per Day	mL	113
Flow per minute	mL/minute	0.078
Groundwater per Column for 42 days	mL	4,746

For DGWC-48 Batch and All Column Tests	GW Volume	Soil Volume
	L	kg
Total with 25% Contingency	26	28.2
	Gal	Pounds
Total Volume	6.9	62

terrasystems

Table 3. Volumes of Groundwater and Soil Required for DGWC-69 Initial Characterization, Titration Tests, and Columns Studies

DGWC-69 Dosage Tests	DGWC-69 GW Volume	Soil Volume
	L	kg
Groundwater Ferrous sulfate	0.1	
Groundwater + Soil Ferrous sulfate	0.072	0.086
Groundwater Ferrous sulfate + Buffer	0.1	
Groundwater + Soil Ferrous sulfate + Buffer	0.072	0.086
Total	0.344	0.172

DGWC-69 Batch	GW	Soil	Ferrous Sulfate Heptahydrate	Sodium Bicarbonate
	g	g	g	g
Control	500	900		
0.1 g/L Ferrous Sulfate without Buffer	500	900	0.05	
1.0 g/L Ferrous Sulfate without Buffer	500	900	0.5	
2.0 g/L Ferrous Sulfate without Buffer	500	900	1.0	
10 g/L Ferrous Sulfate without Buffer	500	900	5.0	
0.1 g/L Ferrous Sulfate with 0.1 g/L Sodium Bicarbonate Buffer	500	900	0.05	0.05
1.0 g/L Ferrous Sulfate with1.0 g/L Sodium Bicarbonate Buffer	500	900	0.5	0.5
0.1 g/L Ferrous Sulfate with 0.1 g/L Sodium Bicarbonate Buffer	500	900	1.0	1.0
0.1 g/L Ferrous Sulfate with 0.1 g/L Sodium Bicarbonate Buffer	500	900	5.0	5.0
Total	4500	8100		
	L	kg		
Total	7.4	10.5		
	gal	lbs		
	1.95	23		

CCR Columns	Length	in	36
Control, KHCO3, FeSO4, and ADA	Width	in	4
Porosity		%	30
Groundwater Flow Rate		ft/day	0.27
Groundwater per column	42 days	L	8.4
Soil per column		kg	9.8
Treatments	1		Control
	2		KHCO3
	3		Ferrous Sulfate Heptahydrate
	4		ADA Carbon
Metals	Primary		As, Co, Be
	Secondary		Li, Mo, Se
	App III		Bo, Ca, Cl, F, SO4, TDS
	Field		pH, SC, DO, ORP, Hach Alk

2.2 Baseline Characterization

At the beginning of the bench-scale treatability test, baseline characterization was performed to verify contaminant concentrations in the samples. Analyses were conducted by Eurofins Lancaster Laboratories Environmental (ELLE) for:

- Anions (chloride, fluoride, and sulfate) by EPA 300.0 R2.1.Dissolved metals (antimony, arsenic, barium, beryllium, boron, calcium, cadmium, cobalt, chromium, lead, lithium, mercury, molybdenum, selenium, and thallium by SW846 6010D, 6020B, 7471B, and 7470A
- Total dissolved solids (TDS) by SM 2540C, pH by SW846 9040C, and Temperature by SW846 9040C.

TS measured pH in the soil and groundwater, ORP, dissolved oxygen (DO), specific conductivity, total and bicarbonate alkalinity, total hardness, ferrous iron, and sulfide in the aqueous phase using calibrated meters and Hach protocols.

The soil samples were analyzed for antimony, arsenic, barium, beryllium, boron, calcium, cadmium, cobalt, chromium, lead, lithium, mercury, molybdenum, selenium, and thallium by SW846 6010D, SW846 7471B, and SW846 6020B and percent moisture.

Table 4 presents the results of the initial characterization of the DGWC-48 groundwater and soil and the DGWC-69 groundwater and soil. The DGWC-69 groundwater had a pH of 6.9 SU, +252 mV redox potential, 8.9 mg/L dissolved oxygen, specific conductivity of 134 µS/cm, alkalinity of 80 mg/L as $CaCO_3$, hardness of 60 mg/L as $CaCO_3$, 0.35 mg/L ferrous iron, and <0.01 mg/L sulfide; these analyses were conducted by TS using calibrated meters and probes and Hach methods for alkalinity, hardness, ferrous iron, and sulfide. ELLE found 7.37 mg/L sulfate, 5.36 mg/L chloride, 0.0265 mg/L dissolved arsenic (above the Georgia Groundwater Protection Standard or GA GWPS of 0.010 mg/L), a TDS of 93.5 mg/L and pH of 6.65 SU. Other metals were not detected or below the GA GWPS for those constituents. The DGWC-69 soil had >1,000 mg/kg calcium; 100 to 1000 mg/kg barium; 10 to 100 mg/kg cobalt, chromium, and lithium; 1 to 10 mg/kg of arsenic and lead; and <1 mg/kg of beryllium, cadmium, molybdenum, and thallium. The density of the DGWC-69 soil was 1.66 g/cm^3,the saturated soil was 1.77 g/cm^3, and there was 12.2% moisture.

The DGWC-48 groundwater had a pH of 5.6 SU, + 303 mV redox potential, 9.9 mg/L dissolved oxygen, specific conductivity of 623 µS/cm, alkalinity of 20 mg/L as $CaCO_3$, hardness of 40 mg/L as $CaCO_3$, 2.8 mg/L ferrous iron, and 0.1 mg/L sulfide. ELLE found 273 mg/L sulfate, 0.48 mg/L fluoride, 6.21 mg/L chloride, 0.00767 mg/L dissolved beryllium (above the GA GWPS of 0.004 mg/L), 0.329 mg/L dissolved cobalt (above the McDonough GWPS of 0.024 mg/L), and dissolved lithium of 0.091 mg/L (above the GA GWSP of 0.040 mg/L), a TDS of 398 mg/L and pH of 4.45 SU. The DGWC-48 soil had >1,000 mg/kg of calcium; 10 to 100 mg/kg of barium; 1 to 10 mg/kg of arsenic, cobalt, chromium, lithium, molybdenum, and lead; and <1 mg/kg of detectable beryllium and thallium. The density of the DGWC-48 soil was 1.55 g/cm^3, the saturated soil was 1.67 g/cm^3, and there was 11.3% moisture.

terrasystems

Table 4. Initial Characterization Results

Sample		GA GWPS	DGWC-69 GW	DGWC-48 GW		DGWC-69 Soil	DGWC-48 Soil
pH (TS)	SU		6.9	5.6			
ORP	mV		+252	+303			
DO	mg/L		8.9	9.9			
Spec. Cond.	mS/cm		134	623			
Alk.	mg/L as CaCO3		80	20			
Hard.	mg/L as CaCO3		60	40			
Fe	mg/L		0.35	2.8			
S	mg/L		0	0.10			
Sulfate	mg/L		7.37	273			
Fluoride	mg/L		<0.45	0.48			
Chloride	mg/L		5.36	6.21			
As	mg/L	0.010	**0.0265**	0.000697	mg/kg	1.40	1.47
B	mg/L	4.0	0.0436	0.607	mg/kg	<3.23	<3.1
Ba	mg/L	2	0.0495	0.0245	mg/kg	131	47.2
Be	mg/L	0.004	<0.000119	**0.00767**	mg/kg	0.992	0.873
Ca	mg/L		9.8	65.1	mg/kg	1,260	1,560
Cd	mg/L	0.0050	<0.000151	0.00263	mg/kg	0.0785	<0.0367
Co	mg/L	0.024	0.000238	**0.329**	mg/kg	21.5	4.07
Cr	mg/L	0.10	0.000764	<0.00055	mg/kg	27.9	7.35
Hg	mg/L		<0.0000790	<0.0000790	mg/kg	<0.0217	<0.0218
Li	mg/L	0.040	<0.011	**0.091**	mg/kg	20.2	8.04
Mo	mg/L	0.1	0.00651	<0.00013	mg/kg	0.549	1.03
Pb	mg/L	0.015	<0.00012	0.000735	mg/kg	7.4	2.70
Sb	mg/L	0.006	<0.00020	<0.00020	mg/kg	<0.0755	<0.0734
Se	mg/L	0.050	<0.000278	<0.000278	mg/kg	<0.0943	<0.0917
Tl	mg/L	0.0020	<0.00013	<0.00013	mg/kg	0.361	0.161
TDS	mg/L		93.5	398	mg/kg		
pH (ELLE)	SU		6.65	4.45	SU		
Temperature	°C		21.5	20.8	°C		
Moisture	%				%	12.2	11.3

7.37 J Value. Compound detect above the method detection limit but below method calibration range.
0.00767 Compound exceeds GA or McDonough GWPS

Several reagents to be used in the tests were analyzed for dissolved metals, anions, TDS, and pH (Table 5). Solutions were prepared with 10 g/L of the reagents, filtered, and analyzed by ELLE. The first batch of ADA Carbon was prepared incorrectly so ADA sent a new sample (Fluxsorb II). The 10 g/L ADA Carbon Fluxsorb II had no detectable sulfate (<2.5 mg/L), 0.5 mg/L dissolved calcium, trace levels of dissolved arsenic, barium, cobalt, chromium, molybdenum, and lead, a TDS of 176 mg/L and pH of 7.83 SU. The 10 g/L LD Carlson potassium bicarbonate had low levels of sulfate (9.04 mg/L), 22.6 mg/L dissolved calcium, trace levels of dissolved arsenic, barium, cobalt, chromium, molybdenum, and lead, a TDS of 67,700 mg/L and pH of 8.34 SU. Three different ferrous sulfate heptahydrate suppliers were tested including JT Baker (tested twice), Verdesian, and CERES. The 10 g/L ferrous sulfate heptahydrates had elevated levels of sulfate (2,760 mg/L [JT Baker]), iron (2,210 mg/L [CERES]), 1.5 to 40 mg/L dissolved calcium, trace levels of dissolved arsenic, boron, barium, cadmium, molybdenum, lead, selenium, and thallium in some of the samples; a TDS of 6,550 mg/L and pH of 3.28 SU (JT Baker). The ferrous sulfate solutions had cobalt which exceeded the Plant McDonough GWPS of 0.024 mg/L in all four samples (0.0892 to 0.127 mg/L) and the Verdesian and CERES ferrous sulfate heptahydrate products had 0.131 to 0.531 mg/L dissolved chromium which exceeded the GA GWPS of 0.10 mg/L.

Table 5. 10 g/L Reagent Analytical Results

		GA GWPS	10 g/L ADA Carbon Fluxsorb II	10 g/L LD Carlson Potassium Bicarbonate	10 g/L JT Baker Ferrous Sulfate Heptahydrate	10 g/L JT Baker Ferrous Sulfate Heptahydrate	10 g/L Verdesian Ferrous Sulfate Heptahydrate	10 g/L CERES Ferrous Sulfate Heptahydrate
Sulfate	mg/L		<2.5	9.04	2760			
Fluoride	mg/L		<0.45	<0.90	<0.45			
Chloride	mg/L		<3.0	<6.0	<3.0			
As	mg/L	0.010	0.00086	0.00120	<0.000680	<0.000680	<0.000680	0.00229
B	mg/L	4	<0.012	<0.012	<0.012	<0.12	0.121	<0.24
Ba	mg/L	2	0.00107	0.0307	0.0343	0.00911	0.0142	0.0321
Be	mg/L	0.004	<0.000119	<0.000119	<0.000119	<0.000119	<0.000119	<0.000119
Ca	mg/L		0.473	22.6	23.6	1.48	40.0	39.5
Cd	mg/L	0.0050	<0.000151	<0.000151	<0.000151	<0.000151	0.000151	0.000162
Co	mg/L	0.024	0.000164	0.000451	**0.0955**	**0.0892**	**0.094**	**0.127**
Cr	mg/L	0.10	0.00252	0.00145	<0.000550	0.0209	**0.131**	**0.531**
Fe	mg/L							2210
Hg	mg/L		<0.000079	<0.000079	<0.000079	<0.000079	<0.000079	<0.000079
Li	mg/L	0.040	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.011
Mo	mg/L	0.1	0.00178	0.000184	<0.000130	0.00021	0.0349	0.0511
Pb	mg/L	0.015	0.000421	0.000227	0.000135	0.00084	0.00114	0.0121
Sb	mg/L	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Se	mg/L	0.050	<0.000278	<0.000278	<0.000278	0.000721	0.000922	<0.000278
Tl	mg/L	0.0020	<0.000130	0.00131	<0.000130	<0.000130	<0.000130	0.000157
TDS	mg/L		176	67700	6550			
pH	SU		7.83	8.34	3.28			
Temperature	°C		21.8	21.2	21.8			

7.37 J Value. Compound detect above the method detection limit but below method calibration range.
0.0955 exceeds the GA or McDonough GWPS

2.3 Titration Tests

Titrations were conducted to determine the appropriate dosages of each of the three reagents for the homogenized Plant McDonough DGWC-48 groundwater and for the 60% groundwater and 40% soil slurry, as needed based on the chemistry of the treatment reagents selected for testing. Titrations with potassium bicarbonate, ferrous sulfate heptahydrate, and ADA Carbon were conducted with (1) 100 mL DGWC-48 groundwater and (2) 72 g groundwater and 76.8 g soil

(60:40 volumetric ratio of DGWC-48 groundwater to soil assuming a soil density of 1.8 g/cm^3) to determine the impacts on pH and ORP.

Titrations were conducted to determine the appropriate dosages of the ferrous sulfate for the homogenized Plant McDonough AP-1 DGWC-69 groundwater and for the 60% groundwater and 40% soil slurry, as needed based on the chemistry of the treatment reagents selected for testing. Titrations ferrous sulfate heptahydrate with and without sodium bicarbonate buffer were conducted with (1) 100 mL DGWC-69 groundwater and (2) 72 g DGWC-69 groundwater and 76.8 g soil (60:40 volumetric ratio of DGWC-69 groundwater to soil assuming a soil density of 1.8 g/cm^3) to determine the impacts on pH and ORP.

2.3.1 Titration Results for DGWC-48

Titration results for DGWC-48 are shown in Table 6. With DGWC-48 groundwater and potassium bicarbonate, the initial pH was 5.7 SU, and it took 1 g/L to raise the pH to 6.4 SU, 5.0 g/L to raise the pH to 7.3 SU, and 20 g/L to raise the pH to 7.8 SU. The ORP dropped from +282 mV to +235 mV. After two days, the pH of the 20 g/L $KHCO_3$ solution was 8.4 and the ORP was +211 mV.

With DGWC-48 soil, groundwater, and potassium bicarbonate, the initial groundwater and soil pH was 6.7 and it took 15 g/L to raise the pH to 7.2 and 50 g/L raised the pH to 7.4 with some fluctuations in the ORP. After two days, the pH of the 50 g/L $KHCO_3$ solution containing soil and groundwater was 7.9 and the ORP was +224 mV. It took more potassium bicarbonate to raise the pH of the soil and groundwater than the groundwater alone.

With DGWC-48 groundwater and JT Baker ferrous sulfate heptahydrate, the initial pH was 6.2 and 1 g/L $FeSO_4{\cdot}7H_2O$ dropped the pH to 5.6, 2.0 g/L dropped the pH to 5.2 SU, 5.0 g/L dropped the pH to 4.6 SU and 10 g/L dropped the pH to 4.0 SU. Aliquots of sodium bicarbonate were added to raise the pH of the 10 g/L ferrous sulfate heptahydrate solution. With 5.0 g/L sodium bicarbonate, the pH increased to 6.6 SU and the ORP fell from +209 to -192 mV. With 15 g/L sodium bicarbonate, the pH of the groundwater was 6.8 SU and the ORP fell to -273 mV. After two days, the pH was 7.0 SU and the ORP was +210 mV.

With DGWC-48 soil and groundwater and JT Baker ferrous sulfate heptahydrate, the initial groundwater and soil pH was 6.7 SU, 1.0 g/L $FeSO_4{\cdot}7H_2O$ took pH to 5.7 SU and 10 g/L dropped the pH to 4.5 SU and the ORP decreased from +206 to +38 mV. With the addition of 5.0 g/L sodium bicarbonate to the solution of 10 g/L $FeSO_4{\cdot}7H_2O$, the pH increased to 6.1 SU and the ORP fell to -109 mV. With 10 g/L sodium bicarbonate, the pH was 6.4 SU and the ORP was -150 mV. After two days, the pH of the soil and groundwater was 6.7 and the ORP was +48 mV. Ferrous sulfate heptahydrate alone will drop the pH to as low as 4.0-4.5. Equivalent loadings of $FeSO_4{\cdot}7H_2O$ and $NaHCO_3$ were able to maintain the pH between 6 and 7. The addition of sodium bicarbonate to the ferrous sulfate resulted in large initial drops in the ORP.

2.3.2 Titration Results for DGWC-69

Titrations were conducted with the DGWC-69 groundwater and DGWC-69 soil and groundwater using ferrous sulfate heptahydrate with and without sodium bicarbonate (Table 7).

With the DGWC-69 groundwater and ferrous sulfate heptahydrate, the initial groundwater pH was 7.1 SU and 1 g/L $FeSO_4 \cdot 7H_2O$ dropped the pH to 6.2 SU, 3.0 g/L dropped the pH to 5.7 SU, 5.0 g/L dropped the pH to 5.5 SU, and 10 g/L dropped the pH to 4.6 SU. The ORP remained positive. After one day, the pH was 5.2 SU and the ORP was +104 mV for the 10 g/L $FeSO_4 \cdot 7H_2O$ solution. With the DGWC-69 groundwater and ferrous sulfate heptahydrate and sodium bicarbonate, the initial groundwater pH was 6.7 SU and 1 g/L $FeSO_4 \cdot 7H_2O$ dropped the pH to 6.0 SU and 1 g/L $NaHCO_3$ raised the pH back to 6.4 SU, 3.0 g/L $FeSO_4 \cdot 7H_2O$ dropped the pH to 6.3 SU and 3.0 g/L $NaHCO_3$ brought the pH back to 6.8 SU. The 10.0 g/L $FeSO_4 \cdot 7H_2O$ and 10 g/L $NaHCO_3$ had a pH of 7.0.

With the 100 g DGWC-69 groundwater, 111 g soil, and ferrous sulfate heptahydrate, the initial groundwater pH was 6.2 SU and 1 g/L $FeSO_4 \cdot 7H_2O$ had no impact on the pH SU, 2.5 g/L dropped the pH to 5.4 SU, 5.0 g/L and 7.5 g/L also had a pH 5.4 SU, and 10 g/L dropped the pH to 5.0 SU. The ORP remained positive. After one day, the pH was 5.9 SU and the ORP was -119 mV for the 10 g/L $FeSO_4 \cdot 7H_2O$ solution. With 132 g DGWC-69 groundwater, 146 g soil, and ferrous sulfate heptahydrate and sodium bicarbonate, the initial groundwater pH was 7.0 SU and 1.0 g/L $FeSO_4 \cdot 7H_2O$ dropped the pH to 6.7 SU and 1 g/L $NaHCO_3$ dropped the pH back to 6.4 SU, 2.5 g/L $FeSO_4 \cdot 7H_2O$ dropped the pH to 6.3 SU and 2.5 g/L $NaHCO_3$ brought the pH back to 6.5 SU and the ORP became negative. The 4.9 g/L $FeSO_4 \cdot 7H_2O$ increased the pH to 6.6 and 7.4 g NaHCO3 dropped the pH to 6.2. With 9.8 g/L $FeSO_4 \cdot 7H_2O$ and 9.8 g/L $NaHCO_3$, the pH was 6.2.The next day, the pH was 6.7 with a -179 mV ORP.

terrasystems

Table 6. DGWC-48 Titration Results

Treatment	Groundwater Potassium Bicarbonate														
GW	KHCO3	12/5/2023									12/7/2023				
g	g	0	0.01	0.1	0.25	0.5	0.75	1.0	1.5	2.0	2.0				
100	g/L	0	0.1	1.0	2.5	5.0	7.5	10	15	20	20				
pH		5.7	5.7	6.4	6.7	7.3	7.5	7.7	7.7	7.8	8.4				
ORP		+282	+286	+277	+277	+261	+258	+252	+275	+235	+211				
Treatment	GW + Soil Potassium Bicarbonate														
GW	Soil	KHCO3	12/5/2023												12/7/2023
g	g	g	0	0.074	0.148	0.37	0.555	0.7	1.11	1.48	1.85	2.22	2.96	3.7	3.70
74.2	76.8	g/L	0	1.0	2.0	5.0	7.5	10	15	20	25	30	40	50	50
pH			6.7	6.4	6.2	6.6	6.8	6.9	7.2	7.2	7.3	7.3	7.3	7.4	7.9
ORP			+221	+246	+321	+317	+310	+302	+282	+272	+258	+258	+250	+245	+224
Treatment	Groundwater Ferrous Sulfate Heptahydrate														
GW	FeSO4-7H2O	12/5/2023						NaHCO3					12/7/2023		
g	g	0	0.1	0.2	0.5	0.75	1.0	g	0.5	0.7	1.0	1.5	1.5		
100	g/L	0	1.0	2.0	5.0	7.5	10	g/L	5.0	7.0	10	15	15		
pH		6.2	5.6	5.2	4.6	4.1	4.0		6.6	6.7	6.7	6.8	7.0		
ORP		130	+31	+64	+110	+186	+209		-192	-229	-279	-273	+210		
Treatment	GW + Soil Ferrous Sulfate Heptahydrate														
GW	Soil	FeSO4-7H2O	12/5/2023					NaHCO3			12/7/2023				
g	g	g	0	0.06	0.3	0.45	0.6	g	0.3	0.6	0.60				
74.2	76.8	g/L	0	1.0	5.0	7.5	10	g/L	5.0	10.0	10				
pH			6.7	5.7	4.9	4.6	4.5		6.1	6.4	6.7				
ORP			+206	+14	0	+14	+38		-109	-150	+48				

terrasystems

Table 7. DGWC-69 Titration Results

Treatment	Groundwater Ferrous Sulfate Heptahydrate												
GW	FeSO4-7H2O	12/7/2023						12/8/2023					
g	g	0	0.1	0.3	0.5	0.75	1.0	1.0					
100	g/L	0	1.0	3.0	5.0	7.5	10	10					
pH		7.1	6.2	5.7	5.5	5.3	4.6	5.2					
ORP		+165	+30	+45	+60	+78	+163	+104					
Treatment	Groundwater	Ferrous Sulfate Heptahydrate + Sodium Bicarbonate											
GW	FeSO4-7H2O	12/7/2023											12/8/2023
		FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	FeSO4-7H2O	NaHCO3	
g	g	0	0	0.1	0.1	0.3	0.3	0.5	0.5	0.75	1.00	1.0	
100	g/L	0	0.0	1.0	1.0	3.0	3.0	5.0	5.0	7.5	10.0	10.0	
pH		6.7	6.7	6.0	6.4	6.3	6.8	6.8	7.0	7.0	7.0	7.0	6.8
ORP		-19	-19	-28	-80	-94	-187	-180	-227	-259	-245	-245	-171
Treatment	GW + Soil	Ferrous Sulfate Heptahydrate											
GW	Soil	FeSO4-7H2O	12/7/2023						12/8/2023				
g	g	g	0	0.1	0.25	0.5	0.75	1.0					
100	111	g/L	0	1.0	2.5	5.0	7.5	10					
pH			6.2	6.2	5.4	5.4	5.4	5.0	5.9				
ORP			+159	+150	+91	+78	+82	+65	-119				
Treatment	GW + Soil	Ferrous Sulfate Heptahydrate + Sodium Bicarbonate											
GW	FeSO4-7H2O	12/7/2023											12/8/2023
	Soil		FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	FeSO4-7H2O	NaHCO3	
g	g	g	0	0	0.13	0.13	0.325	0.325	0.65	0.975	1.30	1.3	
132	146	g/L	0	0.0	1.0	1.0	2.5	2.5	4.9	7.4	9.8	9.8	
pH			7.0	7.0	6.7	6.4	6.3	6.5	6.6	6.2	6.6	6.2	6.7
ORP			-19	+118	+84	+24	+2	-52	-66	-153	-151	-183	-170

2.3.3 FluxSorb II Adsorption Tests

Adsorption studies were conducted to determine the impact of three selected dosages (10, 25, and 40 g/L) of the ADA Carbon FluxSorb II reagent for the homogenized DGWC-48 groundwater on removal of metals in the groundwater. These treatments were incubated for six days. At the end of the test, samples were submitted to ELLE for dissolved metals (As, Ba, Be, Bo, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, and Tl). and analyzed for dissolved metals. TS measured the pH, DO, ORP, specific conductivity, and turbidity. The results for the adsorption tests with the DGWC-48 groundwater and FluxSorb II are shown in Table 8. The percent change from the initial DGWC-48 groundwater is shown.

The pH in the treatments with FluxSorb II as measured by ELLE ranged from 6.6 to 6.8 SU, above the 4.4 SU measured in the DGWC-48 groundwater. The TDS in the FluxSorb II treatments varied between 289 and 406 mg/L compared to 398 mg/L in the DGWC-48 groundwater. Sulfate decreased slightly with all three FluxSorb II loadings. Over the six-day incubation, chloride increased slightly in 40 g/L FluxSorb II treatment. Mercury, antimony, and thallium were not detected in the groundwater or the FluxSorb II treatments. A trace of selenium was detected in the 25 g/L FluxSorb II. Boron decreased by 82.2% at the 40 g/L loading but showed little change at the 10 and 25 g/L loadings of FluxSorb II. Lead fell to below detection limits with the 40 g/L FluxSorb II. The FluxSorb II showed increases in arsenic (10 and 25 g/L FluxSorb II), barium (10 and 25 g/L FluxSorb II), chromium (10, 25, and 40 g/L FluxSorb II), and molybdenum but remained below the GA GWPS for each metal. Decreased beryllium to below the GA GWPS of 0.004 mg/L was observed in the 10, 25, and 40 g/L FluxSorb II treatments. Calcium decreased by 5.1 to 85.5% in the 10, 25, and 40 g/L FluxSorb II treatments. Cadmium decreased by 38.4 to 90.9%. Cobalt decreased by 26.7 to 88.0% as the FluxSorb II increased but remained above the Plant McDonough GWPS of 0.024 mg/L. Lithium decreased below the GA GWSP of 0.040 mg/L at the 25 and 40 g/L FluxSorb II loadings. Of the metals exceeding the GA GWPS in the DGWC-48 groundwater, 25 and 40 g/L FluxSorb II effectively treated beryllium and lithium to below the GA GWPS but did not reach the McDonough GWPS for cobalt although cobalt was reduced by 88.0% at the 40 g/L FluxSorb II loading.

terrasystems

Table 8. Adsorption Results for DGWC-48 and FluxSorb II

Sample		GA GWPS	DGWC-48 GW		DGWC-48 10 g/L FluxSorb II	DGWC-48 25 g/L FluxSorb II	DGWC-48 40 g/L FluxSorb II	% Change from IC	DGWC-48 10 g/L FluxSorb II	DGWC-48 25 g/L FluxSorb II	DGWC-48 40 g/L FluxSorb II
Day			0		6	6	6				
Sulfate	mg/L		273		252	234	272		7.7	14.3	0.4
Fluoride	mg/L		0.48		<0.45	<0.45	<0.45				
Chloride	mg/L		6.21		5.83	5.53	7.25		6.1	11.0	-16.7
As	mg/L	0.010	0.000697		0.00259	0.00138	<0.00068		-271.6	-98.0	>2.6
B	mg/L		0.607		0.614	0.595	0.108		-1.2	2.0	82.2
Ba	mg/L	2	0.0245		0.112	0.0419	0.0103		-357.1	-71.0	58.0
Be	mg/L	0.004	**0.00767**		0.000407	0.00242	<0.000119		94.7	68.4	>98.4
Ca	mg/L		65.1		61.8	51.1	9.47		5.1	21.5	85.5
Cd	mg/L	0.0050	0.00263		0.00126	0.00162	0.00024		52.1	38.4	90.9
Co	mg/L	0.024	**0.329**		**0.241**	**0.228**	**0.0396**		26.7	30.7	88.0
Cr	mg/L	0.10	<0.00055		0.00222	0.00835	0.00203		>-303.6	>-1418.2	>-269.1
Hg	mg/L		<0.0000790		<0.0000790	<0.0000790	<0.0000790				
Li	mg/L	0.040	**0.091**		**0.0846**	<0.011	<0.011		7.0	>87.9	>87.9
Mo	mg/L	0.1	<0.00013		0.00192	0.00874	0.00199		>-1376.9	>-6623.1	>-1430.8
Pb	mg/L	0.015	0.000735		0.000322	0.000368	<0.00012		56.2	49.9	>83.7
Sb	mg/L	0.006	<0.00020		<0.00020	<0.00020	<0.00020				
Se	mg/L	0.050	<0.000278		<0.000278	0.000719	<0.000278			>-158.6	
Tl	mg/L	0.0020	<0.00013		<0.00013	<0.00013	<0.00013				
TDS	mg/L		398		289	406	380		27.4	-2.0	4.5
pH	SU		4.45		6.72	6.63	6.76		-51.0	-49.0	-51.9
Temperature	°C		20.8		21.8	22.0	21.8				
0.0436	J value. Compound detected below method calibration level, but above method detection limit.										
0.00767	Compound exceeds GA or McDonough GWPS										
61.8	Compound detected in blank associated with these samples										

2.4 ADA Carbon Transport in Column Bench-Scale Study Scope

Column Objectives

- Evaluate pore volume treatment and evolution under transient flow conditions similar to field flow rate
- Evaluate influence on permeability / flow through column
- Field flow rate: 2.7 feet per day through the 1-foot-long column
- DGWC-48 soil and DGWC-48 groundwater with FluxSorb II
- Analyze field parameters on aqueous samples (pH, ORP, DO, SC, and turbidity)
- Record observations related to flow, leakage, precipitation, photograph periodically

The column study used FluxSorb II at one loading.

A column test was conducted using DGWC-48 groundwater and DGWC-48 soil to evaluate ADA Carbon FluxSorb II reagent at one dosage. ADA recommended a dosage of 0.5% FluxSorb solids by weight of groundwater. The as-received Fluxsorb II has 13.1wt% solids. This would be equivalent to 3.82 g/L FluxSorb II in the suspension. The column was prepared by installing a 3/8" plastic bushing to a small luer outlet onto both endcaps. The weight of the empty column and endcaps were recorded (467 g). The bottom endcap had a geotextile membrane layer at the bottom and was glued onto the column. The soil was weighed and then added to the column while maintaining the groundwater level (to prevent trapping air bubbles). The column was filled with soil and groundwater and periodically tapped and the soil tamped. Once the column was filled, a geotextile covering was placed over the soil and the top endcap was glued onto the column.

The 12" x 2" diameter column (640 mL total empty volume) used 976 g of soil and 110 mL of DGWC-48 with an effective porosity of 17% resulting in a pore volume was 110 mL. First 1.8 pore volumes of DGWC-48 groundwater were pumped through the column over three days at flowrates of 0.41 to 1.18 mL/min. A flowrate of about 0.57 mL/min or 1.8 pore volumes/ day or a groundwater flowrate of 1.8 ft/day was used for the column test. A solution of 38.2 g FluxSorb II in 964 mL DGWC-48 groundwater (0.52% solids) was prepared on January 22, 2024. The FluxSorb II solution was continually mixed on a magnetic stir plate. The pH, ORP, specific conductivity, and turbidity of the effluent from the column were measured periodically. The calibration curve between turbidity and the FluxSorb II is shown in Figure 4. The FluxSorb II solution was pumped through the column over four days (1/22/24 to 1/26/24) between 8:00 and 5:00 with a total of 847 mL collected in the effluent. A groundwater flush was begun on 1/26/24 and continued through 1/31/24 with a total of 625 mL or 5.7 pore volumes. A sample of the effluent was collected 1/29/24 to 1/31/24 over the last 330 mL to be analyzed for dissolved metals.

The date and time, volume, cumulative flow, pore volume, cumulative pore volume, pH, ORP, specific conductivity, mg/L FluxSorb II (calculated from turbidity), mg/L solids (FluxSorb II X 0.131), and cumulative colloidal carbon product (CCP) solids are shown in Table 9. The FluxSorb II solution had a pH of 6.5, ORP of 165 mL, specific conductivity (SC) of 664 µS/ cm, 38,128 mg/L FluxSorb II (calculated), and 4,985 mg CCP solids. After the initial groundwater flush of 1.5 pore volumes, the pH of the effluent was 5.6 SU, ORP was +196 mV, the SC was 654 µS/cm, and there was no turbidity (or FluxSorb II). There was no significant change in the

ORP, SC, or pH over the 16 pore volumes. Light turbidity was observed in the column effluent after 0.2 pore volumes of the FluxSorb II solution (Figure 5). After 5.1 pore volumes of the diluted CCP, there is up to 17,300 mg/L of FluxSorb II in the effluent or roughly 1/2 of the influent concentration. The FluxSorb II ranged between 7,692 mg/L to 17,446 mg/L through pore volume 9.5 when the injection of FluxSorb II was ended. During the flush with DGWC-48 groundwater the FluxSorb II decreased from 6,464 mg/L in the first 1.2 pore volumes to 36 mg/L at pore volume 16. An estimated 11.6 mg of CCP solids was removed during the flush. The mass balance showed an estimated 1,220 mg of CCP solids passed through the column or 24.5% of the CCP applied to the column. Based upon the turbidity measurements and flow, about 75.5% of the CCP was retained on the column.

Figure 6 shows the column over time. The front and back of the column are shown after 1.1 pore volumes during the water flush. The FluxSorb II was introduced to the bottom of the column after 1.8 pore volumes. After 2.6 pore volumes, there is a darker color through much of the column. After the water flush, the column retained much of the dark coloration. The extruded soil had more carbon on the outside of the column near the side walls than in the interior.

At the end of the test, the column was broken down and soil samples collected from the influent end and at three intervals in the exterior and interior of column to be analyzed by heating to 105 C to remove moisture and then for loss on ignition by heating at 550 C in a muffle furnace. Duplicate DGWC-48 background soil samples were tested. Two samples of the FluxSorb II carbon were evaluated for moisture content and loss on ignition.

Table 10 shows the results of the moisture content and loss on ignition tests. The two FluxSorb II samples contained 86.3% moisture (13.7% solids) and 70,400 to 70,600 mg/kg organic matter wet solids or 515,000 to 516,000 mg/kg of organic matter dry solids. The DGWC-48 soils had 9.1 to 9.7% moisture, between 15,000 and 15,800 mg/kg of organic matter in the wet soil and between 16,500 and 17,400 mg/kg of organic matter in the dry soil. The outside samples from the bottom, 1/3, 2/3, and top of the column had between 1,180 to 3,470 mg/kg organic matter more on a dry weight basis or than the background soils. The interior samples from the bottom and top of the column had organic matter contents less than the average for the background soils on a dry weight basis with only 790 mg/kg in the interior sample from 2/3 up the column. A mass balance based upon the average of all eight samples from the column suggested that 1,524 mg organic matter on a dry weight basis was retained on the column over the organic matter in the background soil. With the average of 515,000 mg/kg of organic matter on a dry weight basis in the FluxSorb II and the 0.00498 kg of FluxSorb II dry solids applied to the column, the column received 2,565 mg of organic carbon. The mass balance showed 59.4% of the organic carbon on a dry weight basis was retained on the column.

terrasystems

Table 9. Preliminary ADA Carbon Column Results

0	CCP Sol	Start	End	Volume	Cum Flow	Pore Volume	Cum PV	Time	Flowrate	pH	ORP	SC	mg/L CCP	mg CCP Solids	Cum mg CCP Solids
	Soln	12:55					0			6.5	165	664	38128	4985	
1/17/2024				32.2	32.2	0.29	0.29	78	0.41						
				51.7	83.9	0.47	0.76	44	1.18						
1/18/2024				34.3	118.2	0.31	1.07	30	1.14						
				15.2	133.4	0.14	1.21	24.5	0.62						
1/22/2024				16.9	150.3	0.15	1.37	17	0.99						
				15.1	165.4	0.14	1.50	26.5	0.57	5.6	196	654	0		
	Start	12:55		29.1	194.5	0.26	1.77	51	0.57						
				36.6	231.1	0.33	2.10	65	0.56	6.7	175	734	23	0.1	0.1
			15:43	22.7	253.8	0.21	2.31	40	0.57	6.8	171	723	36	0.1	0.2
			16:45	30.6	284.4	0.28	2.59	54	0.57	6.8	171	709	71	0.3	0.5
1/23/2024		7:44	8:35	25.2	309.6	0.23	2.81	51	0.49	7.7	185	735	317	1.0	1.5
		8:43	10:29	60.3	369.9	0.55	3.36	106	0.57	7.6	175	741	1422	11.2	12.8
		10:40	11:55	42.4	412.3	0.39	3.75	75	0.57	7.1	174	717	3851	21.4	34.2
		12:00	13:16	43.4	455.7	0.39	4.14	76	0.57	7.1	175	727	12795	72.7	106.9
		13:23	15:27	71.1	526.8	0.65	4.79	124	0.57	7.1	173	736	15013	139.8	246.7
		15:35	16:45	30	556.8	0.27	5.06	70	0.43	6.6	187	735	17320	68.1	314.8
1/24/2024		7:40	10:50	108.4	665.2	0.99	6.05	190	0.57	6.7	94	735	8273	117.5	432.3
		11:08	14:34	119.1	784.3	1.08	7.13	206	0.58	6.8	207	733	10728	167.4	599.7
		14:46	16:57	75.9	860.2	0.69	7.82	131	0.58	6.8	199	736	17446	173.5	773.1
1/25/2024		7:42	10:20	66.5	926.7	0.60	8.42	158	0.42	6.5	198	768	13377	116.5	889.7
		10:36	14:02	79.2	1005.9	0.72	9.14	206	0.38	6.4	185	764	17059	177.0	1066.7
1/26/2024		7:42	8:57	35.7	1041.6	0.32	9.47	69	0.52	7.9	106	745	7692	36.0	1102.6
	Flush	9:20	13:49	123.3	1164.9	1.12	10.59	289	0.43	7.8	173	742	6464	104.4	1207.0
		13:56	16:16	80.3	1245.2	0.73	11.32	140	0.57	7.1	227	736	624	6.6	1213.6
1/29/2024		7:46	14:09	215.2	1460.4	1.96	13.28	383	0.56	7.0	123	646	123	3.5	1217.1
		14:17	16:58	90.3	1550.7	0.82	14.10	161	0.56	6.5	136	638	36	0.4	1217.5
1/30/2024		10:46	16:45	205.2	1755.9	1.87	15.96	359	0.57				35	0.9	1218.4
1/31/2024		10:37	11:37	33.6	1789.5	0.31	16.27	60	0.56	6.9	181	598	36	0.2	1218.6

Figure 4. CCP FluxSorb II versus Turbidity

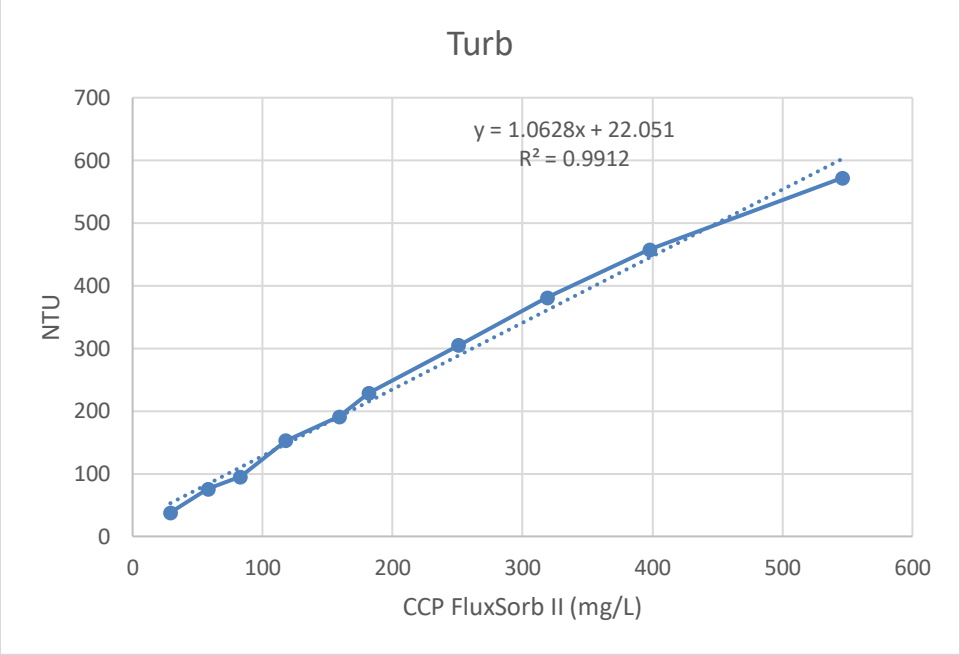


Figure 5. CCP FluxSorb II versus Pore Volume

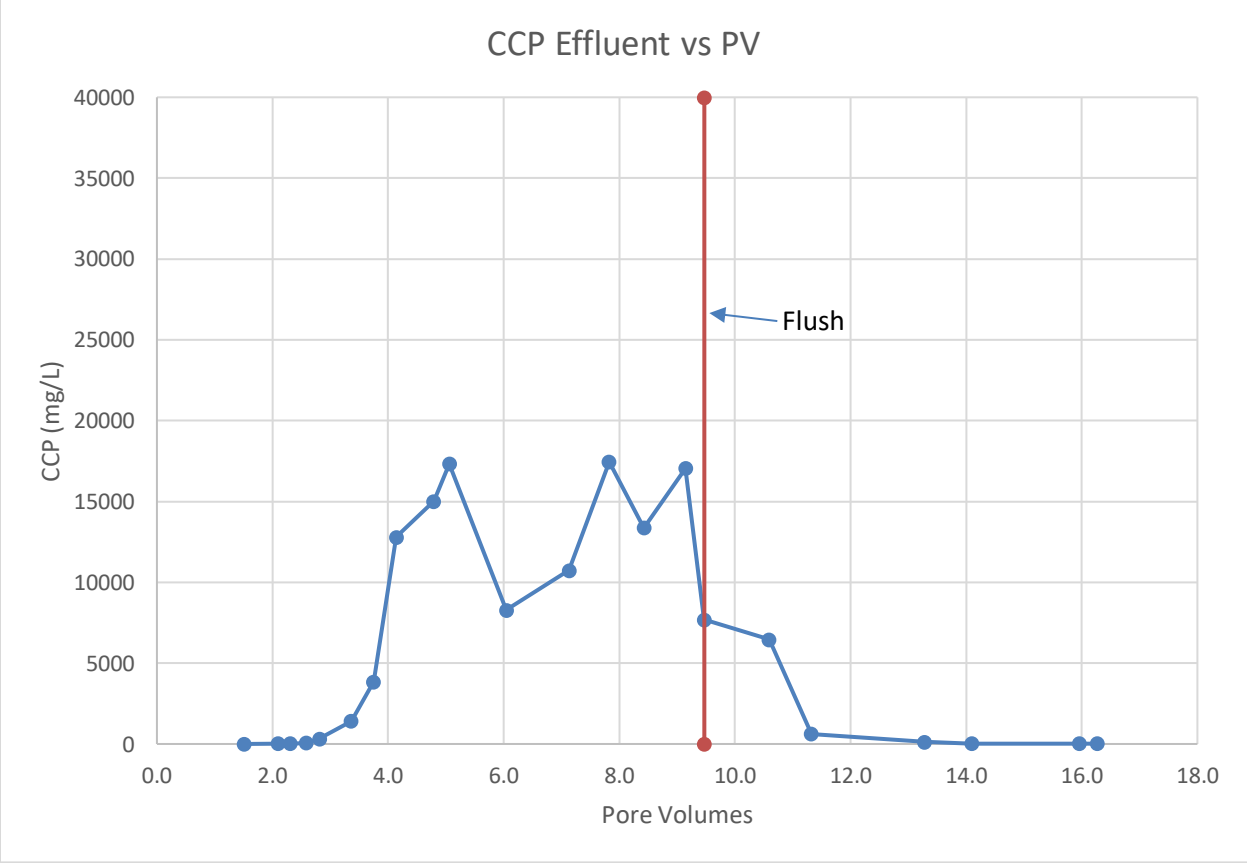
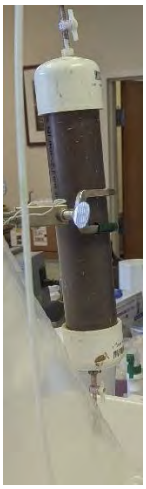


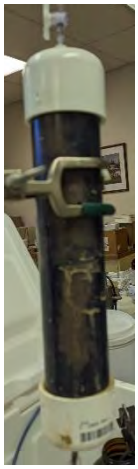
Figure 6. Column Over Time

1.1 PV Front



1.1 PV Back

2.6 PV Front



2.6 PV Back

16.3 PV Flush

Extruded Soil

Table 10. Soil Moisture and Organic Carbon

Sample		Soil Wt	Dry Soil Wt	Moisture	OC	OC	OC	Average OC	OC-Soil Avg
		g	g	%	mg	mg/kg Wet	mg/kg Dry	mg/kg Dry	
Fluxsorb II		5.2466	0.7162	86.3	369.4	70408	515778		
Fluxsorb II		5.1764	0.7098	86.3	365.3	70570	514652	515215	
MW-48 Soil		7.3433	6.6285	9.7	109.3	14884	16489		
MW-48 Soil		8.3207	7.5644	9.1	131.6	15816	17397	16943	
Bottom Outside		13.435	10.1336	24.6	204.1	15192	20141		3198
Bottom Outside		16.211	11.9511	26.3	216.6	13361	18124	19132	1181
Bottom Interior		15.216	11.2798	25.9	183.5	12060	16268		-675
1/3 Outside		15.761	11.1536	29.2	219.2	13908	19653		2710
2/3 Outside		13.669	9.7542	28.6	199.1	14566	20412		3468
2/3 Interior		23.569	17.6088	25.3	312.2	13246	17730		786
Top Outside		15.194	11.2547	25.9	205.6	13532	18268		1325
Top Interior		18.279	13.9176	23.9	227.1	12424	16317		-626
Soil Total		165.65							
Soil remaining from column		907.1							
Total		1072.7							
Average OC									1421
Total OC On Column									1524

An effluent sample from the ADA Carbon column was submitted to ELLE (see Table 11). There was little change in boron (below GA GWPS), beryllium was reduced by >98.4% to below the GA GWPS, with only modest (63.2%) improvement in Cobalt (but still remains above McDonough GWPS), and lithium fell by 76.2% to below the GA GWPS.

Table 11. DGWC-48 Effluent Metals

Sample		GA GWPS	DGWC-48 GW	DGWC-48 Column Effluent	% Change from IC
As	mg/L	0.010	0.000697	<0.00068	>2.4
B	mg/L		0.607	0.627	-3.3
Ba	mg/L	2	0.0245	0.0239	2.4
Be	mg/L	0.004	**0.00767**	<0.000119	>98.4
Ca	mg/L		65.1	56.9	12.6
Cd	mg/L	0.0050	0.00263	0.00123	53.2
Co	mg/L	0.024	**0.329**	**0.121**	63.2
Cr	mg/L	0.10	<0.00055	<0.00055	
Hg	mg/L		<0.0000790	<0.0000790	
Li	mg/L	0.040	**0.091**	0.0217	76.2
Mo	mg/L	0.1	<0.00013	0.000659	>-406.9
Pb	mg/L	0.015	0.000735	<0.00012	>83.7
Sb	mg/L	0.006	<0.00020	<0.00020	
Se	mg/L	0.050	<0.000278	<0.000278	
Tl	mg/L	0.0020	<0.00013	<0.00013	
0.00767	Compound exceeds GA or McDonough GWPS				
0.000292	J value. Compound detected below method calibration level, but above method detection limit.				

2.4.1 Conclusions

While the 40 g/L ADA FluxSorb II can take up >98.4% of Beryllium, 82% of Boron, 90.9% Cobalt, and >87.9% of lithium in the batch studies, the column studies showed little improvement in Boron and only modest improvement in Cobalt which remained above the McDonough GWPS in the effluent. Beryllium and lithium were treated to below the GA GWPS

with the ADA Carbon in the preliminary column study. The ADA Carbon was not uniformly distributed throughout the column.

2.5 DGWC-69 Batch Tests

Batch tests were prepared with 900 g of the DGWC-69 soil and 494 to 640 g DGWC-69 groundwater. Treatments included the JT Baker ferrous sulfate heptahydrate and sodium bicarbonate:

- 0.1 g/L ferrous sulfate heptahydrate
- 1.0 g/L ferrous sulfate heptahydrate
- 2.0 g/L ferrous sulfate heptahydrate
- 10 g/L ferrous sulfate heptahydrate
- 0.1 g/L ferrous sulfate heptahydrate and 0.1 g/L sodium bicarbonate
- 1.0 g/L ferrous sulfate heptahydrate and 1.0 g/L sodium bicarbonate
- 2.0 g/L ferrous sulfate heptahydrate and 2.0 g/L sodium bicarbonate
- 10 g/L ferrous sulfate heptahydrate and 10 g/L sodium bicarbonate

The pH and ORP were measured on Day 0. The pH, ORP, dissolved oxygen (DO), specific conductivity, alkalinity, hardness, ferrous iron, and sulfide were measured on Day 7 (Table 12). Metals, anions, TDS, and pH are shown in Table 13.

2.5.1 Ferrous Sulfate Heptahydrate.

The pH of the DGWC-69 groundwater ranged from 7.4 to 7.6 SU with positive ORPs. As the ferrous sulfate heptahydrate concentrations increased, the pH on Day 7 decreased to as low as 4.5 SU. The ORP became reducing on Day 7 in the higher loadings. DO was more variable possibly as oxygen infiltrated the samples during measurement in open centrifuge tubes. Specific conductivity increased with the ferrous sulfate heptahydrate loadings from 217 to 3,720 µS/cm. Alkalinity decreased as the ferrous sulfate concentrations increased and pH decreased. Ferrous iron became elevated (1,350 mg/L) at the highest ferrous sulfate loading. Only trace levels of sulfide were detected.

Sulfate increased from 8.2 mg/L in the groundwater to a maximum of 28,700 mg/L at the highest ferrous sulfate heptahydrate loading. Fluoride and chloride were unchanged. The pH measured by ELLE during the TDS measurements were consistent with the TS measurements. TDS increased to a maximum of 1,720 mg/L. The following metals exceeded the GA GWPS:

- Beryllium only in the10 g/L ferrous sulfate heptahydrate treatment
- Cobalt at the 2.0 and 10 g/L ferrous sulfate heptahydrate loadings (likely due to the cobalt in the ferrous sulfate heptahydrate). The DGWC-69 control and treatments with 0.1 g/L and 1.0 g/L ferrous sulfate heptahydrate and 0.1 g/L and 1.0 g/L ferrous sulfate heptahydrate with 0.1 and 1.0 g/L sodium bicarbonate loadings met the McDonough GWPS for cobalt.
- Molybdenum in the control and 0.1 g/L ferrous sulfate heptahydrate. The ferrous sulfate heptahydrate treated molybdenum to below the GA GPWS at the 1, 2, and 10 g/L ferrous sulfate heptahydrate loadings.

2.5.2 Ferrous Sulfate Heptahydrate and Sodium Bicarbonate.

The sodium bicarbonate additions with ferrous sulfate heptahydrate maintained the pH on Day 7 between 6.2 and 6.7 SU. The ORP was reducing on Day 7 in the 2 and 10 g/L loadings of ferrous

sulfate and sodium bicarbonate. DO ranged from 1.8 and 7.0 mg/L. Specific conductivity increased with the ferrous sulfate heptahydrate and sodium bicarbonate loadings from 532 to 8,130 µS/cm. Alkalinity increased to as high as 2,400 mg/L as $CaCO_3$ as the ferrous sulfate and sodium bicarbonate concentrations increased as pH increased. Ferrous iron became elevated (28 mg/L) at the highest ferrous sulfate loading. Only trace levels of sulfide were detected.

Sulfate increased from 8.2 mg/L in the groundwater to a maximum of 3,300 mg/L at the highest ferrous sulfate heptahydrate loading. Fluoride and chloride were mostly unchanged. The pH measured by ELLE during the TDS measurements were largely consistent with the TS measurements. TDS increased to a maximum of 3,840 mg/L. The following metals exceeded the GA or McDonough GWPS:

- Cobalt at the 1.0, 2.0, and 10 g/L ferrous sulfate heptahydrate loadings (likely due to the cobalt in the JT Baker ferrous sulfate heptahydrate)
- Molybdenum in the control and 0.1 g/L ferrous sulfate heptahydrate with 0.1 g/L sodium bicarbonate. The ferrous sulfate heptahydrate and sodium bicarbonate treated molybdenum to below the GA GPWS at the 1, 2, and 10 g/L ferrous sulfate heptahydrate and sodium bicarbonate loadings.

Lithium was detected at trace concentrations at 1.0 and 2.0 mg/L loadings of ferrous sulfate heptahydrate and sodium bicarbonate but below the GA GWPS, and there was an elevated detection limit of 0.11 mg/L, above the GA GWPS at the 10 g/L ferrous sulfate heptahydrate and sodium bicarbonate loading.

2.5.3 DGWC-69 Batch Tests Conclusions

1. Ferrous sulfate heptahydrate with or without sodium bicarbonate were able to reduce molybdenum below the GA GWPS standard at the 1.0, 2.0, and 10 g/L loadings.
2. The JT Baker ferrous sulfate contained cobalt which at the 1.0, 2.0, and 10 g/L loadings exceeded the McDonough GWPS.
3. The combination of ferrous sulfate and sodium bicarbonate maintained a neutral pH.

terrasystems

Table 12. DGWC-69 Batch Tests Field Results

Sample		DGWC-69 Control		DGWC-69 0.1 g/L FeSO4-7H2O		DGWC-69 1.0 g/L FeSO4-7H2O		DGWC-69 2.0 g/L FeSO4-7H2O		DGWC-69 10.0 g/L FeSO4-7H2O		DGWC-69 0.1 g/L FeSO4-7H2O 0. 1 g/L NaHCO3		DGWC-69 1.0 g/L FeSO4-7H2O 1.0 g/L NaHCO3		DGWC-69 2.0 g/L FeSO4-7H2O 2.0 g/L NaHCO3		DGWC-69 10.0 g/L FeSO4-7H2O 10.0 g/L NaHCO3	
Day		0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7
Soil	g	900		900		900		900		900		900		900		900		900	
GW	g	494		586		640		571		600		592		594		591		600	
FeSO4-7H2O	g	0		0.058		0.64		1.2		6.0		0.059		0.59		1.18		6.0	
NaHCO3	g	0		0		0		0		0		0.059		0.59		1.18		6.0	
pH	SU	7.4	7.6	6.6	8.1	5.9	4.9	5.7	4.6	5.1	4.5	6.7	6.2	6.7	6.4	6.7	6.4	6.9	6.7
ORP	mV	+204	+227	+360	+181	+125	+173	+116	-39	+69	-61	+53	+135	+20	+120	-22	-84	-127	-153
DO	mg/L		8.1		8.2		5.2		4.1		7.4		7.0		4.5		2.9		1.8
Spec. Cond.	µS/cm		271		322		704		1064		3720		532		1069		2350		8130
Alk.	mg/L as CaCO3		<40		120		40		60		40		100		720		960		2400
Hard.	mg/L as CaCO3		80		120		80		360		1920		80		20		240		480
Fe	mg/L		0.3		0.9		0.8		4.8		1350		1.1		1.7		1.7		27.7
S	mg/L		0.04		0.06		0.1		<0.02		0.08		0.14		0.02		0.04		<0.02

terrasystems

Table 13. GWC-69 Batch Tests Metals, Anions, and Others Results

Sample		GA GWPS	DGWC-69 Control	DGWC-69 0.1 g/L FeSO4-7H2O	DGWC-69 1.0 g/L FeSO4-7H2O	DGWC-69 2.0 g/L FeSO4-7H2O	DGWC-69 10.0 g/L FeSO4-7H2O	DGWC-69 0.1 g/L FeSO4-7H2O 0.1 g/L NaHCO3	DGWC-69 1.0 g/L FeSO4-7H2O 1.0 g/L NaHCO3	DGWC-69 2.0 g/L FeSO4-7H2O 2.0 g/L NaHCO3	DGWC-69 10.0 g/L FeSO4-7H2O 10.0 g/L NaHCO3
Day			7	7	7	7	7	7	7	7	7
Sulfate	mg/L		8.21	36.4	299	620	28700	44.0	385	702	3330
Fluoride	mg/L		<0.45	<0.45	<0.45	<0.45	<0.90	<0.45	<0.45	<0.45	<1.8
Chloride	mg/L		12.4	12.2	10.8	9.97	9.81	12.1	11.0	9.13	<12.0
As	mg/L	0.010	0.00239	0.000984	<0.00068	<0.00068	0.00143	0.000755	<0.00068	<0.00068	<0.00068
B	mg/L	4.0	0.0782	0.0725	0.0812	0.0854	<0.12	0.0752	0.080	0.0673	<0.120
Ba	mg/L	2	0.0226	0.0273	0.236	0.120	0.121	0.030	0.188	0.0849	0.0565
Be	mg/L	0.004	<0.000119	<0.000119	0.000416	0.00252	**0.00413**	<0.000119	<0.000119	<0.000119	<0.000119
Ca	mg/L		13.6	16.0	55.8	84.8	114	16.4	48.8	51.1	136
Cd	mg/L	0.0050	<0.000151	<0.000151	0.00063	0.00155	0.00284	<0.000151	0.000156	0.000221	<0.000151
Co	mg/L	0.024	0.000727	0.000713	**0.0418**	**0.0899**	**0.236**	0.000741	**0.00892**	**0.0342**	**0.0989**
Cr	mg/L	0.10	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055
Hg	mg/L		<0.0000790	<0.0000790	0.000113	<0.0000790	<0.0000790	<0.0000790	<0.0000790	0.000133	<0.0000790
Li	mg/L	0.040	<0.011	<0.011	0.020	0.0425	**<0.11**	<0.011	0.0158	0.0229	**<0.11**
Mo	mg/L	0.1	**0.107**	**0.124**	0.000316	<0.000130	0.000134	**0.144**	0.0806	0.0245	0.0694
Pb	mg/L	0.015	<0.00012	<0.00012	<0.00012	0.000512	0.00223	<0.00012	<0.00012	<0.00012	<0.00012
Sb	mg/L	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Se	mg/L	0.050	<0.000278	<0.000278	<0.000278	<0.000278	0.000359	<0.000278	<0.000278	<0.000278	0.000421
Tl	mg/L	0.0020	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
TDS	mg/L		38.5	59.5	366	418	1720	50.6	521	1630	3840
pH	SU		7.59	7.56	5.43	4.53	4.26	7.55	7.13	7.20	6.94
Temperature	°C		22.0	21.6	21.5	21.9	21.7	22.0	21.6	21.2	21.3

7.37 J Value. Compound detect above the method detection limit but below method calibration range.
0.00767 Compound exceeds GA or McDonough GWPS

4.0 DGWC-48 COLUMN TESTS

4.1 Objectives

- Evaluate pore volume treatment and evolution under transient flow conditions similar to field flow rate
- Evaluate influence on permeability / flow through column
- Field flow rate: 0.27 feet per day with 3 feet long columns
- DGWC-48 soil and groundwater with control and three reagents (4 total columns)
- Analyze complete chemistry on aqueous sample (pH, ORP, SC, alkalinity, anions [SO4 Cl, F], dissolved metals [As, Ba, Be, B, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, Tl]], TDS, pH, sulfide, ferrous iron)
- Record observations related to flow, leakage, precipitation, and photograph periodically

The column study used three reagents at one loading per reagent. All reagents used for the bench-scale test were commercially available products selected in consultation with WSP. The reagent usages and their dosages were adjusted according to the results of the activities and observations during the execution of the bench-scale treatability study.

4.2 Column Treatments

Table 14 presents the treatments for the DGWC-48 column studies.

Table 14. Column Treatments

Column	Round 1 Reagent	Round 2 Reagent
1	Control – GW only	Control – GW only
2	GW w/ potassium bicarbonate	GW w/ carbon
3	GW w/ ferrous sulfate	GW w/ carbon
4	GW w/ carbon (low dose)	GW w/ carbon (high dose)

4.3 Column Studies Preparation

The columns were prepared by installing a 3/8" plastic bushing to a small luer outlet onto both endcaps. The weight of the empty column and endcaps was recorded. The bottom endcap had a geotextile membrane layer at the bottom and was glued onto the column. The soil was weighed and then added to the column while maintaining the groundwater level (to prevent trapping air bubbles). The columns were filled with soil and groundwater and periodically tapped and the soil tamped to remove air bubbles. Once each column was filled, a geotextile covering was placed over the soil and the top endcap was glued onto the column.

Four 36-inch long 3-inch diameter clear PVC columns (4.40 to 4.60 L volume) were prepared with 6.44 to 6.73 kg soil and 1.44 to 1.58 kg groundwater (Table 15). The treatment with potassium bicarbonate was prepared with 2 g/L of the LD Carlson $KHCO_3$. The pH of the groundwater was 5.7 SU and increased to 7.8 SU after the addition of the potassium bicarbonate. The CERES ferrous sulfate heptahydrate solution was prepared with 1 g/L $FeSO_4$-$7H_2O$ (pH 4.0) and then 2 g/L of sodium bicarbonate was added to bring the pH to 7.0 SU. For the ADA Carbon column, 57.3 g Fluxsorb II was added to the soil and mixed with an electric drill and auger. The effective porosity ranged from 32.2 to 34.8%.

.

terrasystems

Table 15. Column Setup

Sample	Column Tare	Column Volume	Soil Volume	GW Volume	Packed Column Volume	Porosity	GW pH	+ 2 g/L KHCO3 pH	1 g/L FeSO4-7H2O pH	+ 2 g/L NaHCO3 pH	g FluxSorb II
	kg	L	kg	kg	kg	%					
Control	2.34	4.54	6.72	1.58	8.30	34.8					
2 g/L KHCO3	2.50	4.60	6.52	1.48	8.00	32.2	5.7	7.8			
1 g/L FeSO4-7H2O	2.37	4.40	6.44	1.44	7.42	32.7			4.0	7.0	
FluxSorb II	2.40	4.58	6.73	1.54	7.50	33.6					57.3

A photograph of the columns after setup is presented in Figure 7. Control Column 1 is on the left, followed by Columns 2 KHCO3, 3 FeSO4, and 4 Fluxsorb II. The soil settled after preparation and the top endcap being glued in place and there is standing groundwater on the top of each column.

During Round I, the Control 1 and ADA Carbon 4 columns received the untreated DGWC-48 groundwater. The influent for Column 2 with KHCO3 received 2 g/L potassium bicarbonate for the first 21 days. Column 3 with FeSO4-7H2O received 1 g/L ferrous sulfate heptahydrate adjusted to pH 7.0 with sodium bicarbonate for the first seven days. The columns were run for 21 days with amended groundwater alone. The remaining effluents from each column after sample collection from the first three weeks were saved separately and used as the influents for the last two weeks for Round 2. On Day 22 (after 3 days without flow while waiting for instructions from WSP for dosing with ADA Carbon), Column 1 received untreated DGWC-48 groundwater. Column 2 (KHCO3) received 57.3 g of the Fluxsorb II in the 0.8 L of untreated DGWC-48 groundwater, Column 3 (FeSO4) received 57.3 g of the Fluxsorb II in 0.8 L of the untreated DGWC-48 groundwater and 114.6 g Fluxsorb II (4 ADA Carbon) was introduced suspended in 0.74 L of the untreated DGWC-48 groundwater. The solutions were continually mixed with magnetic stirrers and pumped onto the bottom of the columns. On Day 25, the columns were switched to the collected effluents from Phase I. The activated carbon continued to move through the columns.

Amendments for the columns are summarized in Table 16. For Column 1 Control, additional DGWC-48 groundwater was added to the influent jug on Days 7, 14, 20, 22, 23, and 24. On Day 25, the influent was switched over to the combined Column 1 effluent from Days 1 to 21.

For Column 2 $KHCO_3$, 6 g of potassium bicarbonate was added to 3,000 g of DGWC-48 groundwater. Some of this solution was used to prepare the column. Additional potassium bicarbonate and groundwater was added on Days 2 and 20. The 57.3 g Fluxsorb II was added to 0.8 L of the groundwater on Day 22. On Day 24, an additional 0.447 L of groundwater was added to the bottle with the ADA Fluxsorb II. Little of the carbon solution (0.8 g) remained in the influent bottle on Day 25. On Day 25, the influent was switched over to the combined Column 2 effluent from Days 1 to 21.

For Column 3 with $FeSO_4$, 3 g of CERES ferrous sulfate heptahydrate was added to 3,000 mL of groundwater and the pH adjusted to 7.0 SU with 6 g/L sodium bicarbonate. On Days 7, 14, and 20, unamended groundwater was added to the influent for Column 3. On Day 22, 57.3 g Fluxsorb II was added to 0.8 L of the groundwater. On Day 25, an additional 0.453 L of groundwater was added to the bottle with the ADA Fluxsorb II. On Day 25, 0.346 kg of the ADA Fluxsorb II and groundwater remained in the influent bottle. On Day 25, the influent was switched over to the combined Column 3 effluent from Days 1 to 21.

For the Column 4 with ADA Fluxsorb II, 57.3 g was added to the soil and groundwater during setup. On Days 7, 14, and 20, unamended groundwater was added to the influent for Columns 1 and 4. On Day 22, the 114.6 g Fluxsorb II was added to 0.74 L of the groundwater. On Day 23 and 24, a total of 0.835 L of groundwater was added to the bottle with the ADA Fluxsorb II. On Day 25, the influent was switched over to the combined Column 4 effluent from Days 1 to 21.

4.4 Column Studies Results

4.2.1 Field Parameters

The influent groundwater was pumped from the bottom of the columns with peristaltic pumps at a flow rate of 0 to 1.125 mL/min. The average flowrates were 0.13 (4 ADA Carbon), 0.21 (2 KHCO3), 0.30 (1 Control), to 0.33 mL/min (3 FeSO4) or ranged from 187 to 475 mL/day or a residence time in the column of 6.8 days (2 KHCO3), 7.7 days (1 Control), 8.0 days (3 FeSO4), to 12.6 days (4 ADA Carbon).

Table 17 presents the field results for the untreated groundwater (influent) pumped into columns 1 and 4 through Day 25. From Days 25 to 39, the effluent from control column from Days 1-21 was pumped through the control column and the effluent from ADA Carbon column from Days 1 to 21 was pumped through the ADA Carbon column. The pH ranged from 5.4 to 8.0 SU with moderately oxidizing ORPs of +178 to +253 mV. The DO remained high between 8.4 and 10.8 mg/L as the jug was open to the atmosphere. Specific conductivity ranged from 457 to 625 µS/cm. There was little alkalinity (<40 to 60 mg/L $CaCO_3$), moderate hardness (40 to 600 mg/L $CaCO_3$), ferrous iron decreased from 13.25 mg/L on Day 7 to <0.05 mg/L. There was also little sulfide (<0.02 to 0.08 mg/L).

Table 18 presents the field results for Column 1 Control effluent. The flowrate ranged from 0.004 to 0.86 mL/min with a total of 7.99 L of groundwater going through the column or about 5.1 pore volumes. The pH ranged from 5.4 to 7.4 SU with moderately oxidizing ORPs of +169 to +249 mV. The DO remained high between 5.1 and 7.5 mg/L. Specific conductivity ranged from 424 to 880 µS/cm. Alkalinity ranged from 40 to 960 mg/L $CaCO_3$), hardness ranged from 40 to 480 mg/L $CaCO_3$, ferrous iron decreased from 10.3 mg/L on Day 7 to 0.2 mg/L. There was also little sulfide (<0.02 to 0.08 mg/L). A picture of Column 1 Control on Day 39 is shown in Figure 8.

Table 19 presents the field results for the influent to Column 2 $KHCO_3$. Influent samples were collected on days 7, 14, 21, and 39. The pH ranged from 6.6 to 8.6 SU with moderately oxidizing ORPs of +175 to +263 mV. The DO remained high between 7.1 and 9.8 mg/L as the jug was open to the atmosphere. Specific conductivity was 2,440-2,510 µS/cm from Days 7 to 21 and was lower 676 µS/cm on Day 39. There was moderate alkalinity (200 to 1,200 mg/L $CaCO_3$), moderate hardness ranged from 180 to 320 mg/L $CaCO_3$, ferrous iron decreased from 8.65 mg/L on Day 14 to <0.05 mg/L on day 21. There was also little sulfide (<0.02 to 0.36 mg/L). On Day 24, the influent contained 32,100 mg/L of ADA Carbon as measured by turbidity.

Figure 7. Columns

Table 16. Amendments for Columns

1 Control	Day 7, added 2.0 L to Influent for Columns 1 and 4.
	Day 14, added GW to Influent for Columns 1 and 4.
	Day 20, added GW to Influent for Columns 1 and 4.
	Day 22, added GW to Influent for Column 1.
	Day 23, added GW to Influent for Column 1
	Day 24, added GW to Influent for Column 1.
	Day 25, switch over to Column 1 Effluent. 3.48 kg.
2 KHCO3	During setup, added 6 g KHCO3 to 3000 mL groundwater, used 1480 g in column preparation, and pumped remainder through column.
	Day 2 added 6 g KHCO3 to 3000 mL groundwater.
	Day 20, added 1 g KHCO3 to 1000 mL groundwater
	Day 22, add 57.3 Fluxsorb II to 0.8 L GW.
	Day 24, add 447.1 mL groundwater to influent.
	Day 25, only 0.8 g Fluxsorb II and groundwater in influent bottle.
	Day 25, switch over to Column 2 Effluent. 2.64 kg.
3 FeSO4-7H20	During setup, added 3 g CERES FeSO4-7H2O to 3000 mL groundwater and adjusted pH to 7.0 with 6 g NaHCO3, used 1440 g in column preparation, and pumped remainder through column.
	Day 7, added 1.78 L GW to influent without ferrous sulfate.
	Day 14, added GW to Influent for Column 3.
	Day 20, added1 L GW to Influent for Column 3.
	Day 22, add 57.3 Fluxsorb II to 0.8 L GW.
	Day 23, add 453.1 g groundwater to influent
	Day 25, 345.7 g Fluxsorb II and groundwater remaining in influent bottle.
	Day 25, switch over to Column 3 Effluent. 3.04 kg.
4 Fluxsorb II	During setup, add 57.3 g Fluxsorb II to soil and groundwater and mixed.
	Day 7, added 2.0 L to Influent for Columns 1 and 4.
	Day 14, added GW to Influent for Columns 1 and 4.
	Day 20, added GW to Influent for Columns 1 and 4.
	Day 22, add 114.6 Fluxsorb II to 0.74 L GW.
	Day 23, add 498.8 g groundwater
	Day 24, add 336.4 g groundwater
	Day 25, switch over to Column 4 Effluent.

terrasystems

Table 17. Column Influent Field Results

Start	Stop	min		Day	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S
					SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L
3/12/24 12:52 PM	3/13/2024 7:30	1118		1	5.8	+188	10.8	582				
3/13/2024 12:03	3/14/24 9:21 AM	1278		2	5.4	+193	10.0	625				
3/14/24 2:20 PM	3/15/24 12:58 PM	1358		3								
3/15/24 2:20 PM	3/16/24 9:07 AM	1127		4								
3/16/24 9:51 AM	3/19/2024 8:25	4234		7	5.6	+180	9.2	571	<40	600	13.25	0.02
3/19/2024 11:38	3/22/2024 13:46	4448		10								
3/22/2024 14:10	3/26/2024 8:56	5446		14	8.0	+192	9.4	569	60	240	1.7	<0.02
3/26/2024 15:50	4/2/2024 8:20	9630		21	7.1	+214	9.6	521	40	360	5.65	0.02
4/5/2024 13:41	4/6/2024 13:00	1399		22								
4/6/2024 13:35	4/7/2024 12:50	1395		23								
4/7/2024 13:25	4/8/2024 15:35	1570		24								
4/8/2024 16:02	4/9/2024 8:12	970		25	7.7	+183	8.8	511	40	360	<0.05	0.06
4/9/2024 13:00	4/11/2024 14:16	2956		27								
4/11/2024 14:25	4/12/24 9:00 AM	1115		28								
4/12/24 9:28 AM	4/16/2024 8:40	5712		32	6.9	+178	8.4	469	40	40	0.4	0.08
4/16/2024 15:33	4/18/2024 8:49	2476		34								
4/18/2024 9:00	4/23/2024 7:50	7130		39	6.9	+253	9.1	457	40	60	0.6	<0.02

Table 18. Column 1 Control Effluent Field Results

Day	Flow	Cum Flow	Flowrate	Pore Volumes	Cum PV	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S
	mL	mL	mL/min	mL		SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L
1	23	23	0.021	0.01	0.01								
2	1093.2	1116	0.855	0.69	0.71	5.4	+196	6.4	880				
3	191.8	1308	0.141	0.12	0.83	6.4	+186	5.8	787				
4	76.2	1384	0.068	0.05	0.88	7.4	+169	6.1	772	960			
7	16.9	1401	0.004	0.01	0.89	5.6	+176	6.5	772	960	480	10.3	0.06
10	238	1639	0.054	0.15	1.04								
14	1162.1	2801	0.213	0.74	1.77	6.7	+230	5.1	722	240	360	4.35	<0.02
21	174.6	2976	0.018	0.11	1.88	6.8	+221	7.5	629	120	360	0.25	0.04
22	1009.4	3985	0.722	0.64	2.52								
23	653.1	4638	0.468	0.41	2.94								
24	686.3	5325	0.437	0.43	3.37								
25	430.07	5755	0.443	0.27	3.64	7.1	+187	6.2	548	60	360	0.2	0.02
27	476	6231	0.161	0.30	3.94								
28	79.7	6310	0.071	0.05	3.99								
32	699.3	7010	0.122	0.44	4.44	6.7	+179	5.6	424	40	120	0.5	0.08
34	558.3	7568	0.225	0.35	4.79								
39	421.3	7989	0.059	0.27	5.06	6.8	+249	6.1	466	40	40	0.75	<0.02

terrasystems

Table 19. Column 2 KHCO3 Influent Field Results

2I	KHCO3 Influent								
Day	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S	ADA Carbon
	SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L	mg/L
7	6.6	+182	7.1	2480	960	200	0.0	0.36	
14	8.6	+233	9.3	2440	960	180	8.65	<0.02	
21	8.1	+175	9.8	2510	1200	240	<0.05	0.08	
25									32100
39	7.1	+263	9.0	676	200	320	1.45	<0.02	

Table 20. Column 2 KHCO3 Effluent Field Results

Day	Flow	Cum Flow	Flowrate	Pore Volumes	Cum PV	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S	ADA Carbon
	mL	mL	mL/min	mL		SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L	mg/L
1	1258.2	1258.2	1.125	0.85	0.85	6.4	+210		1127					
2	17.9	1276.1	0.014	0.01	0.86	6.8	1+93		1303					
3	171.1	1447.2	0.126	0.12	0.98	6.4	+197		1112					
4	49.9	1497.1	0.044	0.03	1.01	6.6	+189		1116					
7	42.5	1539.6	0.010	0.03	1.04	5.9	+173	5.3	1195	480	40	4.05	0.02	
10	304.1	1843.7	0.068	0.21	1.24									
14	1088.9	2932.6	0.20	0.74	1.98	6.7	+247	3.2	1197	480	120	<0.05	<0.02	
21	1561.9	4494.5	0.162	1.05	3.03	6.9	+198	6.8	1150	600	240	<0.05	0.06	
22	427.7	4922.2	0.306	0.29	3.32									
23	49.4	4971.6	0.035	0.03	3.36									0
24	473.9	5445.5	0.302	0.32	3.68									2824
25	377.3	5822.8	0.389	0.25	3.93	7.0	+180	5.6	1146	360	240	<0.12	0.3	12600
27	511.3	6334.1	0.173	0.35	4.28									
28	179.5	6513.6	0.161	0.12	4.40									
32	692.4	7206.0	0.121	0.47	4.86	6.9	+189	4.3	845	360	60	1.15	0.1	3324
34	560.4	7766.4	0.226	0.38	5.24									
39	716.1	8482.5	0.100	0.48	5.73	6.7	+242	2.4	770	300	120	1.88	<0.05	1432

terrasystems

Table 21. Column 3 FeSO4 Influent Field Results

3I	FeSO4-7H20 Influent							
Day	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S
	SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L
7	8.4	+157	8.8	2390	840	120	8.25	0.04
14	6.7	+230	5.1	722	240	360	4.35	<0.02
25	7.1	+165	8.2	547				
39	7.5	+244	8.9	727	180	60	0.7	<0.05

Table 22. Column 3 FeSO4 Effluent Field Results

Day	Flow	Cum Flow	Flowrate	Pore Volumes	Cum PV	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S	ADA Carbon
	mL	mL	mL/min	mL		SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L	mg/L
1	0.0	0	0.000	0.00	0.00									
2	0	0												
3	0	0												
4	811.2	811.2	0.720	0.56	0.56	6.6	+184	5.4	1394					
7	288.7	1099.9	0.068	0.20	0.76	7.0	+171	8.2	1517	480	60	0.25	0.02	
10	643.7	1743.6	0.145	0.45	1.21									
14	820.4	2564	0.151	0.57	1.78	6.7	+238	6.7	1336	720	240	<0.05	<0.02	
21	2341.2	4905.2	0.243	1.63	3.41	6.6	+188	5.0	843	240	240	<0.05	0.14	
22	360.7	5265.9	0.258	0.25	3.66									0
23	411.8	5677.7	0.295	0.29	3.94									61
24	102.6	5780.3	0.065	0.07	4.01									49
25	0	5780.3	0.000	0.00	4.01	6.9	+165	7.1	758	120	240	<0.10	0.05	35
27	0	5780.3	0.000	0.00	4.01									
28	54.2	5834.5	0.049	0.04	4.05									
32	583.3	6417.8	0.102	0.41	4.46	6.9	+176	5.9	554	120	240	0.25	0.1	1592
34	610.5	7028.3	0.247	0.42	4.88									
39	0	7028.3	0.000	0.00	4.88	6.7	+249	2.0	610	120	60	5.62	0.16	1347

terrasystems

Table 23. Column 4 ADA Fluxsorb II Effluent Field Results

Day	Flow	Cum Flow	Flowrate	Pore Volumes	Cum PV	pH	ORP	DO	Spec. Cond.	Hach Alk	Hach Hardness	Hach Fe2+	Hach S	ADA Carbon
	mL	mL	mL/min	mL		SU	mV	mg/L	mS/cm	mg/L CaCO3	mg/L CaCO3	mg/L	mg/L	mg/L
1	0	0		0.00	0.00									
2	4.0	4	0.003	0.00	0.00									
3	0	4	0.000	0.00	0.00									
4	0	4	0.000	0.00	0.00									
7	173.5	177.5	0.041	0.11	0.11	6.7	+180	8.2	801	40	480	11.25	<0.02	35
10	595.9	773.4	0.134	0.39	0.39									
14	693.7	1467.1	0.127	0.45	0.56	6.7	+232	6.8	684	80	240	<0.05	<0.02	
21	498.7	1965.8	0.052	0.32	0.89	6.4	+194		603	80	240	<0.05	0.04	
22	352.9	2318.7	0.252	0.23	1.12									0
23	384.7	2703.4	0.276	0.25	1.37									121
24	478.7	3182.1	0.305	0.31	1.68									100900
25	346.8	3528.9	0.358	0.23	1.90	7.1	+165	6	628	120	240	0.3	0.6	27510
27	163.9	3692.8	0.055	0.11	2.01									
28	413.3	4106.1	0.371	0.27	2.28									
32	563.7	4669.8	0.099	0.37	2.64	7.0	+174	5.7	451	120	240	0.6	0.2	3162
34	109.1	4778.9	0.044	0.07	2.71									
39	0	4778.9	0.000	0.00	2.71	6.9	+248	8.3	435	80	40	0.55	0.05	3324

Figure 8. Column 1 Control Day 39

Figure 9. Column 2 KHCO3 Day 39

Figure 10. Column 3 FeSO4 Day 39

Figure 11. Column 4 FeSO4 Day 39

Table 20 shows the field results for Column 2 $KHCO_3$ effluent. The flowrate ranged from 0.01 to 1.1 mL/min with a total of 8.5 L of groundwater going through the column or about 5.7 pore volumes. The pH ranged from 5.9 to 7.0 SU with moderately oxidizing ORPs of +173 to +247 mV. The DO ranged between 2.4 and 6.8 mg/L which was lower than the column influent. Specific conductivity ranged from 770 to 1,303 µS/cm. Alkalinity ranged from 300 to 600 mg/L $CaCO_3$, hardness ranged from 40 to 240 mg/L $CaCO_3$, ferrous iron decreased from 4.1 mg/L on Day 7 to <0.05 mg/L on Days 10-14 but increased to between 1.15 and 1.88 mg/L during recirculation of the effluent and after the ADA Carbon addition. There was also little sulfide (<0.02 to 0.3 mg/L). On Day 24, the influent contained 2,824 mg/L of ADA Carbon as measured by turbidity. A peak of carbon of 12,600 mg/L was observed on Day 25 and decreased to 1,432 mg/L on Day 39. A picture of Column 2 KHCO3 on Day 39 is shown in Figure 9. There is no discernible carbon banding in this column. There is carbon in the water at the top of the column.

Table 21 presents the field results for the influent to Column 3 $FeSO_4$. Influent samples were collected on days 7, 14, 25, and 39. The pH ranged from 6.7 to 8.4 SU with moderately oxidizing ORPs of +157 to +244 mV. The DO ranged between 5.1 and 8.9 mg/L. Specific conductivity was 2,390 µS/cm on Day 7 when the ferrous sulfate heptahydrate solution was being pumped onto the column and dropped to 547 to 727 µS/cm from Days 14 to 39 when the unamended groundwater (Days 7 to 21), ADA Carbon with unamended groundwater (Days 22 to 25) and combined recirculated effluent (Days 25 to 39). There was moderate alkalinity (180 to 840 mg/L $CaCO_3$), moderate hardness ranged from 60 to 360 mg/L $CaCO_3$, ferrous iron decreased from 8.25 mg/L on Day 14 to 0.7 mg/L on Day 39. There was also little sulfide (<0.02 to 0.04 mg/L).

Table 22 presents the field results for Column 3 $FeSO_4$ effluent. The flowrate ranged from 0 to 0.72 mL/min with a total of 7.0 L of groundwater going through the column or about 4.9 pore volumes. The pH ranged from 6.6 to 7.0 SU with moderately oxidizing ORPs of +165 to +249 mV. The DO ranged between 2.0 and 8.2 mg/L which was lower than the column influent. Specific conductivity ranged from 554 to 1,517 µS/cm. Alkalinity ranged from 120 to 720 mg/L $CaCO_3$, moderate hardness ranged from 60 to 240 mg/L $CaCO_3$, ferrous iron ranged from <0.05 mg/L to 5.62 mg/L on Day 39. There was also little sulfide (<0.02 to 0.16 mg/L). On Day 23, the influent contained 61 mg/L of ADA Carbon as measured by turbidity. A peak of carbon of 1,592 mg/L was observed on Day 34 and decreased to 1,347 mg/L on Day 39. Figure 10 shows Column 3 FeSO4 at Day 39 with bands of activated carbon on the surface. There is also carbon in the water at the top of the column.

Table 23 presents the field results for Column 4 ADA Fluxsorb II effluent. The flowrate ranged from 0 to 0.37 mL/min with a total of 4.8 L of groundwater going through the column or about 2.7 pore volumes. The flowrate through this column was lower than the other columns which suggests that the carbon reduced the permeability. There was no turbidity observed in the effluent from Days 1 to 21 suggesting that emplacement of the ADA Carbon with the soil achieved good distribution and did not leach from the column. The pH ranged from 6.4 to 7.1 SU with moderately oxidizing ORPs of +165 to +248 mV. The DO ranged between 5.7 and 8.3 mg/L which was lower than the column influent. Specific conductivity ranged from 435 to 801 µS/cm. Alkalinity ranged from 40 to 120 mg/L $CaCO_3$, hardness ranged from 40 to 240 mg/L $CaCO_3$, ferrous iron ranged from <0.05 to 11.25 mg/L. There was also little sulfide (<0.02 to 0.6 mg/L).

On Day 23, the influent contained 121 mg/L of ADA Carbon as measured by turbidity. A peak of carbon of 100,900 mg/L was observed on Day 24 and decreased to 3,324 mg/L on Day 39. Figure 11 shows the Column 4 ADA Carbon at Day 39 with scattered bands of activated carbon on the surface. There is also carbon in the water at the top of the column.

4.2.2 Metals and Anions

Table 24 presents the metals, anions, TDS, and pH for the Influent and the Column 1 Control Effluent. Table 25 presents the metals, anions, TDS, and pH for the Column 2 KHCO3 Influent and the Column 2 Effluent. Table 26 presents the metals, anions, TDS, and pH for the Column 3 FeSO4 Influent and the Column 3 Effluent. Table 27 presents the metals, anions, TDS, and pH for the Influent and the Column 4 ADA Carbon Effluent.

Tables 28, 29, 30, and 31 show the concentrations of beryllium, cobalt, boron, and lithium in the influent and effluent over time for each of the four columns and the percent removal from the influent the previous week (about one pore volume).

terrasystems

Table 24. Metals, Anions, TDS, and pH in Influent and Column 1 Control Effluent

			Influent							1	Control Effluent				
Day		GA GWPS	7	14	21	25	32	39		7	14	21	25	32	39
Dis Sb	mg/L	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.00020	<0.00020	<0.000278	<0.00020	<0.00020	<0.00020
Dis As	mg/L	0.010	<0.00068	<0.00068	<0.00068	<0.00068	0.000857	0.000821		<0.00068	<0.00068	<0.00013	<0.00068	<0.00068	<0.00068
Dis Ba	mg/L	2.0	0.0209	0.0175	0.0248	0.0206	0.0210	0.0273		0.0217	0.0194	0.0203	0.0173	0.0205	0.0332
Dis Be	mg/L	0.0040	**0.00662**	**0.00572**	**0.00812**	**0.00707**	<0.000119	<0.000119		0.000297	0.000309	0.000232	0.000259	0.000196	<0.000119
Dis B	mg/L	4.0	0.692	0.660	0.651	0.582	0.491	0.509		0.443	0.474	0.587	0.552	0.551	0.540
Dis Ca	mg/L		63.4	65.0	59.4	57.4	59.3	62.8		74.2	67.6	58.6	53.7	53.7	60.1
Dis Cd	mg/L	0.0050	0.00253	0.00254	0.00242	0.00256	0.000537	0.000457		0.000774	0.000173	0.000962	0.000797	0.000410	0.000182
Dis Co	mg/L	0.024	**0.314**	**0.399**	**0.291**	**0.294**	**0.154**	**0.135**		**0.195**	**0.184**	**0.138**	**0.145**	**0.137**	**0.120**
Dis Cr	mg/L	0.010	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055		0.00172	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055
Dis Fe	mg/L		0.0647	<0.020	0.0461	0.102	0.321	0.0286		0.0367	0.959	0.0262	<0.020	0.539	2.68
Dis Hg	mg/L		0.000091	<0.000079	0.000084	<0.000079	<0.000079	<0.000079		0.00010	<0.000079	8.52E-05	<0.000079	<0.000079	<0.000079
Dis Li	mg/L	0.040	**0.0953**	**0.100**	**0.0968**	**0.100**	<0.011	<0.011		<0.011	<0.011	<0.011	0.0128	<0.011	<0.011
Dis Mo	mg/L	0.10	<0.00013	<0.00013	<0.00013	<0.00013	0.000271	0.000231		0.000585	<0.00013	0.00104	<0.00013	0.000135	<0.00013
Dis Pb	mg/L	0.015	0.000641	<0.00012	0.000402	0.000841	0.000264	<0.00012		<0.00012	<0.00012	<0.00012	0.000231	<0.00012	<0.00012
Dis Se	mg/L	0.050	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278		<0.000278	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278
Dis Tl	mg/L	0.0020	0.000187	<0.00013	0.000366	<0.00013	<0.00013	<0.00013		<0.00013	<0.00013	0.000169	<0.00013	<0.00013	<0.00013
TDS	mg/L		427	405	448	343	498	320		795	584		388	460	454
Temp	°C		22.0	22.4	21.7	23.6	22.8	23.0		21.1	21.6		23.7	22.7	22.9
pH	SU		3.95	5.91	5.99	4.0	6.93	6.98		6.15	6.54		6.10	6.20	6.19
Chloride	mg/L		6.4	6.43	6.86	6.29	10.7	9.55		15.9	10.6		6.78	7.34	7.65
Fluoride	mg/L		0.553	<0.45	<0.45	<0.45	<0.45	<0.45		<0.45	<0.45		<0.45	<0.45	<0.45
Sulfate	mg/L		262	270	279	251	307	308		394	346		271	265	275

7.37 J Value. Compound detect above the method detection limit but below method calibration range
0.0972 Compound exceeds GA or McDonogh GWPS

terrasystems

Table 25. Metals, Anions, TDS, and pH in Column 2 KHCO3 and Column 2 Effluent

2I	KHCO3 Influent								2	KHCO3 Effluent				
Day		GA GWPS	7	21	25	32	39		7	14	21	25	32	39
Dis Sb	mg/L	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dis As	mg/L	0.010	<0.00068	0.00109	<0.00068	<0.00068	<0.00068		<0.00068	<0.00068	<0.00068	<0.00068	0.00156	0.00249
Dis Ba	mg/L	2.0	0.0186	0.0142	0.0422	0.0422	0.0422		0.0416	0.0441	0.0410	0.0931	0.068	0.0549
Dis Be	mg/L	0.0040	0.00156	0.00187	0.00005	0.00005	0.00005		<0.000119	<0.000119	0.000135	<0.000119	<0.000119	<0.000119
Dis B	mg/L		0.725	0.618	0.462	0.462	0.462		0.440	0.452	0.494	0.438	0.467	0.464
Dis Ca	mg/L		61.2	56.3	102.8	102.8	102.8		97.4	114	97.1	104	82.3	83.6
Dis Cd	mg/L	0.0050	0.00161	0.00137	0.00037	0.00037	0.00037		0.000715	0.000171	0.000211	<0.00151	0.000309	<0.00151
Dis Co	mg/L	0.024	**0.273**	**0.262**	**0.079**	**0.079**	**0.0793**		**0.104**	**0.0887**	**0.0435**	**0.035**	**0.0308**	0.0231
Dis Cr	mg/L	0.010	<0.000550	<0.000550	<0.000550	<0.000550	<0.000550		<0.00055	<0.00055	<0.00055	0.0667	0.00214	<0.00055
Dis Fe	mg/L		0.0473	0.0484	0.0083	0.0083	0.0083		0.0249	<0.020	<0.020	1.39	2.41	0.078
Dis Hg	mg/L	0.002	<0.000079	0.000106	0.000042	0.000042	0.000042		0.000125	<0.000079	<0.000079	<0.000079	<0.000079	<0.000079
Dis Li	mg/L	0.040	**0.0969**	**0.0973**	0.0040	0.0040	0.0040		<0.011	0.0121	<0.011	<0.11	<0.011	<0.011
Dis Mo	mg/L	0.10	<0.00013	<0.00013	0.0018	0.0018	0.0018		0.00090	0.0014	0.00299	0.01170	0.00700	0.00495
Dis Pb	mg/L	0.015	0.000171	<0.000120	0.000042	0.000042	0.000042		<0.00012	<0.00012	0.000125	<0.00012	0.000165	<0.00012
Dis Se	mg/L	0.050	<0.000278	<0.000278	0.00012	0.00012	0.00012		0.000345	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278
Dis Tl	mg/L	0.0020	0.000392	0.000350	0.000045	0.000045	0.000045		0.000135	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
TDS	mg/L								670	853	834	810	562	507
Temp	ºC			22.2					21.1	20.9	21.4	23.6	22.8	23.0
pH	SU			8.22					6.85	6.84	6.85	7.53	6.78	6.80
Chloride	mg/L			6.86					12.9	12.3	9.62	7.17	9.24	9.10
Fluoride	mg/L			0.494					<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Sulfate	mg/L			277					374	349	338	270	289	299

7.37 J Value. Compound detect above the method detection limit but below method calibration range
<0.00020 Average Effluent Concentration from Days 7 to 21
0.0972 Compound exceeds GA or McDonogh GWPS

terrasystems

Table 26. Metals, Anions, TDS, and pH in Column 3 $FeSO_4$ and Column 3 Effluent

3I	FeSO4-7H20 Influent							FeSO4-7H20 Effluent					
Day			7	25	32	39		7	14	21	25	32	39
Dis Sb	mg/L	0.006	<0.00020	0.00020	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dis As	mg/L	0.010	<0.00068	0.00023	0.00023	0.00023		0.000702	<0.00068	<0.00068	<0.00068	<0.00068	0.00303
Dis Ba	mg/L	2.0	0.0024	0.021	0.021	0.021		0.0265	0.0202	0.0165	0.0202	0.0388	0.0381
Dis Be	mg/L	0.0040	<0.000119	0.000064	0.000064	0.000064		<0.000119	<0.000119	0.000193	<0.000119	<0.000595	<0.000595
Dis B	mg/L		0.590	0.512	0.512	0.512		0.470	0.497	0.570	0.503	0.494	0.465
Dis Ca	mg/L		21.7	59.167	59.167<	59.167		75.9	60.6	41.0	39.0	40.3	43.7
Dis Cd	mg/L	0.0050	<0.000151	0.000221	0.000221	0.000221		0.000663	<0.000151	<0.000151	0.000212	<0.000755	<0.000151
Dis Co	mg/L	0.024	0.00852	**0.074**	**0.074**	**0.074**		**0.107**	**0.073**	**0.0432**	**0.0375**	**0.0316**	**0.0291**
Dis Cr	mg/L	0.010	<0.00055	<0.00055	<0.00055	<0.00055		<0.00055	<0.00055	<0.00055	<0.00055	<0.00275	0.00149
Dis Fe	mg/L		0.125	0.107	0.107	0.107		0.0334	0.0437	0.244	0.0333	<0.10	0.0469
Dis Hg	mg/L	0.002	<0.000079	0.000065	0.000065	0.000065		0.000108	<0.000079	8.82E-05	<0.000079	<0.000079	<0.000079
Dis Li	mg/L	0.040	**0.0972**	<0.011	<0.011	<0.011		<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Dis Mo	mg/L	0.10	0.0101	0.0013	0.0013	0.0013		0.00164	0.00150	0.000801	0.00183	0.00622	0.00474
Dis Pb	mg/L	0.015	<0.0012	<0.0012	<0.0012	<0.0012		<0.00012	<0.00012	<0.00012	<0.00012	<0.00060	<0.00012
Dis Se	mg/L	0.050	0.000438	0.00012	0.00012	0.00012		0.000357	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278
Dis Tl	mg/L	0.0020	<0.00013	<0.00013	<0.00013	<0.00013		<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
TDS	mg/L							1070	900	671	590	583	370
Temp	°C							21.3	21.0	22.2	23.7	22.8	23.0
pH	SU							7.04	7.10	6.58	7.26	6.84	6.81
Chloride	mg/L							14.8	11.6	8.16	7.03	6.79	7.55
Fluoride	mg/L							0.456	<0.45	<0.45	<0.45	<0.45	<0.45
Sulfate	mg/L							656	586	398	308	261	356

7.37 J Value. Compound detect above the method detection limit but below method calibration range
<0.00020 Average Effluent Concentration from Days 7 to 21
0.0972 Compound exceeds GA or McDonogh GWPS

terrasystems

Table 27. Metals, Anions, TDS, and pH in Influent and Column 4 ADA Fluxsorb II Effluent

			Influent							4 Fluxsorb II Effluent					
Day		GA GWPS	7	14	21	25	32	39		7	14	21	25	32	39
Dis Sb	mg/L	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Dis As	mg/L	0.010	<0.00068	<0.00068	<0.00068	<0.00068	0.000857	0.000821		<0.00068	<0.00068	<0.00068	<0.00068	0.00926	0.00148
Dis Ba	mg/L	2.0	0.0209	0.0175	0.0248	0.0206	0.0210	0.0273		0.0329	0.0211	0.0179	0.106	0.230	0.0657
Dis Be	mg/L	0.0040	0.00662	0.00572	0.00812	0.00707	<0.000119	<0.000119		<0.000119	0.000178	0.000165	<0.000119	<0.000119	<0.000119
Dis B	mg/L	4.0	0.692	0.660	0.651	0.582	0.491	0.509		0.482	0.458	0.472	0.347	0.505	0.483
Dis Ca	mg/L		63.4	65.0	59.4	57.4	59.3	62.8		79.2	50.9	46.7	48.7	40.8	45.6
Dis Cd	mg/L	0.0050	0.00253	0.00254	0.00242	0.00256	0.000537	0.000457		0.000918	0.000767	0.000498	<0.00151	<0.00151	0.000169
Dis Co	mg/L	0.024	**0.314**	**0.399**	**0.291**	**0.294**	**0.154**	**0.135**		**0.108**	**0.117**	**0.0957**	**0.0293**	0.0206	0.0239
Dis Cr	mg/L	0.010	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055		<0.00055	<0.00055	<0.00055	0.175	<0.00055	0.000699
Dis Fe	mg/L		0.0647	<0.020	0.0461	0.102	0.321	0.0286		0.103	<0.020	<0.020	1.97	<0.20	0.141
Dis Hg	mg/L		0.000091	<0.000079	0.000084	<0.000079	<0.000079	<0.000079		0.000114	<0.000079	<0.000079	<0.000079	<0.000079	<0.000079
Dis Li	mg/L	0.040	**0.0953**	**0.100**	**0.0968**	**0.100**	<0.011	<0.011		0.0175	0.0157	<0.0110	<0.0110	<0.11	<0.0110
Dis Mo	mg/L	0.10	<0.00013	<0.00013	<0.00013	<0.00013	0.000271	0.000231		<0.00013	0.000251	0.000206	0.00174	0.00896	0.00562
Dis Pb	mg/L	0.015	0.000641	<0.00012	0.000402	0.000841	0.000264	<0.00012		<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	0.000131
Dis Se	mg/L	0.050	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278		<0.000278	<0.000278	<0.000278	<0.000278	<0.000278	<0.000278
Dis Tl	mg/L	0.0020	0.000187	<0.00013	0.000366	<0.00013	<0.00013	<0.00013		<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
TDS	mg/L		427	405	448	343	498	320		1070	507	504	614	341	
Temp	°C		22.0	22.4	21.7	23.6	22.8	23.0		21.3	22.0	21.4	23.7	22.8	
pH	SU		3.95	5.91	5.99	4.0	6.93	6.98		7.04	6.30	6.40	7.20	7.19	
Chloride	mg/L		6.4	6.43	6.86	6.29	10.7	9.55		14.8	10.2	9.35	6.17	7.51	
Fluoride	mg/L		0.553	<0.45	<0.45	<0.45	<0.45	<0.45		0.456	<0.45	<0.45	0.477	<0.45	
Sulfate	mg/L		262	270	279	251	307	308		656	314	328	260	298	

7.37 J Value. Compound detect above the method detection limit but below method calibration range
0.0972 Compound exceeds GA or McDonogh GWPS

terrasystems

Table 28. Beryllium Concentrations in Influents and Effluents and Percent Removals

Day	Influent	Column 1	Column 2	Column 2	Column 3	Column 3	Column 4	Column 4
		Control	KHCO3		FeSO4		ADA Carbon	
		Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
1	**0.00767**		**0.00767**		**0.00767**		**0.00767**	
7	**0.00662**	0.000297	0.00156	<0.000119	<0.000119	<0.000119	**0.00662**	<0.000119
14	**0.00572**	0.000309	0.00187	<0.000119		<0.000119	**0.00572**	0.000178
21	**0.00812**	0.000232		0.000135		0.000193	**0.00812**	0.000165
			ADA Fluxsorb		ADA Fluxsorb		ADA Fluxsorb	
25	**0.00707**	0.000259	0.00005	<0.000119	0.000064	<0.000119	**0.00707**	<0.000119
32	<0.000119	0.000196	0.00005	<0.000119	0.000064	<0.000595	<0.000119	<0.000119
39	<0.000119	<0.000119	0.00005	<0.000119	0.000064	<0.000595	<0.000119	<0.000119
Percent Removal From Influent								
7	13.7	96.1	79.7	>98.4	>98.4	<98.4	13.7	>98.4
14	13.6	95.3	-19.9	>92.4			13.6	97.3
21	-42.0	95.9		92.8		>-62.2	-42.0	97.1
25	12.9	96.8	97.6	NA	NA	NA	12.9	>98.5
32	>83.2	97.2	0.0	NA	NA	NA	>98.3	>98.3
39	NA	NA	0.0	NA	NA	NA	NA	NA

7.37 J Value. Compound detect above the method detection limit but below method calibration range
<0.00020 Average Effluent Concentration from Days 7 to 21
0.0972 Compound exceeds GA or McDonogh GWPS

Table 29. Cobalt Concentrations in Influents and Effluents and Percent Removals

Day	Influent	Column 1	Column 2	Column 2	Column 3	Column 3	Column 4	Column 4
		Control	KHCO3		FeSO4		ADA Carbon	
		Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
1	**0.329**		**0.329**		**0.329**		**0.329**	
7	**0.314**	**0.195**	**0.273**	**0.104**	**0.00852**	**0.107**	**0.314**	**0.108**
14	**0.399**	**0.184**	**0.262**	**0.0887**		**0.073**	**0.399**	**0.117**
21	**0.291**	**0.138**		**0.0435**		**0.0432**	**0.291**	**0.0957**
			ADA Fluxsorb		ADA Fluxsorb		ADA Fluxsorb	
25	**0.294**	**0.145**	**0.0787**	**0.035**	**0.0744**	**0.0375**	**0.1069**	**0.0293**
32	**0.154**	**0.137**	**0.0787**	**0.0308**	**0.0744**	**0.0316**	**0.1069**	0.0206
39	**0.135**	**0.120**	**0.0787**	0.0231	**0.0744**	**0.0291**	**0.1069**	0.0239
Percent Removal From Influent								
7	4.6	40.7	17.0	68.4	97.4	67.5	4.6	67.2
14	-27.1	41.4	4.0	67.5		-756.8	-27.1	62.7
21	27.1	65.4		83.4		89.2	27.1	76.0
25	-1.0	50.2	69.9	55.0	74.4	87.1	63.3	89.9
32	47.6	53.4	0.0	60.9	0.0	57.5	0.0	80.7
39	12.3	22.1	0.0	70.7	0.0	60.9	0.0	77.6

<0.00020 Average Effluent Concentration from Days 7 to 21
0.0972 Compound exceeds GA or McDonogh GWPS

terrasystems

Table 30. Boron Concentrations in Influents and Effluents and Percent Removals

Day	Influent	Column 1	Column 2	Column 2	Column 3	Column 3	Column 4	Column 4
		Control	KHCO3		FeSO4		ADA Carbon	
		Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
1	0.607		0.607		0.607		0.607	
7	0.692	0.443	0.725	0.440	0.590	0.470	0.692	0.482
14	0.660	0.474	0.618	0.452		0.497	0.660	0.458
21	0.651	0.587		0.494		0.570	0.651	0.472
			ADA Fluxsorb		ADA Fluxsorb		ADA Fluxsorb	
25	0.582	0.552	0.462	0.438	0.512	0.503	0.4710	0.347
32	0.491	0.551	0.462	0.467	0.512	0.494	0.4710	0.505
39	0.509	0.540	0.462	0.464	0.512	0.465	0.4710	0.483
Percent Removal From Influent								
7	-14.0	27.0	-19.4	27.5	2.8	22.6	-14.0	20.6
14	4.6	31.5	14.8	37.7		15.8	4.6	33.8
21	1.4	11.1		20.1		13.6	1.4	28.5
25	10.6	15.2	25.2	5.2	21.3	22.7	27.6	46.7
32	15.6	5.3	0.0	-1.1	0.0	3.6	0.0	-7.2
39	-3.7	-10.0	0.0	-0.4	0.0	9.2	0.0	-2.5

7.37 J Value. Compound detect above the method detection limit but below method calibration range
<0.00020 Average Effluent Concentration from Days 7 to 21

terrasystems

Table 31. Lithium Concentrations in Influents and Effluents and Percent Removals

Day	Influent	Column 1	Column 2	Column 2	Column 3	Column 3	Column 4	Column 4
		Control	KHCO3		FeSO4		ADA Carbon	
		Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
1	**0.091**		**0.091**		**0.091**		**0.091**	
7	**0.0953**	<0.011	**0.0969**	<0.011	**0.0972**	<0.011	**0.0953**	0.0175
14	**0.100**	<0.011	**0.0973**	0.0121		<0.011	**0.100**	0.0157
21	**0.0968**	<0.011		<0.011		<0.011	**0.0968**	<0.0110
			ADA Fluxsorb		ADA Fluxsorb		ADA Fluxsorb	
25	**0.100**	0.0128	0.0040	<0.11	<0.011	<0.011	0.0111	<0.0110
32	<0.011	<0.011	0.0040	<0.011	<0.011	<0.011	0.0111	<0.11
39	<0.011	<0.011	0.0040	<0.011	<0.011	<0.011	0.0111	<0.0110
Percent Removal From Influent								
7	-4.7	>87.9	-6.5	>87.9	-6.8	>87.9	-4.7	80.8
14	-4.9	>88.5	-0.4	87.5			-4.9	83.5
21	3.2	>89.0					3.2	>89.0
25	-3.3	86.8	95.9	NA	>88.7	NA	88.5	>88.6
32	>89.0	>89.0	0.0	NA	NA	NA	0.0	<-891.0
39	NA	NA	0.0	NA	NA	NA	0.0	>0.9

7.37 J Value. Compound detect above the method detection limit but below method calibration range
<0.00020 Average Effluent Concentration from Days 7 to 21
0.0972 Compound exceeds GA or McDonogh GWPS

The influent for Control column 1 had no detectable antimony, chromium, or selenium. Trace levels (0.001 or less) of arsenic, mercury, molybdenum, lead, and thallium were detected at some time points. Low levels (0.001 to 0.010 mg/L) of beryllium and cadmium were detected. Beryllium exceeded the GA GWPS from days 1 to 25 and was not detected on Days 32 and 39. The percent removal of beryllium for days 32 and 39 relative to days 7 through 25 ranged from -42.0% to >83.2%. Moderate levels (0.01 to 0.1 mg/L) of barium were detected. The following metals ranged between 0.1 and 1.0 mg/L: boron, cobalt, iron, and lithium. Boron ranged between 0.491 and 0.692 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous Day 7 sampling event of the influent ranged from -14.0 to 15.6%. Cobalt fell from a maximum of 0.399 mg/L on Day 14 to 0.135 mg/L on Day 39 but remained above the McDonough GWPS. The cobalt percent removal from the previous Day 7 sampling event for the influent ranged from -27.1 to 47.6% (between Days 25 and 32). Lithium exceeded the GA GWPS of 0.040 mg/L through Day 25 but was not detected during the recirculation phase from Days 32 to 39. The percent removal for lithium from the previous Day 7 sampling event ranged from -4.9 to >89.0% (between Days 25 and 32) with no lithium detected in the influent from Days 32 to 39. Calcium ranged from 57.4 to 65.0 mg/L. The TDS ranged from 320 to 498 mg/L. The pH measured by ELLE ranged from 3.95 to 6.98 SU. Chloride was generally low between 6.4 to 10.7 mg/L. Fluoride was only detected on Day 7. Sulfate ranged from 251 to 308 mg/L.

The Control column 1 effluent had no detectable antimony, arsenic, or selenium. Trace levels (0.001 or less) of beryllium, cadmium, mercury, lead, and thallium were detected at some time points. Low levels of beryllium, below the GA GWPS, were detected in the effluent of the Control Column 1 with percent removals of 95.3 to 97.2%. Moderate levels (0.001 to 0.1 mg/L) of barium, chromium, and molybdenum were detected periodically. The following metals ranged between 0.1 and 1.0 mg/L: boron and cobalt. Boron ranged between 0.443 and 0.587 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous day 7 sampling event in the influent ranged from -10.0 to 31.5%. Cobalt fell from 0.195 mg/L on Day 7 to 0.120 mg/L on Day 39 and remained above the McDonough GWPS. The percent removal for cobalt from the previous day 7 sampling event of the influent ranged from 22.1 to 65.4% (between Days 7 and 14) with an average of 45.5%. Cobalt was removed during passage through the control column. Lithium in the column 1 effluent never exceeded the GA GWPS of 0.040 mg/L with only a low detection of 0.0128 mg/L on Day 25. The percent removal for lithium from the previous sampling event ranged from -86.8 to >89.0% (between Days 14 and 21). Dissolved iron was as high as 2.68 mg/L. Calcium ranged from 53.7 to 67.6 mg/L. The TDS ranged from 388 to 795 mg/L. The pH measured by ELLE ranged from 6.10 to 6.54 SU. Chloride was generally low between 6.8 to 15.9 mg/L. Fluoride was not detected. Sulfate ranged from 265 to 394 mg/L.

The Potassium Bicarbonate Column 2 influent was analyzed on Days 7 and 21. The effluent from Days 0-21 was recirculated from Days 25 to 39 and the average concentrations of dissolved metals from Days 7 and 21 in the effluent are shown (highlighted in green). From Days 22 to 25, 57.3 g of ADA Carbon in 1.25 L groundwater was pumped through the column. The influent had no detectable antimony or chromium. Trace levels (0.001 mg/L or less) of mercury, lead, selenium, and thallium were detected at some time points. Moderate levels (0.001 to 0.1 mg/L) of arsenic, barium, beryllium, cadmium, and molybdenum were detected. Beryllium ranged from 0.00156 to 0.00767 mg/L which exceeded the GA GWPS of 0.004 mg/L only on Day 1. The percent removal for beryllium from the previous day 7 sampling event in the Column 2 influent ranged from 0 to 97.6%.

Boron ranged from 0.462 to 0.725 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous day 7 sampling event in the Column 2 influent ranged from -19.4 to 25.2%. Cobalt fell from 0.273 mg/L on Day 7 to 0.262 mg/L on Day 21 and averaged 0.0787 mg/L during the recirculation phase with ADA Carbon. The cobalt decreased in the Column 2 $KHCO_3$ influent from the previous sampling point by 0 to 69.9% during recirculation with the ADA Carbon. Lithium exceeded the GA GWPS of 0.040 mg/L on Day 7 and 21 but was below the standard during the recirculation phase and while ADA Carbon was being injected. The percent removal for lithium from the previous sampling event for the Column 2 $KHCO_3$ influent ranged from -6.5 to 95.9%. Dissolved iron was low, 0.0083 to 0.0484 mg/L. Calcium ranged from 56.3 to 61.2 mg/L from Days 7 to 21 but increased to 103 mg/L during the recirculation phase. The TDS was not measured. The pH measured by ELLE was 8.22 SU, chloride was 6. A concentration of 9 mg/L, fluoride was detected at 0.5 mg/L, and sulfate was 277 mg/L on Day 21.

The $KHCO_3$ column 2 effluent had no detectable antimony. Trace levels (0.0010 or less) of beryllium, cadmium, mercury, lead, selenium, and thallium were detected at some time points. Moderate levels (0.001 to 0.1 mg/L) of arsenic, barium, chromium, and molybdenum were detected. Beryllium was only detected in the effluent of the $KHCO_3$ column on day 21 with percent removals of 92.8 to >98.4%. Boron ranged from 0.438 to 0.467 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous sampling event in the Column 2 influent ranged from -1.1 to 37.7%. Cobalt fell from 0.104 mg/L on Day 7 to 0.0435 mg/L on Day 21 and ultimately to 0.0231 mg/L on Day 39 which was below the McDonough GWPS. There was 68.4 to 83.4% removal of cobalt from the $KHCO_3$ column influent concentrations from Days 1 to 21 and 55.0 to 70.7% removal of cobalt from Days 25 to 39 during recirculation and ADA Carbon additions compared to the influent. Lithium never exceeded the GA GWPS of 0.040 mg/L in the effluent from the $KHCO_3$ Column 2 and was only detected at 0.0121 mg/L on Day 14 with percent removals of 87.5 to >87.9%. The dissolved iron was as high as 2.41 mg/L on Day 32. Calcium ranged from 82.3 to 114 mg/L. The TDS ranged from 507 to 853 mg/L. The pH measured by ELLE ranged from 6.80 to 7.53 SU. Chloride was generally low at 7.2 to 12.9 mg/L. Fluoride was not detected. Sulfate ranged from 270 to 374 mg/L.

The Ferrous Sulfate Heptahydrate column 3 influent was analyzed on Day 7 only. From Day 7 to 21, unamended groundwater was used (influent). From Days 22 to 25, 57.3 g of ADA Carbon in 0.91 g groundwater was pumped through the column. The effluent from Days 0-21 was recirculated from Days 25 to 39 with the ADA Carbon additions and the average concentrations of dissolved metals from Days 7 and 21 in the effluent are shown (highlighted in green). There was no detectable antimony, chromium, lead, or thallium. Trace levels (0.001 mg/L or less) of arsenic, beryllium, cadmium, mercury, and selenium were detected at some time points. Beryllium was present at 0.000064 mg/L in the influent from Days 25 to 39. Barium ranged from 0.0024 to 0.0211 mg/L. Boron ranged from 0.512 to 0.590 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous day 7 sampling event in the FeSO4 Column 3 influent ranged from -4.3 to 21.3%. Cobalt was 0.00852 mg/L on Day 7 and averaged 0.0744 mg/L during the recirculation and ADA Carbon phase. The cobalt decreased in the influent by 97.4% on Day 7 and between 0 to 74.4% during recirculation and ADA Carbon phase. Lithium exceeded the GA GWPS of 0.040 mg/L on Day 7 but was not present in the combined influent during the recirculation phase with ADA Carbon. The percent removal for lithium from the previous sampling event ranged from -6.8 to >88.7%. Dissolved iron was low between 0.107 to 0.125 mg/L. Calcium

ranged from 21.7 mg/L on Day 7 to 59.2 mg/L during the recirculation phase. The TDS was not measured.

The FeSO4 column 3 effluent had no detectable antimony, lead, or thallium. Trace levels (0.001 or less) of arsenic, beryllium, cadmium, mercury, and selenium were detected at some time points. The maximum chromium concentration was 0.00149 mg/L. Molybdenum ranged from 0.000801 to 0.00622 mg/L. Barium was less than 0.0388 mg/L. Beryllium was only detected in the effluent at 0.000193 mg/L on Day 21 with percent removals of >-62.2 to >98.4. Boron ranged from 0.465 to 0.570 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous sampling event in the Column 3 influent ranged from 3.6 to 22.7%. Cobalt fell from 0.107 mg/L on Day 7 to 0.0432 mg/L on Day 21 and ultimately to 0.0291 mg/L on Day 39 but remained above the McDonough GWPS. There was -756.8 to 89.2% removal of cobalt from the influent concentrations from Days 1 to 21 and 57.5 to 87.1% removal of cobalt from Days 25 to 39 during recirculation and ADA Carbon additions compared to the influent. Lithium was not detected in the effluent from the FeSO4 Column 3. The dissolved iron was as high as 0.244 mg/L. Calcium ranged from 39.0 to 75.9 mg/L. The TDS ranged from 370 to 1,070 mg/L. The pH measured by ELLE ranged from 6.58 to 7.26 SU. Chloride was generally low between 6.8 to 14.8 mg/L. Fluoride was only detected once. Sulfate decreased from 656 mg/L on Day 7 to 398 mg/L on Day 21 and ranged from 261 to 356 mg/L during recirculation and ADA Carbon addition phase.

The ADA Carbon column 4 effluent had no detectable antimony, selenium, or thallium. Trace levels (0.001 or less) of beryllium, cadmium, and mercury were detected at some time points. Beryllium was detected at 0.00165 to 0.000178 mg/L on Day 14 and 21 but was not detected from Days 25 to 39. The beryllium percent removal ranged from 97.1 to >98.5%. Molybdenum ranged from <0.00013 to 0.00896 mg/L. An elevated chromium concentration of 0.175 mg/L was found on Day 25, but chromium was low the remainder of the time. Barium ranged from 0.0179 mg/L up to 0.23 mg/L which was much higher from Days 25 to 32 than the influent (0.0206 to 0.0210 mg/L). Boron ranged from 0.347 to 0.505 mg/L but never exceeded the GA GWPS of 4.0 mg/L. The percent removal for boron from the previous sampling event in the Column 4 influent ranged from -7.2 to 46.7%. Cobalt fell from 0.108 mg/L on Day 7 to 0.0957 mg/L on Day 21 and ultimately to 0.0206 mg/L on Day 32 and 0.0239 mg/L on Day 39, below the McDonough GWPS. There was 62.7 to 76.0% removal of cobalt from the influent concentrations from Days 1 to 21 and 77.6 to 89.9% removal of cobalt from Days 25 to 39 during recirculation and ADA Carbon additions compared to the influent. Lithium was not detected above the GA GWPS in the effluent from the ADA Column 4. The dissolved iron was as high as 1.97 mg/L. Calcium ranged from 40.8 to 79.2 mg/L. The TDS ranged from 341 to 1,070 mg/L. The pH measured by ELLE ranged from 6.3 to 7.20 SU. Chloride was generally low between 6.017 to 14.8 mg/L. Fluoride was detected twice. Sulfate decreased from 656 mg/L on Day 7 to 628 mg/L on Day 21 and ranged from 260 to 298 mg/L during recirculation.

5.0 CONCLUSIONS

The following conclusions can be reached from these studies for each metal of concern:

- Arsenic. Exceeded the GA GWPS of 0.010 only in the DGWC-69 groundwater. In the DGWC-69 batch tests, all treatments with ferrous sulfate heptahydrate and the control decreased arsenic to below the GA GWPS. Arsenic was not found above the GA GWPS in the DGWC-48 batch treatments or column studies.

- Beryllium. The GA GWPS is 0.004 mg/L which was exceeded in the DGWC-48 groundwater (0.00767 mg/L). In the batch tests with the ADA Carbon II at loadings of 10 to 40 g/L, beryllium was reduced to below the GA GWPS. Beryllium was treated below the GA GWPS in the preliminary ADA Carbon column and in control, $KHCO_3$, Ferrous Sulfate Heptahydrate, and ADA columns.
- Boron. Neither the DGWC-48 or DGWC-69 groundwaters exceeded GA GWPS of 4 mg/L. The treatments with ferrous sulfate heptahydrate with and without the sodium bicarbonate and the DGWC-48 batch studies and the DGWC-69 batch studies had limited impact on boron concentrations. The highest loading of 40 g/L ADA Carbon II reduced boron by 82.2%. The preliminary column study with the ADA Carbon II showed 46.7% reduction in B. In the DGWC-48 column studies, 36.7% or less of the B was removed with the Control, Potassium Bicarbonate, or Ferrous Sulfate Heptahydrate Column with a maximum of 46.7% with the ADA Carbon Column.
- Cobalt. The ferrous sulfate reagent contained cobalt which resulted in cobalt exceeding the McDonough GWPS of 0.024 mg/L in the DGWC-69 batch tests. The batch studies with the ADA Carbon II reduced cobalt by up 88.0% at the highest 40 g/L loading but still above the GA GWPS although another test with 10 g/L ADA Carbon II showed Cobalt adsorption to a concentration of 0.000164 mg/L. The preliminary column with ADA Carbon reduced cobalt by 63.2% but it remained above the McDonough GWPS. There was 22.1 to 65.4% reduction of cobalt in the control column, 55.0 to 83.4% with potassium bicarbonate, and 57.5 to 89.2% with the ferrous sulfate heptahydrate column (excluding the Day 14 result when there was treatment in the influent), and 67.2 to 89.9% with the 73.g/L loading of ADA carbon. Only the KHCO3 and ADA carbon columns reduced cobalt to below the McDonough GWPS.
- Molybdenum. The DGWC-69 groundwater had 0.107 mg/L molybdenum, above the GA GWPS of 0.10 mg/L. The 1-10 g/L ferrous sulfate heptahydrate and the 1-10 g/L ferrous sulfate heptahydrate with 1-10 g/L sodium bicarbonate all reduced molybdenum to below the GA GWPS. Only low levels of molybdenum were found in the DGWC-48 groundwater and the GA GWPS was never exceeded.
- Lithium. The DGWC-69 groundwater did not contain lithium. The DGWC-48 groundwater had 0.091 mg/L lithium, above the GA GWPS of 0.040 mg/L. The batch treatments with 25 and 40 g/L ADA Carbon II reduced Lithium to below the GA GWPS but the 10 g/L loading did not. In the preliminary column study with ADA Carbon II, lithium was reduced to below the standard. In the full column studies, the control, $KHCO_3$, $FeSO_4$, and ADA Carbon columns all showed complete or nearly complete treatment of lithium.

Please let me know if you have any questions about this final report.

Sincerely,
TERRA SYSTEMS

Michael D Lee, PhD.

Michael D. Lee, Ph.D.
Vice-President Research and Development

terrasystems

ANALYTICAL REPORTS

130 Hickman Road – Suite 1 – Claymont – Delaware –
19703 Phone: 302-798-9553 or Visit www.terrasystems.net

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 12/13/2023 10:26:28 AM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-152142-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
12/13/2023 10:26:28 AM

Authorized for release by
Marrissa Williams, Project Manager
Marrissa.Williams@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

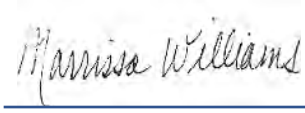


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 8
QC Sample Results 10
QC Association Summary 13
Lab Chronicle 15
Certification Summary 16
Method Summary 17
Sample Summary 18
Chain of Custody 19
Receipt Checklists 20

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-152142-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative
410-152142-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/21/2023 6:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-48 IC
Lab Sample ID: 410-152142-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.478	J	1.00	0.450	mg/L	5		EPA 300.0 R2.1	Total/NA
Sulfate	273		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.21	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.607		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0910		0.0500	0.0110	mg/L	1		6010D	Dissolved
Arsenic	0.000697	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0245		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00767		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00263		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	65.1		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.329		0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000735		0.000500	0.000120	mg/L	1		6020B	Dissolved
Total Dissolved Solids	398		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	4.45	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	20.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1 DGWC-69 IC
Lab Sample ID: 410-152142-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	7.37	J	7.50	2.50	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	5.36	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.0436	J	0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.0265		0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0495		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	9.80		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.000764	J	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.000238	J	0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.00651		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	93.5		30.0	12.0	mg/L	1		2540C - 2015	Total/NA
pH	6.65	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.5	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1 DGWC-48 IC
Lab Sample ID: 410-152142-1
Date Collected: 11/21/23 08:00
Matrix: Water
Date Received: 11/21/23 18:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.478**	**J**	1.00	0.450	mg/L			12/12/23 07:17	5
Sulfate	**273**		75.0	25.0	mg/L			12/12/23 07:29	50
Chloride	**6.21**	**J**	7.50	3.00	mg/L			12/12/23 07:17	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.607**		0.0500	0.0120	mg/L		11/30/23 08:59	12/02/23 04:09	1
Lithium	**0.0910**		0.0500	0.0110	mg/L		11/30/23 08:59	12/02/23 04:09	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		11/30/23 08:59	12/02/23 22:00	1
Arsenic	**0.000697**	**J**	0.00200	0.000680	mg/L		11/30/23 08:59	12/02/23 22:00	1
Barium	**0.0245**		0.00200	0.000746	mg/L		11/30/23 08:59	12/02/23 22:00	1
Beryllium	**0.00767**		0.000500	0.000119	mg/L		11/30/23 08:59	12/02/23 22:00	1
Cadmium	**0.00263**		0.000500	0.000151	mg/L		11/30/23 08:59	12/02/23 22:00	1
Calcium	**65.1**		0.120	0.0500	mg/L		11/30/23 08:59	12/02/23 22:00	1
Chromium	<0.000550		0.00200	0.000550	mg/L		11/30/23 08:59	12/02/23 22:00	1
Cobalt	**0.329**		0.000500	0.000156	mg/L		11/30/23 08:59	12/02/23 22:00	1
Lead	**0.000735**		0.000500	0.000120	mg/L		11/30/23 08:59	12/02/23 22:00	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 22:00	1
Selenium	<0.000278		0.00100	0.000278	mg/L		11/30/23 08:59	12/02/23 22:00	1
Thallium	<0.000130		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 22:00	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/01/23 00:24	12/05/23 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**398**		60.0	24.0	mg/L			11/28/23 19:05	1
pH (SW846 9040C)	**4.45**	**HF**	0.0100	0.0100	S.U.			11/29/23 21:34	1
Temperature (SW846 9040C)	**20.8**	**HF**	0.0100	0.0100	Degrees C			11/29/23 21:34	1

Client Sample ID: AP-1 DGWC-69 IC
Lab Sample ID: 410-152142-2
Date Collected: 11/21/23 08:15
Matrix: Water
Date Received: 11/21/23 18:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			12/12/23 07:41	5
Sulfate	**7.37**	**J**	7.50	2.50	mg/L			12/12/23 07:41	5
Chloride	**5.36**	**J**	7.50	3.00	mg/L			12/12/23 07:41	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.0436**	**J**	0.0500	0.0120	mg/L		11/30/23 08:59	12/02/23 04:06	1
Lithium	<0.0110		0.0500	0.0110	mg/L		11/30/23 08:59	12/02/23 04:06	1

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-69 IC
Lab Sample ID: 410-152142-2

Date Collected: 11/21/23 08:15
Matrix: Water
Date Received: 11/21/23 18:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		11/30/23 08:59	12/02/23 21:56	1
Arsenic	**0.0265**		0.00200	0.000680	mg/L		11/30/23 08:59	12/02/23 21:56	1
Barium	**0.0495**		0.00200	0.000746	mg/L		11/30/23 08:59	12/02/23 21:56	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		11/30/23 08:59	12/02/23 21:56	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		11/30/23 08:59	12/02/23 21:56	1
Calcium	**9.80**		0.120	0.0500	mg/L		11/30/23 08:59	12/02/23 21:56	1
Chromium	**0.000764**	**J**	0.00200	0.000550	mg/L		11/30/23 08:59	12/02/23 21:56	1
Cobalt	**0.000238**	**J**	0.000500	0.000156	mg/L		11/30/23 08:59	12/02/23 21:56	1
Lead	<0.000120		0.000500	0.000120	mg/L		11/30/23 08:59	12/02/23 21:56	1
Molybdenum	**0.00651**		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 21:56	1
Selenium	<0.000278		0.00100	0.000278	mg/L		11/30/23 08:59	12/02/23 21:56	1
Thallium	<0.000130		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 21:56	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/04/23 11:54	12/05/23 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**93.5**		30.0	12.0	mg/L			11/28/23 19:05	1
pH (SW846 9040C)	**6.65**	**HF**	0.0100	0.0100	S.U.			11/29/23 21:39	1
Temperature (SW846 9040C)	**21.5**	**HF**	0.0100	0.0100	Degrees C			11/29/23 21:39	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-452721/5
Matrix: Water
Analysis Batch: 452721

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			12/11/23 23:00	1
Sulfate	<0.500		1.50	0.500	mg/L			12/11/23 23:00	1
Chloride	<0.600		1.50	0.600	mg/L			12/11/23 23:00	1

Lab Sample ID: LCS 410-452721/3
Matrix: Water
Analysis Batch: 452721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7203		mg/L		96	90 - 110
Sulfate	7.50	8.199		mg/L		109	90 - 110
Chloride	3.00	3.079		mg/L		103	90 - 110

Lab Sample ID: LCSD 410-452721/4
Matrix: Water
Analysis Batch: 452721

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7243		mg/L		97	90 - 110	1	20
Sulfate	7.50	8.181		mg/L		109	90 - 110	0	20
Chloride	3.00	3.068		mg/L		102	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-448458/1-A
Matrix: Water
Analysis Batch: 449400

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 448458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		11/30/23 08:59	12/02/23 03:29	1
Lithium	<0.0110		0.0500	0.0110	mg/L		11/30/23 08:59	12/02/23 03:29	1

Lab Sample ID: LCS 410-448458/2-A
Matrix: Water
Analysis Batch: 449400

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 448458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4763		mg/L		95	80 - 120
Lithium	0.500	0.4781		mg/L		96	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-448458/1-A
Matrix: Water
Analysis Batch: 449450

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 448458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		11/30/23 08:59	12/02/23 21:38	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		11/30/23 08:59	12/02/23 21:38	1
Barium	<0.000746		0.00200	0.000746	mg/L		11/30/23 08:59	12/02/23 21:38	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-448458/1-A
Matrix: Water
Analysis Batch: 449450

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 448458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.000119		0.000500	0.000119	mg/L		11/30/23 08:59	12/02/23 21:38	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		11/30/23 08:59	12/02/23 21:38	1
Calcium	<0.0500		0.120	0.0500	mg/L		11/30/23 08:59	12/02/23 21:38	1
Chromium	<0.000550		0.00200	0.000550	mg/L		11/30/23 08:59	12/02/23 21:38	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		11/30/23 08:59	12/02/23 21:38	1
Lead	<0.000120		0.000500	0.000120	mg/L		11/30/23 08:59	12/02/23 21:38	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 21:38	1
Selenium	<0.000278		0.00100	0.000278	mg/L		11/30/23 08:59	12/02/23 21:38	1
Thallium	<0.000130		0.000500	0.000130	mg/L		11/30/23 08:59	12/02/23 21:38	1

Lab Sample ID: LCS 410-448458/2-A
Matrix: Water
Analysis Batch: 449450

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 448458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1084		mg/L		108	80 - 120
Arsenic	0.500	0.5311		mg/L		106	85 - 120
Barium	0.500	0.5382		mg/L		108	80 - 120
Beryllium	0.0500	0.05382		mg/L		108	90 - 112
Cadmium	0.0500	0.05380		mg/L		108	86 - 113
Calcium	5.00	5.189		mg/L		104	85 - 120
Chromium	0.500	0.5220		mg/L		104	90 - 115
Cobalt	0.500	0.5216		mg/L		104	90 - 113
Lead	0.0500	0.05255		mg/L		105	90 - 115
Molybdenum	0.0500	0.05441		mg/L		109	85 - 115
Selenium	0.100	0.1081		mg/L		108	80 - 120
Thallium	0.100	0.1044		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-448847/1-A
Matrix: Water
Analysis Batch: 450291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/01/23 00:24	12/05/23 11:44	1

Lab Sample ID: LCS 410-448847/2-A
Matrix: Water
Analysis Batch: 450291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009557		mg/L		96	80 - 118

Lab Sample ID: MB 410-449820/1-A
Matrix: Water
Analysis Batch: 450291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/04/23 11:54	12/05/23 09:23	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 410-449820/2-A
Matrix: Water
Analysis Batch: 450291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00100	0.0008813		mg/L		88	80 - 118		

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-447754/1
Matrix: Water
Analysis Batch: 447754

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			11/28/23 19:05	1

Lab Sample ID: LCS 410-447754/2
Matrix: Water
Analysis Batch: 447754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			200	200.0		mg/L		100	90 - 110		

Method: 9040C - pH

Lab Sample ID: LCS 410-448344/2
Matrix: Water
Analysis Batch: 448344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.010		S.U.		100	95 - 105		

Lab Sample ID: LCSD 410-448344/3
Matrix: Water
Analysis Batch: 448344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH			7.00	6.990		S.U.		100	95 - 105	0	3

HPLC/IC

Analysis Batch: 452721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Total/NA	Water	EPA 300.0 R2.1	
410-152142-1	AP-1 DGWC-48 IC	Total/NA	Water	EPA 300.0 R2.1	
410-152142-2	AP-1 DGWC-69 IC	Total/NA	Water	EPA 300.0 R2.1	
MB 410-452721/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-452721/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-452721/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 448458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Dissolved	Water	3005A	
410-152142-2	AP-1 DGWC-69 IC	Dissolved	Water	3005A	
MB 410-448458/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-448458/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 448847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Dissolved	Water	7470A	
MB 410-448847/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-448847/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 449400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Dissolved	Water	6010D	448458
410-152142-2	AP-1 DGWC-69 IC	Dissolved	Water	6010D	448458
MB 410-448458/1-A	Method Blank	Total Recoverable	Water	6010D	448458
LCS 410-448458/2-A	Lab Control Sample	Total Recoverable	Water	6010D	448458

Analysis Batch: 449450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Dissolved	Water	6020B	448458
410-152142-2	AP-1 DGWC-69 IC	Dissolved	Water	6020B	448458
MB 410-448458/1-A	Method Blank	Total Recoverable	Water	6020B	448458
LCS 410-448458/2-A	Lab Control Sample	Total Recoverable	Water	6020B	448458

Prep Batch: 449820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-2	AP-1 DGWC-69 IC	Dissolved	Water	7470A	
MB 410-449820/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-449820/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 450291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Dissolved	Water	7470A	448847
410-152142-2	AP-1 DGWC-69 IC	Dissolved	Water	7470A	449820
MB 410-448847/1-A	Method Blank	Total/NA	Water	7470A	448847
MB 410-449820/1-A	Method Blank	Total/NA	Water	7470A	449820
LCS 410-448847/2-A	Lab Control Sample	Total/NA	Water	7470A	448847
LCS 410-449820/2-A	Lab Control Sample	Total/NA	Water	7470A	449820

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

General Chemistry

Analysis Batch: 447754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Total/NA	Water	2540C - 2015	
410-152142-2	AP-1 DGWC-69 IC	Total/NA	Water	2540C - 2015	
MB 410-447754/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-447754/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 448344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152142-1	AP-1 DGWC-48 IC	Total/NA	Water	9040C	
410-152142-2	AP-1 DGWC-69 IC	Total/NA	Water	9040C	
LCS 410-448344/2	Lab Control Sample	Total/NA	Water	9040C	
LCSD 410-448344/3	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-48 IC
Lab Sample ID: 410-152142-1
Date Collected: 11/21/23 08:00
Matrix: Water
Date Received: 11/21/23 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	452721	W7FX	ELLE	12/12/23 07:17
Total/NA	Analysis	EPA 300.0 R2.1		50	452721	W7FX	ELLE	12/12/23 07:29
Dissolved	Prep	3005A			448458	UAMX	ELLE	11/30/23 08:59
Dissolved	Analysis	6010D		1	449400	MT26	ELLE	12/02/23 04:09
Dissolved	Prep	3005A			448458	UAMX	ELLE	11/30/23 08:59
Dissolved	Analysis	6020B		1	449450	S4PD	ELLE	12/02/23 22:00
Dissolved	Prep	7470A			448847	NU9R	ELLE	12/01/23 00:24
Dissolved	Analysis	7470A		1	450291	UEFS	ELLE	12/05/23 12:49
Total/NA	Analysis	2540C - 2015		1	447754	UOCA	ELLE	11/28/23 19:05 - 11/30/23 07:45 [1]
Total/NA	Analysis	9040C		1	448344	DI9Q	ELLE	11/29/23 21:34

Client Sample ID: AP-1 DGWC-69 IC
Lab Sample ID: 410-152142-2
Date Collected: 11/21/23 08:15
Matrix: Water
Date Received: 11/21/23 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	452721	W7FX	ELLE	12/12/23 07:41
Dissolved	Prep	3005A			448458	UAMX	ELLE	11/30/23 08:59
Dissolved	Analysis	6010D		1	449400	MT26	ELLE	12/02/23 04:06
Dissolved	Prep	3005A			448458	UAMX	ELLE	11/30/23 08:59
Dissolved	Analysis	6020B		1	449450	S4PD	ELLE	12/02/23 21:56
Dissolved	Prep	7470A			449820	UAMX	ELLE	12/04/23 11:54
Dissolved	Analysis	7470A		1	450291	UEFS	ELLE	12/05/23 10:20
Total/NA	Analysis	2540C - 2015		1	447754	UOCA	ELLE	11/28/23 19:05 - 11/30/23 07:45 [1]
Total/NA	Analysis	9040C		1	448344	DI9Q	ELLE	11/29/23 21:39

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Georgia (DW)	State	C048	01-31-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540C - 2015		Water	Total Dissolved Solids
6010D	3005A	Water	Boron
6010D	3005A	Water	Lithium
6020B	3005A	Water	Antimony
6020B	3005A	Water	Arsenic
6020B	3005A	Water	Barium
6020B	3005A	Water	Beryllium
6020B	3005A	Water	Cadmium
6020B	3005A	Water	Calcium
6020B	3005A	Water	Chromium
6020B	3005A	Water	Cobalt
6020B	3005A	Water	Lead
6020B	3005A	Water	Molybdenum
6020B	3005A	Water	Selenium
6020B	3005A	Water	Thallium
7470A	7470A	Water	Mercury
9040C		Water	pH
9040C		Water	Temperature
EPA 300.0 R2.1		Water	Chloride
EPA 300.0 R2.1		Water	Fluoride
EPA 300.0 R2.1		Water	Sulfate

Method Summary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-152142-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-152142-1	AP-1 DGWC-48 IC	Water	11/21/23 08:00	11/21/23 18:15
410-152142-2	AP-1 DGWC-69 IC	Water	11/21/23 08:15	11/21/23 18:15

Envi[illegible] s Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-152142 Chain of Custody

Sample # _____

Client:	Terra Systems, Inc.		
Project Name/#:	WSP Plant McDonough CCR TS III	Site ID #:	Srymna, GA
Project Manager:	Michael D. Lee	P.O. #:	232720 11-21-23
Sampler:	Michael D. Lee	PWSID #:	
Phone #:	302-798-9553	Quote #:	41016315
State where samples were collected:	___ GA	For Compliance:	Yes ☐ No ☑

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil/Sediment/Tissue	Matrix: Water (Potable/Ground/NPDES/Surface)	Matrix: Other:	Total # of Containers	Analyses Requested: Dis As, Ba, Be, Bo, Ca, Cd,	Co, Cr, Hg, Li, Mo, Pb, Sb,	Se, Tl (field filtered)	SO4, Fl, Cl	Total Dissolved Solids & pH	Remarks
Preservation Codes									N	N	N	-	-	
AP-1 DGWC-48 IC	11/21/2023	8:00		X		X		3	X	X	X	X	X	
AP-1 DGWC-69 IC	11/21/2023	8:15		X		X		3	X	X	X	X	X	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 12/5/23

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	11/21/23	13:20	[signature]	11/21/23	13:20
[signature]	11/21/23	18:15	[signature]		
[signature]			[signature]		
[signature]			[signature]		
[signature]			[signature]	11/21/23	18:15

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt Raw 0.7 Corr 0.5 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0216

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-152142-1

Login Number: 152142

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 12/27/2023 3:53:32 PM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-152936-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

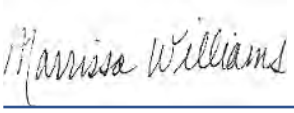
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/27/2023 3:53:32 PM

Authorized for release by
Marrissa Williams, Project Manager
Marrissa.Williams@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

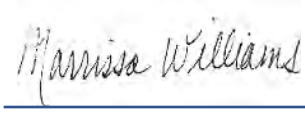


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 18
Lab Chronicle 21
Certification Summary 24
Method Summary 26
Sample Summary 27
Chain of Custody 28
Receipt Checklists 30

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3-	Reporting Limit Check Standard is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
e2	Result falls below calibration range
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-152936-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-152936-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/30/2023 3:56 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-2-3/4 DGWC-48 Soil IC (410-152936-1). The container labels list sample ID AP-1 DGWC-69 Soil IC, with a collection time of 08:25, while the COC lists AP-1 DGWC-48 Soil IC, with a collection time of 08:10. Entered per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1 DGWC-69 Soil IC (410-152936-2). The container labels list collection time 08:10, while the COC lists 08:25. Entered per COC.

HPLC/IC
Method 300_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: Potassium Bicarbonate (410-152936-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D: The following sample was diluted due to the nature of the sample matrix: Ferrous Sulfate Heptahydrate (410-152936-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-152936-1

Client Sample ID: AP-2-3/4 DGWC-48 Soil IC — Lab Sample ID: 410-152936-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	8.04		5.17	2.07	mg/Kg	1	☼	6010D	Total/NA
Arsenic	1.47		0.367	0.123	mg/Kg	2		6020B	Total/NA
Barium	47.2		0.367	0.168	mg/Kg	2		6020B	Total/NA
Beryllium	0.873		0.0917	0.0218	mg/Kg	2		6020B	Total/NA
Calcium	1560	^3-	36.7	18.0	mg/Kg	2		6020B	Total/NA
Chromium	7.35		0.367	0.174	mg/Kg	2		6020B	Total/NA
Cobalt	4.07		0.183	0.0734	mg/Kg	2		6020B	Total/NA
Lead	2.70		0.183	0.0697	mg/Kg	2		6020B	Total/NA
Molybdenum	1.03		0.183	0.0844	mg/Kg	2		6020B	Total/NA
Thallium	0.161		0.0917	0.0360	mg/Kg	2		6020B	Total/NA

Client Sample ID: AP-1 DGWC-69 Soil IC — Lab Sample ID: 410-152936-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	20.2		5.38	2.15	mg/Kg	1	☼	6010D	Total/NA
Arsenic	1.40		0.377	0.126	mg/Kg	2		6020B	Total/NA
Barium	131		0.377	0.173	mg/Kg	2		6020B	Total/NA
Beryllium	0.992		0.0943	0.0225	mg/Kg	2		6020B	Total/NA
Cadmium	0.0785	J	0.0943	0.0377	mg/Kg	2		6020B	Total/NA
Calcium	1260	^3-	37.7	18.5	mg/Kg	2		6020B	Total/NA
Chromium	27.9		0.377	0.179	mg/Kg	2		6020B	Total/NA
Cobalt	21.5		0.189	0.0755	mg/Kg	2		6020B	Total/NA
Lead	7.40		0.189	0.0717	mg/Kg	2		6020B	Total/NA
Molybdenum	0.549		0.189	0.0868	mg/Kg	2		6020B	Total/NA
Thallium	0.361		0.0943	0.0370	mg/Kg	2		6020B	Total/NA

Client Sample ID: ADA Carbon Fluxsorb — Lab Sample ID: 410-152936-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	7.65		7.50	2.50	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.0240	J	0.0500	0.0120	mg/L	1		6010D	Dissolved
Antimony	0.000282	J	0.00100	0.000200	mg/L	1		6020B	Dissolved
Arsenic	0.00234		0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0218		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	17.9		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.0103		0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.00218		0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.00942		0.000500	0.000130	mg/L	1		6020B	Dissolved
pH	7.59	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: Potassium Bicarbonate — Lab Sample ID: 410-152936-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.04	J cn	15.0	5.00	mg/L	10		EPA 300.0 R2.1	Total/NA
Arsenic	0.00120	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0307		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	22.6		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00145	J	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.000451	J	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000227	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.000184	J	0.000500	0.000130	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: Potassium Bicarbonate (Continued) — Lab Sample ID: 410-152936-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00131		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	67700		6000	2400	mg/L	1		2540C - 2015	Total/NA
pH	8.34	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.2	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: Ferrous Sulfate Heptahydrate — Lab Sample ID: 410-152936-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2760		750	250	mg/L	500		EPA 300.0 R2.1	Total/NA
Barium	0.0343	cn	0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	23.6	cn	0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.0955	^2 cn	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000135	J cn	0.000500	0.000120	mg/L	1		6020B	Dissolved
Total Dissolved Solids	6550		240	96.0	mg/L	1		2540C - 2015	Total/NA
pH	3.28	HF e2	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-2-3/4 DGWC-48 Soil IC
Lab Sample ID: 410-152936-1
Date Collected: 11/30/23 08:10
Matrix: Solid
Date Received: 11/30/23 15:56

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0734		0.183	0.0734	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Arsenic	**1.47**		0.367	0.123	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Barium	**47.2**		0.367	0.168	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Beryllium	**0.873**		0.0917	0.0218	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Cadmium	<0.0367		0.0917	0.0367	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Calcium	**1560**	**^3-**	36.7	18.0	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Chromium	**7.35**		0.367	0.174	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Cobalt	**4.07**		0.183	0.0734	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Lead	**2.70**		0.183	0.0697	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Molybdenum	**1.03**		0.183	0.0844	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Selenium	<0.0917		0.367	0.0917	mg/Kg		12/01/23 19:57	12/06/23 16:32	2
Thallium	**0.161**		0.0917	0.0360	mg/Kg		12/01/23 19:57	12/06/23 16:32	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**11.3**		1.0	1.0	%			12/01/23 13:41	1

Client Sample ID: AP-2-3/4 DGWC-48 Soil IC
Lab Sample ID: 410-152936-1
Date Collected: 11/30/23 08:10
Matrix: Solid
Date Received: 11/30/23 15:56
Percent Solids: 88.7

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<3.10	^+	20.7	3.10	mg/Kg	☼	12/01/23 19:57	12/05/23 03:59	1
Lithium	**8.04**		5.17	2.07	mg/Kg	☼	12/01/23 19:57	12/05/23 03:59	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0218		0.0655	0.0218	mg/Kg	☼	12/01/23 22:48	12/04/23 09:44	1

Client Sample ID: AP-1 DGWC-69 Soil IC
Lab Sample ID: 410-152936-2
Date Collected: 11/30/23 08:25
Matrix: Solid
Date Received: 11/30/23 15:56

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0755		0.189	0.0755	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Arsenic	**1.40**		0.377	0.126	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Barium	**131**		0.377	0.173	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Beryllium	**0.992**		0.0943	0.0225	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Cadmium	**0.0785**	**J**	0.0943	0.0377	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Calcium	**1260**	**^3-**	37.7	18.5	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Chromium	**27.9**		0.377	0.179	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Cobalt	**21.5**		0.189	0.0755	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Lead	**7.40**		0.189	0.0717	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Molybdenum	**0.549**		0.189	0.0868	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Selenium	<0.0943		0.377	0.0943	mg/Kg		12/01/23 19:57	12/06/23 16:36	2
Thallium	**0.361**		0.0943	0.0370	mg/Kg		12/01/23 19:57	12/06/23 16:36	2

Client Sample ID: AP-1 DGWC-69 Soil IC
Lab Sample ID: 410-152936-2
Date Collected: 11/30/23 08:25
Matrix: Solid
Date Received: 11/30/23 15:56

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**12.2**		1.0	1.0	%			12/01/23 13:41	1

Client Sample ID: AP-1 DGWC-69 Soil IC
Lab Sample ID: 410-152936-2
Date Collected: 11/30/23 08:25
Matrix: Solid
Date Received: 11/30/23 15:56
Percent Solids: 87.8

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<3.23		21.5	3.23	mg/Kg	☼	12/01/23 19:57	12/05/23 20:00	1
Lithium	**20.2**		5.38	2.15	mg/Kg	☼	12/01/23 19:57	12/05/23 04:17	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0217		0.0651	0.0217	mg/Kg	☼	12/01/23 22:48	12/04/23 09:45	1

Client Sample ID: ADA Carbon Fluxsorb
Lab Sample ID: 410-152936-3
Date Collected: 11/30/23 08:00
Matrix: Water
Date Received: 11/30/23 15:56

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			12/19/23 19:40	5
Sulfate	**7.65**		7.50	2.50	mg/L			12/19/23 19:40	5
Chloride	<3.00		7.50	3.00	mg/L			12/19/23 19:40	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.0240**	**J**	0.0500	0.0120	mg/L		12/06/23 18:23	12/08/23 22:10	1
Lithium	<0.0110		0.0500	0.0110	mg/L		12/06/23 18:23	12/08/23 22:10	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000282**	**J**	0.00100	0.000200	mg/L		12/06/23 18:23	12/13/23 15:56	1
Arsenic	**0.00234**		0.00200	0.000680	mg/L		12/06/23 18:23	12/13/23 15:56	1
Barium	**0.0218**		0.00200	0.000746	mg/L		12/06/23 18:23	12/13/23 15:56	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		12/06/23 18:23	12/13/23 15:56	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		12/06/23 18:23	12/13/23 15:56	1
Calcium	**17.9**		0.120	0.0500	mg/L		12/06/23 18:23	12/13/23 16:31	1
Chromium	**0.0103**		0.00200	0.000550	mg/L		12/06/23 18:23	12/13/23 16:31	1
Cobalt	**0.00218**		0.000500	0.000156	mg/L		12/06/23 18:23	12/14/23 08:37	1
Lead	<0.000120		0.000500	0.000120	mg/L		12/06/23 18:23	12/13/23 15:56	1
Molybdenum	**0.00942**		0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 15:56	1
Selenium	<0.000278		0.00100	0.000278	mg/L		12/06/23 18:23	12/13/23 15:56	1
Thallium	<0.000130		0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 15:56	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/06/23 21:19	12/07/23 09:37	1

Client Sample ID: ADA Carbon Fluxsorb
Lab Sample ID: 410-152936-3
Date Collected: 11/30/23 08:00
Matrix: Water
Date Received: 11/30/23 15:56

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	<1200		3000	1200	mg/L			12/04/23 06:37	1
pH (SW846 9040C)	**7.59**	**HF**	0.0100	0.0100	S.U.			12/06/23 17:55	1
Temperature (SW846 9040C)	**21.7**	**HF**	0.0100	0.0100	Degrees C			12/06/23 17:55	1

Client Sample ID: Potassium Bicarbonate
Lab Sample ID: 410-152936-4
Date Collected: 11/30/23 08:15
Matrix: Water
Date Received: 11/30/23 15:56

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.900	cn	2.00	0.900	mg/L			12/19/23 20:52	10
Sulfate	**9.04**	**J cn**	15.0	5.00	mg/L			12/19/23 20:52	10
Chloride	<6.00	cn	15.0	6.00	mg/L			12/19/23 20:52	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		12/06/23 18:23	12/08/23 22:28	1
Lithium	<0.0110		0.0500	0.0110	mg/L		12/06/23 18:23	12/08/23 22:28	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		12/06/23 18:23	12/13/23 16:04	1
Arsenic	**0.00120**	**J**	0.00200	0.000680	mg/L		12/06/23 18:23	12/13/23 16:04	1
Barium	**0.0307**		0.00200	0.000746	mg/L		12/06/23 18:23	12/13/23 16:04	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		12/06/23 18:23	12/13/23 16:04	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		12/06/23 18:23	12/13/23 16:04	1
Calcium	**22.6**		0.120	0.0500	mg/L		12/06/23 18:23	12/13/23 16:39	1
Chromium	**0.00145**	**J**	0.00200	0.000550	mg/L		12/06/23 18:23	12/13/23 16:39	1
Cobalt	**0.000451**	**J**	0.000500	0.000156	mg/L		12/06/23 18:23	12/14/23 08:39	1
Lead	**0.000227**	**J**	0.000500	0.000120	mg/L		12/06/23 18:23	12/13/23 16:04	1
Molybdenum	**0.000184**	**J**	0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 16:04	1
Selenium	<0.000278		0.00100	0.000278	mg/L		12/06/23 18:23	12/13/23 16:04	1
Thallium	**0.00131**		0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 16:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/06/23 21:19	12/07/23 10:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**67700**		6000	2400	mg/L			12/04/23 06:37	1
pH (SW846 9040C)	**8.34**	**HF**	0.0100	0.0100	S.U.			12/06/23 18:04	1
Temperature (SW846 9040C)	**21.2**	**HF**	0.0100	0.0100	Degrees C			12/06/23 18:04	1

Client Sample Results

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: Ferrous Sulfate Heptahydrate
Lab Sample ID: 410-152936-5
Date Collected: 11/30/23 08:30
Matrix: Water
Date Received: 11/30/23 15:56

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			12/19/23 20:04	5
Sulfate	**2760**		750	250	mg/L			12/23/23 22:04	500
Chloride	<3.00		7.50	3.00	mg/L			12/19/23 20:04	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.120	cn	0.500	0.120	mg/L		12/06/23 18:23	12/15/23 15:03	10
Lithium	<0.0110		0.0500	0.0110	mg/L		12/06/23 18:23	12/15/23 14:47	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200	cn	0.00100	0.000200	mg/L		12/06/23 18:23	12/13/23 16:56	1
Arsenic	<0.000680	cn	0.00200	0.000680	mg/L		12/06/23 18:23	12/13/23 16:56	1
Barium	**0.0343**	**cn**	0.00200	0.000746	mg/L		12/06/23 18:23	12/13/23 16:56	1
Beryllium	<0.000119	cn	0.000500	0.000119	mg/L		12/06/23 18:23	12/13/23 16:56	1
Cadmium	<0.000151	cn	0.000500	0.000151	mg/L		12/06/23 18:23	12/13/23 16:56	1
Calcium	**23.6**	**cn**	0.120	0.0500	mg/L		12/06/23 18:23	12/13/23 16:56	1
Chromium	<0.000550	cn	0.00200	0.000550	mg/L		12/06/23 18:23	12/13/23 16:56	1
Cobalt	**0.0955**	**^2 cn**	0.000500	0.000156	mg/L		12/06/23 18:23	12/13/23 16:56	1
Lead	**0.000135**	**J cn**	0.000500	0.000120	mg/L		12/06/23 18:23	12/13/23 16:56	1
Molybdenum	<0.000130	cn	0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 16:56	1
Selenium	<0.000278	cn	0.00100	0.000278	mg/L		12/06/23 18:23	12/13/23 16:56	1
Thallium	<0.000130	cn	0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 16:56	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/06/23 21:19	12/07/23 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**6550**		240	96.0	mg/L			12/04/23 06:37	1
pH (SW846 9040C)	**3.28**	**HF e2**	0.0100	0.0100	S.U.			12/06/23 18:00	1
Temperature (SW846 9040C)	**21.8**	**HF**	0.0100	0.0100	Degrees C			12/06/23 18:00	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-455860/5
Matrix: Water
Analysis Batch: 455860

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			12/19/23 13:24	1
Sulfate	<0.500		1.50	0.500	mg/L			12/19/23 13:24	1
Chloride	<0.600		1.50	0.600	mg/L			12/19/23 13:24	1

Lab Sample ID: LCS 410-455860/3
Matrix: Water
Analysis Batch: 455860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7040		mg/L		94	90 - 110
Sulfate	7.50	8.046		mg/L		107	90 - 110
Chloride	3.00	3.026		mg/L		101	90 - 110

Lab Sample ID: LCSD 410-455860/4
Matrix: Water
Analysis Batch: 455860

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7087		mg/L		94	90 - 110	1	20
Sulfate	7.50	8.069		mg/L		108	90 - 110	0	20
Chloride	3.00	3.026		mg/L		101	90 - 110	0	20

Lab Sample ID: MB 410-457976/5
Matrix: Water
Analysis Batch: 457976

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			12/23/23 20:19	1
Sulfate	<0.500		1.50	0.500	mg/L			12/23/23 20:19	1
Chloride	<0.600		1.50	0.600	mg/L			12/23/23 20:19	1

Lab Sample ID: LCS 410-457976/3
Matrix: Water
Analysis Batch: 457976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	6.896		mg/L		92	90 - 110
Chloride	3.00	2.785		mg/L		93	90 - 110

Lab Sample ID: LCSD 410-457976/4
Matrix: Water
Analysis Batch: 457976

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	6.840		mg/L		91	90 - 110	1	20
Chloride	3.00	2.799		mg/L		93	90 - 110	1	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-449309/1-A
Matrix: Solid
Analysis Batch: 450040

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<3.00	^+	20.0	3.00	mg/Kg		12/01/23 19:57	12/05/23 03:29	1
Lithium	<2.00		5.00	2.00	mg/Kg		12/01/23 19:57	12/05/23 03:29	1

Lab Sample ID: LCS 410-449309/2-A
Matrix: Solid
Analysis Batch: 450040

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	50.0	49.90		mg/Kg		100	80 - 120

Lab Sample ID: LCS 410-449309/2-A
Matrix: Solid
Analysis Batch: 450517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	50.0	47.95		mg/Kg		96	80 - 120

Lab Sample ID: MB 410-450976/1-A
Matrix: Water
Analysis Batch: 452046

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 450976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		12/06/23 18:23	12/08/23 21:39	1
Lithium	<0.0110		0.0500	0.0110	mg/L		12/06/23 18:23	12/08/23 21:39	1

Lab Sample ID: MB 410-450976/1-A
Matrix: Water
Analysis Batch: 454833

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 450976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		12/06/23 18:23	12/15/23 14:41	1
Lithium	<0.0110		0.0500	0.0110	mg/L		12/06/23 18:23	12/15/23 14:41	1

Lab Sample ID: LCS 410-450976/2-A
Matrix: Water
Analysis Batch: 452046

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 450976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4490		mg/L		90	80 - 120
Lithium	0.500	0.4698		mg/L		94	80 - 120

Lab Sample ID: LCS 410-450976/2-A
Matrix: Water
Analysis Batch: 454833

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 450976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4873		mg/L		97	80 - 120
Lithium	0.500	0.4811		mg/L		96	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-449309/1-A ^2
Matrix: Solid
Analysis Batch: 451025

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0800		0.200	0.0800	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Arsenic	<0.134		0.400	0.134	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Barium	<0.183		0.400	0.183	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Beryllium	<0.0238		0.100	0.0238	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Cadmium	<0.0400		0.100	0.0400	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Calcium	<19.6	^3-	40.0	19.6	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Chromium	<0.190		0.400	0.190	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Cobalt	<0.0800		0.200	0.0800	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Lead	<0.0760		0.200	0.0760	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Molybdenum	<0.0920		0.200	0.0920	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Selenium	<0.100		0.400	0.100	mg/Kg		12/01/23 19:57	12/06/23 14:37	2
Thallium	<0.0392		0.100	0.0392	mg/Kg		12/01/23 19:57	12/06/23 14:37	2

Lab Sample ID: LCS 410-449309/2-A ^2
Matrix: Solid
Analysis Batch: 451025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	10.0	10.18		mg/Kg		102	80 - 120
Arsenic	50.0	49.25		mg/Kg		99	80 - 120
Barium	50.0	49.51		mg/Kg		99	80 - 120
Beryllium	5.00	4.534		mg/Kg		91	80 - 120
Cadmium	5.00	4.996		mg/Kg		100	80 - 120
Calcium	500	484.3	^3-	mg/Kg		97	80 - 120
Chromium	50.0	49.51		mg/Kg		99	80 - 120
Cobalt	50.0	49.36		mg/Kg		99	80 - 120
Lead	5.00	5.111		mg/Kg		102	80 - 120
Molybdenum	5.00	5.117		mg/Kg		102	80 - 120
Selenium	10.0	9.757		mg/Kg		98	80 - 120
Thallium	10.0	9.982		mg/Kg		100	80 - 120

Lab Sample ID: MB 410-450976/1-A
Matrix: Water
Analysis Batch: 453805

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 450976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		12/06/23 18:23	12/13/23 14:58	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		12/06/23 18:23	12/13/23 14:58	1
Barium	<0.000746		0.00200	0.000746	mg/L		12/06/23 18:23	12/13/23 14:58	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		12/06/23 18:23	12/13/23 14:58	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		12/06/23 18:23	12/13/23 14:58	1
Calcium	<0.0500		0.120	0.0500	mg/L		12/06/23 18:23	12/13/23 14:58	1
Chromium	<0.000550		0.00200	0.000550	mg/L		12/06/23 18:23	12/13/23 14:58	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		12/06/23 18:23	12/13/23 14:58	1
Lead	<0.000120		0.000500	0.000120	mg/L		12/06/23 18:23	12/13/23 14:58	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 14:58	1
Selenium	<0.000278		0.00100	0.000278	mg/L		12/06/23 18:23	12/13/23 14:58	1
Thallium	<0.000130		0.000500	0.000130	mg/L		12/06/23 18:23	12/13/23 14:58	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-450976/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 453805
Prep Batch: 450976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09860		mg/L		99	80 - 120
Arsenic	0.500	0.4968		mg/L		99	85 - 120
Barium	0.500	0.5006		mg/L		100	80 - 120
Beryllium	0.0500	0.04998		mg/L		100	90 - 112
Cadmium	0.0500	0.05056		mg/L		101	86 - 113
Calcium	5.00	5.110		mg/L		102	85 - 120
Chromium	0.500	0.5102		mg/L		102	90 - 115
Cobalt	0.500	0.5165		mg/L		103	90 - 113
Lead	0.0500	0.04978		mg/L		100	90 - 115
Molybdenum	0.0500	0.05165		mg/L		103	85 - 115
Selenium	0.100	0.09770		mg/L		98	80 - 120
Thallium	0.100	0.09724		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-451030/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 451235
Prep Batch: 451030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		12/06/23 21:19	12/07/23 09:23	1

Lab Sample ID: LCS 410-451030/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 451235
Prep Batch: 451030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009157		mg/L		92	80 - 118

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-449339/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 449812
Prep Batch: 449339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0200		0.0600	0.0200	mg/Kg		12/01/23 22:48	12/04/23 09:27	1

Lab Sample ID: LCS 410-449339/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 449812
Prep Batch: 449339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.1817		mg/Kg		109	80 - 120

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-449523/1
Matrix: Water
Analysis Batch: 449523

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			12/04/23 06:37	1

Lab Sample ID: LCS 410-449523/2
Matrix: Water
Analysis Batch: 449523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	193.0		mg/L		97	90 - 110

Lab Sample ID: 410-152936-5 DU
Matrix: Water
Analysis Batch: 449523

Client Sample ID: Ferrous Sulfate Heptahydrate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	6550		6428		mg/L		2	10

Method: 9040C - pH

Lab Sample ID: LCS 410-451259/3
Matrix: Water
Analysis Batch: 451259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.010		S.U.		100	95 - 105

Lab Sample ID: LCSD 410-451259/4
Matrix: Water
Analysis Batch: 451259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	7.00	7.000		S.U.		100	95 - 105	0	3

HPLC/IC

Analysis Batch: 455860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Total/NA	Water	EPA 300.0 R2.1	
410-152936-4	Potassium Bicarbonate	Total/NA	Water	EPA 300.0 R2.1	
410-152936-5	Ferrous Sulfate Heptahydrate	Total/NA	Water	EPA 300.0 R2.1	
MB 410-455860/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-455860/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-455860/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 457976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-5	Ferrous Sulfate Heptahydrate	Total/NA	Water	EPA 300.0 R2.1	
MB 410-457976/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-457976/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-457976/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 449309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	3050B	
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	3050B	
MB 410-449309/1-A	Method Blank	Total/NA	Solid	3050B	
MB 410-449309/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-449309/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 410-449309/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 449339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	7471B	
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	7471B	
MB 410-449339/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-449339/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 449812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	7471B	449339
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	7471B	449339
MB 410-449339/1-A	Method Blank	Total/NA	Solid	7471B	449339
LCS 410-449339/2-A	Lab Control Sample	Total/NA	Solid	7471B	449339

Analysis Batch: 450040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	6010D	449309
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	6010D	449309
MB 410-449309/1-A	Method Blank	Total/NA	Solid	6010D	449309
LCS 410-449309/2-A	Lab Control Sample	Total/NA	Solid	6010D	449309

Analysis Batch: 450517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	6010D	449309
LCS 410-449309/2-A	Lab Control Sample	Total/NA	Solid	6010D	449309

Metals

Prep Batch: 450976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	3005A	
410-152936-4	Potassium Bicarbonate	Dissolved	Water	3005A	
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	3005A	
MB 410-450976/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-450976/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 451025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	6020B	449309
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	6020B	449309
MB 410-449309/1-A ^2	Method Blank	Total/NA	Solid	6020B	449309
LCS 410-449309/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	449309

Prep Batch: 451030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	7470A	
410-152936-4	Potassium Bicarbonate	Dissolved	Water	7470A	
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	7470A	
MB 410-451030/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-451030/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 451235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	7470A	451030
410-152936-4	Potassium Bicarbonate	Dissolved	Water	7470A	451030
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	7470A	451030
MB 410-451030/1-A	Method Blank	Total/NA	Water	7470A	451030
LCS 410-451030/2-A	Lab Control Sample	Total/NA	Water	7470A	451030

Analysis Batch: 452046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	6010D	450976
410-152936-4	Potassium Bicarbonate	Dissolved	Water	6010D	450976
MB 410-450976/1-A	Method Blank	Total Recoverable	Water	6010D	450976
LCS 410-450976/2-A	Lab Control Sample	Total Recoverable	Water	6010D	450976

Analysis Batch: 453805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	6020B	450976
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	6020B	450976
410-152936-4	Potassium Bicarbonate	Dissolved	Water	6020B	450976
410-152936-4	Potassium Bicarbonate	Dissolved	Water	6020B	450976
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	6020B	450976
MB 410-450976/1-A	Method Blank	Total Recoverable	Water	6020B	450976
LCS 410-450976/2-A	Lab Control Sample	Total Recoverable	Water	6020B	450976

Analysis Batch: 454103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Dissolved	Water	6020B	450976
410-152936-4	Potassium Bicarbonate	Dissolved	Water	6020B	450976

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Metals

Analysis Batch: 454833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	6010D	450976
410-152936-5	Ferrous Sulfate Heptahydrate	Dissolved	Water	6010D	450976
MB 410-450976/1-A	Method Blank	Total Recoverable	Water	6010D	450976
LCS 410-450976/2-A	Lab Control Sample	Total Recoverable	Water	6010D	450976

General Chemistry

Analysis Batch: 449111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Total/NA	Solid	Moisture	
410-152936-2	AP-1 DGWC-69 Soil IC	Total/NA	Solid	Moisture	

Analysis Batch: 449523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Total/NA	Water	2540C - 2015	
410-152936-4	Potassium Bicarbonate	Total/NA	Water	2540C - 2015	
410-152936-5	Ferrous Sulfate Heptahydrate	Total/NA	Water	2540C - 2015	
MB 410-449523/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-449523/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
410-152936-5 DU	Ferrous Sulfate Heptahydrate	Total/NA	Water	2540C - 2015	

Analysis Batch: 451259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-152936-3	ADA Carbon Fluxsorb	Total/NA	Water	9040C	
410-152936-4	Potassium Bicarbonate	Total/NA	Water	9040C	
410-152936-5	Ferrous Sulfate Heptahydrate	Total/NA	Water	9040C	
LCS 410-451259/3	Lab Control Sample	Total/NA	Water	9040C	
LCSD 410-451259/4	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-2-3/4 DGWC-48 Soil IC
Lab Sample ID: 410-152936-1
Date Collected: 11/30/23 08:10
Matrix: Solid
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			449309	UAMX	ELLE	12/01/23 19:57
Total/NA	Analysis	6020B		2	451025	UCIG	ELLE	12/06/23 16:32
Total/NA	Analysis	Moisture		1	449111	UVJN	ELLE	12/01/23 13:41

Client Sample ID: AP-2-3/4 DGWC-48 Soil IC
Lab Sample ID: 410-152936-1
Date Collected: 11/30/23 08:10
Matrix: Solid
Date Received: 11/30/23 15:56
Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			449309	UAMX	ELLE	12/01/23 19:57
Total/NA	Analysis	6010D		1	450040	MT26	ELLE	12/05/23 03:59
Total/NA	Prep	7471B			449339	UAMX	ELLE	12/01/23 22:48
Total/NA	Analysis	7471B		1	449812	UEFS	ELLE	12/04/23 09:44

Client Sample ID: AP-1 DGWC-69 Soil IC
Lab Sample ID: 410-152936-2
Date Collected: 11/30/23 08:25
Matrix: Solid
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			449309	UAMX	ELLE	12/01/23 19:57
Total/NA	Analysis	6020B		2	451025	UCIG	ELLE	12/06/23 16:36
Total/NA	Analysis	Moisture		1	449111	UVJN	ELLE	12/01/23 13:41

Client Sample ID: AP-1 DGWC-69 Soil IC
Lab Sample ID: 410-152936-2
Date Collected: 11/30/23 08:25
Matrix: Solid
Date Received: 11/30/23 15:56
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			449309	UAMX	ELLE	12/01/23 19:57
Total/NA	Analysis	6010D		1	450040	MT26	ELLE	12/05/23 04:17
Total/NA	Prep	3050B			449309	UAMX	ELLE	12/01/23 19:57
Total/NA	Analysis	6010D		1	450517	T8CQ	ELLE	12/05/23 20:00
Total/NA	Prep	7471B			449339	UAMX	ELLE	12/01/23 22:48
Total/NA	Analysis	7471B		1	449812	UEFS	ELLE	12/04/23 09:45

Client Sample ID: ADA Carbon Fluxsorb
Lab Sample ID: 410-152936-3
Date Collected: 11/30/23 08:00
Matrix: Water
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	455860	UJE2	ELLE	12/19/23 19:40
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6010D		1	452046	MT26	ELLE	12/08/23 22:10
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	453805	UCIG	ELLE	12/13/23 15:56

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: ADA Carbon Fluxsorb
Lab Sample ID: 410-152936-3
Date Collected: 11/30/23 08:00
Matrix: Water
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	453805	UCIG	ELLE	12/13/23 16:31
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	454103	F7JF	ELLE	12/14/23 08:37
Dissolved	Prep	7470A			451030	UAMX	ELLE	12/06/23 21:19
Dissolved	Analysis	7470A		1	451235	UEFS	ELLE	12/07/23 09:37
Total/NA	Analysis	2540C - 2015		1	449523	UOCA	ELLE	12/04/23 06:37 - 12/04/23 18:48 [1]
Total/NA	Analysis	9040C		1	451259	DI9Q	ELLE	12/06/23 17:55

Client Sample ID: Potassium Bicarbonate
Lab Sample ID: 410-152936-4
Date Collected: 11/30/23 08:15
Matrix: Water
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		10	455860	UJE2	ELLE	12/19/23 20:52
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6010D		1	452046	MT26	ELLE	12/08/23 22:28
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	453805	UCIG	ELLE	12/13/23 16:04
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	453805	UCIG	ELLE	12/13/23 16:39
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	454103	F7JF	ELLE	12/14/23 08:39
Dissolved	Prep	7470A			451030	UAMX	ELLE	12/06/23 21:19
Dissolved	Analysis	7470A		1	451235	UEFS	ELLE	12/07/23 10:23
Total/NA	Analysis	2540C - 2015		1	449523	UOCA	ELLE	12/04/23 06:37 - 12/04/23 18:48 [1]
Total/NA	Analysis	9040C		1	451259	DI9Q	ELLE	12/06/23 18:04

Client Sample ID: Ferrous Sulfate Heptahydrate
Lab Sample ID: 410-152936-5
Date Collected: 11/30/23 08:30
Matrix: Water
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		500	457976	W7FX	ELLE	12/23/23 22:04
Total/NA	Analysis	EPA 300.0 R2.1		5	455860	UJE2	ELLE	12/19/23 20:04
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6010D		1	454833	T8CQ	ELLE	12/15/23 14:47
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6010D		10	454833	T8CQ	ELLE	12/15/23 15:03
Dissolved	Prep	3005A			450976	NU9R	ELLE	12/06/23 18:23
Dissolved	Analysis	6020B		1	453805	UCIG	ELLE	12/13/23 16:56
Dissolved	Prep	7470A			451030	UAMX	ELLE	12/06/23 21:19
Dissolved	Analysis	7470A		1	451235	UEFS	ELLE	12/07/23 09:51
Total/NA	Analysis	2540C - 2015		1	449523	UOCA	ELLE	12/04/23 06:37 - 12/04/23 18:48 [1]

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: Ferrous Sulfate Heptahydrate
Lab Sample ID: 410-152936-5

Date Collected: 11/30/23 08:30
Matrix: Water
Date Received: 11/30/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	451259	DI9Q	ELLE	12/06/23 18:00

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-24
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-24
Arizona	State	AZ0780	03-12-24
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	01-31-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-24
Delaware (DW)	State	N/A	01-31-24
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-24
Hawaii	State	N/A	01-31-24
Illinois	NELAP	200027	01-31-24
Iowa	State	361	03-01-24
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-23
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-24
Minnesota	NELAP	042-999-487	12-31-23
Mississippi	State	023	01-31-24
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-24
New Hampshire	NELAP	2730	01-10-24
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-24
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-23
North Dakota	State	R-205	01-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-24
Quebec Ministry of Environment and Fight against Climate Change	PALA	1978	09-16-24
Rhode Island	State	LAO00338	12-31-23
South Carolina	State	89002	01-31-24
Tennessee	State	02838	01-31-24
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia (DW)	State	9906 C	12-31-23
West Virginia DEP	State	055	07-31-24
Wyoming	State	8TMS-L	01-31-24
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-152936-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-152936-1	AP-2-3/4 DGWC-48 Soil IC	Solid	11/30/23 08:10	11/30/23 15:56
410-152936-2	AP-1 DGWC-69 Soil IC	Solid	11/30/23 08:25	11/30/23 15:56
410-152936-3	ADA Carbon Fluxsorb	Water	11/30/23 08:00	11/30/23 15:56
410-152936-4	Potassium Bicarbonate	Water	11/30/23 08:15	11/30/23 15:56
410-152936-5	Ferrous Sulfate Heptahydrate	Water	11/30/23 08:30	11/30/23 15:56

410-152936 Chain of Custody

Environmental Analysis Request/Chain of Custody

ories

Environmental

Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 11-30-23		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	Surface	NPDES	Other:	Total # of Containers	Analyses Requested / Preservation Codes: N	N	N	-	-						
														Total As, Ba, Be, Bo, Ca, Co	Co, Cr, Hg, Li, Mo, Pb, Sb,	Se, Tl + %Moisture	SO4, Fl, Cl	Total Dissolved Solids & pH	Dis As, Ba, Be, Bo, Ca, Cd,	Co, Cr, Hg, Li, Mo, Pb, Sb,	Se, Tl (field filtered)		
AP-1 DGWC-48 Soil IC	11/30/2023	8:10		X	X								1	X	X	X								
AP-2-3/41 DGWC-48 Soil IC	11/30/2023	8:25		X	X								1	X	X	X								
ADA Carbon Fluxsorb	11/30/2023	8:00		X				X					3				X	X	X	X	X			
Potassium Bicarbonate	11/30/2023	8:15		X				X					3				X	X	X	X	X			
Ferrous Sulfate Heptahydrate	11/30/2023	8:30		X				X					3				X	X	X	X	X			

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Remarks

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 12/14/23

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Michael D. Lee	11/30/23	12:05	[illegible]	11/30/23	1205
[illegible]	11/30/23	1556			
Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____			Temperature upon receipt R 1.0 °C		

C 0.8

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0216

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

Client: **Terra Systems, Inc.**			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 11-30-23		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ____ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue	Matrix: Water ☑ Ground ☐ Potable ☐ Surface ☐ NPDES	Matrix: Other:	Total # of Containers	Analyses Requested: Preservation Codes N	N	N	-	-						
									Total As, Ba, Be, Bo, Ca, Co	Co, Cr, Hg, Li, Mo, Pb, Sb,	Se, Tl + %Moisture	SO4, Fl, Cl	Total Dissolved Solids & pH	Dis As, Ba, Be, Bo, Ca, Cd,	Co, Cr, Hg, Li, Mo, Pb, Sb,	Se, Tl (field filtered)			Remarks
AP-2-3/41 DGWC-48 Soil IC	11/30/2023	8:10		X	X			1	X	X	X								
AP-1 DGWC-69 Soil IC	11/30/2023	8:25		X	X			1	X	X	X								
ADA Carbon Fluxsorb	11/30/2023	8:00		X		X		3				X	X	X	X	X			
Potassium Bicarbonate	11/30/2023	8:15		X		X		3				X	X	X	X	X			
Ferrous Sulfate Heptahydrate	11/30/2023	8:30		X		X		3				X	X	X	X	X			

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 12/14/23

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-152936-1

Login Number: 152936

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Roth, Stephanie

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	Limited volume received.
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 1/11/2024 11:03:36 AM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-155716-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

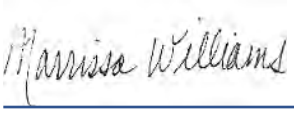
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/11/2024 11:03:36 AM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

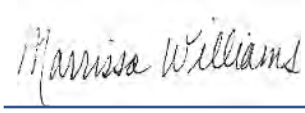


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 18
Lab Chronicle 21
Certification Summary 23
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 27

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-155716-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-155716-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/22/2023 2:14 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D: The following samples were diluted due to the nature of the sample matrix: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW (410-155716-3) and 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW (410-155716-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 10 g/L ADA Carbon Fluxsorb Reagent
Lab Sample ID: 410-155716-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000860	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.00107	J	0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	0.473		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00252		0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.000164	J	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000421	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00178		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	176		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	7.83	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: 10 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	252		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	5.83	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.614		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0846		0.0500	0.0110	mg/L	1		6010D	Dissolved
Arsenic	0.00259		0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.112		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000407	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00126		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	61.8	B ^2	0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00222		0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.241	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000322	J B	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00192		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	289		70.6	28.2	mg/L	1		2540C - 2015	Total/NA
pH	6.72	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	234		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	5.53	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.595	cn	0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.00138	J cn	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0419	cn	0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00242	cn	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00162	cn	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	51.1	cn	0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00835	cn	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.228	cn	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000368	J cn	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00874	cn	0.000500	0.000130	mg/L	1		6020B	Dissolved
Selenium	0.000719	J cn	0.00100	0.000278	mg/L	1		6020B	Dissolved
Total Dissolved Solids	406		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.63	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW (Continued)

Lab Sample ID: 410-155716-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	22.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW

Lab Sample ID: 410-155716-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	272		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.25	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.108	cn	0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0103	cn	0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000240	J cn	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	9.47	cn	0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00203	cn	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.0396	cn	0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.00199	cn	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	380		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.76	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 10 g/L ADA Carbon Fluxsorb Reagent
Lab Sample ID: 410-155716-1

Date Collected: 12/21/23 08:00
Matrix: Water
Date Received: 12/22/23 14:14

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			01/09/24 15:48	5
Sulfate	<2.50		7.50	2.50	mg/L			01/09/24 15:48	5
Chloride	<3.00		7.50	3.00	mg/L			01/09/24 15:48	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		01/03/24 14:01	01/08/24 10:46	1
Lithium	<0.0110		0.0500	0.0110	mg/L		01/03/24 14:01	01/08/24 10:46	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		01/03/24 14:01	01/10/24 15:06	1
Arsenic	**0.000860**	**J**	0.00200	0.000680	mg/L		01/03/24 14:01	01/10/24 15:06	1
Barium	**0.00107**	**J**	0.00200	0.000746	mg/L		01/03/24 14:01	01/10/24 15:06	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		01/03/24 14:01	01/10/24 15:06	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		01/03/24 14:01	01/10/24 15:06	1
Calcium	**0.473**		0.120	0.0500	mg/L		01/03/24 14:01	01/10/24 15:06	1
Chromium	**0.00252**		0.00200	0.000550	mg/L		01/03/24 14:01	01/10/24 15:06	1
Cobalt	**0.000164**	**J**	0.000500	0.000156	mg/L		01/03/24 14:01	01/10/24 15:06	1
Lead	**0.000421**	**J**	0.000500	0.000120	mg/L		01/03/24 14:01	01/10/24 15:06	1
Molybdenum	**0.00178**		0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:06	1
Selenium	<0.000278		0.00100	0.000278	mg/L		01/03/24 14:01	01/10/24 15:06	1
Thallium	<0.000130		0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:06	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000395		0.00100	0.000395	mg/L		01/04/24 04:49	01/04/24 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**176**		120	48.0	mg/L			12/28/23 09:50	1
pH (SW846 9040C)	**7.83**	**HF**	0.0100	0.0100	S.U.			01/03/24 18:30	1
Temperature (SW846 9040C)	**21.8**	**HF**	0.0100	0.0100	Degrees C			01/03/24 18:30	1

Client Sample ID: 10 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-2

Date Collected: 12/21/23 08:15
Matrix: Water
Date Received: 12/22/23 14:14

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			01/09/24 16:12	5
Sulfate	**252**		75.0	25.0	mg/L			01/09/24 16:24	50
Chloride	**5.83**	**J**	7.50	3.00	mg/L			01/09/24 16:12	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.614**		0.0500	0.0120	mg/L		01/03/24 10:13	01/05/24 11:54	1
Lithium	**0.0846**		0.0500	0.0110	mg/L		01/03/24 10:13	01/05/24 11:54	1

Client Sample ID: 10 g/L ADA Carbon Fluxsorb in DGWC-48 GW

Lab Sample ID: 410-155716-2

Date Collected: 12/21/23 08:15
Matrix: Water
Date Received: 12/22/23 14:14

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		01/03/24 10:13	01/08/24 23:48	1
Arsenic	0.00259		0.00200	0.000680	mg/L		01/03/24 10:13	01/08/24 23:48	1
Barium	0.112		0.00200	0.000746	mg/L		01/03/24 10:13	01/09/24 09:30	1
Beryllium	0.000407	J	0.000500	0.000119	mg/L		01/03/24 10:13	01/08/24 23:48	1
Cadmium	0.00126		0.000500	0.000151	mg/L		01/03/24 10:13	01/08/24 23:48	1
Calcium	61.8	B ^2	0.120	0.0500	mg/L		01/03/24 10:13	01/08/24 23:48	1
Chromium	0.00222		0.00200	0.000550	mg/L		01/03/24 10:13	01/08/24 23:48	1
Cobalt	0.241	^2	0.000500	0.000156	mg/L		01/03/24 10:13	01/08/24 23:48	1
Lead	0.000322	J B	0.000500	0.000120	mg/L		01/03/24 10:13	01/08/24 23:48	1
Molybdenum	0.00192		0.000500	0.000130	mg/L		01/03/24 10:13	01/08/24 23:48	1
Selenium	<0.000278		0.00100	0.000278	mg/L		01/03/24 10:13	01/08/24 23:48	1
Thallium	<0.000130		0.000500	0.000130	mg/L		01/03/24 10:13	01/08/24 23:48	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		01/02/24 09:34	01/03/24 09:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	289		70.6	28.2	mg/L			12/28/23 17:48	1
pH (SW846 9040C)	6.72	HF	0.0100	0.0100	S.U.			01/03/24 18:49	1
Temperature (SW846 9040C)	21.8	HF	0.0100	0.0100	Degrees C			01/03/24 18:49	1

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW

Lab Sample ID: 410-155716-3

Date Collected: 12/21/23 08:30
Matrix: Water
Date Received: 12/22/23 14:14

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			01/09/24 16:36	5
Sulfate	234		75.0	25.0	mg/L			01/09/24 16:48	50
Chloride	5.53	J	7.50	3.00	mg/L			01/09/24 16:36	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.595	cn	0.0500	0.0120	mg/L		01/03/24 14:01	01/08/24 10:43	1
Lithium	<0.110	cn	0.500	0.110	mg/L		01/03/24 14:01	01/09/24 05:27	10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200	cn	0.00100	0.000200	mg/L		01/03/24 14:01	01/10/24 15:04	1
Arsenic	0.00138	J cn	0.00200	0.000680	mg/L		01/03/24 14:01	01/10/24 15:04	1
Barium	0.0419	cn	0.00200	0.000746	mg/L		01/03/24 14:01	01/10/24 15:04	1
Beryllium	0.00242	cn	0.000500	0.000119	mg/L		01/03/24 14:01	01/10/24 15:04	1
Cadmium	0.00162	cn	0.000500	0.000151	mg/L		01/03/24 14:01	01/10/24 15:04	1
Calcium	51.1	cn	0.120	0.0500	mg/L		01/03/24 14:01	01/10/24 15:04	1
Chromium	0.00835	cn	0.00200	0.000550	mg/L		01/03/24 14:01	01/10/24 15:04	1
Cobalt	0.228	cn	0.000500	0.000156	mg/L		01/03/24 14:01	01/10/24 15:04	1

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW

Lab Sample ID: 410-155716-3

Date Collected: 12/21/23 08:30
Matrix: Water
Date Received: 12/22/23 14:14

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.000368**	**J cn**	0.000500	0.000120	mg/L		01/03/24 14:01	01/10/24 15:04	1
Molybdenum	**0.00874**	**cn**	0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:04	1
Selenium	**0.000719**	**J cn**	0.00100	0.000278	mg/L		01/03/24 14:01	01/10/24 15:04	1
Thallium	<0.000130	cn	0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		01/02/24 09:34	01/03/24 09:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**406**		60.0	24.0	mg/L			12/28/23 17:48	1
pH (SW846 9040C)	**6.63**	**HF**	0.0100	0.0100	S.U.			01/03/24 18:53	1
Temperature (SW846 9040C)	**22.0**	**HF**	0.0100	0.0100	Degrees C			01/03/24 18:53	1

Client Sample ID: 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW

Lab Sample ID: 410-155716-4

Date Collected: 12/21/23 08:45
Matrix: Water
Date Received: 12/22/23 14:14

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			01/09/24 17:01	5
Sulfate	**272**		75.0	25.0	mg/L			01/09/24 17:13	50
Chloride	**7.25**	**J**	7.50	3.00	mg/L			01/09/24 17:01	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.108**	**cn**	0.0500	0.0120	mg/L		01/03/24 14:01	01/08/24 10:49	1
Lithium	<0.110	cn	0.500	0.110	mg/L		01/03/24 14:01	01/09/24 05:30	10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200	cn	0.00100	0.000200	mg/L		01/03/24 14:01	01/10/24 15:08	1
Arsenic	<0.000680	cn	0.00200	0.000680	mg/L		01/03/24 14:01	01/10/24 15:08	1
Barium	**0.0103**	**cn**	0.00200	0.000746	mg/L		01/03/24 14:01	01/10/24 15:08	1
Beryllium	<0.000119	cn	0.000500	0.000119	mg/L		01/03/24 14:01	01/10/24 15:08	1
Cadmium	**0.000240**	**J cn**	0.000500	0.000151	mg/L		01/03/24 14:01	01/10/24 15:08	1
Calcium	**9.47**	**cn**	0.120	0.0500	mg/L		01/03/24 14:01	01/10/24 15:08	1
Chromium	**0.00203**	**cn**	0.00200	0.000550	mg/L		01/03/24 14:01	01/10/24 15:08	1
Cobalt	**0.0396**	**cn**	0.000500	0.000156	mg/L		01/03/24 14:01	01/10/24 15:08	1
Lead	<0.000120	cn	0.000500	0.000120	mg/L		01/03/24 14:01	01/10/24 15:08	1
Molybdenum	**0.00199**	**cn**	0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:08	1
Selenium	<0.000278	cn	0.00100	0.000278	mg/L		01/03/24 14:01	01/10/24 15:08	1
Thallium	<0.000130	cn	0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 15:08	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000395		0.00100	0.000395	mg/L		01/04/24 04:49	01/04/24 11:57	1

Client Sample Results

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-4
Date Collected: 12/21/23 08:45
Matrix: Water
Date Received: 12/22/23 14:14

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	380		60.0	24.0	mg/L			12/28/23 17:48	1
pH (SW846 9040C)	6.76	HF	0.0100	0.0100	S.U.			01/03/24 18:40	1
Temperature (SW846 9040C)	21.8	HF	0.0100	0.0100	Degrees C			01/03/24 18:40	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-461771/5
Matrix: Water
Analysis Batch: 461771

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			01/09/24 15:06	1
Sulfate	<0.500		1.50	0.500	mg/L			01/09/24 15:06	1
Chloride	<0.600		1.50	0.600	mg/L			01/09/24 15:06	1

Lab Sample ID: LCS 410-461771/3
Matrix: Water
Analysis Batch: 461771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7356		mg/L		98	90 - 110
Sulfate	7.50	7.962		mg/L		106	90 - 110
Chloride	3.00	2.959		mg/L		99	90 - 110

Lab Sample ID: LCSD 410-461771/4
Matrix: Water
Analysis Batch: 461771

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7336		mg/L		98	90 - 110	0	20
Sulfate	7.50	7.995		mg/L		107	90 - 110	0	20
Chloride	3.00	2.971		mg/L		99	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-459728/1-A
Matrix: Water
Analysis Batch: 460793

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 459728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		01/03/24 10:13	01/05/24 10:25	1
Lithium	<0.0110		0.0500	0.0110	mg/L		01/03/24 10:13	01/05/24 10:25	1

Lab Sample ID: LCS 410-459728/2-A
Matrix: Water
Analysis Batch: 460793

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 459728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5030		mg/L		101	80 - 120
Lithium	0.500	0.4876		mg/L		98	80 - 120

Lab Sample ID: MB 410-459838/1-A
Matrix: Water
Analysis Batch: 461267

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 459838

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		01/03/24 14:01	01/08/24 10:09	1
Lithium	<0.0110		0.0500	0.0110	mg/L		01/03/24 14:01	01/08/24 10:09	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-459838/2-A
Matrix: Water
Analysis Batch: 461267

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 459838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5248		mg/L		105	80 - 120
Lithium	0.500	0.4913		mg/L		98	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-459728/1-A
Matrix: Water
Analysis Batch: 461420

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 459728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		01/03/24 10:13	01/08/24 22:34	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		01/03/24 10:13	01/08/24 22:34	1
Barium	<0.000746		0.00200	0.000746	mg/L		01/03/24 10:13	01/08/24 22:34	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		01/03/24 10:13	01/08/24 22:34	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		01/03/24 10:13	01/08/24 22:34	1
Chromium	<0.000550		0.00200	0.000550	mg/L		01/03/24 10:13	01/08/24 22:34	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		01/03/24 10:13	01/08/24 22:34	1
Lead	0.0002270	J	0.000500	0.000120	mg/L		01/03/24 10:13	01/08/24 22:34	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		01/03/24 10:13	01/08/24 22:34	1
Selenium	<0.000278		0.00100	0.000278	mg/L		01/03/24 10:13	01/08/24 22:34	1
Thallium	<0.000130		0.000500	0.000130	mg/L		01/03/24 10:13	01/08/24 22:34	1

Lab Sample ID: MB 410-459728/1-A
Matrix: Water
Analysis Batch: 461610

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 459728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.0500		0.120	0.0500	mg/L		01/03/24 10:13	01/09/24 08:34	1

Lab Sample ID: LCS 410-459728/2-A
Matrix: Water
Analysis Batch: 461420

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 459728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1014		mg/L		101	80 - 120
Arsenic	0.500	0.4942		mg/L		99	85 - 120
Barium	0.500	0.5070		mg/L		101	80 - 120
Beryllium	0.0500	0.04871		mg/L		97	90 - 112
Cadmium	0.0500	0.04948		mg/L		99	86 - 113
Calcium	5.00	5.210		mg/L		104	85 - 120
Chromium	0.500	0.4907		mg/L		98	90 - 115
Cobalt	0.500	0.4967		mg/L		99	90 - 113
Lead	0.0500	0.04990		mg/L		100	90 - 115
Molybdenum	0.0500	0.05058		mg/L		101	85 - 115
Selenium	0.100	0.09959		mg/L		100	80 - 120
Thallium	0.100	0.09639		mg/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-459838/1-A
Matrix: Water
Analysis Batch: 462232

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 459838

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		01/03/24 14:01	01/10/24 14:35	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		01/03/24 14:01	01/10/24 14:35	1
Barium	<0.000746		0.00200	0.000746	mg/L		01/03/24 14:01	01/10/24 14:35	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		01/03/24 14:01	01/10/24 14:35	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		01/03/24 14:01	01/10/24 14:35	1
Calcium	<0.0500		0.120	0.0500	mg/L		01/03/24 14:01	01/10/24 14:35	1
Chromium	<0.000550		0.00200	0.000550	mg/L		01/03/24 14:01	01/10/24 14:35	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		01/03/24 14:01	01/10/24 14:35	1
Lead	<0.000120		0.000500	0.000120	mg/L		01/03/24 14:01	01/10/24 14:35	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 14:35	1
Selenium	<0.000278		0.00100	0.000278	mg/L		01/03/24 14:01	01/10/24 14:35	1
Thallium	<0.000130		0.000500	0.000130	mg/L		01/03/24 14:01	01/10/24 14:35	1

Lab Sample ID: LCS 410-459838/2-A
Matrix: Water
Analysis Batch: 462232

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 459838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09958		mg/L		100	80 - 120
Arsenic	0.500	0.4962		mg/L		99	85 - 120
Barium	0.500	0.4964		mg/L		99	80 - 120
Beryllium	0.0500	0.04965		mg/L		99	90 - 112
Cadmium	0.0500	0.04997		mg/L		100	86 - 113
Calcium	5.00	4.812		mg/L		96	85 - 120
Chromium	0.500	0.5022		mg/L		100	90 - 115
Cobalt	0.500	0.4955		mg/L		99	90 - 113
Lead	0.0500	0.05021		mg/L		100	90 - 115
Molybdenum	0.0500	0.05018		mg/L		100	85 - 115
Selenium	0.100	0.09940		mg/L		99	80 - 120
Thallium	0.100	0.09752		mg/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-459258/1-A
Matrix: Water
Analysis Batch: 459774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		01/02/24 09:34	01/03/24 08:42	1

Lab Sample ID: LCS 410-459258/2-A
Matrix: Water
Analysis Batch: 459774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 459258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009950		mg/L		100	80 - 118

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 410-460031/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460301
Prep Batch: 460031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		01/04/24 04:49	01/04/24 11:41	1

Lab Sample ID: LCS 410-460031/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460301
Prep Batch: 460031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009762		mg/L		98	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-458087/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458087

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			12/28/23 09:50	1

Lab Sample ID: LCS 410-458087/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458087

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	203.0		mg/L		102	90 - 110

Lab Sample ID: MB 410-458552/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			12/28/23 17:48	1

Lab Sample ID: LCS 410-458552/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	203.0		mg/L		102	90 - 110

Method: 9040C - pH

Lab Sample ID: LCS 410-460250/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.020		S.U.		100	95 - 105

Method: 9040C - pH (Continued)

Lab Sample ID: 410-155716-1 DU
Client Sample ID: 10 g/L ADA Carbon Fluxsorb Reagent
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460250

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.83	HF		7.840		S.U.				0.1	4
Temperature	21.8	HF		21.79		Degrees C				0.09	4

Lab Sample ID: 410-155716-4 DU
Client Sample ID: 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460250

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.76	HF		6.810		S.U.				0.7	4
Temperature	21.8	HF		21.83		Degrees C				0.3	4

HPLC/IC

Analysis Batch: 461771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Total/NA	Water	EPA 300.0 R2.1	
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	EPA 300.0 R2.1	
MB 410-461771/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-461771/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-461771/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 459258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	
MB 410-459258/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-459258/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 459728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	3005A	
MB 410-459728/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-459728/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 459774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	459258
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	459258
MB 410-459258/1-A	Method Blank	Total/NA	Water	7470A	459258
LCS 410-459258/2-A	Lab Control Sample	Total/NA	Water	7470A	459258

Prep Batch: 459838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Dissolved	Water	3005A	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	3005A	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	3005A	
MB 410-459838/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-459838/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 460031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Dissolved	Water	7470A	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	
MB 410-460031/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-460031/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 460301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Dissolved	Water	7470A	460031

Metals (Continued)

Analysis Batch: 460301 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	7470A	460031
MB 410-460031/1-A	Method Blank	Total/NA	Water	7470A	460031
LCS 410-460031/2-A	Lab Control Sample	Total/NA	Water	7470A	460031

Analysis Batch: 460793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6010D	459728
MB 410-459728/1-A	Method Blank	Total Recoverable	Water	6010D	459728
LCS 410-459728/2-A	Lab Control Sample	Total Recoverable	Water	6010D	459728

Analysis Batch: 461267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Dissolved	Water	6010D	459838
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6010D	459838
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6010D	459838
MB 410-459838/1-A	Method Blank	Total Recoverable	Water	6010D	459838
LCS 410-459838/2-A	Lab Control Sample	Total Recoverable	Water	6010D	459838

Analysis Batch: 461420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6020B	459728
MB 410-459728/1-A	Method Blank	Total Recoverable	Water	6020B	459728
LCS 410-459728/2-A	Lab Control Sample	Total Recoverable	Water	6020B	459728

Analysis Batch: 461554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6010D	459838
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6010D	459838

Analysis Batch: 461610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6020B	459728
MB 410-459728/1-A	Method Blank	Total Recoverable	Water	6020B	459728

Analysis Batch: 462232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Dissolved	Water	6020B	459838
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6020B	459838
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Dissolved	Water	6020B	459838
MB 410-459838/1-A	Method Blank	Total Recoverable	Water	6020B	459838
LCS 410-459838/2-A	Lab Control Sample	Total Recoverable	Water	6020B	459838

General Chemistry

Analysis Batch: 458087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Total/NA	Water	2540C - 2015	
MB 410-458087/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-458087/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

General Chemistry

Analysis Batch: 458552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	2540C - 2015	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	2540C - 2015	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	2540C - 2015	
MB 410-458552/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-458552/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 460250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Total/NA	Water	9040C	
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	9040C	
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	9040C	
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	9040C	
LCS 410-460250/3	Lab Control Sample	Total/NA	Water	9040C	
410-155716-1 DU	10 g/L ADA Carbon Fluxsorb Reagent	Total/NA	Water	9040C	
410-155716-4 DU	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 10 g/L ADA Carbon Fluxsorb Reagent
Lab Sample ID: 410-155716-1
Date Collected: 12/21/23 08:00
Matrix: Water
Date Received: 12/22/23 14:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	461771	W7FX	ELLE	01/09/24 15:48
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6010D		1	461267	MT26	ELLE	01/08/24 10:46
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6020B		1	462232	UCIG	ELLE	01/10/24 15:06
Dissolved	Prep	7470A			460031	NU9R	ELLE	01/04/24 04:49
Dissolved	Analysis	7470A		1	460301	UEFS	ELLE	01/04/24 11:59
Total/NA	Analysis	2540C - 2015		1	458087	UOCA	ELLE	12/28/23 09:50 - 12/28/23 18:07 [1]
Total/NA	Analysis	9040C		1	460250	DI9Q	ELLE	01/03/24 18:30

Client Sample ID: 10 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-2
Date Collected: 12/21/23 08:15
Matrix: Water
Date Received: 12/22/23 14:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	461771	W7FX	ELLE	01/09/24 16:12
Total/NA	Analysis	EPA 300.0 R2.1		50	461771	W7FX	ELLE	01/09/24 16:24
Dissolved	Prep	3005A			459728	NU9R	ELLE	01/03/24 10:13
Dissolved	Analysis	6010D		1	460793	MT26	ELLE	01/05/24 11:54
Dissolved	Prep	3005A			459728	NU9R	ELLE	01/03/24 10:13
Dissolved	Analysis	6020B		1	461420	LC3M	ELLE	01/08/24 23:48
Dissolved	Prep	3005A			459728	NU9R	ELLE	01/03/24 10:13
Dissolved	Analysis	6020B		1	461610	LC3M	ELLE	01/09/24 09:30
Dissolved	Prep	7470A			459258	NU9R	ELLE	01/02/24 09:34
Dissolved	Analysis	7470A		1	459774	UEFS	ELLE	01/03/24 09:28
Total/NA	Analysis	2540C - 2015		1	458552	UOCA	ELLE	12/28/23 17:48 - 12/29/23 07:15 [1]
Total/NA	Analysis	9040C		1	460250	DI9Q	ELLE	01/03/24 18:49

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-3
Date Collected: 12/21/23 08:30
Matrix: Water
Date Received: 12/22/23 14:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	461771	W7FX	ELLE	01/09/24 16:36
Total/NA	Analysis	EPA 300.0 R2.1		50	461771	W7FX	ELLE	01/09/24 16:48
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6010D		1	461267	MT26	ELLE	01/08/24 10:43
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6010D		10	461554	MT26	ELLE	01/09/24 05:27
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6020B		1	462232	UCIG	ELLE	01/10/24 15:04

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 25 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-3

Date Collected: 12/21/23 08:30
Matrix: Water
Date Received: 12/22/23 14:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	7470A			459258	NU9R	ELLE	01/02/24 09:34
Dissolved	Analysis	7470A		1	459774	UEFS	ELLE	01/03/24 09:24
Total/NA	Analysis	2540C - 2015		1	458552	UOCA	ELLE	12/28/23 17:48 - 12/29/23 07:15 [1]
Total/NA	Analysis	9040C		1	460250	DI9Q	ELLE	01/03/24 18:53

Client Sample ID: 40 g/L ADA Carbon Fluxsorb in DGWC-48 GW
Lab Sample ID: 410-155716-4

Date Collected: 12/21/23 08:45
Matrix: Water
Date Received: 12/22/23 14:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	461771	W7FX	ELLE	01/09/24 17:01
Total/NA	Analysis	EPA 300.0 R2.1		50	461771	W7FX	ELLE	01/09/24 17:13
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6010D		1	461267	MT26	ELLE	01/08/24 10:49
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6010D		10	461554	MT26	ELLE	01/09/24 05:30
Dissolved	Prep	3005A			459838	NU9R	ELLE	01/03/24 14:01
Dissolved	Analysis	6020B		1	462232	UCIG	ELLE	01/10/24 15:08
Dissolved	Prep	7470A			460031	NU9R	ELLE	01/04/24 04:49
Dissolved	Analysis	7470A		1	460301	UEFS	ELLE	01/04/24 11:57
Total/NA	Analysis	2540C - 2015		1	458552	UOCA	ELLE	12/28/23 17:48 - 12/29/23 07:15 [1]
Total/NA	Analysis	9040C		1	460250	DI9Q	ELLE	01/03/24 18:40

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-24
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-24
Arizona	State	AZ0780	03-12-24
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	01-31-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-24
Delaware (DW)	State	N/A	01-31-24
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-24
Hawaii	State	N/A	01-31-24
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24
Kansas	NELAP	E-10151	10-31-24
Kentucky (UST)	State	0001.01	11-30-24
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-24
New Hampshire	NELAP	2730	01-10-24
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-24
North Carolina (DW)	State	42705	07-31-24
North Dakota	State	R-205	01-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-24
Quebec Ministry of Environment and Fight against Climate Change	PALA	1978	09-16-24
South Carolina	State	89002	01-31-24
Tennessee	State	02838	01-31-24
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24
West Virginia DEP	State	055	07-31-24
Wyoming	State	8TMS-L	01-31-24
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-155716-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-155716-1	10 g/L ADA Carbon Fluxsorb Reagent	Water	12/21/23 08:00	12/22/23 14:14
410-155716-2	10 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Water	12/21/23 08:15	12/22/23 14:14
410-155716-3	25 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Water	12/21/23 08:30	12/22/23 14:14
410-155716-4	40 g/L ADA Carbon Fluxsorb in DGWC-48 GW	Water	12/21/23 08:45	12/22/23 14:14

Environmental Analysis Request/Chain of Custody

410-155716 Chain of Custody

Acct. # _____ Group # _____ Sample # _____

| | | |

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-155716-1

Login Number: 155716

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Kanagy, Nicholas

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 3/14/2024 3:23:41 AM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-162509-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

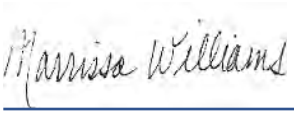
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
3/14/2024 3:23:41 AM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

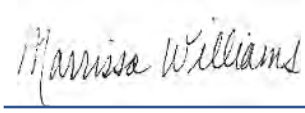


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 8
QC Sample Results 10
QC Association Summary 12
Lab Chronicle 14
Certification Summary 16
Method Summary 17
Sample Summary 18
Chain of Custody 19
Receipt Checklists 20

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-162509-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-162509-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/1/2024 3:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1 DGWC-48 Colum 2A (410-162509-2). The container labels list a time of 0830, while the COC lists a time of 0845.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1 DGWC-48 Colum 2B (410-162509-3). The container labels list a time of 0845, while the COC lists a time of 0900.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1 DGWC-48 Colum 3A (410-162509-4). The container labels list a time of 0900, while the COC lists a time of 0915.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1 DGWC-48 Colum 3B (410-162509-5). The container labels list a time of 0915, while the COC lists a time of 0930.

Metals
Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: 10 g/L CERES FeSO4-7H2O (410-162509-1). Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: AP-1 DGWC-48 Colum 2A (410-162509-2) at 10.0. Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: AP-1 DGWC-48 Colum 2B (410-162509-3) at 10.0. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 10 g/L CERES FeSO4-7H2O — Lab Sample ID: 410-162509-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00229	cn	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0321	cn	0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000162	J cn	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	39.5	cn	0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.531	cn	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.127	cn	0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	2210	^2 cn	2.50	1.00	mg/L	50		6020B	Dissolved
Lead	0.0121	cn	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.0511	cn	0.000500	0.000130	mg/L	1		6020B	Dissolved
Thallium	0.000157	J cn	0.000500	0.000130	mg/L	1		6020B	Dissolved

Client Sample ID: AP-1 DGWC-48 Colum 2A — Lab Sample ID: 410-162509-2

No Detections.

Client Sample ID: AP-1 DGWC-48 Colum 2B — Lab Sample ID: 410-162509-3

No Detections.

Client Sample ID: AP-1 DGWC-48 Colum 3A — Lab Sample ID: 410-162509-4

No Detections.

Client Sample ID: AP-1 DGWC-48 Colum 3B — Lab Sample ID: 410-162509-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0440	J	0.0500	0.0110	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 10 g/L CERES FeSO4-7H2O
Lab Sample ID: 410-162509-1
Date Collected: 03/01/24 09:30
Matrix: Water
Date Received: 03/01/24 15:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.240	cn	1.00	0.240	mg/L		03/04/24 08:20	03/04/24 16:24	20
Lithium	<0.0110		0.0500	0.0110	mg/L		03/04/24 08:20	03/04/24 16:21	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200	cn	0.00100	0.000200	mg/L		03/04/24 08:20	03/05/24 16:49	1
Arsenic	**0.00229**	**cn**	0.00200	0.000680	mg/L		03/04/24 08:20	03/05/24 16:49	1
Barium	**0.0321**	**cn**	0.00200	0.000746	mg/L		03/04/24 08:20	03/05/24 16:49	1
Beryllium	<0.000119	^+ cn	0.000500	0.000119	mg/L		03/04/24 08:20	03/05/24 16:49	1
Cadmium	**0.000162**	**J cn**	0.000500	0.000151	mg/L		03/04/24 08:20	03/05/24 16:49	1
Calcium	**39.5**	**cn**	0.120	0.0500	mg/L		03/04/24 08:20	03/05/24 16:49	1
Chromium	**0.531**	**cn**	0.00200	0.000550	mg/L		03/04/24 08:20	03/05/24 16:49	1
Cobalt	**0.127**	**cn**	0.000500	0.000156	mg/L		03/04/24 08:20	03/05/24 18:31	1
Iron	**2210**	**^2 cn**	2.50	1.00	mg/L		03/04/24 08:20	03/05/24 17:02	50
Lead	**0.0121**	**cn**	0.000500	0.000120	mg/L		03/04/24 08:20	03/05/24 16:49	1
Molybdenum	**0.0511**	**cn**	0.000500	0.000130	mg/L		03/04/24 08:20	03/05/24 16:49	1
Selenium	<0.000278	cn	0.00100	0.000278	mg/L		03/04/24 08:20	03/05/24 16:49	1
Thallium	**0.000157**	**J cn**	0.000500	0.000130	mg/L		03/04/24 08:20	03/05/24 16:49	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/03/24 22:10	03/04/24 11:56	1

Client Sample ID: AP-1 DGWC-48 Colum 2A
Lab Sample ID: 410-162509-2
Date Collected: 03/01/24 08:45
Matrix: Water
Date Received: 03/01/24 15:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.110	cn	0.500	0.110	mg/L		03/04/24 08:20	03/04/24 20:50	10

Client Sample ID: AP-1 DGWC-48 Colum 2B
Lab Sample ID: 410-162509-3
Date Collected: 03/01/24 09:00
Matrix: Water
Date Received: 03/01/24 15:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.110	cn	0.500	0.110	mg/L		03/04/24 08:20	03/04/24 20:53	10

Client Sample ID: AP-1 DGWC-48 Colum 3A
Lab Sample ID: 410-162509-4
Date Collected: 03/01/24 09:15
Matrix: Water
Date Received: 03/01/24 15:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.275		1.25	0.275	mg/L		03/13/24 07:30	03/13/24 16:13	10

Client Sample Results

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-48 Colum 3B
Lab Sample ID: 410-162509-5
Date Collected: 03/01/24 09:30
Matrix: Water
Date Received: 03/01/24 15:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0440	J	0.0500	0.0110	mg/L		03/04/24 08:20	03/04/24 16:27	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-479226/1-A
Matrix: Water
Analysis Batch: 479546

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		03/04/24 08:20	03/04/24 15:36	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/04/24 08:20	03/04/24 15:36	1

Lab Sample ID: LCS 410-479226/2-A
Matrix: Water
Analysis Batch: 479546

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5579		mg/L		112	80 - 120
Lithium	0.500	0.5271		mg/L		105	80 - 120

Lab Sample ID: MB 410-482664/1-A
Matrix: Water
Analysis Batch: 483135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 482664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0110		0.0500	0.0110	mg/L		03/13/24 07:30	03/13/24 15:09	1

Lab Sample ID: LCS 410-482664/2-A
Matrix: Water
Analysis Batch: 483135

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 482664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.4990		mg/L		100	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-479226/1-A
Matrix: Water
Analysis Batch: 480043

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/04/24 08:20	03/05/24 14:42	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/04/24 08:20	03/05/24 14:42	1
Barium	<0.000746		0.00200	0.000746	mg/L		03/04/24 08:20	03/05/24 14:42	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/04/24 08:20	03/05/24 14:42	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/04/24 08:20	03/05/24 14:42	1
Calcium	<0.0500		0.120	0.0500	mg/L		03/04/24 08:20	03/05/24 14:42	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/04/24 08:20	03/05/24 14:42	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/04/24 08:20	03/05/24 14:42	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/04/24 08:20	03/05/24 14:42	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/04/24 08:20	03/05/24 14:42	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/04/24 08:20	03/05/24 14:42	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/04/24 08:20	03/05/24 14:42	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/04/24 08:20	03/05/24 14:42	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-479226/1-A
Matrix: Water
Analysis Batch: 480044

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/04/24 08:20	03/05/24 18:02	1

Lab Sample ID: LCS 410-479226/2-A
Matrix: Water
Analysis Batch: 480043

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1042		mg/L		104	80 - 120
Arsenic	0.500	0.5148		mg/L		103	85 - 120
Barium	0.500	0.5234		mg/L		105	80 - 120
Beryllium	0.0500	0.05555		mg/L		111	90 - 112
Cadmium	0.0500	0.05275		mg/L		105	86 - 113
Calcium	5.00	5.170		mg/L		103	85 - 120
Chromium	0.500	0.5111		mg/L		102	90 - 115
Cobalt	0.500	0.5129		mg/L		103	90 - 113
Iron	5.00	5.083		mg/L		102	88 - 119
Lead	0.0500	0.05211		mg/L		104	90 - 115
Molybdenum	0.0500	0.05313		mg/L		106	85 - 115
Selenium	0.100	0.1028		mg/L		103	80 - 120
Thallium	0.100	0.1042		mg/L		104	80 - 120

Lab Sample ID: LCS 410-479226/2-A
Matrix: Water
Analysis Batch: 480044

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 479226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.500	0.5387		mg/L		108	90 - 113

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-479112/1-A
Matrix: Water
Analysis Batch: 479659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 479112

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/03/24 22:10	03/04/24 11:19	1

Lab Sample ID: LCS 410-479112/2-A
Matrix: Water
Analysis Batch: 479659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 479112

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0008451		mg/L		85	80 - 118

Metals

Prep Batch: 479112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	7470A	
MB 410-479112/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-479112/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 479226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	3005A	
410-162509-2	AP-1 DGWC-48 Colum 2A	Dissolved	Water	3005A	
410-162509-3	AP-1 DGWC-48 Colum 2B	Dissolved	Water	3005A	
410-162509-5	AP-1 DGWC-48 Colum 3B	Dissolved	Water	3005A	
MB 410-479226/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-479226/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 479546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	6010D	479226
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	6010D	479226
410-162509-5	AP-1 DGWC-48 Colum 3B	Dissolved	Water	6010D	479226
MB 410-479226/1-A	Method Blank	Total Recoverable	Water	6010D	479226
LCS 410-479226/2-A	Lab Control Sample	Total Recoverable	Water	6010D	479226

Analysis Batch: 479564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-2	AP-1 DGWC-48 Colum 2A	Dissolved	Water	6010D	479226
410-162509-3	AP-1 DGWC-48 Colum 2B	Dissolved	Water	6010D	479226

Analysis Batch: 479659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	7470A	479112
MB 410-479112/1-A	Method Blank	Total/NA	Water	7470A	479112
LCS 410-479112/2-A	Lab Control Sample	Total/NA	Water	7470A	479112

Analysis Batch: 480043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	6020B	479226
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	6020B	479226
MB 410-479226/1-A	Method Blank	Total Recoverable	Water	6020B	479226
LCS 410-479226/2-A	Lab Control Sample	Total Recoverable	Water	6020B	479226

Analysis Batch: 480044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-1	10 g/L CERES FeSO4-7H2O	Dissolved	Water	6020B	479226
MB 410-479226/1-A	Method Blank	Total Recoverable	Water	6020B	479226
LCS 410-479226/2-A	Lab Control Sample	Total Recoverable	Water	6020B	479226

Prep Batch: 482664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-4	AP-1 DGWC-48 Colum 3A	Dissolved	Water	3005A	
MB 410-482664/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-482664/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Metals

Analysis Batch: 483135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-162509-4	AP-1 DGWC-48 Colum 3A	Dissolved	Water	6010D	482664
MB 410-482664/1-A	Method Blank	Total Recoverable	Water	6010D	482664
LCS 410-482664/2-A	Lab Control Sample	Total Recoverable	Water	6010D	482664

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: 10 g/L CERES FeSO4-7H2O
Lab Sample ID: 410-162509-1
Date Collected: 03/01/24 09:30
Matrix: Water
Date Received: 03/01/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6010D		1	479546	T8CQ	ELLE	03/04/24 16:21
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6010D		20	479546	T8CQ	ELLE	03/04/24 16:24
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6020B		1	480043	UCIG	ELLE	03/05/24 16:49
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6020B		50	480043	UCIG	ELLE	03/05/24 17:02
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6020B		1	480044	UCIG	ELLE	03/05/24 18:31
Dissolved	Prep	7470A			479112	UAMX	ELLE	03/03/24 22:10
Dissolved	Analysis	7470A		1	479659	UEFS	ELLE	03/04/24 11:56

Client Sample ID: AP-1 DGWC-48 Colum 2A
Lab Sample ID: 410-162509-2
Date Collected: 03/01/24 08:45
Matrix: Water
Date Received: 03/01/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6010D		10	479564	T8CQ	ELLE	03/04/24 20:50

Client Sample ID: AP-1 DGWC-48 Colum 2B
Lab Sample ID: 410-162509-3
Date Collected: 03/01/24 09:00
Matrix: Water
Date Received: 03/01/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6010D		10	479564	T8CQ	ELLE	03/04/24 20:53

Client Sample ID: AP-1 DGWC-48 Colum 3A
Lab Sample ID: 410-162509-4
Date Collected: 03/01/24 09:15
Matrix: Water
Date Received: 03/01/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			482664	NU9R	ELLE	03/13/24 07:30
Dissolved	Analysis	6010D		10	483135	T8CQ	ELLE	03/13/24 16:13

Client Sample ID: AP-1 DGWC-48 Colum 3B
Lab Sample ID: 410-162509-5
Date Collected: 03/01/24 09:30
Matrix: Water
Date Received: 03/01/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			479226	NU9R	ELLE	03/04/24 08:20
Dissolved	Analysis	6010D		1	479546	T8CQ	ELLE	03/04/24 16:27

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Georgia (DW)	State	C048	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3005A	Water	Boron
6010D	3005A	Water	Lithium
6020B	3005A	Water	Antimony
6020B	3005A	Water	Arsenic
6020B	3005A	Water	Barium
6020B	3005A	Water	Beryllium
6020B	3005A	Water	Cadmium
6020B	3005A	Water	Calcium
6020B	3005A	Water	Chromium
6020B	3005A	Water	Cobalt
6020B	3005A	Water	Iron
6020B	3005A	Water	Lead
6020B	3005A	Water	Molybdenum
6020B	3005A	Water	Selenium
6020B	3005A	Water	Thallium
7470A	7470A	Water	Mercury

Method Summary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-162509-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-162509-1	10 g/L CERES FeSO4-7H2O	Water	03/01/24 09:30	03/01/24 15:55
410-162509-2	AP-1 DGWC-48 Colum 2A	Water	03/01/24 08:45	03/01/24 15:55
410-162509-3	AP-1 DGWC-48 Colum 2B	Water	03/01/24 09:00	03/01/24 15:55
410-162509-4	AP-1 DGWC-48 Colum 3A	Water	03/01/24 09:15	03/01/24 15:55
410-162509-5	AP-1 DGWC-48 Colum 3B	Water	03/01/24 09:30	03/01/24 15:55

Environmental Analysis Request/Chain of Custody

eurofins | Environment Testing

410-162509 Chain of Custody

Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 3-1-24		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water: Potable ☐ Ground ☑ NPDES ☐ Surface ☐	Other:	Total # of Containers	Analyses Requested / Preservation Codes: Dis As, Ba, Be, B, Ca, Cd (N)	Co, Cr, Fe, Hg, Li, Mo, Pb (N)	Sb, Se, Tl (field filtered) (N)	Dis. Li (field filtered)							Remarks
10 g/L CERES FeSO4-7H2O	3/1/2024	9:30		X		X		1	X	X	X								
AP-1 DGWC-48 Colum 2A	3/1/2024	8:45		X		X		1				X							
AP-1 DGWC-48 Colum 2B	3/1/2024	9:00		X		X		1				X							
AP-1 DGWC-48 Colum 3A	3/1/2024	9:15		X		X		1				X							
AP-1 DGWC-48 Colum 3B	3/1/2024	9:30		X		X		1				X							

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 3/15/24

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Michael D Lee	3/1/24	11:35	[illegible]	3/1/24	1105
[illegible]	3/1/24	1500			

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt raw 0.1 cor 0.0 °C

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-162509-1

Login Number: 162509

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Foreman, Kai

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 4/2/2024 2:03:25 PM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-164568-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

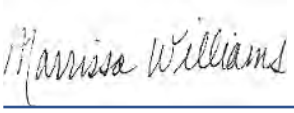
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/2/2024 2:03:25 PM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

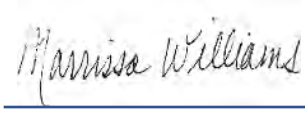


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 10
QC Sample Results 15
QC Association Summary 21
Lab Chronicle 25
Certification Summary 28
Method Summary 30
Sample Summary 31
Chain of Custody 32
Receipt Checklists 33

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-164568-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/19/2024 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-164568-1

Client Sample ID: DGWC-48 Inf — Lab Sample ID: 410-164568-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.553	J	1.00	0.450	mg/L	5		EPA 300.0 R2.1	Total/NA
Sulfate	262		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.40	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.692		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0953		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0209		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00662		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00253		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	63.4	^3+	0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.314	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0647		0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000641		0.000500	0.000120	mg/L	1		6020B	Dissolved
Thallium	0.000187	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.0000910	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	427		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	3.95	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: DGWC-48 Control — Lab Sample ID: 410-164568-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	394		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	15.9		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.443		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0217		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000297	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000774		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	74.2		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00172	J	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.195		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0367	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.000585		0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.000100	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	795		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.15	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.1	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: DGWC-48 KHCO3 Inf — Lab Sample ID: 410-164568-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.725		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0969		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0186		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00156		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00161		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	61.2	^3+	0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.273	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0473	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000171	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Thallium	0.000392	J	0.000500	0.000130	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-164568-1

Client Sample ID: DGWC-48 KHCO3 — Lab Sample ID: 410-164568-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	374		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	12.9		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.440		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0416		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000715		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	97.4		0.600	0.250	mg/L	5		6020B	Dissolved
Cobalt	0.104		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0249	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.000900		0.000500	0.000130	mg/L	1		6020B	Dissolved
Selenium	0.000345	J	0.00100	0.000278	mg/L	1		6020B	Dissolved
Thallium	0.000135	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.000125	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	670		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	6.85	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.1	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: DGWC-48 FeSO4-7H2O Inf — Lab Sample ID: 410-164568-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.590		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0972		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.00240		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	21.7		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.00852		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.125		0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.0101		0.000500	0.000130	mg/L	1		6020B	Dissolved
Selenium	0.000438	J	0.00100	0.000278	mg/L	1		6020B	Dissolved

Client Sample ID: DGWC-48 FeSO4-7H2O — Lab Sample ID: 410-164568-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.456	J	1.00	0.450	mg/L	5		EPA 300.0 R2.1	Total/NA
Sulfate	656		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	14.8		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.470		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.000702	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0265		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000663		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	75.9		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.107		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0334	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.00164		0.000500	0.000130	mg/L	1		6020B	Dissolved
Selenium	0.000357	J	0.00100	0.000278	mg/L	1		6020B	Dissolved
Mercury	0.000108	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	1070		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	7.04	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.3	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: DGWC-48 ADA Carbon — Lab Sample ID: 410-164568-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.482		0.0500	0.0120	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: DGWC-48 ADA Carbon (Continued)
Lab Sample ID: 410-164568-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0175	J	0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0329		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000918		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	79.2		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.108		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.103		0.0500	0.0200	mg/L	1		6020B	Dissolved
Mercury	0.000114	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: DGWC-48 Inf
Lab Sample ID: 410-164568-1
Date Collected: 03/19/24 08:00
Matrix: Water
Date Received: 03/19/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.553**	**J**	1.00	0.450	mg/L			03/23/24 22:19	5
Sulfate	**262**		75.0	25.0	mg/L			03/23/24 22:31	50
Chloride	**6.40**	**J**	7.50	3.00	mg/L			03/23/24 22:19	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.692**		0.0500	0.0120	mg/L		03/27/24 09:10	03/28/24 09:42	1
Lithium	**0.0953**		0.0500	0.0110	mg/L		03/27/24 09:10	03/28/24 09:42	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/27/24 09:10	04/01/24 18:30	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/27/24 09:10	04/01/24 18:30	1
Barium	**0.0209**		0.00200	0.000746	mg/L		03/27/24 09:10	04/01/24 18:30	1
Beryllium	**0.00662**		0.000500	0.000119	mg/L		03/27/24 09:10	04/01/24 18:30	1
Cadmium	**0.00253**		0.000500	0.000151	mg/L		03/27/24 09:10	04/01/24 18:30	1
Calcium	**63.4**	**^3+**	0.120	0.0500	mg/L		03/27/24 09:10	04/01/24 18:30	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/27/24 09:10	04/01/24 18:30	1
Cobalt	**0.314**	**^2**	0.000500	0.000156	mg/L		03/27/24 09:10	04/01/24 18:30	1
Iron	**0.0647**		0.0500	0.0200	mg/L		03/27/24 09:10	04/01/24 18:30	1
Lead	**0.000641**		0.000500	0.000120	mg/L		03/27/24 09:10	04/01/24 18:30	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:30	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/27/24 09:10	04/01/24 18:30	1
Thallium	**0.000187**	**J**	0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:30	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0000910**	**J**	0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**427**		60.0	24.0	mg/L			03/21/24 06:30	1
pH (SW846 9040C)	**3.95**	**HF**	0.0100	0.0100	S.U.			03/21/24 17:41	1
Temperature (SW846 9040C)	**22.0**	**HF**	0.0100	0.0100	Degrees C			03/21/24 17:41	1

Client Sample ID: DGWC-48 Control
Lab Sample ID: 410-164568-2
Date Collected: 03/19/24 08:15
Matrix: Water
Date Received: 03/19/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/23/24 23:08	5
Sulfate	**394**		75.0	25.0	mg/L			03/23/24 23:20	50
Chloride	**15.9**		7.50	3.00	mg/L			03/23/24 23:08	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.443**		0.0500	0.0120	mg/L		03/26/24 09:52	03/28/24 16:45	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/26/24 09:52	03/28/24 16:45	1

Client Sample ID: DGWC-48 Control

Lab Sample ID: 410-164568-2

Date Collected: 03/19/24 08:15

Matrix: Water

Date Received: 03/19/24 17:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/26/24 09:52	04/01/24 20:16	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/26/24 09:52	04/01/24 20:16	1
Barium	**0.0217**		0.00200	0.000746	mg/L		03/26/24 09:52	04/01/24 20:16	1
Beryllium	**0.000297**	**J**	0.000500	0.000119	mg/L		03/26/24 09:52	04/01/24 19:38	1
Cadmium	**0.000774**		0.000500	0.000151	mg/L		03/26/24 09:52	04/01/24 20:16	1
Calcium	**74.2**		0.120	0.0500	mg/L		03/26/24 09:52	04/01/24 20:16	1
Chromium	**0.00172**	**J**	0.00200	0.000550	mg/L		03/26/24 09:52	04/01/24 20:16	1
Cobalt	**0.195**		0.000500	0.000156	mg/L		03/26/24 09:52	04/01/24 20:16	1
Iron	**0.0367**	**J**	0.0500	0.0200	mg/L		03/26/24 09:52	04/01/24 19:38	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/26/24 09:52	04/01/24 20:16	1
Molybdenum	**0.000585**		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:16	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/26/24 09:52	04/01/24 20:16	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:16	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000100**	**J**	0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**795**		60.0	24.0	mg/L			03/21/24 06:30	1
pH (SW846 9040C)	**6.15**	**HF**	0.0100	0.0100	S.U.			03/21/24 17:30	1
Temperature (SW846 9040C)	**21.1**	**HF**	0.0100	0.0100	Degrees C			03/21/24 17:30	1

Client Sample ID: DGWC-48 KHCO3 Inf

Lab Sample ID: 410-164568-3

Date Collected: 03/19/24 08:20

Matrix: Water

Date Received: 03/19/24 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.725**		0.0500	0.0120	mg/L		03/27/24 09:10	03/28/24 09:39	1
Lithium	**0.0969**		0.0500	0.0110	mg/L		03/27/24 09:10	03/28/24 09:39	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/27/24 09:10	04/01/24 18:28	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/27/24 09:10	04/01/24 18:28	1
Barium	**0.0186**		0.00200	0.000746	mg/L		03/27/24 09:10	04/01/24 18:28	1
Beryllium	**0.00156**		0.000500	0.000119	mg/L		03/27/24 09:10	04/01/24 18:28	1
Cadmium	**0.00161**		0.000500	0.000151	mg/L		03/27/24 09:10	04/01/24 18:28	1
Calcium	**61.2**	**^3+**	0.120	0.0500	mg/L		03/27/24 09:10	04/01/24 18:28	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/27/24 09:10	04/01/24 18:28	1
Cobalt	**0.273**	**^2**	0.000500	0.000156	mg/L		03/27/24 09:10	04/01/24 18:28	1
Iron	**0.0473**	**J**	0.0500	0.0200	mg/L		03/27/24 09:10	04/01/24 18:28	1
Lead	**0.000171**	**J**	0.000500	0.000120	mg/L		03/27/24 09:10	04/01/24 18:28	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:28	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/27/24 09:10	04/01/24 18:28	1
Thallium	**0.000392**	**J**	0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:28	1

Client Sample ID: DGWC-48 KHCO3 Inf
Lab Sample ID: 410-164568-3
Date Collected: 03/19/24 08:20
Matrix: Water
Date Received: 03/19/24 17:15

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/29/24 09:20	03/29/24 13:04	1

Client Sample ID: DGWC-48 KHCO3
Lab Sample ID: 410-164568-4
Date Collected: 03/19/24 08:30
Matrix: Water
Date Received: 03/19/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/23/24 23:32	5
Sulfate	**374**		75.0	25.0	mg/L			03/23/24 23:44	50
Chloride	**12.9**		7.50	3.00	mg/L			03/23/24 23:32	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.440**		0.0500	0.0120	mg/L		03/25/24 20:30	03/26/24 10:08	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/25/24 20:30	03/26/24 10:08	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/25/24 20:30	03/26/24 17:54	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/25/24 20:30	03/26/24 17:54	1
Barium	**0.0416**		0.00200	0.000746	mg/L		03/25/24 20:30	03/26/24 17:54	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/25/24 20:30	03/26/24 17:54	1
Cadmium	**0.000715**		0.000500	0.000151	mg/L		03/25/24 20:30	03/26/24 17:54	1
Calcium	**97.4**		0.600	0.250	mg/L		03/25/24 20:30	03/26/24 18:30	5
Chromium	<0.000550		0.00200	0.000550	mg/L		03/25/24 20:30	03/26/24 17:54	1
Cobalt	**0.104**		0.000500	0.000156	mg/L		03/25/24 20:30	03/26/24 20:15	1
Iron	**0.0249**	**J**	0.0500	0.0200	mg/L		03/25/24 20:30	03/26/24 17:54	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/25/24 20:30	03/26/24 17:54	1
Molybdenum	**0.000900**		0.000500	0.000130	mg/L		03/25/24 20:30	03/26/24 17:54	1
Selenium	**0.000345**	**J**	0.00100	0.000278	mg/L		03/25/24 20:30	03/26/24 17:54	1
Thallium	**0.000135**	**J**	0.000500	0.000130	mg/L		03/25/24 20:30	03/26/24 17:54	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000125**	**J**	0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**670**		120	48.0	mg/L			03/21/24 06:30	1
pH (SW846 9040C)	**6.85**	**HF**	0.0100	0.0100	S.U.			03/21/24 17:34	1
Temperature (SW846 9040C)	**21.1**	**HF**	0.0100	0.0100	Degrees C			03/21/24 17:34	1

Client Sample ID: DGWC-48 FeSO4-7H2O Inf
Lab Sample ID: 410-164568-5
Date Collected: 03/19/24 08:40
Matrix: Water
Date Received: 03/19/24 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.590**		0.0500	0.0120	mg/L		03/26/24 09:52	03/28/24 16:48	1
Lithium	**0.0972**		0.0500	0.0110	mg/L		03/26/24 09:52	03/28/24 16:48	1

Client Sample ID: DGWC-48 FeSO4-7H2O Inf

Lab Sample ID: 410-164568-5

Date Collected: 03/19/24 08:40

Matrix: Water

Date Received: 03/19/24 17:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/26/24 09:52	04/01/24 20:18	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/26/24 09:52	04/01/24 20:18	1
Barium	**0.00240**		0.00200	0.000746	mg/L		03/26/24 09:52	04/01/24 20:18	1
Beryllium	<0.000119	^+ *+	0.000500	0.000119	mg/L		03/26/24 09:52	04/01/24 20:18	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/26/24 09:52	04/01/24 20:18	1
Calcium	**21.7**		0.120	0.0500	mg/L		03/26/24 09:52	04/01/24 20:18	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/26/24 09:52	04/01/24 20:18	1
Cobalt	**0.00852**		0.000500	0.000156	mg/L		03/26/24 09:52	04/01/24 20:18	1
Iron	**0.125**		0.0500	0.0200	mg/L		03/26/24 09:52	04/01/24 19:40	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/26/24 09:52	04/01/24 20:18	1
Molybdenum	**0.0101**		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:18	1
Selenium	**0.000438**	**J**	0.00100	0.000278	mg/L		03/26/24 09:52	04/01/24 20:18	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:18	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/29/24 09:20	03/29/24 13:09	1

Client Sample ID: DGWC-48 FeSO4-7H2O

Lab Sample ID: 410-164568-6

Date Collected: 03/19/24 08:45

Matrix: Water

Date Received: 03/19/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.456**	**J**	1.00	0.450	mg/L			03/23/24 23:56	5
Sulfate	**656**		75.0	25.0	mg/L			03/24/24 00:08	50
Chloride	**14.8**		7.50	3.00	mg/L			03/23/24 23:56	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.470**		0.0500	0.0120	mg/L		03/26/24 09:52	03/28/24 16:29	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/26/24 09:52	03/28/24 16:29	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/26/24 09:52	04/01/24 20:12	1
Arsenic	**0.000702**	**J**	0.00200	0.000680	mg/L		03/26/24 09:52	04/01/24 20:12	1
Barium	**0.0265**		0.00200	0.000746	mg/L		03/26/24 09:52	04/01/24 20:12	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/26/24 09:52	04/01/24 19:04	1
Cadmium	**0.000663**		0.000500	0.000151	mg/L		03/26/24 09:52	04/01/24 20:12	1
Calcium	**75.9**		0.120	0.0500	mg/L		03/26/24 09:52	04/01/24 20:12	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/26/24 09:52	04/01/24 20:12	1
Cobalt	**0.107**		0.000500	0.000156	mg/L		03/26/24 09:52	04/01/24 20:12	1
Iron	**0.0334**	**J**	0.0500	0.0200	mg/L		03/26/24 09:52	04/01/24 19:04	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/26/24 09:52	04/01/24 20:12	1
Molybdenum	**0.00164**		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:12	1
Selenium	**0.000357**	**J**	0.00100	0.000278	mg/L		03/26/24 09:52	04/01/24 20:12	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/02/24 11:39	1

Client Sample ID: DGWC-48 FeSO4-7H2O

Lab Sample ID: 410-164568-6
Date Collected: 03/19/24 08:45
Matrix: Water
Date Received: 03/19/24 17:15

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000108	J	0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	1070		120	48.0	mg/L			03/21/24 06:30	1
pH (SW846 9040C)	7.04	HF	0.0100	0.0100	S.U.			03/21/24 17:38	1
Temperature (SW846 9040C)	21.3	HF	0.0100	0.0100	Degrees C			03/21/24 17:38	1

Client Sample ID: DGWC-48 ADA Carbon

Lab Sample ID: 410-164568-7
Date Collected: 03/19/24 09:00
Matrix: Water
Date Received: 03/19/24 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.482		0.0500	0.0120	mg/L		03/26/24 09:52	03/28/24 16:41	1
Lithium	0.0175	J	0.0500	0.0110	mg/L		03/26/24 09:52	03/28/24 16:41	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/26/24 09:52	04/01/24 20:14	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/26/24 09:52	04/01/24 20:14	1
Barium	0.0329		0.00200	0.000746	mg/L		03/26/24 09:52	04/01/24 20:14	1
Beryllium	<0.000119	^+ *+	0.000500	0.000119	mg/L		03/26/24 09:52	04/01/24 20:14	1
Cadmium	0.000918		0.000500	0.000151	mg/L		03/26/24 09:52	04/01/24 20:14	1
Calcium	79.2		0.120	0.0500	mg/L		03/26/24 09:52	04/01/24 20:14	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/26/24 09:52	04/01/24 20:14	1
Cobalt	0.108		0.000500	0.000156	mg/L		03/26/24 09:52	04/01/24 20:14	1
Iron	0.103		0.0500	0.0200	mg/L		03/26/24 09:52	04/01/24 19:36	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/26/24 09:52	04/01/24 20:14	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:14	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/26/24 09:52	04/01/24 20:14	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 19:36	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000114	J	0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 09:56	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-486454/5
Matrix: Water
Analysis Batch: 486454

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			03/23/24 20:06	1
Sulfate	<0.500		1.50	0.500	mg/L			03/23/24 20:06	1
Chloride	<0.600		1.50	0.600	mg/L			03/23/24 20:06	1

Lab Sample ID: LCS 410-486454/3
Matrix: Water
Analysis Batch: 486454

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.6946		mg/L		93	90 - 110
Sulfate	7.50	7.247		mg/L		97	90 - 110
Chloride	3.00	2.876		mg/L		96	90 - 110

Lab Sample ID: LCSD 410-486454/4
Matrix: Water
Analysis Batch: 486454

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7177		mg/L		96	90 - 110	3	20
Sulfate	7.50	7.524		mg/L		100	90 - 110	4	20
Chloride	3.00	2.972		mg/L		99	90 - 110	3	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-486912/1-A
Matrix: Water
Analysis Batch: 487174

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		03/25/24 20:30	03/26/24 09:34	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/25/24 20:30	03/26/24 09:34	1

Lab Sample ID: LCS 410-486912/2-A
Matrix: Water
Analysis Batch: 487174

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4943		mg/L		99	80 - 120
Lithium	0.500	0.4928		mg/L		99	80 - 120

Lab Sample ID: MB 410-487054/1-A
Matrix: Water
Analysis Batch: 488208

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487054

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		03/27/24 09:10	03/28/24 09:05	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/27/24 09:10	03/28/24 09:05	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-487054/2-A
Matrix: Water
Analysis Batch: 488208

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 487054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5342		mg/L		107	80 - 120
Lithium	0.500	0.5165		mg/L		103	80 - 120

Lab Sample ID: MB 410-487068/1-A
Matrix: Water
Analysis Batch: 488387

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		03/26/24 09:52	03/28/24 15:54	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/26/24 09:52	03/28/24 15:54	1

Lab Sample ID: LCS 410-487068/2-A
Matrix: Water
Analysis Batch: 488387

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 487068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5548		mg/L		111	80 - 120
Lithium	0.500	0.5170		mg/L		103	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-486912/1-A
Matrix: Water
Analysis Batch: 487412

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/25/24 20:30	03/26/24 17:26	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/25/24 20:30	03/26/24 17:26	1
Barium	<0.000746		0.00200	0.000746	mg/L		03/25/24 20:30	03/26/24 17:26	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/25/24 20:30	03/26/24 17:26	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/25/24 20:30	03/26/24 17:26	1
Calcium	<0.0500		0.120	0.0500	mg/L		03/25/24 20:30	03/26/24 17:26	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/25/24 20:30	03/26/24 17:26	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/25/24 20:30	03/26/24 17:26	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/25/24 20:30	03/26/24 17:26	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/25/24 20:30	03/26/24 17:26	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/25/24 20:30	03/26/24 17:26	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/25/24 20:30	03/26/24 17:26	1

Lab Sample ID: MB 410-486912/1-A
Matrix: Water
Analysis Batch: 487428

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/25/24 20:30	03/26/24 19:53	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-486912/2-A
Matrix: Water
Analysis Batch: 487412

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1016		mg/L		102	80 - 120
Arsenic	0.500	0.4999		mg/L		100	85 - 120
Barium	0.500	0.5108		mg/L		102	80 - 120
Beryllium	0.0500	0.05053		mg/L		101	90 - 112
Cadmium	0.0500	0.05152		mg/L		103	86 - 113
Calcium	5.00	4.968		mg/L		99	85 - 120
Chromium	0.500	0.5035		mg/L		101	90 - 115
Iron	5.00	5.074		mg/L		101	88 - 119
Lead	0.0500	0.05090		mg/L		102	90 - 115
Molybdenum	0.0500	0.05070		mg/L		101	85 - 115
Selenium	0.100	0.1014		mg/L		101	80 - 120
Thallium	0.100	0.1020		mg/L		102	80 - 120

Lab Sample ID: LCS 410-486912/2-A
Matrix: Water
Analysis Batch: 487428

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 486912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.500	0.4907		mg/L		98	90 - 113

Lab Sample ID: MB 410-487054/1-A
Matrix: Water
Analysis Batch: 489389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 487054

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/27/24 09:10	04/01/24 18:00	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/27/24 09:10	04/01/24 18:00	1
Barium	<0.000746		0.00200	0.000746	mg/L		03/27/24 09:10	04/01/24 18:00	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/27/24 09:10	04/01/24 18:00	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/27/24 09:10	04/01/24 18:00	1
Calcium	<0.0500	^3+	0.120	0.0500	mg/L		03/27/24 09:10	04/01/24 18:00	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/27/24 09:10	04/01/24 18:00	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/27/24 09:10	04/01/24 18:00	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/27/24 09:10	04/01/24 18:00	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/27/24 09:10	04/01/24 18:00	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:00	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/27/24 09:10	04/01/24 18:00	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/27/24 09:10	04/01/24 18:00	1

Lab Sample ID: LCS 410-487054/2-A
Matrix: Water
Analysis Batch: 489389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 487054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09950		mg/L		99	80 - 120
Arsenic	0.500	0.5061		mg/L		101	85 - 120
Barium	0.500	0.5111		mg/L		102	80 - 120
Beryllium	0.0500	0.04725		mg/L		94	90 - 112
Cadmium	0.0500	0.05137		mg/L		103	86 - 113

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-487054/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489389
Prep Batch: 487054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	5.00	5.050	^3+	mg/L		101	85 - 120
Chromium	0.500	0.4977		mg/L		100	90 - 115
Cobalt	0.500	0.4978		mg/L		100	90 - 113
Iron	5.00	4.977		mg/L		100	88 - 119
Lead	0.0500	0.05050		mg/L		101	90 - 115
Molybdenum	0.0500	0.05156		mg/L		103	85 - 115
Selenium	0.100	0.09948		mg/L		99	80 - 120
Thallium	0.100	0.1001		mg/L		100	80 - 120

Lab Sample ID: MB 410-487068/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489390
Prep Batch: 487068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/26/24 09:52	04/01/24 18:36	1

Lab Sample ID: MB 410-487068/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489377
Prep Batch: 487068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/26/24 09:52	04/01/24 20:08	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/26/24 09:52	04/01/24 20:08	1
Barium	<0.000746		0.00200	0.000746	mg/L		03/26/24 09:52	04/01/24 20:08	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/26/24 09:52	04/01/24 20:08	1
Calcium	<0.0500		0.120	0.0500	mg/L		03/26/24 09:52	04/01/24 20:08	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/26/24 09:52	04/01/24 20:08	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/26/24 09:52	04/01/24 20:08	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/26/24 09:52	04/01/24 20:08	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/26/24 09:52	04/01/24 20:08	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:08	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/26/24 09:52	04/01/24 20:08	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/26/24 09:52	04/01/24 20:08	1

Lab Sample ID: LCS 410-487068/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489390
Prep Batch: 487068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.05327		mg/L		107	90 - 112

Lab Sample ID: LCS 410-487068/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489377
Prep Batch: 487068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1075		mg/L		108	80 - 120
Arsenic	0.500	0.5253		mg/L		105	85 - 120
Barium	0.500	0.5477		mg/L		110	80 - 120
Cadmium	0.0500	0.05465		mg/L		109	86 - 113

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-487068/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489377
Prep Batch: 487068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	5.00	5.219		mg/L		104	85 - 120
Chromium	0.500	0.5305		mg/L		106	90 - 115
Cobalt	0.500	0.5511		mg/L		110	90 - 113
Iron	5.00	5.275		mg/L		106	88 - 119
Lead	0.0500	0.05697		mg/L		114	90 - 115
Molybdenum	0.0500	0.05327		mg/L		107	85 - 115
Selenium	0.100	0.1025		mg/L		103	80 - 120
Thallium	0.100	0.1105		mg/L		110	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-487236/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 488666
Prep Batch: 487236

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/29/24 09:20	03/29/24 12:37	1

Lab Sample ID: LCS 410-487236/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 488666
Prep Batch: 487236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0008765		mg/L		88	80 - 118

Lab Sample ID: MB 410-487244/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 488623
Prep Batch: 487244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		03/28/24 09:10	03/29/24 11:37	1

Lab Sample ID: LCS 410-487244/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 488623
Prep Batch: 487244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.001100		mg/L		110	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-485507/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 485507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			03/21/24 06:30	1

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 410-485507/2
Matrix: Water
Analysis Batch: 485507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			200	181.0		mg/L		91	90 - 110		

Lab Sample ID: 410-164568-4 MS
Matrix: Water
Analysis Batch: 485507

Client Sample ID: DGWC-48 KHCO3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	670		800	1498		mg/L		104	90 - 110		

Lab Sample ID: 410-164568-4 DU
Matrix: Water
Analysis Batch: 485507

Client Sample ID: DGWC-48 KHCO3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	670			750.0	F3	mg/L				11	10

Method: 9040C - pH

Lab Sample ID: LCS 410-486233/3
Matrix: Water
Analysis Batch: 486233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	6.990		S.U.		100	95 - 105		

Lab Sample ID: LCSD 410-486233/4
Matrix: Water
Analysis Batch: 486233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH			7.00	6.970		S.U.		100	95 - 105	0	3

HPLC/IC

Analysis Batch: 486454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Total/NA	Water	EPA 300.0 R2.1	
410-164568-1	DGWC-48 Inf	Total/NA	Water	EPA 300.0 R2.1	
410-164568-2	DGWC-48 Control	Total/NA	Water	EPA 300.0 R2.1	
410-164568-2	DGWC-48 Control	Total/NA	Water	EPA 300.0 R2.1	
410-164568-4	DGWC-48 KHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-164568-4	DGWC-48 KHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-164568-6	DGWC-48 FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-164568-6	DGWC-48 FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
MB 410-486454/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-486454/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-486454/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 486912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	3005A	
MB 410-486912/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-486912/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 487054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Dissolved	Water	3005A	
410-164568-3	DGWC-48 KHCO3 Inf	Dissolved	Water	3005A	
MB 410-487054/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-487054/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 487068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-2	DGWC-48 Control	Dissolved	Water	3005A	
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	3005A	
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	3005A	
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	3005A	
MB 410-487068/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-487068/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 487174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	6010D	486912
MB 410-486912/1-A	Method Blank	Total Recoverable	Water	6010D	486912
LCS 410-486912/2-A	Lab Control Sample	Total Recoverable	Water	6010D	486912

Prep Batch: 487236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-3	DGWC-48 KHCO3 Inf	Dissolved	Water	7470A	
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	7470A	
MB 410-487236/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-487236/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals

Prep Batch: 487244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Dissolved	Water	7470A	
410-164568-2	DGWC-48 Control	Dissolved	Water	7470A	
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	7470A	
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	7470A	
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	7470A	
MB 410-487244/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-487244/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 487412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	6020B	486912
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	6020B	486912
MB 410-486912/1-A	Method Blank	Total Recoverable	Water	6020B	486912
LCS 410-486912/2-A	Lab Control Sample	Total Recoverable	Water	6020B	486912

Analysis Batch: 487428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	6020B	486912
MB 410-486912/1-A	Method Blank	Total Recoverable	Water	6020B	486912
LCS 410-486912/2-A	Lab Control Sample	Total Recoverable	Water	6020B	486912

Analysis Batch: 488208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Dissolved	Water	6010D	487054
410-164568-3	DGWC-48 KHCO3 Inf	Dissolved	Water	6010D	487054
MB 410-487054/1-A	Method Blank	Total Recoverable	Water	6010D	487054
LCS 410-487054/2-A	Lab Control Sample	Total Recoverable	Water	6010D	487054

Analysis Batch: 488387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-2	DGWC-48 Control	Dissolved	Water	6010D	487068
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	6010D	487068
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	6010D	487068
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	6010D	487068
MB 410-487068/1-A	Method Blank	Total Recoverable	Water	6010D	487068
LCS 410-487068/2-A	Lab Control Sample	Total Recoverable	Water	6010D	487068

Analysis Batch: 488623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Dissolved	Water	7470A	487244
410-164568-2	DGWC-48 Control	Dissolved	Water	7470A	487244
410-164568-4	DGWC-48 KHCO3	Dissolved	Water	7470A	487244
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	7470A	487244
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	7470A	487244
MB 410-487244/1-A	Method Blank	Total/NA	Water	7470A	487244
LCS 410-487244/2-A	Lab Control Sample	Total/NA	Water	7470A	487244

Analysis Batch: 488666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-3	DGWC-48 KHCO3 Inf	Dissolved	Water	7470A	487236
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	7470A	487236

Metals (Continued)

Analysis Batch: 488666 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-487236/1-A	Method Blank	Total/NA	Water	7470A	487236
LCS 410-487236/2-A	Lab Control Sample	Total/NA	Water	7470A	487236

Analysis Batch: 489377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-2	DGWC-48 Control	Dissolved	Water	6020B	487068
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	6020B	487068
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	6020B	487068
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	6020B	487068
MB 410-487068/1-A	Method Blank	Total Recoverable	Water	6020B	487068
LCS 410-487068/2-A	Lab Control Sample	Total Recoverable	Water	6020B	487068

Analysis Batch: 489389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Dissolved	Water	6020B	487054
410-164568-3	DGWC-48 KHCO3 Inf	Dissolved	Water	6020B	487054
MB 410-487054/1-A	Method Blank	Total Recoverable	Water	6020B	487054
LCS 410-487054/2-A	Lab Control Sample	Total Recoverable	Water	6020B	487054

Analysis Batch: 489390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-2	DGWC-48 Control	Dissolved	Water	6020B	487068
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Dissolved	Water	6020B	487068
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	6020B	487068
410-164568-7	DGWC-48 ADA Carbon	Dissolved	Water	6020B	487068
MB 410-487068/1-A	Method Blank	Total Recoverable	Water	6020B	487068
LCS 410-487068/2-A	Lab Control Sample	Total Recoverable	Water	6020B	487068

Analysis Batch: 489709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-6	DGWC-48 FeSO4-7H2O	Dissolved	Water	6020B	487068

General Chemistry

Analysis Batch: 485507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Total/NA	Water	2540C - 2015	
410-164568-2	DGWC-48 Control	Total/NA	Water	2540C - 2015	
410-164568-4	DGWC-48 KHCO3	Total/NA	Water	2540C - 2015	
410-164568-6	DGWC-48 FeSO4-7H2O	Total/NA	Water	2540C - 2015	
MB 410-485507/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-485507/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
410-164568-4 MS	DGWC-48 KHCO3	Total/NA	Water	2540C - 2015	
410-164568-4 DU	DGWC-48 KHCO3	Total/NA	Water	2540C - 2015	

Analysis Batch: 486233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-164568-1	DGWC-48 Inf	Total/NA	Water	9040C	
410-164568-2	DGWC-48 Control	Total/NA	Water	9040C	
410-164568-4	DGWC-48 KHCO3	Total/NA	Water	9040C	
410-164568-6	DGWC-48 FeSO4-7H2O	Total/NA	Water	9040C	

General Chemistry (Continued)

Analysis Batch: 486233 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-486233/3	Lab Control Sample	Total/NA	Water	9040C	
LCSD 410-486233/4	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: DGWC-48 Inf
Lab Sample ID: 410-164568-1
Date Collected: 03/19/24 08:00
Matrix: Water
Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	486454	L4QM	ELLE	03/23/24 22:19
Total/NA	Analysis	EPA 300.0 R2.1		50	486454	L4QM	ELLE	03/23/24 22:31
Dissolved	Prep	3005A			487054	NU9R	ELLE	03/27/24 09:10
Dissolved	Analysis	6010D		1	488208	MT26	ELLE	03/28/24 09:42
Dissolved	Prep	3005A			487054	NU9R	ELLE	03/27/24 09:10
Dissolved	Analysis	6020B		1	489389	UCIG	ELLE	04/01/24 18:30
Dissolved	Prep	7470A			487244	NU9R	ELLE	03/28/24 09:10
Dissolved	Analysis	7470A		1	488623	UEFS	ELLE	03/29/24 09:46
Total/NA	Analysis	2540C - 2015		1	485507	M98K	ELLE	03/21/24 06:30 - 03/22/24 10:20 [1]
Total/NA	Analysis	9040C		1	486233	DI9Q	ELLE	03/21/24 17:41

Client Sample ID: DGWC-48 Control
Lab Sample ID: 410-164568-2
Date Collected: 03/19/24 08:15
Matrix: Water
Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	486454	L4QM	ELLE	03/23/24 23:08
Total/NA	Analysis	EPA 300.0 R2.1		50	486454	L4QM	ELLE	03/23/24 23:20
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6010D		1	488387	T8CQ	ELLE	03/28/24 16:45
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 19:38
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 20:16
Dissolved	Prep	7470A			487244	NU9R	ELLE	03/28/24 09:10
Dissolved	Analysis	7470A		1	488623	UEFS	ELLE	03/29/24 10:03
Total/NA	Analysis	2540C - 2015		1	485507	M98K	ELLE	03/21/24 06:30 - 03/22/24 10:20 [1]
Total/NA	Analysis	9040C		1	486233	DI9Q	ELLE	03/21/24 17:30

Client Sample ID: DGWC-48 KHCO3 Inf
Lab Sample ID: 410-164568-3
Date Collected: 03/19/24 08:20
Matrix: Water
Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			487054	NU9R	ELLE	03/27/24 09:10
Dissolved	Analysis	6010D		1	488208	MT26	ELLE	03/28/24 09:39
Dissolved	Prep	3005A			487054	NU9R	ELLE	03/27/24 09:10
Dissolved	Analysis	6020B		1	489389	UCIG	ELLE	04/01/24 18:28
Dissolved	Prep	7470A			487236	NU9R	ELLE	03/29/24 09:20
Dissolved	Analysis	7470A		1	488666	UEFS	ELLE	03/29/24 13:04

Client Sample ID: DGWC-48 KHCO3

Lab Sample ID: 410-164568-4

Date Collected: 03/19/24 08:30

Matrix: Water

Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	486454	L4QM	ELLE	03/23/24 23:32
Total/NA	Analysis	EPA 300.0 R2.1		50	486454	L4QM	ELLE	03/23/24 23:44
Dissolved	Prep	3005A			486912	UAMX	ELLE	03/25/24 20:30
Dissolved	Analysis	6010D		1	487174	MT26	ELLE	03/26/24 10:08
Dissolved	Prep	3005A			486912	UAMX	ELLE	03/25/24 20:30
Dissolved	Analysis	6020B		1	487412	UCIG	ELLE	03/26/24 17:54
Dissolved	Prep	3005A			486912	UAMX	ELLE	03/25/24 20:30
Dissolved	Analysis	6020B		5	487412	UCIG	ELLE	03/26/24 18:30
Dissolved	Prep	3005A			486912	UAMX	ELLE	03/25/24 20:30
Dissolved	Analysis	6020B		1	487428	UCIG	ELLE	03/26/24 20:15
Dissolved	Prep	7470A			487244	NU9R	ELLE	03/28/24 09:10
Dissolved	Analysis	7470A		1	488623	UEFS	ELLE	03/29/24 09:59
Total/NA	Analysis	2540C - 2015		1	485507	M98K	ELLE	03/21/24 06:30 - 03/22/24 10:20 [1]
Total/NA	Analysis	9040C		1	486233	DI9Q	ELLE	03/21/24 17:34

Client Sample ID: DGWC-48 FeSO4-7H2O Inf

Lab Sample ID: 410-164568-5

Date Collected: 03/19/24 08:40

Matrix: Water

Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6010D		1	488387	T8CQ	ELLE	03/28/24 16:48
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 19:40
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 20:18
Dissolved	Prep	7470A			487236	NU9R	ELLE	03/29/24 09:20
Dissolved	Analysis	7470A		1	488666	UEFS	ELLE	03/29/24 13:09

Client Sample ID: DGWC-48 FeSO4-7H2O

Lab Sample ID: 410-164568-6

Date Collected: 03/19/24 08:45

Matrix: Water

Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	486454	L4QM	ELLE	03/23/24 23:56
Total/NA	Analysis	EPA 300.0 R2.1		50	486454	L4QM	ELLE	03/24/24 00:08
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6010D		1	488387	T8CQ	ELLE	03/28/24 16:29
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 19:04
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489709	F7JF	ELLE	04/02/24 11:39
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 20:12

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: DGWC-48 FeSO4-7H2O
Lab Sample ID: 410-164568-6

Date Collected: 03/19/24 08:45
Matrix: Water
Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	7470A			487244	NU9R	ELLE	03/28/24 09:10
Dissolved	Analysis	7470A		1	488623	UEFS	ELLE	03/29/24 10:01
Total/NA	Analysis	2540C - 2015		1	485507	M98K	ELLE	03/21/24 06:30 - 03/22/24 10:20 [1]
Total/NA	Analysis	9040C		1	486233	DI9Q	ELLE	03/21/24 17:38

Client Sample ID: DGWC-48 ADA Carbon
Lab Sample ID: 410-164568-7

Date Collected: 03/19/24 09:00
Matrix: Water
Date Received: 03/19/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6010D		1	488387	T8CQ	ELLE	03/28/24 16:41
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 19:36
Dissolved	Prep	3005A			487068	NU9R	ELLE	03/26/24 09:52
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 20:14
Dissolved	Prep	7470A			487244	NU9R	ELLE	03/28/24 09:10
Dissolved	Analysis	7470A		1	488623	UEFS	ELLE	03/29/24 09:56

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-12-25
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Delaware (DW)	State	N/A	01-31-25
Florida	NELAP	E87997	06-30-25
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24 *
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-24
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-25
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-28-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24
West Virginia (DW)	State	9906 C	01-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	055	07-31-24
Wyoming	State	8TMS-L	01-31-25
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-164568-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-164568-1	DGWC-48 Inf	Water	03/19/24 08:00	03/19/24 17:15
410-164568-2	DGWC-48 Control	Water	03/19/24 08:15	03/19/24 17:15
410-164568-3	DGWC-48 KHCO3 Inf	Water	03/19/24 08:20	03/19/24 17:15
410-164568-4	DGWC-48 KHCO3	Water	03/19/24 08:30	03/19/24 17:15
410-164568-5	DGWC-48 FeSO4-7H2O Inf	Water	03/19/24 08:40	03/19/24 17:15
410-164568-6	DGWC-48 FeSO4-7H2O	Water	03/19/24 08:45	03/19/24 17:15
410-164568-7	DGWC-48 ADA Carbon	Water	03/19/24 09:00	03/19/24 17:15

Enviro[illegible] Request/Chain of Custody

410-164568 Chain of Custody

eurofins | Lancaster Laboratories Environmental

A _____ Sample # _____

| | | |

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-164568-1

Login Number: 164568

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Foreman, Kai

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Container preservation not listed on COC.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 4/3/2024 4:33:42 PM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-165417-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

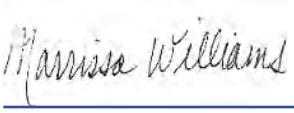
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/3/2024 4:33:42 PM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

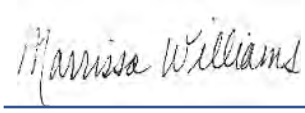


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 17
Lab Chronicle 19
Certification Summary 21
Method Summary 22
Sample Summary 23
Chain of Custody 24
Receipt Checklists 25

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-165417-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-165417-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/26/2024 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1DGWC-48 2 FeSO4 Day 14 (410-165417-4). The container labels list AP-1 DGWC-48 3 FeSO4 Day 14, while the COC lists AP-1 DGWC-48 2 FeSO4 Day 14. The client COC was followed for entry.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 Influent Day 14 — Lab Sample ID: 410-165417-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	270		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.43	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.660		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.100		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0175		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00572		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00254		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	65.0		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.339		0.000500	0.000156	mg/L	1		6020B	Dissolved
Total Dissolved Solids	405		30.0	12.0	mg/L	1		2540C - 2015	Total/NA
pH	5.91	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.4	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 1 Control Day 14 — Lab Sample ID: 410-165417-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	346		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	10.6		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.474		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0194		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000309	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000173	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	67.6		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.184		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.959		0.0500	0.0200	mg/L	1		6020B	Dissolved
Total Dissolved Solids	584		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.54	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.6	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14 — Lab Sample ID: 410-165417-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	349		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	12.3		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.452		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0121	J	0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0441		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000171	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	114		0.600	0.250	mg/L	5		6020B	Dissolved
Cobalt	0.0887		0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.00140		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	853		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.84	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	20.9	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14 — Lab Sample ID: 410-165417-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	586		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	11.6		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.497		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0202		0.00200	0.000746	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14 (Continued) — Lab Sample ID: 410-165417-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	60.6		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.0730		0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.00150		0.000500	0.000130	mg/L	1		6020B	Dissolved
Iron	0.0437	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Total Dissolved Solids	900		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	7.10	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 14 — Lab Sample ID: 410-165417-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	314		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	10.2		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.458		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0157	J	0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0211		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000178	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000767		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	50.9		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.117		0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.000251	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	507		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.30	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 Influent Day 14

Lab Sample ID: 410-165417-1

Date Collected: 03/26/24 08:00

Matrix: Water

Date Received: 03/26/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/29/24 06:11	5
Sulfate	**270**		75.0	25.0	mg/L			03/29/24 06:23	50
Chloride	**6.43**	**J**	7.50	3.00	mg/L			03/29/24 06:11	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.660**		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 12:26	1
Lithium	**0.100**		0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 12:26	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:39	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:39	1
Barium	**0.0175**		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:39	1
Beryllium	**0.00572**		0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 17:04	1
Cadmium	**0.00254**		0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:39	1
Calcium	**65.0**		0.120	0.0500	mg/L		03/29/24 08:05	04/01/24 19:39	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:39	1
Cobalt	**0.339**		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:39	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:39	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:39	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:39	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:39	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 19:39	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**405**		30.0	12.0	mg/L			03/27/24 06:47	1
pH (SW846 9040C)	**5.91**	**HF**	0.0100	0.0100	S.U.			03/28/24 00:02	1
Temperature (SW846 9040C)	**22.4**	**HF**	0.0100	0.0100	Degrees C			03/28/24 00:02	1

Client Sample ID: AP-1DGWC-48 1 Control Day 14

Lab Sample ID: 410-165417-2

Date Collected: 03/26/24 08:15

Matrix: Water

Date Received: 03/26/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/29/24 06:35	5
Sulfate	**346**		75.0	25.0	mg/L			03/29/24 06:47	50
Chloride	**10.6**		7.50	3.00	mg/L			03/29/24 06:35	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.474**		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 12:23	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 12:23	1

Client Sample ID: AP-1DGWC-48 1 Control Day 14

Lab Sample ID: 410-165417-2

Date Collected: 03/26/24 08:15

Matrix: Water

Date Received: 03/26/24 17:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:37	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:37	1
Barium	**0.0194**		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:37	1
Beryllium	**0.000309**	**J**	0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 17:02	1
Cadmium	**0.000173**	**J**	0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:37	1
Calcium	**67.6**		0.120	0.0500	mg/L		03/29/24 08:05	04/01/24 19:37	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:37	1
Cobalt	**0.184**		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:37	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:37	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:37	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:37	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:37	1
Iron	**0.959**		0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 17:02	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 10:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**584**		60.0	24.0	mg/L			03/27/24 06:47	1
pH (SW846 9040C)	**6.54**	**HF**	0.0100	0.0100	S.U.			03/27/24 23:57	1
Temperature (SW846 9040C)	**21.6**	**HF**	0.0100	0.0100	Degrees C			03/27/24 23:57	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14

Lab Sample ID: 410-165417-3

Date Collected: 03/26/24 08:30

Matrix: Water

Date Received: 03/26/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/29/24 10:49	5
Sulfate	**349**		75.0	25.0	mg/L			03/29/24 11:25	50
Chloride	**12.3**		7.50	3.00	mg/L			03/29/24 10:49	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.452**		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 12:33	1
Lithium	**0.0121**	**J**	0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 12:33	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:43	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:43	1
Barium	**0.0441**		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:43	1
Beryllium	<0.000119	^+ *+	0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 19:43	1
Cadmium	**0.000171**	**J**	0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:43	1
Calcium	**114**		0.600	0.250	mg/L		03/29/24 08:05	04/01/24 17:58	5
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:43	1
Cobalt	**0.0887**		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:43	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:43	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14

Lab Sample ID: 410-165417-3

Date Collected: 03/26/24 08:30

Matrix: Water

Date Received: 03/26/24 17:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**0.00140**		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:43	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:43	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:43	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 19:43	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**853**		60.0	24.0	mg/L			03/27/24 06:47	1
pH (SW846 9040C)	**6.84**	**HF**	0.0100	0.0100	S.U.			03/27/24 23:48	1
Temperature (SW846 9040C)	**20.9**	**HF**	0.0100	0.0100	Degrees C			03/27/24 23:48	1

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14

Lab Sample ID: 410-165417-4

Date Collected: 03/26/24 08:45

Matrix: Water

Date Received: 03/26/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/29/24 11:37	5
Sulfate	**586**		75.0	25.0	mg/L			03/29/24 11:49	50
Chloride	**11.6**		7.50	3.00	mg/L			03/29/24 11:37	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.497**		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 12:29	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 12:29	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:41	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:41	1
Barium	**0.0202**		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:41	1
Beryllium	<0.000119	^+ *+	0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 19:41	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:41	1
Calcium	**60.6**		0.120	0.0500	mg/L		03/29/24 08:05	04/01/24 19:41	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:41	1
Cobalt	**0.0730**		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:41	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:41	1
Molybdenum	**0.00150**		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:41	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:41	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:41	1
Iron	**0.0437**	**J**	0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 17:06	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 10:39	1

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14
Lab Sample ID: 410-165417-4

Date Collected: 03/26/24 08:45
Matrix: Water
Date Received: 03/26/24 17:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	900		120	48.0	mg/L			03/27/24 06:47	1
pH (SW846 9040C)	7.10	HF	0.0100	0.0100	S.U.			03/27/24 23:53	1
Temperature (SW846 9040C)	21.0	HF	0.0100	0.0100	Degrees C			03/27/24 23:53	1

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 14
Lab Sample ID: 410-165417-5

Date Collected: 03/26/24 09:00
Matrix: Water
Date Received: 03/26/24 17:15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			03/29/24 12:01	5
Sulfate	314		75.0	25.0	mg/L			03/29/24 12:13	50
Chloride	10.2		7.50	3.00	mg/L			03/29/24 12:01	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.458		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 12:19	1
Lithium	0.0157	J	0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 12:19	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:35	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:35	1
Barium	0.0211		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:35	1
Beryllium	0.000178	J	0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 17:00	1
Cadmium	0.000767		0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:35	1
Calcium	50.9		0.120	0.0500	mg/L		03/29/24 08:05	04/01/24 19:35	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:35	1
Cobalt	0.117		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:35	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:35	1
Molybdenum	0.000251	J	0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:35	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:35	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 17:00	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 19:35	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 09:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	507		60.0	24.0	mg/L			03/27/24 06:47	1
pH (SW846 9040C)	6.30	HF	0.0100	0.0100	S.U.			03/28/24 00:06	1
Temperature (SW846 9040C)	22.0	HF	0.0100	0.0100	Degrees C			03/28/24 00:06	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-488350/5
Matrix: Water
Analysis Batch: 488350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			03/28/24 23:31	1
Sulfate	<0.500		1.50	0.500	mg/L			03/28/24 23:31	1
Chloride	<0.600		1.50	0.600	mg/L			03/28/24 23:31	1

Lab Sample ID: LCS 410-488350/3
Matrix: Water
Analysis Batch: 488350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7648		mg/L		102	90 - 110
Sulfate	7.50	7.785		mg/L		104	90 - 110
Chloride	3.00	3.087		mg/L		103	90 - 110

Lab Sample ID: LCSD 410-488350/4
Matrix: Water
Analysis Batch: 488350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7930		mg/L		106	90 - 110	4	20
Sulfate	7.50	7.864		mg/L		105	90 - 110	1	20
Chloride	3.00	3.103		mg/L		103	90 - 110	1	20

Lab Sample ID: MB 410-488370/5
Matrix: Water
Analysis Batch: 488370

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			03/29/24 08:24	1
Sulfate	<0.500		1.50	0.500	mg/L			03/29/24 08:24	1
Chloride	<0.600		1.50	0.600	mg/L			03/29/24 08:24	1

Lab Sample ID: LCS 410-488370/3
Matrix: Water
Analysis Batch: 488370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7912		mg/L		105	90 - 110
Sulfate	7.50	7.965		mg/L		106	90 - 110
Chloride	3.00	3.119		mg/L		104	90 - 110

Lab Sample ID: LCSD 410-488370/4
Matrix: Water
Analysis Batch: 488370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7886		mg/L		105	90 - 110	0	20
Sulfate	7.50	8.020		mg/L		107	90 - 110	1	20
Chloride	3.00	3.136		mg/L		105	90 - 110	1	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-488128/1-A
Matrix: Water
Analysis Batch: 489221

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 488128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		03/29/24 08:05	04/01/24 11:20	1
Lithium	<0.0110		0.0500	0.0110	mg/L		03/29/24 08:05	04/01/24 11:20	1

Lab Sample ID: LCS 410-488128/2-A
Matrix: Water
Analysis Batch: 489221

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 488128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5153		mg/L		103	80 - 120
Lithium	0.500	0.5111		mg/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-488128/1-A
Matrix: Water
Analysis Batch: 489390

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 488128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.000119		0.000500	0.000119	mg/L		03/29/24 08:05	04/01/24 16:26	1

Lab Sample ID: MB 410-488128/1-A
Matrix: Water
Analysis Batch: 489377

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 488128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		03/29/24 08:05	04/01/24 19:30	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		03/29/24 08:05	04/01/24 19:30	1
Barium	<0.000746		0.00200	0.000746	mg/L		03/29/24 08:05	04/01/24 19:30	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		03/29/24 08:05	04/01/24 19:30	1
Calcium	<0.0500		0.120	0.0500	mg/L		03/29/24 08:05	04/01/24 19:30	1
Chromium	<0.000550		0.00200	0.000550	mg/L		03/29/24 08:05	04/01/24 19:30	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		03/29/24 08:05	04/01/24 19:30	1
Lead	<0.000120		0.000500	0.000120	mg/L		03/29/24 08:05	04/01/24 19:30	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:30	1
Selenium	<0.000278		0.00100	0.000278	mg/L		03/29/24 08:05	04/01/24 19:30	1
Thallium	<0.000130		0.000500	0.000130	mg/L		03/29/24 08:05	04/01/24 19:30	1
Iron	<0.0200		0.0500	0.0200	mg/L		03/29/24 08:05	04/01/24 19:30	1

Lab Sample ID: LCS 410-488128/2-A
Matrix: Water
Analysis Batch: 489390

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 488128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.05044		mg/L		101	90 - 112

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-488128/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 489377
Prep Batch: 488128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1045		mg/L		105	80 - 120
Arsenic	0.500	0.5115		mg/L		102	85 - 120
Barium	0.500	0.5341		mg/L		107	80 - 120
Cadmium	0.0500	0.05324		mg/L		106	86 - 113
Calcium	5.00	5.074		mg/L		101	85 - 120
Chromium	0.500	0.5229		mg/L		105	90 - 115
Cobalt	0.500	0.5454		mg/L		109	90 - 113
Lead	0.0500	0.05570		mg/L		111	90 - 115
Molybdenum	0.0500	0.05243		mg/L		105	85 - 115
Selenium	0.100	0.09984		mg/L		100	80 - 120
Thallium	0.100	0.1076		mg/L		108	80 - 120
Iron	5.00	5.178		mg/L		104	88 - 119

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-489619/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 490232
Prep Batch: 489619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/02/24 10:55	04/03/24 09:39	1

Lab Sample ID: LCS 410-489619/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 490232
Prep Batch: 489619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0008532		mg/L		85	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-487474/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 487474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			03/27/24 06:47	1

Lab Sample ID: LCS 410-487474/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 487474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	196.0		mg/L		98	90 - 110

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: 410-165417-4 MS
Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 487474

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	900		800	1660		mg/L		95	90 - 110		

Lab Sample ID: 410-165417-3 DU
Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 487474

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	853			871.0		mg/L				2	10

Lab Sample ID: 410-165417-4 DU
Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 487474

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	900			936.0		mg/L				4	10

Method: 9040C - pH

Lab Sample ID: LCS 410-488031/17
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 488031

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.060		S.U.		101	95 - 105		

HPLC/IC

Analysis Batch: 488350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-1	AP-1DGWC-48 Influent Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Total/NA	Water	EPA 300.0 R2.1	
MB 410-488350/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-488350/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-488350/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 488370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Total/NA	Water	EPA 300.0 R2.1	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Total/NA	Water	EPA 300.0 R2.1	
MB 410-488370/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-488370/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-488370/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 488128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	3005A	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	3005A	
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	3005A	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	3005A	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	3005A	
MB 410-488128/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-488128/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 489221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	6010D	488128
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	6010D	488128
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	6010D	488128
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	6010D	488128
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	6010D	488128
MB 410-488128/1-A	Method Blank	Total Recoverable	Water	6010D	488128
LCS 410-488128/2-A	Lab Control Sample	Total Recoverable	Water	6010D	488128

Analysis Batch: 489377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	6020B	488128
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	6020B	488128
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	6020B	488128
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	6020B	488128
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	6020B	488128
MB 410-488128/1-A	Method Blank	Total Recoverable	Water	6020B	488128
LCS 410-488128/2-A	Lab Control Sample	Total Recoverable	Water	6020B	488128

Metals

Analysis Batch: 489390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	6020B	488128
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	6020B	488128
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	6020B	488128
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	6020B	488128
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	6020B	488128
MB 410-488128/1-A	Method Blank	Total Recoverable	Water	6020B	488128
LCS 410-488128/2-A	Lab Control Sample	Total Recoverable	Water	6020B	488128

Prep Batch: 489619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	7470A	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	7470A	
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	7470A	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	7470A	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	7470A	
MB 410-489619/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-489619/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 490232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Dissolved	Water	7470A	489619
410-165417-2	AP-1DGWC-48 1 Control Day 14	Dissolved	Water	7470A	489619
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Dissolved	Water	7470A	489619
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Dissolved	Water	7470A	489619
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Dissolved	Water	7470A	489619
MB 410-489619/1-A	Method Blank	Total/NA	Water	7470A	489619
LCS 410-489619/2-A	Lab Control Sample	Total/NA	Water	7470A	489619

General Chemistry

Analysis Batch: 487474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Total/NA	Water	2540C - 2015	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Total/NA	Water	2540C - 2015	
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Total/NA	Water	2540C - 2015	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	2540C - 2015	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Total/NA	Water	2540C - 2015	
MB 410-487474/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-487474/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
410-165417-4 MS	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	2540C - 2015	
410-165417-3 DU	AP-1DGWC-48 2 KHCO3 Day 14	Total/NA	Water	2540C - 2015	
410-165417-4 DU	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	2540C - 2015	

Analysis Batch: 488031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-165417-1	AP-1DGWC-48 Influent Day 14	Total/NA	Water	9040C	
410-165417-2	AP-1DGWC-48 1 Control Day 14	Total/NA	Water	9040C	
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Total/NA	Water	9040C	
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Total/NA	Water	9040C	
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Total/NA	Water	9040C	
LCS 410-488031/17	Lab Control Sample	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 Influent Day 14
Lab Sample ID: 410-165417-1
Date Collected: 03/26/24 08:00
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	488350	W7FX	ELLE	03/29/24 06:11
Total/NA	Analysis	EPA 300.0 R2.1		50	488350	W7FX	ELLE	03/29/24 06:23
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6010D		1	489221	MT26	ELLE	04/01/24 12:26
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 17:04
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 19:39
Dissolved	Prep	7470A			489619	NU9R	ELLE	04/02/24 10:55
Dissolved	Analysis	7470A		1	490232	UEFS	ELLE	04/03/24 10:34
Total/NA	Analysis	2540C - 2015		1	487474	M98K	ELLE	03/27/24 06:47 - 03/28/24 11:00 [1]
Total/NA	Analysis	9040C		1	488031	DI9Q	ELLE	03/28/24 00:02

Client Sample ID: AP-1DGWC-48 1 Control Day 14
Lab Sample ID: 410-165417-2
Date Collected: 03/26/24 08:15
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	488350	W7FX	ELLE	03/29/24 06:35
Total/NA	Analysis	EPA 300.0 R2.1		50	488350	W7FX	ELLE	03/29/24 06:47
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6010D		1	489221	MT26	ELLE	04/01/24 12:23
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 17:02
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 19:37
Dissolved	Prep	7470A			489619	NU9R	ELLE	04/02/24 10:55
Dissolved	Analysis	7470A		1	490232	UEFS	ELLE	04/03/24 10:25
Total/NA	Analysis	2540C - 2015		1	487474	M98K	ELLE	03/27/24 06:47 - 03/28/24 11:00 [1]
Total/NA	Analysis	9040C		1	488031	DI9Q	ELLE	03/27/24 23:57

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14
Lab Sample ID: 410-165417-3
Date Collected: 03/26/24 08:30
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	488370	W7FX	ELLE	03/29/24 10:49
Total/NA	Analysis	EPA 300.0 R2.1		50	488370	W7FX	ELLE	03/29/24 11:25
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6010D		1	489221	MT26	ELLE	04/01/24 12:33
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		5	489390	UCIG	ELLE	04/01/24 17:58
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 19:43

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 14
Lab Sample ID: 410-165417-3

Date Collected: 03/26/24 08:30
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	7470A			489619	NU9R	ELLE	04/02/24 10:55
Dissolved	Analysis	7470A		1	490232	UEFS	ELLE	04/03/24 10:14
Total/NA	Analysis	2540C - 2015		1	487474	M98K	ELLE	03/27/24 06:47 - 03/28/24 11:00 [1]
Total/NA	Analysis	9040C		1	488031	DI9Q	ELLE	03/27/24 23:48

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 14
Lab Sample ID: 410-165417-4

Date Collected: 03/26/24 08:45
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	488370	W7FX	ELLE	03/29/24 11:37
Total/NA	Analysis	EPA 300.0 R2.1		50	488370	W7FX	ELLE	03/29/24 11:49
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6010D		1	489221	MT26	ELLE	04/01/24 12:29
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 17:06
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 19:41
Dissolved	Prep	7470A			489619	NU9R	ELLE	04/02/24 10:55
Dissolved	Analysis	7470A		1	490232	UEFS	ELLE	04/03/24 10:39
Total/NA	Analysis	2540C - 2015		1	487474	M98K	ELLE	03/27/24 06:47 - 03/28/24 11:00 [1]
Total/NA	Analysis	9040C		1	488031	DI9Q	ELLE	03/27/24 23:53

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 14
Lab Sample ID: 410-165417-5

Date Collected: 03/26/24 09:00
Matrix: Water
Date Received: 03/26/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	488370	W7FX	ELLE	03/29/24 12:01
Total/NA	Analysis	EPA 300.0 R2.1		50	488370	W7FX	ELLE	03/29/24 12:13
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6010D		1	489221	MT26	ELLE	04/01/24 12:19
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489390	UCIG	ELLE	04/01/24 17:00
Dissolved	Prep	3005A			488128	NU9R	ELLE	03/29/24 08:05
Dissolved	Analysis	6020B		1	489377	UCIG	ELLE	04/01/24 19:35
Dissolved	Prep	7470A			489619	NU9R	ELLE	04/02/24 10:55
Dissolved	Analysis	7470A		1	490232	UEFS	ELLE	04/03/24 09:58
Total/NA	Analysis	2540C - 2015		1	487474	M98K	ELLE	03/27/24 06:47 - 03/28/24 11:00 [1]
Total/NA	Analysis	9040C		1	488031	DI9Q	ELLE	03/28/24 00:06

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Georgia (DW)	State	C048	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540C - 2015		Water	Total Dissolved Solids
6010D	3005A	Water	Boron
6010D	3005A	Water	Lithium
6020B	3005A	Water	Antimony
6020B	3005A	Water	Arsenic
6020B	3005A	Water	Barium
6020B	3005A	Water	Beryllium
6020B	3005A	Water	Cadmium
6020B	3005A	Water	Calcium
6020B	3005A	Water	Chromium
6020B	3005A	Water	Cobalt
6020B	3005A	Water	Iron
6020B	3005A	Water	Lead
6020B	3005A	Water	Molybdenum
6020B	3005A	Water	Selenium
6020B	3005A	Water	Thallium
7470A	7470A	Water	Mercury
9040C		Water	pH
9040C		Water	Temperature
EPA 300.0 R2.1		Water	Chloride
EPA 300.0 R2.1		Water	Fluoride
EPA 300.0 R2.1		Water	Sulfate

Method Summary

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-165417-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-165417-1	AP-1DGWC-48 Influent Day 14	Water	03/26/24 08:00	03/26/24 17:15
410-165417-2	AP-1DGWC-48 1 Control Day 14	Water	03/26/24 08:15	03/26/24 17:15
410-165417-3	AP-1DGWC-48 2 KHCO3 Day 14	Water	03/26/24 08:30	03/26/24 17:15
410-165417-4	AP-1DGWC-48 2 FeSO4 Day 14	Water	03/26/24 08:45	03/26/24 17:15
410-165417-5	AP-1DGWC-48 4 ADA Carbon Day 14	Water	03/26/24 09:00	03/26/24 17:15

Lysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-165417 Chain of Custody

Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 3-26-24		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

| Sample Identification | Collection Date | Collection Time | Grab | Composite | Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☑ NPDES ☐ Surface ☐ | Other: | Total # of Containers | Analyses Requested: Preservation Codes N | N | N | - | - | | |

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-165417-1

Login Number: 165417

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Roth, Stephanie

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 4/22/2024 2:23:27 PM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-166326-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

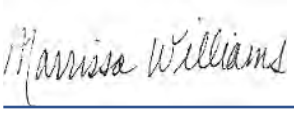
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/22/2024 2:23:27 PM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

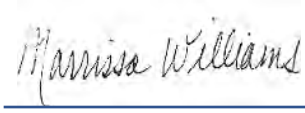


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 14
QC Association Summary 17
Lab Chronicle 19
Certification Summary 22
Method Summary 23
Sample Summary 24
Chain of Custody 25
Receipt Checklists 26

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-166326-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/2/2024 4:48 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1DGWC-48 2 FeSO4 Day 21 (410-166326-5). The container labels list AP-1 DGWC-48 3 FeSO4 Day 21, while the COC lists AP-1 DGWC-48 2 FeSO4 Day 21.

Insufficient sample volume was provided for the following sample for the TDS analysis: AP-1DGWC-48 2l KHCO3 Day 21 (410-166326-3). The 250 ml container had 3 oz (~80ml) and the 50 ml bottle had 40 ml.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-166326-1

Client Sample ID: AP-1DGWC-48 Influent Day 21 — Lab Sample ID: 410-166326-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	279		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.86	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.651		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0968		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0248		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00812		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00242		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	59.4		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.291		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0461	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000402	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Thallium	0.000366	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.0000840	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	448		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	5.99	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 1 Control Day 21 — Lab Sample ID: 410-166326-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.587		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0203		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000232	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000962		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	58.6		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.138		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0262	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.00104		0.000500	0.000130	mg/L	1		6020B	Dissolved
Thallium	0.000169	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.0000852	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved

Client Sample ID: AP-1DGWC-48 2I KHCO3 Day 21 — Lab Sample ID: 410-166326-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.494	J	1.00	0.450	mg/L	5		EPA 300.0 R2.1	Total/NA
Sulfate	277		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.86	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.618		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0973		0.0500	0.0110	mg/L	1		6010D	Dissolved
Arsenic	0.00109	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0142		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00187		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00137		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	56.3		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.262		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0484	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Thallium	0.000350	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.000106	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
pH	8.22	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.2	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 21 — Lab Sample ID: 410-166326-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	338		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	9.62		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.494		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0410		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000135	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000211	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	97.1		1.20	0.500	mg/L	10		6020B	Dissolved
Cobalt	0.0435		0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000125	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00299		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	834		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	6.85	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.4	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 21 — Lab Sample ID: 410-166326-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	398		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	8.16		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.570		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0165		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000193	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Calcium	41.0		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.0432		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.244		0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.000801		0.000500	0.000130	mg/L	1		6020B	Dissolved
Mercury	0.0000882	J	0.000200	0.0000790	mg/L	1		7470A	Dissolved
Total Dissolved Solids	671		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.58	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.2	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 21 — Lab Sample ID: 410-166326-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	328		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	9.35		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.472		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0179		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000165	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000498	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	46.7		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.0957		0.000500	0.000156	mg/L	1		6020B	Dissolved
Molybdenum	0.000206	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	504		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.40	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	21.4	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 Influent Day 21

Lab Sample ID: 410-166326-1
Date Collected: 04/02/24 08:00
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/05/24 23:02	5
Sulfate	**279**		75.0	25.0	mg/L			04/05/24 23:36	50
Chloride	**6.86**	**J**	7.50	3.00	mg/L			04/05/24 23:02	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.651**		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:39	1
Lithium	**0.0968**		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:39	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 16:52	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 16:52	1
Barium	**0.0248**		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 16:52	1
Beryllium	**0.00812**		0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 16:52	1
Cadmium	**0.00242**		0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 16:52	1
Calcium	**59.4**		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 16:52	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 16:52	1
Cobalt	**0.291**		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 16:52	1
Iron	**0.0461**	**J**	0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 16:52	1
Lead	**0.000402**	**J**	0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 16:52	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:52	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 16:52	1
Thallium	**0.000366**	**J**	0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:52	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0000840**	**J**	0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**448**		60.0	24.0	mg/L			04/04/24 06:53	1
pH (SW846 9040C)	**5.99**	**HF**	0.0100	0.0100	S.U.			04/04/24 22:41	1
Temperature (SW846 9040C)	**21.7**	**HF**	0.0100	0.0100	Degrees C			04/04/24 22:41	1

Client Sample ID: AP-1DGWC-48 1 Control Day 21

Lab Sample ID: 410-166326-2
Date Collected: 04/02/24 08:15
Matrix: Water
Date Received: 04/02/24 16:48

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.587**		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:52	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:52	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 17:00	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 17:00	1
Barium	**0.0203**		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 17:00	1
Beryllium	**0.000232**	**J**	0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 17:00	1

Client Sample ID: AP-1DGWC-48 1 Control Day 21
Lab Sample ID: 410-166326-2

Date Collected: 04/02/24 08:15
Matrix: Water
Date Received: 04/02/24 16:48

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000962		0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 17:00	1
Calcium	58.6		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 17:00	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 17:00	1
Cobalt	0.138		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 17:00	1
Iron	0.0262	J	0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 17:00	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 17:00	1
Molybdenum	0.00104		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 17:00	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 17:00	1
Thallium	0.000169	J	0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 17:00	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000852	J	0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 14:22	1

Client Sample ID: AP-1DGWC-48 2I KHCO3 Day 21
Lab Sample ID: 410-166326-3

Date Collected: 04/02/24 08:30
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.494	J	1.00	0.450	mg/L			04/05/24 23:48	5
Sulfate	277		75.0	25.0	mg/L			04/06/24 00:00	50
Chloride	6.86	J	7.50	3.00	mg/L			04/05/24 23:48	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.618		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:49	1
Lithium	0.0973		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:49	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 16:58	1
Arsenic	0.00109	J	0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 16:58	1
Barium	0.0142		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 16:58	1
Beryllium	0.00187		0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 16:58	1
Cadmium	0.00137		0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 16:58	1
Calcium	56.3		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 16:58	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 16:58	1
Cobalt	0.262		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 16:58	1
Iron	0.0484	J	0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 16:58	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 16:58	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:58	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 16:58	1
Thallium	0.000350	J	0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:58	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000106	J	0.000200	0.0000790	mg/L		04/05/24 08:38	04/21/24 14:31	1

Client Sample ID: AP-1DGWC-48 2l KHCO3 Day 21
Lab Sample ID: 410-166326-3

Date Collected: 04/02/24 08:30
Matrix: Water
Date Received: 04/02/24 16:48

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	8.22	HF	0.0100	0.0100	S.U.			04/04/24 22:36	1
Temperature (SW846 9040C)	22.2	HF	0.0100	0.0100	Degrees C			04/04/24 22:36	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 21
Lab Sample ID: 410-166326-4

Date Collected: 04/02/24 08:45
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/06/24 00:11	5
Sulfate	338		75.0	25.0	mg/L			04/06/24 00:23	50
Chloride	9.62		7.50	3.00	mg/L			04/06/24 00:11	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.494		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:46	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:46	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 16:56	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 16:56	1
Barium	0.0410		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 16:56	1
Beryllium	0.000135	J	0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 16:56	1
Cadmium	0.000211	J	0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 16:56	1
Calcium	97.1		1.20	0.500	mg/L		04/05/24 09:00	04/22/24 09:02	10
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 16:56	1
Cobalt	0.0435		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 16:56	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 16:56	1
Lead	0.000125	J	0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 16:56	1
Molybdenum	0.00299		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:56	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 16:56	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:56	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	834		120	48.0	mg/L			04/04/24 06:53	1
pH (SW846 9040C)	6.85	HF	0.0100	0.0100	S.U.			04/04/24 22:27	1
Temperature (SW846 9040C)	21.4	HF	0.0100	0.0100	Degrees C			04/04/24 22:27	1

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 21
Lab Sample ID: 410-166326-5

Date Collected: 04/02/24 09:00
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/06/24 00:34	5

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 21
Lab Sample ID: 410-166326-5

Date Collected: 04/02/24 09:00
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**398**		75.0	25.0	mg/L			04/06/24 00:46	50
Chloride	**8.16**		7.50	3.00	mg/L			04/06/24 00:34	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.570**		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:43	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:43	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 16:54	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 16:54	1
Barium	**0.0165**		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 16:54	1
Beryllium	**0.000193**	**J**	0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 16:54	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 16:54	1
Calcium	**41.0**		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 16:54	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 16:54	1
Cobalt	**0.0432**		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 16:54	1
Iron	**0.244**		0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 16:54	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 16:54	1
Molybdenum	**0.000801**		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:54	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 16:54	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:54	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0000882**	**J**	0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**671**		60.0	24.0	mg/L			04/04/24 06:53	1
pH (SW846 9040C)	**6.58**	**HF**	0.0100	0.0100	S.U.			04/04/24 22:32	1
Temperature (SW846 9040C)	**22.2**	**HF**	0.0100	0.0100	Degrees C			04/04/24 22:32	1

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 21
Lab Sample ID: 410-166326-6

Date Collected: 04/02/24 09:15
Matrix: Water
Date Received: 04/02/24 16:48

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/06/24 00:57	5
Sulfate	**328**		75.0	25.0	mg/L			04/06/24 01:09	50
Chloride	**9.35**		7.50	3.00	mg/L			04/06/24 00:57	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.472**		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:56	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:56	1

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 21
Lab Sample ID: 410-166326-6
Date Collected: 04/02/24 09:15
Matrix: Water
Date Received: 04/02/24 16:48

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 17:04	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 17:04	1
Barium	**0.0179**		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 17:04	1
Beryllium	**0.000165**	**J**	0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 17:04	1
Cadmium	**0.000498**	**J**	0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 17:04	1
Calcium	**46.7**		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 17:04	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 17:04	1
Cobalt	**0.0957**		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 17:04	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 17:04	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 17:04	1
Molybdenum	**0.000206**	**J**	0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 17:04	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 17:04	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 17:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**504**		60.0	24.0	mg/L			04/04/24 06:53	1
pH (SW846 9040C)	**6.40**	**HF**	0.0100	0.0100	S.U.			04/04/24 22:45	1
Temperature (SW846 9040C)	**21.4**	**HF**	0.0100	0.0100	Degrees C			04/04/24 22:45	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-491326/5
Matrix: Water
Analysis Batch: 491326

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			04/05/24 21:41	1
Sulfate	<0.500		1.50	0.500	mg/L			04/05/24 21:41	1
Chloride	<0.600		1.50	0.600	mg/L			04/05/24 21:41	1

Lab Sample ID: LCS 410-491326/3
Matrix: Water
Analysis Batch: 491326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7221		mg/L		96	90 - 110
Sulfate	7.50	7.182		mg/L		96	90 - 110
Chloride	3.00	2.867		mg/L		96	90 - 110

Lab Sample ID: LCSD 410-491326/4
Matrix: Water
Analysis Batch: 491326

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7202		mg/L		96	90 - 110	0	20
Sulfate	7.50	7.174		mg/L		96	90 - 110	0	20
Chloride	3.00	2.864		mg/L		95	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-490658/1-A
Matrix: Water
Analysis Batch: 491890

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		04/05/24 09:00	04/08/24 08:06	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/05/24 09:00	04/08/24 08:06	1

Lab Sample ID: LCS 410-490658/2-A
Matrix: Water
Analysis Batch: 491890

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5190		mg/L		104	83 - 119
Lithium	0.500	0.5137		mg/L		103	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-490658/1-A
Matrix: Water
Analysis Batch: 496758

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/05/24 09:00	04/21/24 16:48	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/05/24 09:00	04/21/24 16:48	1
Barium	<0.000746		0.00200	0.000746	mg/L		04/05/24 09:00	04/21/24 16:48	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-490658/1-A
Matrix: Water
Analysis Batch: 496758

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/05/24 09:00	04/21/24 16:48	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/05/24 09:00	04/21/24 16:48	1
Calcium	<0.0500		0.120	0.0500	mg/L		04/05/24 09:00	04/21/24 16:48	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/05/24 09:00	04/21/24 16:48	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		04/05/24 09:00	04/21/24 16:48	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/05/24 09:00	04/21/24 16:48	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/05/24 09:00	04/21/24 16:48	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:48	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/05/24 09:00	04/21/24 16:48	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/05/24 09:00	04/21/24 16:48	1

Lab Sample ID: LCS 410-490658/2-A
Matrix: Water
Analysis Batch: 496758

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09541		mg/L		95	90 - 115
Arsenic	0.500	0.4843		mg/L		97	90 - 109
Barium	0.500	0.4772		mg/L		95	90 - 113
Beryllium	0.0500	0.04997		mg/L		100	82 - 120
Cadmium	0.0500	0.04799		mg/L		96	90 - 112
Calcium	5.00	4.862		mg/L		97	90 - 112
Chromium	0.500	0.4706		mg/L		94	90 - 110
Cobalt	0.500	0.4839		mg/L		97	90 - 110
Iron	5.00	4.839		mg/L		97	90 - 111
Lead	0.0500	0.04835		mg/L		97	90 - 110
Molybdenum	0.0500	0.04798		mg/L		96	90 - 115
Selenium	0.100	0.09564		mg/L		96	90 - 110
Thallium	0.100	0.09511		mg/L		95	90 - 110

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-490586/1-A
Matrix: Water
Analysis Batch: 491246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 490586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/05/24 08:38	04/05/24 13:53	1

Lab Sample ID: LCS 410-490586/2-A
Matrix: Water
Analysis Batch: 491246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 490586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009277		mg/L		93	80 - 118

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-490503/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 490503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/04/24 06:53	1

Lab Sample ID: LCS 410-490503/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 490503

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			200	193.0		mg/L		97	90 - 110		

Method: 9040C - pH

Lab Sample ID: LCS 410-491181/17
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 491181

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.010		S.U.		100	95 - 105		

Lab Sample ID: LCSD 410-491181/18
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 491181

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH			7.00	6.990		S.U.		100	95 - 105	0	3

HPLC/IC

Analysis Batch: 491326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-1	AP-1DGWC-48 Influent Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Total/NA	Water	EPA 300.0 R2.1	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Total/NA	Water	EPA 300.0 R2.1	
MB 410-491326/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-491326/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-491326/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 490586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Dissolved	Water	7470A	
410-166326-2	AP-1DGWC-48 1 Control Day 21	Dissolved	Water	7470A	
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Dissolved	Water	7470A	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	7470A	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Dissolved	Water	7470A	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Dissolved	Water	7470A	
MB 410-490586/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-490586/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 490658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Dissolved	Water	3005A	
410-166326-2	AP-1DGWC-48 1 Control Day 21	Dissolved	Water	3005A	
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Dissolved	Water	3005A	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	3005A	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Dissolved	Water	3005A	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Dissolved	Water	3005A	
MB 410-490658/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-490658/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Dissolved	Water	7470A	490586
410-166326-2	AP-1DGWC-48 1 Control Day 21	Dissolved	Water	7470A	490586
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Dissolved	Water	7470A	490586
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	7470A	490586
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Dissolved	Water	7470A	490586
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Dissolved	Water	7470A	490586
MB 410-490586/1-A	Method Blank	Total/NA	Water	7470A	490586
LCS 410-490586/2-A	Lab Control Sample	Total/NA	Water	7470A	490586

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Metals

Analysis Batch: 491890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Dissolved	Water	6010D	490658
410-166326-2	AP-1DGWC-48 1 Control Day 21	Dissolved	Water	6010D	490658
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Dissolved	Water	6010D	490658
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	6010D	490658
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Dissolved	Water	6010D	490658
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Dissolved	Water	6010D	490658
MB 410-490658/1-A	Method Blank	Total Recoverable	Water	6010D	490658
LCS 410-490658/2-A	Lab Control Sample	Total Recoverable	Water	6010D	490658

Analysis Batch: 496758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Dissolved	Water	6020B	490658
410-166326-2	AP-1DGWC-48 1 Control Day 21	Dissolved	Water	6020B	490658
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Dissolved	Water	6020B	490658
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	6020B	490658
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Dissolved	Water	6020B	490658
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Dissolved	Water	6020B	490658
MB 410-490658/1-A	Method Blank	Total Recoverable	Water	6020B	490658
LCS 410-490658/2-A	Lab Control Sample	Total Recoverable	Water	6020B	490658

Analysis Batch: 496997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Dissolved	Water	6020B	490658

General Chemistry

Analysis Batch: 490503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Total/NA	Water	2540C - 2015	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Total/NA	Water	2540C - 2015	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Total/NA	Water	2540C - 2015	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Total/NA	Water	2540C - 2015	
MB 410-490503/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-490503/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 491181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-166326-1	AP-1DGWC-48 Influent Day 21	Total/NA	Water	9040C	
410-166326-3	AP-1DGWC-48 2I KHCO3 Day 21	Total/NA	Water	9040C	
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Total/NA	Water	9040C	
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Total/NA	Water	9040C	
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Total/NA	Water	9040C	
LCS 410-491181/17	Lab Control Sample	Total/NA	Water	9040C	
LCSD 410-491181/18	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 Influent Day 21
Lab Sample ID: 410-166326-1
Date Collected: 04/02/24 08:00
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	491326	W7FX	ELLE	04/05/24 23:02
Total/NA	Analysis	EPA 300.0 R2.1		50	491326	W7FX	ELLE	04/05/24 23:36
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:39
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 16:52
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:06
Total/NA	Analysis	2540C - 2015		1	490503	M98K	ELLE	04/04/24 06:53 - 04/05/24 10:15 [1]
Total/NA	Analysis	9040C		1	491181	DI9Q	ELLE	04/04/24 22:41

Client Sample ID: AP-1DGWC-48 1 Control Day 21
Lab Sample ID: 410-166326-2
Date Collected: 04/02/24 08:15
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:52
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 17:00
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:22

Client Sample ID: AP-1DGWC-48 2I KHCO3 Day 21
Lab Sample ID: 410-166326-3
Date Collected: 04/02/24 08:30
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	491326	W7FX	ELLE	04/05/24 23:48
Total/NA	Analysis	EPA 300.0 R2.1		50	491326	W7FX	ELLE	04/06/24 00:00
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:49
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 16:58
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:31
Total/NA	Analysis	9040C		1	491181	DI9Q	ELLE	04/04/24 22:36

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 21
Lab Sample ID: 410-166326-4
Date Collected: 04/02/24 08:45
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	491326	W7FX	ELLE	04/06/24 00:11

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 21
Lab Sample ID: 410-166326-4

Date Collected: 04/02/24 08:45
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		50	491326	W7FX	ELLE	04/06/24 00:23
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:46
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 16:56
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		10	496997	F7JF	ELLE	04/22/24 09:02
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:20
Total/NA	Analysis	2540C - 2015		1	490503	M98K	ELLE	04/04/24 06:53 - 04/05/24 10:15 [1]
Total/NA	Analysis	9040C		1	491181	DI9Q	ELLE	04/04/24 22:27

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 21
Lab Sample ID: 410-166326-5

Date Collected: 04/02/24 09:00
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	491326	W7FX	ELLE	04/06/24 00:34
Total/NA	Analysis	EPA 300.0 R2.1		50	491326	W7FX	ELLE	04/06/24 00:46
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:43
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 16:54
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:29
Total/NA	Analysis	2540C - 2015		1	490503	M98K	ELLE	04/04/24 06:53 - 04/05/24 10:15 [1]
Total/NA	Analysis	9040C		1	491181	DI9Q	ELLE	04/04/24 22:32

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 21
Lab Sample ID: 410-166326-6

Date Collected: 04/02/24 09:15
Matrix: Water
Date Received: 04/02/24 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	491326	W7FX	ELLE	04/06/24 00:57
Total/NA	Analysis	EPA 300.0 R2.1		50	491326	W7FX	ELLE	04/06/24 01:09
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6010D		1	491890	T8CQ	ELLE	04/08/24 08:56
Dissolved	Prep	3005A			490658	NU9R	ELLE	04/05/24 09:00
Dissolved	Analysis	6020B		1	496758	F7JF	ELLE	04/21/24 17:04
Dissolved	Prep	7470A			490586	NU9R	ELLE	04/05/24 08:38
Dissolved	Analysis	7470A		1	491246	UEFS	ELLE	04/05/24 14:08
Total/NA	Analysis	2540C - 2015		1	490503	M98K	ELLE	04/04/24 06:53 - 04/05/24 10:15 [1]
Total/NA	Analysis	9040C		1	491181	DI9Q	ELLE	04/04/24 22:45

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Georgia (DW)	State	C048	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540C - 2015		Water	Total Dissolved Solids
6010D	3005A	Water	Boron
6010D	3005A	Water	Lithium
6020B	3005A	Water	Antimony
6020B	3005A	Water	Arsenic
6020B	3005A	Water	Barium
6020B	3005A	Water	Beryllium
6020B	3005A	Water	Cadmium
6020B	3005A	Water	Calcium
6020B	3005A	Water	Chromium
6020B	3005A	Water	Cobalt
6020B	3005A	Water	Iron
6020B	3005A	Water	Lead
6020B	3005A	Water	Molybdenum
6020B	3005A	Water	Selenium
6020B	3005A	Water	Thallium
7470A	7470A	Water	Mercury
9040C		Water	pH
9040C		Water	Temperature
EPA 300.0 R2.1		Water	Chloride
EPA 300.0 R2.1		Water	Fluoride
EPA 300.0 R2.1		Water	Sulfate

Method Summary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-166326-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-166326-1	AP-1DGWC-48 Influent Day 21	Water	04/02/24 08:00	04/02/24 16:48
410-166326-2	AP-1DGWC-48 1 Control Day 21	Water	04/02/24 08:15	04/02/24 16:48
410-166326-3	AP-1DGWC-48 2l KHCO3 Day 21	Water	04/02/24 08:30	04/02/24 16:48
410-166326-4	AP-1DGWC-48 2 KHCO3 Day 21	Water	04/02/24 08:45	04/02/24 16:48
410-166326-5	AP-1DGWC-48 2 FeSO4 Day 21	Water	04/02/24 09:00	04/02/24 16:48
410-166326-6	AP-1DGWC-48 4 ADA Carbon Day 21	Water	04/02/24 09:15	04/02/24 16:48

Env[illegible]sis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-166326 Chain of Custody

Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 4-2-24		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water: Potable ☐ Ground ☑ Surface ☐ NPDES ☐	Other:	Total # of Containers	Dis As, Ba, Be, B, Ca, Cd,	Co, Cr, Fe, Hg, Li, Mo, Pb,	Sb, Se, Tl (field filtered)	Total Dissolved Solids & pH	SO4, Fl, Cl						Remarks
									Preservation Codes: N	N	N	-	-						
AP-1DGWC-48 Influent Day 21	4/2/2024	8:00		X		X		3	X	X	X	X	X						
AP-1 DGWC-48 1 Control Day 21	4/2/2024	8:15		X		X		1	X	X	X								
AP-1 DGWC-48 2l KHCO3 Day 21	4/2/2024	8:30		X		X		3	X	X	X	X	X						
AP-1 DGWC-48 2 KHCO3 Day 21	4/2/2024	8:45		X		X		3	X	X	X	X	X						
AP-1 DGWC-48 2 FeSO4 Day 21	4/2/2024	9:00		X		X		3	X	X	X	X	X						
AP-1 DGWC-48 4 ADA Carbon Day 21	4/2/2024	9:15		X		X		3	X	X	X	X	X						

Analyses Requested — Preservation Codes

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 4/16/24

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Michael Lee	4/2/24	12:45	(ELLE)	4/2/24	12:45
2	(ELLE)	4/2/24	16:48		Date	Time
3		Date	Time		Date	Time
4		Date	Time		Date	Time
5		Date	Time		Date	Time

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.2/1.3 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0216

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-166326-1

Login Number: 166326

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	False	Insufficient volume received for requested analysis.
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 4/23/2024 8:08:58 AM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-167150-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

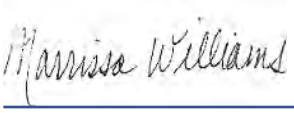
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/23/2024 8:08:58 AM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

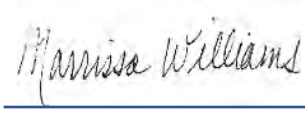


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 19
Lab Chronicle 22
Certification Summary 24
Method Summary 26
Sample Summary 27
Chain of Custody 28
Receipt Checklists 29

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-167150-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-167150-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/9/2024 7:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AP-1DGWC-48 2 FeSO4 Day 28 (410-167150-5). The container labels list AP-1DGWC-48 2 FeSO4 Day 28, while the COC lists AP-1DGWC-48 3 FeSO4 Day 28.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D - Total Recoverable: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: AP-1DGWC-48 2 KHCO3 Day 28 (410-167150-4) and AP-1DGWC-48 4 ADA Carbon Day 28 (410-167150-6). The reporting limits (RLs) have been adjusted proportionately.

Method 6020B - Total Recoverable: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: AP-1DGWC-48 2 KHCO3 Day 28 (410-167150-4) and AP-1DGWC-48 4 ADA Carbon Day 28 (410-167150-6). The reporting limits (RLs) have been adjusted proportionately.

Method 7470A: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: AP-1DGWC-48 2 KHCO3 Day 28 (410-167150-4) and AP-1DGWC-48 4 ADA Carbon Day 28 (410-167150-6). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 Influent Day 28 — Lab Sample ID: 410-167150-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	251		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.29	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.582		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.100		0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0206		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.00707		0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.00255		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	57.4		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.294	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.102		0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000841		0.000500	0.000120	mg/L	1		6020B	Dissolved
Total Dissolved Solids	343		30.0	12.0	mg/L	1		2540C - 2015	Total/NA
pH	4.00	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.6	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 1 Control Day 28 — Lab Sample ID: 410-167150-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	271		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.78	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.552		0.0500	0.0120	mg/L	1		6010D	Dissolved
Lithium	0.0128	J	0.0500	0.0110	mg/L	1		6010D	Dissolved
Barium	0.0173		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000259	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000797		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	53.7		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.145	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000231	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Total Dissolved Solids	388		30.0	12.0	mg/L	1		2540C - 2015	Total/NA
pH	6.10	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28 — Lab Sample ID: 410-167150-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	270		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.17	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.438	J	0.500	0.120	mg/L	1		6010D	Total Recoverable
Barium	0.0931		0.0200	0.00746	mg/L	1		6020B	Total Recoverable
Calcium	104		1.20	0.500	mg/L	1		6020B	Total Recoverable
Chromium	0.0667		0.0200	0.00550	mg/L	1		6020B	Total Recoverable
Cobalt	0.0354		0.00500	0.00156	mg/L	1		6020B	Total Recoverable
Iron	1.39		0.500	0.200	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0117		0.00500	0.00130	mg/L	1		6020B	Total Recoverable
Total Dissolved Solids	810		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	7.53	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.6	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28 — Lab Sample ID: 410-167150-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	308		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.03	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.503		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0202		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000212	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	39.0		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.0375	^2	0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0333	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.00183		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	590		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	7.26	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 28 — Lab Sample ID: 410-167150-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.477	J	1.00	0.450	mg/L	5		EPA 300.0 R2.1	Total/NA
Sulfate	260		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.17	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.347	J	0.500	0.120	mg/L	1		6010D	Total Recoverable
Barium	0.106		0.0200	0.00746	mg/L	1		6020B	Total Recoverable
Calcium	48.7		1.20	0.500	mg/L	1		6020B	Total Recoverable
Chromium	0.175		0.0200	0.00550	mg/L	1		6020B	Total Recoverable
Cobalt	0.0293		0.00500	0.00156	mg/L	1		6020B	Total Recoverable
Iron	1.97		0.500	0.200	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0174		0.00500	0.00130	mg/L	1		6020B	Total Recoverable
Total Dissolved Solids	614		120	48.0	mg/L	1		2540C - 2015	Total/NA
pH	7.20	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 Influent Day 28

Lab Sample ID: 410-167150-1
Date Collected: 04/09/24 08:00
Matrix: Water
Date Received: 04/09/24 19:05

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/18/24 15:43	5
Sulfate	**251**		75.0	25.0	mg/L			04/18/24 15:55	50
Chloride	**6.29**	**J**	7.50	3.00	mg/L			04/18/24 15:43	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.582**		0.0500	0.0120	mg/L		04/15/24 08:30	04/17/24 23:06	1
Lithium	**0.100**		0.0500	0.0110	mg/L		04/15/24 08:30	04/17/24 23:06	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/15/24 08:30	04/17/24 08:45	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/15/24 08:30	04/17/24 08:45	1
Barium	**0.0206**		0.00200	0.000746	mg/L		04/15/24 08:30	04/17/24 08:45	1
Beryllium	**0.00707**		0.000500	0.000119	mg/L		04/15/24 08:30	04/17/24 08:45	1
Cadmium	**0.00255**		0.000500	0.000151	mg/L		04/15/24 08:30	04/17/24 08:45	1
Calcium	**57.4**		0.120	0.0500	mg/L		04/15/24 08:30	04/17/24 08:45	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/15/24 08:30	04/17/24 08:45	1
Cobalt	**0.294**	**^2**	0.000500	0.000156	mg/L		04/15/24 08:30	04/17/24 08:45	1
Iron	**0.102**		0.0500	0.0200	mg/L		04/18/24 09:10	04/19/24 08:35	1
Lead	**0.000841**		0.000500	0.000120	mg/L		04/15/24 08:30	04/17/24 08:45	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:45	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/15/24 08:30	04/17/24 08:45	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:45	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**343**		30.0	12.0	mg/L			04/11/24 06:38	1
pH (SW846 9040C)	**4.00**	**HF**	0.0100	0.0100	S.U.			04/10/24 21:45	1
Temperature (SW846 9040C)	**23.6**	**HF**	0.0100	0.0100	Degrees C			04/10/24 21:45	1

Client Sample ID: AP-1DGWC-48 1 Control Day 28

Lab Sample ID: 410-167150-2
Date Collected: 04/09/24 08:15
Matrix: Water
Date Received: 04/09/24 19:05

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/18/24 16:07	5
Sulfate	**271**		75.0	25.0	mg/L			04/18/24 16:20	50
Chloride	**6.78**	**J**	7.50	3.00	mg/L			04/18/24 16:07	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.552**		0.0500	0.0120	mg/L		04/15/24 08:30	04/17/24 22:59	1
Lithium	**0.0128**	**J**	0.0500	0.0110	mg/L		04/15/24 08:30	04/17/24 22:59	1

Client Sample ID: AP-1DGWC-48 1 Control Day 28

Lab Sample ID: 410-167150-2

Date Collected: 04/09/24 08:15

Matrix: Water

Date Received: 04/09/24 19:05

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/15/24 08:30	04/17/24 08:41	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/15/24 08:30	04/17/24 08:41	1
Barium	**0.0173**		0.00200	0.000746	mg/L		04/15/24 08:30	04/17/24 08:41	1
Beryllium	**0.000259**	**J**	0.000500	0.000119	mg/L		04/15/24 08:30	04/17/24 08:41	1
Cadmium	**0.000797**		0.000500	0.000151	mg/L		04/15/24 08:30	04/17/24 08:41	1
Calcium	**53.7**		0.120	0.0500	mg/L		04/15/24 08:30	04/17/24 08:41	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/15/24 08:30	04/17/24 08:41	1
Cobalt	**0.145**	**^2**	0.000500	0.000156	mg/L		04/15/24 08:30	04/17/24 08:41	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/18/24 09:10	04/19/24 08:33	1
Lead	**0.000231**	**J**	0.000500	0.000120	mg/L		04/15/24 08:30	04/17/24 08:41	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:41	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/15/24 08:30	04/17/24 08:41	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:41	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**388**		30.0	12.0	mg/L			04/11/24 06:38	1
pH (SW846 9040C)	**6.10**	**HF**	0.0100	0.0100	S.U.			04/10/24 21:42	1
Temperature (SW846 9040C)	**23.7**	**HF**	0.0100	0.0100	Degrees C			04/10/24 21:42	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28

Lab Sample ID: 410-167150-4

Date Collected: 04/09/24 08:30

Matrix: Water

Date Received: 04/09/24 19:05

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/18/24 17:20	5
Sulfate	**270**		75.0	25.0	mg/L			04/18/24 17:32	50
Chloride	**7.17**	**J**	7.50	3.00	mg/L			04/18/24 17:20	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.438**	**J**	0.500	0.120	mg/L		04/19/24 19:20	04/22/24 12:48	1
Lithium	<0.110		0.500	0.110	mg/L		04/19/24 19:20	04/22/24 12:48	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.0100	0.00200	mg/L		04/19/24 19:20	04/22/24 21:17	1
Arsenic	<0.00680		0.0200	0.00680	mg/L		04/19/24 19:20	04/22/24 21:17	1
Barium	**0.0931**		0.0200	0.00746	mg/L		04/19/24 19:20	04/22/24 21:17	1
Beryllium	<0.00119		0.00500	0.00119	mg/L		04/19/24 19:20	04/22/24 21:17	1
Cadmium	<0.00151		0.00500	0.00151	mg/L		04/19/24 19:20	04/22/24 21:17	1
Calcium	**104**		1.20	0.500	mg/L		04/19/24 19:20	04/22/24 21:17	1
Chromium	**0.0667**		0.0200	0.00550	mg/L		04/19/24 19:20	04/22/24 21:17	1
Cobalt	**0.0354**		0.00500	0.00156	mg/L		04/19/24 19:20	04/22/24 21:17	1
Iron	**1.39**		0.500	0.200	mg/L		04/19/24 19:20	04/22/24 21:17	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28
Lab Sample ID: 410-167150-4

Date Collected: 04/09/24 08:30
Matrix: Water
Date Received: 04/09/24 19:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00120		0.00500	0.00120	mg/L		04/19/24 19:20	04/22/24 21:17	1
Molybdenum	**0.0117**		0.00500	0.00130	mg/L		04/19/24 19:20	04/22/24 21:17	1
Selenium	<0.00278		0.0100	0.00278	mg/L		04/19/24 19:20	04/22/24 21:17	1
Thallium	<0.00130		0.00500	0.00130	mg/L		04/19/24 19:20	04/22/24 21:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000790		0.00200	0.000790	mg/L		04/19/24 06:00	04/19/24 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**810**		120	48.0	mg/L			04/11/24 06:38	1
pH (SW846 9040C)	**7.53**	**HF**	0.0100	0.0100	S.U.			04/10/24 21:30	1
Temperature (SW846 9040C)	**23.6**	**HF**	0.0100	0.0100	Degrees C			04/10/24 21:30	1

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Lab Sample ID: 410-167150-5

Date Collected: 04/09/24 08:45
Matrix: Water
Date Received: 04/09/24 19:05

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/18/24 16:32	5
Sulfate	**308**		75.0	25.0	mg/L			04/18/24 17:08	50
Chloride	**7.03**	**J**	7.50	3.00	mg/L			04/18/24 16:32	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.503**		0.0500	0.0120	mg/L		04/15/24 08:30	04/17/24 23:02	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/15/24 08:30	04/17/24 23:02	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/15/24 08:30	04/17/24 08:43	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/15/24 08:30	04/17/24 08:43	1
Barium	**0.0202**		0.00200	0.000746	mg/L		04/15/24 08:30	04/17/24 08:43	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/15/24 08:30	04/17/24 08:43	1
Cadmium	**0.000212**	**J**	0.000500	0.000151	mg/L		04/15/24 08:30	04/17/24 08:43	1
Calcium	**39.0**		0.120	0.0500	mg/L		04/15/24 08:30	04/17/24 08:43	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/15/24 08:30	04/17/24 08:43	1
Cobalt	**0.0375**	**^2**	0.000500	0.000156	mg/L		04/15/24 08:30	04/17/24 08:43	1
Iron	**0.0333**	**J**	0.0500	0.0200	mg/L		04/18/24 09:10	04/19/24 08:09	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/15/24 08:30	04/17/24 08:43	1
Molybdenum	**0.00183**		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:43	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/15/24 08:30	04/17/24 08:43	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:43	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 15:12	1

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Lab Sample ID: 410-167150-5

Date Collected: 04/09/24 08:45
Matrix: Water
Date Received: 04/09/24 19:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	590		60.0	24.0	mg/L			04/11/24 06:38	1
pH (SW846 9040C)	7.26	HF	0.0100	0.0100	S.U.			04/10/24 21:38	1
Temperature (SW846 9040C)	23.7	HF	0.0100	0.0100	Degrees C			04/10/24 21:38	1

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 28
Lab Sample ID: 410-167150-6

Date Collected: 04/09/24 09:00
Matrix: Water
Date Received: 04/09/24 19:05

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.477	J	1.00	0.450	mg/L			04/18/24 14:00	5
Sulfate	260		75.0	25.0	mg/L			04/18/24 14:12	50
Chloride	6.17	J	7.50	3.00	mg/L			04/18/24 14:00	5

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.347	J	0.500	0.120	mg/L		04/19/24 19:20	04/22/24 12:54	1
Lithium	<0.110		0.500	0.110	mg/L		04/19/24 19:20	04/22/24 12:54	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.0100	0.00200	mg/L		04/19/24 19:20	04/22/24 21:19	1
Arsenic	<0.00680		0.0200	0.00680	mg/L		04/19/24 19:20	04/22/24 21:19	1
Barium	0.106		0.0200	0.00746	mg/L		04/19/24 19:20	04/22/24 21:19	1
Beryllium	<0.00119		0.00500	0.00119	mg/L		04/19/24 19:20	04/22/24 21:19	1
Cadmium	<0.00151		0.00500	0.00151	mg/L		04/19/24 19:20	04/22/24 21:19	1
Calcium	48.7		1.20	0.500	mg/L		04/19/24 19:20	04/22/24 21:19	1
Chromium	0.175		0.0200	0.00550	mg/L		04/19/24 19:20	04/22/24 21:19	1
Cobalt	0.0293		0.00500	0.00156	mg/L		04/19/24 19:20	04/22/24 21:19	1
Iron	1.97		0.500	0.200	mg/L		04/19/24 19:20	04/22/24 21:19	1
Lead	<0.00120		0.00500	0.00120	mg/L		04/19/24 19:20	04/22/24 21:19	1
Molybdenum	0.0174		0.00500	0.00130	mg/L		04/19/24 19:20	04/22/24 21:19	1
Selenium	<0.00278		0.0100	0.00278	mg/L		04/19/24 19:20	04/22/24 21:19	1
Thallium	<0.00130		0.00500	0.00130	mg/L		04/19/24 19:20	04/22/24 21:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000790		0.00200	0.000790	mg/L		04/19/24 06:00	04/19/24 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	614		120	48.0	mg/L			04/11/24 06:34	1
pH (SW846 9040C)	7.20	HF	0.0100	0.0100	S.U.			04/10/24 21:34	1
Temperature (SW846 9040C)	23.7	HF	0.0100	0.0100	Degrees C			04/10/24 21:34	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-495406/60
Matrix: Water
Analysis Batch: 495406

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			04/18/24 10:28	1
Sulfate	<0.500		1.50	0.500	mg/L			04/18/24 10:28	1
Chloride	<0.600		1.50	0.600	mg/L			04/18/24 10:28	1

Lab Sample ID: LCS 410-495406/62
Matrix: Water
Analysis Batch: 495406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.8045		mg/L		107	90 - 110
Sulfate	7.50	7.570		mg/L		101	90 - 110
Chloride	3.00	3.059		mg/L		102	90 - 110

Lab Sample ID: LCSD 410-495406/61
Matrix: Water
Analysis Batch: 495406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7863		mg/L		105	90 - 110	2	20
Sulfate	7.50	7.609		mg/L		101	90 - 110	1	20
Chloride	3.00	3.058		mg/L		102	90 - 110	0	20

Lab Sample ID: MB 410-495903/5
Matrix: Water
Analysis Batch: 495903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			04/18/24 06:19	1
Sulfate	<0.500		1.50	0.500	mg/L			04/18/24 06:19	1
Chloride	<0.600		1.50	0.600	mg/L			04/18/24 06:19	1

Lab Sample ID: LCS 410-495903/3
Matrix: Water
Analysis Batch: 495903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.6865		mg/L		92	90 - 110
Sulfate	7.50	7.550		mg/L		101	90 - 110
Chloride	3.00	3.014		mg/L		100	90 - 110

Lab Sample ID: LCSD 410-495903/4
Matrix: Water
Analysis Batch: 495903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7569		mg/L		101	90 - 110	10	20
Sulfate	7.50	7.554		mg/L		101	90 - 110	0	20
Chloride	3.00	3.016		mg/L		101	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-493555/1-A
Matrix: Water
Analysis Batch: 497245

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 493555

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		04/19/24 19:20	04/22/24 11:59	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/19/24 19:20	04/22/24 11:59	1

Lab Sample ID: LCS 410-493555/2-A
Matrix: Water
Analysis Batch: 497245

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 493555

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4935		mg/L		99	83 - 119
Lithium	0.500	0.5044		mg/L		101	88 - 113

Lab Sample ID: MB 410-494059/1-A
Matrix: Water
Analysis Batch: 495581

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		04/15/24 08:30	04/17/24 22:13	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/15/24 08:30	04/17/24 22:13	1

Lab Sample ID: LCS 410-494059/2-A
Matrix: Water
Analysis Batch: 495581

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4951		mg/L		99	83 - 119
Lithium	0.500	0.4899		mg/L		98	88 - 113

Lab Sample ID: LCSD 410-494059/3-A
Matrix: Water
Analysis Batch: 495581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.500	0.4872		mg/L		97	83 - 119	2	20
Lithium	0.500	0.4839		mg/L		97	88 - 113	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-493555/1-A
Matrix: Water
Analysis Batch: 497248

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 493555

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/19/24 19:20	04/22/24 20:05	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/19/24 19:20	04/22/24 20:05	1
Barium	<0.000746		0.00200	0.000746	mg/L		04/19/24 19:20	04/22/24 20:05	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/19/24 19:20	04/22/24 20:05	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/19/24 19:20	04/22/24 20:05	1
Calcium	<0.0500		0.120	0.0500	mg/L		04/19/24 19:20	04/22/24 20:05	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/19/24 19:20	04/22/24 20:05	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		04/19/24 19:20	04/22/24 20:05	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-493555/1-A
Matrix: Water
Analysis Batch: 497248

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 493555

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.0200		0.0500	0.0200	mg/L		04/19/24 19:20	04/22/24 20:05	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/19/24 19:20	04/22/24 20:05	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/19/24 19:20	04/22/24 20:05	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/19/24 19:20	04/22/24 20:05	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/19/24 19:20	04/22/24 20:05	1

Lab Sample ID: LCS 410-493555/2-A
Matrix: Water
Analysis Batch: 497248

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 493555

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1004		mg/L		100	90 - 115
Arsenic	0.500	0.5221		mg/L		104	90 - 109
Barium	0.500	0.4947		mg/L		99	90 - 113
Beryllium	0.0500	0.04616		mg/L		92	82 - 120
Cadmium	0.0500	0.04996		mg/L		100	90 - 112
Calcium	5.00	4.992		mg/L		100	90 - 112
Chromium	0.500	0.4923		mg/L		98	90 - 110
Cobalt	0.500	0.4968		mg/L		99	90 - 110
Iron	5.00	4.854		mg/L		97	90 - 111
Lead	0.0500	0.04840		mg/L		97	90 - 110
Molybdenum	0.0500	0.05119		mg/L		102	90 - 115
Selenium	0.100	0.1025		mg/L		103	90 - 110
Thallium	0.100	0.09580		mg/L		96	90 - 110

Lab Sample ID: MB 410-494059/1-A
Matrix: Water
Analysis Batch: 495291

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/15/24 08:30	04/17/24 08:17	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/15/24 08:30	04/17/24 08:17	1
Barium	<0.000746		0.00200	0.000746	mg/L		04/15/24 08:30	04/17/24 08:17	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/15/24 08:30	04/17/24 08:17	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/15/24 08:30	04/17/24 08:17	1
Calcium	<0.0500		0.120	0.0500	mg/L		04/15/24 08:30	04/17/24 08:17	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/15/24 08:30	04/17/24 08:17	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		04/15/24 08:30	04/17/24 08:17	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/15/24 08:30	04/17/24 08:17	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:17	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/15/24 08:30	04/17/24 08:17	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/15/24 08:30	04/17/24 08:17	1

Lab Sample ID: LCS 410-494059/2-A
Matrix: Water
Analysis Batch: 495291

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09653		mg/L		97	90 - 115

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-494059/2-A
Matrix: Water
Analysis Batch: 495291

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.500	0.4944		mg/L		99	90 - 109
Barium	0.500	0.4820		mg/L		96	90 - 113
Beryllium	0.0500	0.04891		mg/L		98	82 - 120
Cadmium	0.0500	0.04875		mg/L		97	90 - 112
Calcium	5.00	4.970		mg/L		99	90 - 112
Chromium	0.500	0.4874		mg/L		97	90 - 110
Cobalt	0.500	0.4932		mg/L		99	90 - 110
Iron	5.00	5.103		mg/L		102	90 - 111
Lead	0.0500	0.04886		mg/L		98	90 - 110
Molybdenum	0.0500	0.04886		mg/L		98	90 - 115
Selenium	0.100	0.09941		mg/L		99	90 - 110
Thallium	0.100	0.09687		mg/L		97	90 - 110

Lab Sample ID: LCSD 410-494059/3-A
Matrix: Water
Analysis Batch: 495291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 494059

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.09703		mg/L		97	90 - 115	1	20
Arsenic	0.500	0.4821		mg/L		96	90 - 109	3	20
Barium	0.500	0.4846		mg/L		97	90 - 113	1	20
Beryllium	0.0500	0.04862		mg/L		97	82 - 120	1	20
Cadmium	0.0500	0.04856		mg/L		97	90 - 112	0	20
Calcium	5.00	4.644		mg/L		93	90 - 112	7	20
Chromium	0.500	0.4698		mg/L		94	90 - 110	4	20
Cobalt	0.500	0.4715		mg/L		94	90 - 110	5	20
Iron	5.00	4.953		mg/L		99	90 - 111	3	20
Lead	0.0500	0.04774		mg/L		95	90 - 110	2	20
Molybdenum	0.0500	0.04903		mg/L		98	90 - 115	0	20
Selenium	0.100	0.09908		mg/L		99	90 - 110	0	20
Thallium	0.100	0.09432		mg/L		94	90 - 110	3	20

Lab Sample ID: MB 410-495633/1-A
Matrix: Water
Analysis Batch: 496210

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 495633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.0200		0.0500	0.0200	mg/L		04/18/24 09:10	04/19/24 08:05	1

Lab Sample ID: 410-167150-5 MS
Matrix: Water
Analysis Batch: 496210

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Prep Type: Dissolved
Prep Batch: 495633

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.0333	J	5.00	4.847		mg/L		96	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-167150-5 MSD
Matrix: Water
Analysis Batch: 496210

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Prep Type: Dissolved
Prep Batch: 495633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	0.0333	J	5.00	4.675		mg/L		93	75 - 125	4	20

Lab Sample ID: 410-167150-5 DU
Matrix: Water
Analysis Batch: 496210

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Prep Type: Dissolved
Prep Batch: 495633

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	0.0333	J	0.03380	J	mg/L		1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-493635/1-A
Matrix: Water
Analysis Batch: 496473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 14:40	1

Lab Sample ID: LCS 410-493635/2-A
Matrix: Water
Analysis Batch: 496473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493635

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0008404		mg/L		84	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-493007/1
Matrix: Water
Analysis Batch: 493007

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/11/24 06:34	1

Lab Sample ID: LCS 410-493007/2
Matrix: Water
Analysis Batch: 493007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	195.0		mg/L		98	90 - 110

Lab Sample ID: MB 410-493008/1
Matrix: Water
Analysis Batch: 493008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/11/24 06:38	1

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: LCS 410-493008/2
Matrix: Water
Analysis Batch: 493008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	201.0		mg/L		101	90 - 110

Lab Sample ID: 410-167150-4 DU
Matrix: Water
Analysis Batch: 493008

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	810		820.0		mg/L		1	10

Method: 9040C - pH

Lab Sample ID: LCS 410-493239/3
Matrix: Water
Analysis Batch: 493239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.020		S.U.		100	95 - 105

HPLC/IC

Analysis Batch: 495406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-1	AP-1DGWC-48 Influent Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Total/NA	Water	EPA 300.0 R2.1	
MB 410-495406/60	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-495406/62	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-495406/61	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 495903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	EPA 300.0 R2.1	
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	EPA 300.0 R2.1	
MB 410-495903/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-495903/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-495903/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 493555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total Recoverable	Water	3005A	
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total Recoverable	Water	3005A	
MB 410-493555/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-493555/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 493635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	7470A	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	7470A	
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	7470A	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	7470A	
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	7470A	
MB 410-493635/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-493635/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 494059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	3005A	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	3005A	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	3005A	
MB 410-494059/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-494059/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-494059/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 495291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	6020B	494059

Metals (Continued)

Analysis Batch: 495291 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	6020B	494059
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6020B	494059
MB 410-494059/1-A	Method Blank	Total Recoverable	Water	6020B	494059
LCS 410-494059/2-A	Lab Control Sample	Total Recoverable	Water	6020B	494059
LCSD 410-494059/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020B	494059

Analysis Batch: 495581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	6010D	494059
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	6010D	494059
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6010D	494059
MB 410-494059/1-A	Method Blank	Total Recoverable	Water	6010D	494059
LCS 410-494059/2-A	Lab Control Sample	Total Recoverable	Water	6010D	494059
LCSD 410-494059/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	494059

Prep Batch: 495633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	3005A	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	3005A	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	3005A	
MB 410-495633/1-A	Method Blank	Total Recoverable	Water	3005A	
410-167150-5 MS	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	3005A	
410-167150-5 MSD	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	3005A	
410-167150-5 DU	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	3005A	

Analysis Batch: 496210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	6020B	495633
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	6020B	495633
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6020B	495633
MB 410-495633/1-A	Method Blank	Total Recoverable	Water	6020B	495633
410-167150-5 MS	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6020B	495633
410-167150-5 MSD	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6020B	495633
410-167150-5 DU	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	6020B	495633

Analysis Batch: 496473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Dissolved	Water	7470A	493635
410-167150-2	AP-1DGWC-48 1 Control Day 28	Dissolved	Water	7470A	493635
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	7470A	493635
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Dissolved	Water	7470A	493635
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	7470A	493635
MB 410-493635/1-A	Method Blank	Total/NA	Water	7470A	493635
LCS 410-493635/2-A	Lab Control Sample	Total/NA	Water	7470A	493635

Analysis Batch: 497245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total Recoverable	Water	6010D	493555
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total Recoverable	Water	6010D	493555
MB 410-493555/1-A	Method Blank	Total Recoverable	Water	6010D	493555
LCS 410-493555/2-A	Lab Control Sample	Total Recoverable	Water	6010D	493555

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Metals

Analysis Batch: 497248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total Recoverable	Water	6020B	493555
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total Recoverable	Water	6020B	493555
MB 410-493555/1-A	Method Blank	Total Recoverable	Water	6020B	493555
LCS 410-493555/2-A	Lab Control Sample	Total Recoverable	Water	6020B	493555

General Chemistry

Analysis Batch: 493007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	2540C - 2015	
MB 410-493007/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-493007/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 493008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Total/NA	Water	2540C - 2015	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Total/NA	Water	2540C - 2015	
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	2540C - 2015	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Total/NA	Water	2540C - 2015	
MB 410-493008/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-493008/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
410-167150-4 DU	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	2540C - 2015	

Analysis Batch: 493239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167150-1	AP-1DGWC-48 Influent Day 28	Total/NA	Water	9040C	
410-167150-2	AP-1DGWC-48 1 Control Day 28	Total/NA	Water	9040C	
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Total/NA	Water	9040C	
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Total/NA	Water	9040C	
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Total/NA	Water	9040C	
LCS 410-493239/3	Lab Control Sample	Total/NA	Water	9040C	

Client Sample ID: AP-1DGWC-48 Influent Day 28

Lab Sample ID: 410-167150-1

Date Collected: 04/09/24 08:00

Matrix: Water

Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	495406	W7FX	ELLE	04/18/24 15:43
Total/NA	Analysis	EPA 300.0 R2.1		50	495406	W7FX	ELLE	04/18/24 15:55
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6010D		1	495581	MT26	ELLE	04/17/24 23:06
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6020B		1	495291	F7JF	ELLE	04/17/24 08:45
Dissolved	Prep	3005A			495633	UAMX	ELLE	04/18/24 09:10
Dissolved	Analysis	6020B		1	496210	F7JF	ELLE	04/19/24 08:35
Dissolved	Prep	7470A			493635	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496473	UEFS	ELLE	04/19/24 15:00
Total/NA	Analysis	2540C - 2015		1	493008	M98K	ELLE	04/11/24 06:38 - 04/12/24 10:20 [1]
Total/NA	Analysis	9040C		1	493239	DI9Q	ELLE	04/10/24 21:45

Client Sample ID: AP-1DGWC-48 1 Control Day 28

Lab Sample ID: 410-167150-2

Date Collected: 04/09/24 08:15

Matrix: Water

Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	495406	W7FX	ELLE	04/18/24 16:07
Total/NA	Analysis	EPA 300.0 R2.1		50	495406	W7FX	ELLE	04/18/24 16:20
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6010D		1	495581	MT26	ELLE	04/17/24 22:59
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6020B		1	495291	F7JF	ELLE	04/17/24 08:41
Dissolved	Prep	3005A			495633	UAMX	ELLE	04/18/24 09:10
Dissolved	Analysis	6020B		1	496210	F7JF	ELLE	04/19/24 08:33
Dissolved	Prep	7470A			493635	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496473	UEFS	ELLE	04/19/24 14:58
Total/NA	Analysis	2540C - 2015		1	493008	M98K	ELLE	04/11/24 06:38 - 04/12/24 10:20 [1]
Total/NA	Analysis	9040C		1	493239	DI9Q	ELLE	04/10/24 21:42

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28

Lab Sample ID: 410-167150-4

Date Collected: 04/09/24 08:30

Matrix: Water

Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	495406	W7FX	ELLE	04/18/24 17:20
Total/NA	Analysis	EPA 300.0 R2.1		50	495406	W7FX	ELLE	04/18/24 17:32
Total Recoverable	Prep	3005A			493555	UAMX	ELLE	04/19/24 19:20
Total Recoverable	Analysis	6010D		1	497245	T8CQ	ELLE	04/22/24 12:48
Total Recoverable	Prep	3005A			493555	UAMX	ELLE	04/19/24 19:20
Total Recoverable	Analysis	6020B		1	497248	UCIG	ELLE	04/22/24 21:17
Total/NA	Prep	7470A			493635	UAMX	ELLE	04/19/24 06:00
Total/NA	Analysis	7470A		1	496473	UEFS	ELLE	04/19/24 15:23

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 28
Lab Sample ID: 410-167150-4

Date Collected: 04/09/24 08:30
Matrix: Water
Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2540C - 2015		1	493008	M98K	ELLE	04/11/24 06:38 - 04/12/24 10:20 [1]
Total/NA	Analysis	9040C		1	493239	DI9Q	ELLE	04/10/24 21:30

Client Sample ID: AP-1DGWC-48 2 FeSO4 Day 28
Lab Sample ID: 410-167150-5

Date Collected: 04/09/24 08:45
Matrix: Water
Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	495406	W7FX	ELLE	04/18/24 16:32
Total/NA	Analysis	EPA 300.0 R2.1		50	495406	W7FX	ELLE	04/18/24 17:08
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6010D		1	495581	MT26	ELLE	04/17/24 23:02
Dissolved	Prep	3005A			494059	UAMX	ELLE	04/15/24 08:30
Dissolved	Analysis	6020B		1	495291	F7JF	ELLE	04/17/24 08:43
Dissolved	Prep	3005A			495633	UAMX	ELLE	04/18/24 09:10
Dissolved	Analysis	6020B		1	496210	F7JF	ELLE	04/19/24 08:09
Dissolved	Prep	7470A			493635	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496473	UEFS	ELLE	04/19/24 15:12
Total/NA	Analysis	2540C - 2015		1	493008	M98K	ELLE	04/11/24 06:38 - 04/12/24 10:20 [1]
Total/NA	Analysis	9040C		1	493239	DI9Q	ELLE	04/10/24 21:38

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 28
Lab Sample ID: 410-167150-6

Date Collected: 04/09/24 09:00
Matrix: Water
Date Received: 04/09/24 19:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	495903	L4QM	ELLE	04/18/24 14:00
Total/NA	Analysis	EPA 300.0 R2.1		50	495903	L4QM	ELLE	04/18/24 14:12
Total Recoverable	Prep	3005A			493555	UAMX	ELLE	04/19/24 19:20
Total Recoverable	Analysis	6010D		1	497245	T8CQ	ELLE	04/22/24 12:54
Total Recoverable	Prep	3005A			493555	UAMX	ELLE	04/19/24 19:20
Total Recoverable	Analysis	6020B		1	497248	UCIG	ELLE	04/22/24 21:19
Total/NA	Prep	7470A			493635	UAMX	ELLE	04/19/24 06:00
Total/NA	Analysis	7470A		1	496473	UEFS	ELLE	04/19/24 15:25
Total/NA	Analysis	2540C - 2015		1	493007	M98K	ELLE	04/11/24 06:34 - 04/12/24 10:20 [1]
Total/NA	Analysis	9040C		1	493239	DI9Q	ELLE	04/10/24 21:34

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-12-25
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Delaware (DW)	State	N/A	01-31-25
Florida	NELAP	E87997	06-30-25
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24 *
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-25
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wyoming	State	8TMS-L	01-31-25
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-167150-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-167150-1	AP-1DGWC-48 Influent Day 28	Water	04/09/24 08:00	04/09/24 19:05
410-167150-2	AP-1DGWC-48 1 Control Day 28	Water	04/09/24 08:15	04/09/24 19:05
410-167150-4	AP-1DGWC-48 2 KHCO3 Day 28	Water	04/09/24 08:30	04/09/24 19:05
410-167150-5	AP-1DGWC-48 2 FeSO4 Day 28	Water	04/09/24 08:45	04/09/24 19:05
410-167150-6	AP-1DGWC-48 4 ADA Carbon Day 28	Water	04/09/24 09:00	04/09/24 19:05

Environmental Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-167150 Chain of Custody

Acct. # _____ Gr

Client: Terra Systems, Inc.			
Project Name/#: WSP Plant McDonough CCR TS II	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 4-9-24		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil / Sediment / Tissue	Water: Potable / Ground / Surface / NPDES	Other:	Total # of Containers	Dis As, Ba, Be, B, Ca, Cd,	Co, Cr, Fe, Hg, Li, Mo, Pb,	Sb, Se, Tl (field filtered)	Total Dissolved Solids & pH	SO4, Fl, Cl	Remarks
Preservation Codes									N	N	N	-	-	
AP-1DGWC-48 Influent Day 28	4/9/2024	8:00		X		X		3	X	X	X	X	X	
AP-1 DGWC-48 1 Control Day 28	4/9/2024	8:15		X		X		3	X	X	X	X	X	
AP-1 DGWC-48 2 KHCO3 Day 28	4/9/2024	8:30		X		X		3	X	X	X	X	X	metals not field filtered
AP-1 DGWC-48 2 FeSO4 Day 28	4/9/2024	8:45		X		X		3	X	X	X	X	X	
AP-1 DGWC-48 4 ADA Carbon Day 28	4/9/2024	9:00		X		X		3	X	X	X	X	X	metals not field filtered

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 4/123/2024

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type VI (Raw Data Only) ☐ TX TRRP-13 ☐
NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☐ No ☐ If yes, format: _____

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Michael D Lee	4/9/24	11:45	RPM	9/APR24	1145
2	RPM	9APR24	1905			
3						
4						
5						
6				Stu Mc	4/9/24	1905

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.5.5 C.5.6 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0216

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-167150-1

Login Number: 167150

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 4/29/2024 11:28:58 AM

JOB DESCRIPTION

WSP Plant McDonough CCR TS III

JOB NUMBER

410-167993-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

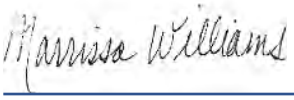
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/29/2024 11:28:58 AM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

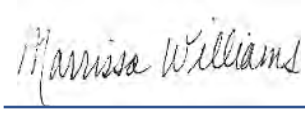


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 16
Lab Chronicle 18
Certification Summary 20
Method Summary 22
Sample Summary 23
Chain of Custody 24
Receipt Checklists 25

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-167993-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/16/2024 2:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 7470A - Dissolved: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: AP-1 DGWC-48 2 KHCO3 Day 35 (410-167993-3), AP-1 DGWC-48 2 FeSO4 Day 35 (410-167993-4) and AP-1 DGWC-48 4 ADA Carbon Day 35 (410-167993-5). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP Plant McDonough CCR TS III

Job ID: 410-167993-1

Client Sample ID: AP-1DGWC-48 Influent Day 35 — Lab Sample ID: 410-167993-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	307		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	10.7		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.491		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.000857	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0210		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000537		0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	59.3	^2	0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.154		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.321		0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000264	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.000271	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	498		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.93	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1 DGWC-48 1 Control Day 35 — Lab Sample ID: 410-167993-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	265		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.34	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.551		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0205		0.00200	0.000746	mg/L	1		6020B	Dissolved
Beryllium	0.000196	J	0.000500	0.000119	mg/L	1		6020B	Dissolved
Cadmium	0.000410	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	53.7	^2	0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.137		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.539		0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.000135	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	460		30.0	12.0	mg/L	1		2540C - 2015	Total/NA
pH	6.20	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.7	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1 DGWC-48 2 KHCO3 Day 35 — Lab Sample ID: 410-167993-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	289		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	9.24		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.467		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.00156	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0680		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000309	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	82.3	^2	0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00214		0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.0308		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.241		0.0500	0.0200	mg/L	1		6020B	Dissolved
Lead	0.000165	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00700		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	562		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.78	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-48 2 FeSO4 Day 35 — Lab Sample ID: 410-167993-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	261		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	6.79	J	7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.494		0.250	0.0600	mg/L	1		6010D	Dissolved
Barium	0.0388		0.0100	0.00373	mg/L	1		6020B	Dissolved
Calcium	40.3		0.600	0.250	mg/L	1		6020B	Dissolved
Cobalt	0.0316		0.00250	0.000780	mg/L	1		6020B	Dissolved
Molybdenum	0.00622		0.00250	0.000650	mg/L	1		6020B	Dissolved
Total Dissolved Solids	583		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.84	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1 DGWC-48 4 ADA Carbon Day 35 — Lab Sample ID: 410-167993-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	298		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.51		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.505		0.500	0.120	mg/L	1		6010D	Dissolved
Arsenic	0.00926	J	0.0200	0.00680	mg/L	1		6020B	Dissolved
Barium	0.230		0.0200	0.00746	mg/L	1		6020B	Dissolved
Calcium	40.8		1.20	0.500	mg/L	1		6020B	Dissolved
Cobalt	0.0206		0.00500	0.00156	mg/L	1		6020B	Dissolved
Molybdenum	0.00896		0.00500	0.00130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	341		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	7.19	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.8	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 Influent Day 35

Lab Sample ID: 410-167993-1

Date Collected: 04/16/24 08:00

Matrix: Water

Date Received: 04/16/24 14:40

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/23/24 18:13	5
Sulfate	**307**		75.0	25.0	mg/L			04/23/24 18:25	50
Chloride	**10.7**		7.50	3.00	mg/L			04/23/24 18:13	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.491**		0.0500	0.0120	mg/L		04/26/24 06:15	04/26/24 16:29	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/26/24 06:15	04/26/24 16:29	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/26/24 06:15	04/28/24 11:00	1
Arsenic	**0.000857**	**J**	0.00200	0.000680	mg/L		04/26/24 06:15	04/28/24 11:00	1
Barium	**0.0210**		0.00200	0.000746	mg/L		04/26/24 06:15	04/28/24 11:00	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/26/24 06:15	04/28/24 11:00	1
Cadmium	**0.000537**		0.000500	0.000151	mg/L		04/26/24 06:15	04/28/24 11:00	1
Calcium	**59.3**	**^2**	0.120	0.0500	mg/L		04/26/24 06:15	04/28/24 11:00	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/26/24 06:15	04/28/24 11:00	1
Cobalt	**0.154**		0.000500	0.000156	mg/L		04/26/24 06:15	04/28/24 11:00	1
Iron	**0.321**		0.0500	0.0200	mg/L		04/26/24 06:15	04/28/24 11:00	1
Lead	**0.000264**	**J**	0.000500	0.000120	mg/L		04/26/24 06:15	04/28/24 11:00	1
Molybdenum	**0.000271**	**J**	0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 11:00	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/26/24 06:15	04/28/24 11:00	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 11:00	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 09:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**498**		60.0	24.0	mg/L			04/18/24 07:37	1
pH (SW846 9040C)	**6.93**	**HF**	0.0100	0.0100	S.U.			04/17/24 20:03	1
Temperature (SW846 9040C)	**22.8**	**HF**	0.0100	0.0100	Degrees C			04/17/24 20:03	1

Client Sample ID: AP-1 DGWC-48 1 Control Day 35

Lab Sample ID: 410-167993-2

Date Collected: 04/16/24 08:15

Matrix: Water

Date Received: 04/16/24 14:40

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/23/24 18:37	5
Sulfate	**265**		75.0	25.0	mg/L			04/23/24 18:49	50
Chloride	**7.34**	**J**	7.50	3.00	mg/L			04/23/24 18:37	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.551**		0.0500	0.0120	mg/L		04/26/24 06:15	04/26/24 16:26	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/26/24 06:15	04/26/24 16:26	1

Client Sample ID: AP-1 DGWC-48 1 Control Day 35

Lab Sample ID: 410-167993-2

Date Collected: 04/16/24 08:15

Matrix: Water

Date Received: 04/16/24 14:40

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/26/24 06:15	04/28/24 10:58	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/26/24 06:15	04/28/24 10:58	1
Barium	**0.0205**		0.00200	0.000746	mg/L		04/26/24 06:15	04/28/24 10:58	1
Beryllium	**0.000196**	**J**	0.000500	0.000119	mg/L		04/26/24 06:15	04/28/24 10:58	1
Cadmium	**0.000410**	**J**	0.000500	0.000151	mg/L		04/26/24 06:15	04/28/24 10:58	1
Calcium	**53.7**	**^2**	0.120	0.0500	mg/L		04/26/24 06:15	04/28/24 10:58	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/26/24 06:15	04/28/24 10:58	1
Cobalt	**0.137**		0.000500	0.000156	mg/L		04/26/24 06:15	04/28/24 10:58	1
Iron	**0.539**		0.0500	0.0200	mg/L		04/26/24 06:15	04/28/24 10:58	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/26/24 06:15	04/28/24 10:58	1
Molybdenum	**0.000135**	**J**	0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:58	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/26/24 06:15	04/28/24 10:58	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:58	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 09:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**460**		30.0	12.0	mg/L			04/18/24 07:32	1
pH (SW846 9040C)	**6.20**	**HF**	0.0100	0.0100	S.U.			04/17/24 20:07	1
Temperature (SW846 9040C)	**22.7**	**HF**	0.0100	0.0100	Degrees C			04/17/24 20:07	1

Client Sample ID: AP-1 DGWC-48 2 KHCO3 Day 35

Lab Sample ID: 410-167993-3

Date Collected: 04/16/24 08:30

Matrix: Water

Date Received: 04/16/24 14:40

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/23/24 19:01	5
Sulfate	**289**		75.0	25.0	mg/L			04/23/24 19:13	50
Chloride	**9.24**		7.50	3.00	mg/L			04/23/24 19:01	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.467**		0.0500	0.0120	mg/L		04/26/24 06:15	04/26/24 16:23	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/26/24 06:15	04/26/24 16:23	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/26/24 06:15	04/28/24 10:56	1
Arsenic	**0.00156**	**J**	0.00200	0.000680	mg/L		04/26/24 06:15	04/28/24 10:56	1
Barium	**0.0680**		0.00200	0.000746	mg/L		04/26/24 06:15	04/28/24 10:56	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/26/24 06:15	04/28/24 10:56	1
Cadmium	**0.000309**	**J**	0.000500	0.000151	mg/L		04/26/24 06:15	04/28/24 10:56	1
Calcium	**82.3**	**^2**	0.120	0.0500	mg/L		04/26/24 06:15	04/28/24 10:56	1
Chromium	**0.00214**		0.00200	0.000550	mg/L		04/26/24 06:15	04/28/24 10:56	1
Cobalt	**0.0308**		0.000500	0.000156	mg/L		04/26/24 06:15	04/28/24 10:56	1
Iron	**0.241**		0.0500	0.0200	mg/L		04/26/24 06:15	04/28/24 10:56	1

Client Sample ID: AP-1 DGWC-48 2 KHCO3 Day 35

Lab Sample ID: 410-167993-3

Date Collected: 04/16/24 08:30
Matrix: Water
Date Received: 04/16/24 14:40

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.000165	J	0.000500	0.000120	mg/L		04/26/24 06:15	04/28/24 10:56	1
Molybdenum	0.00700		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:56	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/26/24 06:15	04/28/24 10:56	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:56	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000395		0.00100	0.000395	mg/L		04/19/24 06:00	04/19/24 09:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	562		60.0	24.0	mg/L			04/18/24 07:37	1
pH (SW846 9040C)	6.78	HF	0.0100	0.0100	S.U.			04/17/24 19:52	1
Temperature (SW846 9040C)	22.8	HF	0.0100	0.0100	Degrees C			04/17/24 19:52	1

Client Sample ID: AP-1 DGWC-48 2 FeSO4 Day 35

Lab Sample ID: 410-167993-4

Date Collected: 04/16/24 08:45
Matrix: Water
Date Received: 04/16/24 14:40

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/23/24 19:26	5
Sulfate	261		75.0	25.0	mg/L			04/23/24 19:38	50
Chloride	6.79	J	7.50	3.00	mg/L			04/23/24 19:26	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.494		0.250	0.0600	mg/L		04/26/24 06:15	04/26/24 16:32	1
Lithium	<0.0550		0.250	0.0550	mg/L		04/26/24 06:15	04/26/24 16:32	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00500	0.00100	mg/L		04/26/24 06:15	04/28/24 11:14	1
Arsenic	<0.00340		0.0100	0.00340	mg/L		04/26/24 06:15	04/28/24 11:14	1
Barium	0.0388		0.0100	0.00373	mg/L		04/26/24 06:15	04/28/24 11:14	1
Beryllium	<0.000595		0.00250	0.000595	mg/L		04/26/24 06:15	04/28/24 11:14	1
Cadmium	<0.000755		0.00250	0.000755	mg/L		04/26/24 06:15	04/28/24 11:14	1
Calcium	40.3		0.600	0.250	mg/L		04/26/24 06:15	04/28/24 11:14	1
Chromium	<0.00275		0.0100	0.00275	mg/L		04/26/24 06:15	04/28/24 11:14	1
Cobalt	0.0316		0.00250	0.000780	mg/L		04/26/24 06:15	04/28/24 11:14	1
Iron	<0.100		0.250	0.100	mg/L		04/26/24 06:15	04/28/24 11:14	1
Lead	<0.000600		0.00250	0.000600	mg/L		04/26/24 06:15	04/28/24 11:14	1
Molybdenum	0.00622		0.00250	0.000650	mg/L		04/26/24 06:15	04/28/24 11:14	1
Selenium	<0.00139		0.00500	0.00139	mg/L		04/26/24 06:15	04/28/24 11:14	1
Thallium	<0.000650		0.00250	0.000650	mg/L		04/26/24 06:15	04/28/24 11:14	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000395		0.00100	0.000395	mg/L		04/19/24 06:00	04/19/24 10:00	1

Client Sample ID: AP-1 DGWC-48 2 FeSO4 Day 35
Lab Sample ID: 410-167993-4

Date Collected: 04/16/24 08:45
Matrix: Water
Date Received: 04/16/24 14:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	583		60.0	24.0	mg/L			04/18/24 07:37	1
pH (SW846 9040C)	6.84	HF	0.0100	0.0100	S.U.			04/17/24 19:55	1
Temperature (SW846 9040C)	22.8	HF	0.0100	0.0100	Degrees C			04/17/24 19:55	1

Client Sample ID: AP-1 DGWC-48 4 ADA Carbon Day 35
Lab Sample ID: 410-167993-5

Date Collected: 04/16/24 09:00
Matrix: Water
Date Received: 04/16/24 14:40

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			04/23/24 20:14	5
Sulfate	298		75.0	25.0	mg/L			04/23/24 20:26	50
Chloride	7.51		7.50	3.00	mg/L			04/23/24 20:14	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.505		0.500	0.120	mg/L		04/26/24 06:15	04/26/24 16:35	1
Lithium	<0.110		0.500	0.110	mg/L		04/26/24 06:15	04/26/24 16:35	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.0100	0.00200	mg/L		04/26/24 06:15	04/28/24 11:15	1
Arsenic	0.00926	J	0.0200	0.00680	mg/L		04/26/24 06:15	04/28/24 11:15	1
Barium	0.230		0.0200	0.00746	mg/L		04/26/24 06:15	04/28/24 11:15	1
Beryllium	<0.00119		0.00500	0.00119	mg/L		04/26/24 06:15	04/28/24 11:15	1
Cadmium	<0.00151		0.00500	0.00151	mg/L		04/26/24 06:15	04/28/24 11:15	1
Calcium	40.8		1.20	0.500	mg/L		04/26/24 06:15	04/28/24 11:15	1
Chromium	<0.00550		0.0200	0.00550	mg/L		04/26/24 06:15	04/28/24 11:15	1
Cobalt	0.0206		0.00500	0.00156	mg/L		04/26/24 06:15	04/28/24 11:15	1
Iron	<0.200		0.500	0.200	mg/L		04/26/24 06:15	04/28/24 11:15	1
Lead	<0.00120		0.00500	0.00120	mg/L		04/26/24 06:15	04/28/24 11:15	1
Molybdenum	0.00896		0.00500	0.00130	mg/L		04/26/24 06:15	04/28/24 11:15	1
Selenium	<0.00278		0.0100	0.00278	mg/L		04/26/24 06:15	04/28/24 11:15	1
Thallium	<0.00130		0.00500	0.00130	mg/L		04/26/24 06:15	04/28/24 11:15	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000790		0.00200	0.000790	mg/L		04/19/24 06:00	04/19/24 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	341		60.0	24.0	mg/L			04/18/24 07:37	1
pH (SW846 9040C)	7.19	HF	0.0100	0.0100	S.U.			04/17/24 19:59	1
Temperature (SW846 9040C)	22.8	HF	0.0100	0.0100	Degrees C			04/17/24 19:59	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-497711/5
Matrix: Water
Analysis Batch: 497711

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			04/23/24 15:47	1
Sulfate	<0.500		1.50	0.500	mg/L			04/23/24 15:47	1
Chloride	<0.600		1.50	0.600	mg/L			04/23/24 15:47	1

Lab Sample ID: LCS 410-497711/3
Matrix: Water
Analysis Batch: 497711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7249		mg/L		97	90 - 110
Sulfate	7.50	7.698		mg/L		103	90 - 110
Chloride	3.00	2.939		mg/L		98	90 - 110

Lab Sample ID: LCSD 410-497711/4
Matrix: Water
Analysis Batch: 497711

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7194		mg/L		96	90 - 110	1	20
Sulfate	7.50	7.684		mg/L		102	90 - 110	0	20
Chloride	3.00	2.949		mg/L		98	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-497006/1-A
Matrix: Water
Analysis Batch: 499285

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 497006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		04/26/24 06:15	04/26/24 16:17	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/26/24 06:15	04/26/24 16:17	1

Lab Sample ID: LCS 410-497006/2-A
Matrix: Water
Analysis Batch: 499285

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 497006

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4903		mg/L		98	83 - 119
Lithium	0.500	0.4922		mg/L		98	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-497006/1-A
Matrix: Water
Analysis Batch: 499531

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 497006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/26/24 06:15	04/28/24 10:06	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/26/24 06:15	04/28/24 10:06	1
Barium	<0.000746		0.00200	0.000746	mg/L		04/26/24 06:15	04/28/24 10:06	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-497006/1-A
Matrix: Water
Analysis Batch: 499531

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 497006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.000119	^+	0.000500	0.000119	mg/L		04/26/24 06:15	04/28/24 10:06	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/26/24 06:15	04/28/24 10:06	1
Calcium	<0.0500		0.120	0.0500	mg/L		04/26/24 06:15	04/28/24 10:06	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/26/24 06:15	04/28/24 10:06	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		04/26/24 06:15	04/28/24 10:06	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/26/24 06:15	04/28/24 10:06	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/26/24 06:15	04/28/24 10:06	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:06	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/26/24 06:15	04/28/24 10:06	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/26/24 06:15	04/28/24 10:06	1

Lab Sample ID: LCS 410-497006/2-A
Matrix: Water
Analysis Batch: 499531

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 497006

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09775		mg/L		98	90 - 115
Arsenic	0.500	0.4829		mg/L		97	90 - 109
Barium	0.500	0.4838		mg/L		97	90 - 113
Beryllium	0.0500	0.05252	^+	mg/L		105	82 - 120
Cadmium	0.0500	0.04858		mg/L		97	90 - 112
Calcium	5.00	4.763		mg/L		95	90 - 112
Chromium	0.500	0.4710		mg/L		94	90 - 110
Cobalt	0.500	0.4735		mg/L		95	90 - 110
Iron	5.00	4.785		mg/L		96	90 - 111
Lead	0.0500	0.04936		mg/L		99	90 - 110
Molybdenum	0.0500	0.04947		mg/L		99	90 - 115
Selenium	0.100	0.09796		mg/L		98	90 - 110
Thallium	0.100	0.09798		mg/L		98	90 - 110

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-496073/1-A
Matrix: Water
Analysis Batch: 496327

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 496073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/19/24 06:00	04/19/24 08:53	1

Lab Sample ID: LCS 410-496073/2-A
Matrix: Water
Analysis Batch: 496327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 496073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009099		mg/L		91	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-495610/1
Matrix: Water
Analysis Batch: 495610

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/18/24 07:32	1

Lab Sample ID: LCS 410-495610/2
Matrix: Water
Analysis Batch: 495610

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	190.0		mg/L		95	90 - 110

Lab Sample ID: MB 410-495612/1
Matrix: Water
Analysis Batch: 495612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/18/24 07:37	1

Lab Sample ID: LCS 410-495612/2
Matrix: Water
Analysis Batch: 495612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	189.0		mg/L		95	90 - 110

Lab Sample ID: 410-167993-1 DU
Matrix: Water
Analysis Batch: 495612

Client Sample ID: AP-1DGWC-48 Influent Day 35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	498		505.0		mg/L		1	10

Method: 9040C - pH

Lab Sample ID: LCS 410-495897/3
Matrix: Water
Analysis Batch: 495897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.010		S.U.		100	95 - 105

Lab Sample ID: LCSD 410-495897/4
Matrix: Water
Analysis Batch: 495897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	7.00	6.990		S.U.		100	95 - 105	0	3

HPLC/IC

Analysis Batch: 497711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-1	AP-1DGWC-48 Influent Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Total/NA	Water	EPA 300.0 R2.1	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Total/NA	Water	EPA 300.0 R2.1	
MB 410-497711/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-497711/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-497711/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 496073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Dissolved	Water	7470A	
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Dissolved	Water	7470A	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Dissolved	Water	7470A	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Dissolved	Water	7470A	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Dissolved	Water	7470A	
MB 410-496073/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-496073/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 496327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Dissolved	Water	7470A	496073
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Dissolved	Water	7470A	496073
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Dissolved	Water	7470A	496073
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Dissolved	Water	7470A	496073
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Dissolved	Water	7470A	496073
MB 410-496073/1-A	Method Blank	Total/NA	Water	7470A	496073
LCS 410-496073/2-A	Lab Control Sample	Total/NA	Water	7470A	496073

Prep Batch: 497006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Dissolved	Water	3005A	
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Dissolved	Water	3005A	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Dissolved	Water	3005A	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Dissolved	Water	3005A	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Dissolved	Water	3005A	
MB 410-497006/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-497006/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 499285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Dissolved	Water	6010D	497006
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Dissolved	Water	6010D	497006
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Dissolved	Water	6010D	497006

Metals (Continued)

Analysis Batch: 499285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Dissolved	Water	6010D	497006
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Dissolved	Water	6010D	497006
MB 410-497006/1-A	Method Blank	Total Recoverable	Water	6010D	497006
LCS 410-497006/2-A	Lab Control Sample	Total Recoverable	Water	6010D	497006

Analysis Batch: 499531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Dissolved	Water	6020B	497006
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Dissolved	Water	6020B	497006
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Dissolved	Water	6020B	497006
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Dissolved	Water	6020B	497006
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Dissolved	Water	6020B	497006
MB 410-497006/1-A	Method Blank	Total Recoverable	Water	6020B	497006
LCS 410-497006/2-A	Lab Control Sample	Total Recoverable	Water	6020B	497006

General Chemistry

Analysis Batch: 495610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Total/NA	Water	2540C - 2015	
MB 410-495610/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-495610/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 495612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Total/NA	Water	2540C - 2015	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Total/NA	Water	2540C - 2015	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Total/NA	Water	2540C - 2015	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Total/NA	Water	2540C - 2015	
MB 410-495612/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-495612/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
410-167993-1 DU	AP-1DGWC-48 Influent Day 35	Total/NA	Water	2540C - 2015	

Analysis Batch: 495897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-167993-1	AP-1DGWC-48 Influent Day 35	Total/NA	Water	9040C	
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Total/NA	Water	9040C	
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Total/NA	Water	9040C	
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Total/NA	Water	9040C	
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Total/NA	Water	9040C	
LCS 410-495897/3	Lab Control Sample	Total/NA	Water	9040C	
LCSD 410-495897/4	Lab Control Sample Dup	Total/NA	Water	9040C	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1DGWC-48 Influent Day 35
Lab Sample ID: 410-167993-1
Date Collected: 04/16/24 08:00
Matrix: Water
Date Received: 04/16/24 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	497711	W7FX	ELLE	04/23/24 18:13
Total/NA	Analysis	EPA 300.0 R2.1		50	497711	W7FX	ELLE	04/23/24 18:25
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6010D		1	499285	T8CQ	ELLE	04/26/24 16:29
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6020B		1	499531	F7JF	ELLE	04/28/24 11:00
Dissolved	Prep	7470A			496073	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496327	UEFS	ELLE	04/19/24 09:31
Total/NA	Analysis	2540C - 2015		1	495612	M98K	ELLE	04/18/24 07:37 - 04/19/24 10:14 [1]
Total/NA	Analysis	9040C		1	495897	DI9Q	ELLE	04/17/24 20:03

Client Sample ID: AP-1 DGWC-48 1 Control Day 35
Lab Sample ID: 410-167993-2
Date Collected: 04/16/24 08:15
Matrix: Water
Date Received: 04/16/24 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	497711	W7FX	ELLE	04/23/24 18:37
Total/NA	Analysis	EPA 300.0 R2.1		50	497711	W7FX	ELLE	04/23/24 18:49
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6010D		1	499285	T8CQ	ELLE	04/26/24 16:26
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6020B		1	499531	F7JF	ELLE	04/28/24 10:58
Dissolved	Prep	7470A			496073	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496327	UEFS	ELLE	04/19/24 09:33
Total/NA	Analysis	2540C - 2015		1	495610	M98K	ELLE	04/18/24 07:32 - 04/19/24 10:14 [1]
Total/NA	Analysis	9040C		1	495897	DI9Q	ELLE	04/17/24 20:07

Client Sample ID: AP-1 DGWC-48 2 KHCO3 Day 35
Lab Sample ID: 410-167993-3
Date Collected: 04/16/24 08:30
Matrix: Water
Date Received: 04/16/24 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	497711	W7FX	ELLE	04/23/24 19:01
Total/NA	Analysis	EPA 300.0 R2.1		50	497711	W7FX	ELLE	04/23/24 19:13
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6010D		1	499285	T8CQ	ELLE	04/26/24 16:23
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6020B		1	499531	F7JF	ELLE	04/28/24 10:56
Dissolved	Prep	7470A			496073	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496327	UEFS	ELLE	04/19/24 09:58
Total/NA	Analysis	2540C - 2015		1	495612	M98K	ELLE	04/18/24 07:37 - 04/19/24 10:14 [1]
Total/NA	Analysis	9040C		1	495897	DI9Q	ELLE	04/17/24 19:52

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Client Sample ID: AP-1 DGWC-48 2 FeSO4 Day 35
Lab Sample ID: 410-167993-4

Date Collected: 04/16/24 08:45
Matrix: Water
Date Received: 04/16/24 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	497711	W7FX	ELLE	04/23/24 19:26
Total/NA	Analysis	EPA 300.0 R2.1		50	497711	W7FX	ELLE	04/23/24 19:38
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6010D		1	499285	T8CQ	ELLE	04/26/24 16:32
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6020B		1	499531	F7JF	ELLE	04/28/24 11:14
Dissolved	Prep	7470A			496073	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496327	UEFS	ELLE	04/19/24 10:00
Total/NA	Analysis	2540C - 2015		1	495612	M98K	ELLE	04/18/24 07:37 - 04/19/24 10:14 [1]
Total/NA	Analysis	9040C		1	495897	DI9Q	ELLE	04/17/24 19:55

Client Sample ID: AP-1 DGWC-48 4 ADA Carbon Day 35
Lab Sample ID: 410-167993-5

Date Collected: 04/16/24 09:00
Matrix: Water
Date Received: 04/16/24 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	497711	W7FX	ELLE	04/23/24 20:14
Total/NA	Analysis	EPA 300.0 R2.1		50	497711	W7FX	ELLE	04/23/24 20:26
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6010D		1	499285	T8CQ	ELLE	04/26/24 16:35
Dissolved	Prep	3005A			497006	X3ZX	ELLE	04/26/24 06:15
Dissolved	Analysis	6020B		1	499531	F7JF	ELLE	04/28/24 11:15
Dissolved	Prep	7470A			496073	UAMX	ELLE	04/19/24 06:00
Dissolved	Analysis	7470A		1	496327	UEFS	ELLE	04/19/24 10:03
Total/NA	Analysis	2540C - 2015		1	495612	M98K	ELLE	04/18/24 07:37 - 04/19/24 10:14 [1]
Total/NA	Analysis	9040C		1	495897	DI9Q	ELLE	04/17/24 19:59

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-12-25
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Delaware (DW)	State	N/A	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24 *
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-25
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wyoming	State	8TMS-L	01-31-25
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-167993-1
Project/Site: WSP Plant McDonough CCR TS III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-167993-1	AP-1DGWC-48 Influent Day 35	Water	04/16/24 08:00	04/16/24 14:40
410-167993-2	AP-1 DGWC-48 1 Control Day 35	Water	04/16/24 08:15	04/16/24 14:40
410-167993-3	AP-1 DGWC-48 2 KHCO3 Day 35	Water	04/16/24 08:30	04/16/24 14:40
410-167993-4	AP-1 DGWC-48 2 FeSO4 Day 35	Water	04/16/24 08:45	04/16/24 14:40
410-167993-5	AP-1 DGWC-48 4 ADA Carbon Day 35	Water	04/16/24 09:00	04/16/24 14:40

410-167993 Chain of Custody

Environmental Analysis Request/Chain of Custody

Acct. # _____ Group # _____ Sample # _____

| Client: Terra Systems, Inc. | | |

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-167993-1

Login Number: 167993

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Santiago, Nathaniel

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 5/7/2024 2:48:23 PM

JOB DESCRIPTION

Golder/WSP column and batch studies

JOB NUMBER

410-168951-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

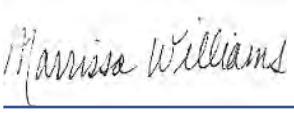
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
5/7/2024 2:48:23 PM

Authorized for release by
Marrissa Damiter, Project Manager
Marrissa.Damiter@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

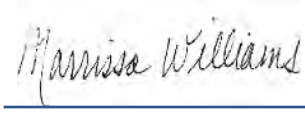


Table of Contents

Cover Page 1
Table of Contents 4
Definitions/Glossary 5
Case Narrative 6
Detection Summary 7
Client Sample Results 9
QC Sample Results 13
QC Association Summary 17
Lab Chronicle 20
Certification Summary 22
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 27

Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-168951-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/23/2024 2:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Client Sample ID: AP-1DGWC-48 Influent Day 42 — Lab Sample ID: 410-168951-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	308		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	9.55		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.509		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.000821	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0273		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000457	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	62.8		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.135		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0286	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.000231	J	0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	320		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.98	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 1 Control Day 42 — Lab Sample ID: 410-168951-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	275		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.65		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.540		0.0500	0.0120	mg/L	1		6010D	Dissolved
Barium	0.0332		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000182	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	60.1		0.120	0.0500	mg/L	1		6020B	Dissolved
Cobalt	0.120		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	2.68		0.0500	0.0200	mg/L	1		6020B	Dissolved
Total Dissolved Solids	454		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.19	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	22.9	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 42 — Lab Sample ID: 410-168951-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	299		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	9.10		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.464		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.00249		0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0549		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	83.6		0.600	0.250	mg/L	5		6020B	Dissolved
Cobalt	0.0231		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0780		0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.00495		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	507		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.80	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 3 FeSO4 Day 42 — Lab Sample ID: 410-168951-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	356		75.0	25.0	mg/L	50		EPA 300.0 R2.1	Total/NA
Chloride	7.55		7.50	3.00	mg/L	5		EPA 300.0 R2.1	Total/NA
Boron	0.465		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.00303		0.00200	0.000680	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Client Sample ID: AP-1DGWC-48 3 FeSO4 Day 42 (Continued)
Lab Sample ID: 410-168951-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0381		0.00200	0.000746	mg/L	1		6020B	Dissolved
Calcium	43.7		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.00149	J	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.0291		0.000500	0.000156	mg/L	1		6020B	Dissolved
Iron	0.0469	J	0.0500	0.0200	mg/L	1		6020B	Dissolved
Molybdenum	0.00474		0.000500	0.000130	mg/L	1		6020B	Dissolved
Total Dissolved Solids	370		60.0	24.0	mg/L	1		2540C - 2015	Total/NA
pH	6.81	HF	0.0100	0.0100	S.U.	1		9040C	Total/NA
Temperature	23.0	HF	0.0100	0.0100	Degrees C	1		9040C	Total/NA

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 42
Lab Sample ID: 410-168951-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.483		0.0500	0.0120	mg/L	1		6010D	Dissolved
Arsenic	0.00148	J	0.00200	0.000680	mg/L	1		6020B	Dissolved
Barium	0.0657		0.00200	0.000746	mg/L	1		6020B	Dissolved
Cadmium	0.000169	J	0.000500	0.000151	mg/L	1		6020B	Dissolved
Calcium	45.6		0.120	0.0500	mg/L	1		6020B	Dissolved
Chromium	0.000699	J	0.00200	0.000550	mg/L	1		6020B	Dissolved
Cobalt	0.0239		0.000500	0.000156	mg/L	1		6020B	Dissolved
Lead	0.000131	J	0.000500	0.000120	mg/L	1		6020B	Dissolved
Molybdenum	0.00562		0.000500	0.000130	mg/L	1		6020B	Dissolved
Iron	0.141		0.0500	0.0200	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: AP-1DGWC-48 Influent Day 42

Lab Sample ID: 410-168951-1

Date Collected: 04/23/24 08:00
Matrix: Water
Date Received: 04/23/24 14:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			05/03/24 23:23	5
Sulfate	**308**		75.0	25.0	mg/L			05/03/24 23:35	50
Chloride	**9.55**		7.50	3.00	mg/L			05/03/24 23:23	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.509**		0.0500	0.0120	mg/L		05/01/24 06:35	05/01/24 15:37	1
Lithium	<0.0110		0.0500	0.0110	mg/L		05/01/24 06:35	05/01/24 15:37	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		05/01/24 06:35	05/01/24 18:04	1
Arsenic	**0.000821**	**J**	0.00200	0.000680	mg/L		05/01/24 06:35	05/01/24 18:04	1
Barium	**0.0273**		0.00200	0.000746	mg/L		05/01/24 06:35	05/01/24 18:04	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		05/01/24 06:35	05/01/24 18:04	1
Cadmium	**0.000457**	**J**	0.000500	0.000151	mg/L		05/01/24 06:35	05/01/24 18:04	1
Calcium	**62.8**		0.120	0.0500	mg/L		05/01/24 06:35	05/01/24 18:04	1
Chromium	<0.000550		0.00200	0.000550	mg/L		05/01/24 06:35	05/01/24 18:04	1
Cobalt	**0.135**		0.000500	0.000156	mg/L		05/01/24 06:35	05/01/24 18:04	1
Iron	**0.0286**	**J**	0.0500	0.0200	mg/L		05/01/24 06:35	05/01/24 18:04	1
Lead	<0.000120		0.000500	0.000120	mg/L		05/01/24 06:35	05/01/24 18:04	1
Molybdenum	**0.000231**	**J**	0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:04	1
Selenium	<0.000278		0.00100	0.000278	mg/L		05/01/24 06:35	05/01/24 18:04	1
Thallium	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**320**		60.0	24.0	mg/L			04/24/24 06:33	1
pH (SW846 9040C)	**6.98**	**HF**	0.0100	0.0100	S.U.			04/24/24 19:22	1
Temperature (SW846 9040C)	**23.0**	**HF**	0.0100	0.0100	Degrees C			04/24/24 19:22	1

Client Sample ID: AP-1DGWC-48 1 Control Day 42

Lab Sample ID: 410-168951-2

Date Collected: 04/23/24 08:15
Matrix: Water
Date Received: 04/23/24 14:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			05/03/24 23:47	5
Sulfate	**275**		75.0	25.0	mg/L			05/04/24 00:00	50
Chloride	**7.65**		7.50	3.00	mg/L			05/03/24 23:47	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.540**		0.0500	0.0120	mg/L		05/01/24 06:35	05/01/24 15:40	1
Lithium	<0.0110		0.0500	0.0110	mg/L		05/01/24 06:35	05/01/24 15:40	1

Client Sample ID: AP-1DGWC-48 1 Control Day 42

Lab Sample ID: 410-168951-2

Date Collected: 04/23/24 08:15

Matrix: Water

Date Received: 04/23/24 14:55

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		05/01/24 06:35	05/01/24 18:06	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		05/01/24 06:35	05/01/24 18:06	1
Barium	**0.0332**		0.00200	0.000746	mg/L		05/01/24 06:35	05/01/24 18:06	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		05/01/24 06:35	05/01/24 18:06	1
Cadmium	**0.000182**	**J**	0.000500	0.000151	mg/L		05/01/24 06:35	05/01/24 18:06	1
Calcium	**60.1**		0.120	0.0500	mg/L		05/01/24 06:35	05/01/24 18:06	1
Chromium	<0.000550		0.00200	0.000550	mg/L		05/01/24 06:35	05/01/24 18:06	1
Cobalt	**0.120**		0.000500	0.000156	mg/L		05/01/24 06:35	05/01/24 18:06	1
Iron	**2.68**		0.0500	0.0200	mg/L		05/01/24 06:35	05/01/24 18:06	1
Lead	<0.000120		0.000500	0.000120	mg/L		05/01/24 06:35	05/01/24 18:06	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:06	1
Selenium	<0.000278		0.00100	0.000278	mg/L		05/01/24 06:35	05/01/24 18:06	1
Thallium	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:06	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**454**		60.0	24.0	mg/L			04/24/24 06:33	1
pH (SW846 9040C)	**6.19**	**HF**	0.0100	0.0100	S.U.			04/24/24 19:26	1
Temperature (SW846 9040C)	**22.9**	**HF**	0.0100	0.0100	Degrees C			04/24/24 19:26	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 42

Lab Sample ID: 410-168951-3

Date Collected: 04/23/24 08:30

Matrix: Water

Date Received: 04/23/24 14:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			05/02/24 08:29	5
Sulfate	**299**		75.0	25.0	mg/L			05/02/24 08:41	50
Chloride	**9.10**		7.50	3.00	mg/L			05/02/24 08:29	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.464**		0.0500	0.0120	mg/L		05/01/24 06:35	05/01/24 15:50	1
Lithium	<0.0110		0.0500	0.0110	mg/L		05/01/24 06:35	05/01/24 15:50	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		05/01/24 06:35	05/01/24 18:12	1
Arsenic	**0.00249**		0.00200	0.000680	mg/L		05/01/24 06:35	05/01/24 18:12	1
Barium	**0.0549**		0.00200	0.000746	mg/L		05/01/24 06:35	05/01/24 18:12	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		05/01/24 06:35	05/01/24 18:12	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		05/01/24 06:35	05/01/24 18:12	1
Calcium	**83.6**		0.600	0.250	mg/L		05/01/24 06:35	05/01/24 18:58	5
Chromium	<0.000550		0.00200	0.000550	mg/L		05/01/24 06:35	05/01/24 18:12	1
Cobalt	**0.0231**		0.000500	0.000156	mg/L		05/01/24 06:35	05/01/24 18:12	1
Iron	**0.0780**		0.0500	0.0200	mg/L		05/01/24 06:35	05/01/24 18:12	1

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 42
Lab Sample ID: 410-168951-3

Date Collected: 04/23/24 08:30
Matrix: Water
Date Received: 04/23/24 14:55

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.000120		0.000500	0.000120	mg/L		05/01/24 06:35	05/01/24 18:12	1
Molybdenum	**0.00495**		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:12	1
Selenium	<0.000278		0.00100	0.000278	mg/L		05/01/24 06:35	05/01/24 18:12	1
Thallium	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:12	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	**507**		60.0	24.0	mg/L			04/24/24 06:33	1
pH (SW846 9040C)	**6.80**	**HF**	0.0100	0.0100	S.U.			04/24/24 19:14	1
Temperature (SW846 9040C)	**23.0**	**HF**	0.0100	0.0100	Degrees C			04/24/24 19:14	1

Client Sample ID: AP-1DGWC-48 3 FeSO4 Day 42
Lab Sample ID: 410-168951-4

Date Collected: 04/23/24 08:45
Matrix: Water
Date Received: 04/23/24 14:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.450		1.00	0.450	mg/L			05/02/24 08:53	5
Sulfate	**356**		75.0	25.0	mg/L			05/02/24 09:29	50
Chloride	**7.55**		7.50	3.00	mg/L			05/02/24 08:53	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.465**		0.0500	0.0120	mg/L		05/01/24 06:35	05/01/24 15:44	1
Lithium	<0.0110		0.0500	0.0110	mg/L		05/01/24 06:35	05/01/24 15:44	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		05/01/24 06:35	05/01/24 18:08	1
Arsenic	**0.00303**		0.00200	0.000680	mg/L		05/01/24 06:35	05/01/24 18:08	1
Barium	**0.0381**		0.00200	0.000746	mg/L		05/01/24 06:35	05/01/24 18:08	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		05/01/24 06:35	05/01/24 18:08	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		05/01/24 06:35	05/01/24 18:08	1
Calcium	**43.7**		0.120	0.0500	mg/L		05/01/24 06:35	05/01/24 18:08	1
Chromium	**0.00149**	**J**	0.00200	0.000550	mg/L		05/01/24 06:35	05/01/24 18:08	1
Cobalt	**0.0291**		0.000500	0.000156	mg/L		05/01/24 06:35	05/01/24 18:08	1
Iron	**0.0469**	**J**	0.0500	0.0200	mg/L		05/01/24 06:35	05/01/24 18:08	1
Lead	<0.000120		0.000500	0.000120	mg/L		05/01/24 06:35	05/01/24 18:08	1
Molybdenum	**0.00474**		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:08	1
Selenium	<0.000278		0.00100	0.000278	mg/L		05/01/24 06:35	05/01/24 18:08	1
Thallium	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 18:08	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:47	1

Client Sample ID: AP-1DGWC-48 3 FeSO4 Day 42
Lab Sample ID: 410-168951-4

Date Collected: 04/23/24 08:45
Matrix: Water
Date Received: 04/23/24 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	370		60.0	24.0	mg/L			04/24/24 06:33	1
pH (SW846 9040C)	6.81	HF	0.0100	0.0100	S.U.			04/24/24 19:18	1
Temperature (SW846 9040C)	23.0	HF	0.0100	0.0100	Degrees C			04/24/24 19:18	1

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 42
Lab Sample ID: 410-168951-5

Date Collected: 04/23/24 09:00
Matrix: Water
Date Received: 04/23/24 14:55

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.483		0.0500	0.0120	mg/L		04/30/24 06:55	05/01/24 09:53	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/30/24 06:55	05/01/24 09:53	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/30/24 06:55	04/30/24 16:52	1
Arsenic	0.00148	J	0.00200	0.000680	mg/L		04/30/24 06:55	04/30/24 16:52	1
Barium	0.0657		0.00200	0.000746	mg/L		04/30/24 06:55	04/30/24 16:52	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/30/24 06:55	04/30/24 16:52	1
Cadmium	0.000169	J	0.000500	0.000151	mg/L		04/30/24 06:55	04/30/24 16:52	1
Calcium	45.6		0.120	0.0500	mg/L		04/30/24 06:55	04/30/24 16:52	1
Chromium	0.000699	J	0.00200	0.000550	mg/L		04/30/24 06:55	04/30/24 16:52	1
Cobalt	0.0239		0.000500	0.000156	mg/L		04/30/24 06:55	04/30/24 16:52	1
Lead	0.000131	J	0.000500	0.000120	mg/L		04/30/24 06:55	04/30/24 16:52	1
Molybdenum	0.00562		0.000500	0.000130	mg/L		04/30/24 06:55	04/30/24 16:52	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/30/24 06:55	04/30/24 16:52	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/30/24 06:55	04/30/24 16:52	1
Iron	0.141		0.0500	0.0200	mg/L		04/30/24 06:55	04/30/24 16:52	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:51	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-501018/5
Matrix: Water
Analysis Batch: 501018

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			05/02/24 05:03	1
Sulfate	<0.500		1.50	0.500	mg/L			05/02/24 05:03	1
Chloride	<0.600		1.50	0.600	mg/L			05/02/24 05:03	1

Lab Sample ID: LCS 410-501018/3
Matrix: Water
Analysis Batch: 501018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7361		mg/L		98	90 - 110
Sulfate	7.50	7.302		mg/L		97	90 - 110
Chloride	3.00	2.868		mg/L		96	90 - 110

Lab Sample ID: LCSD 410-501018/4
Matrix: Water
Analysis Batch: 501018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7321		mg/L		98	90 - 110	1	20
Sulfate	7.50	7.287		mg/L		97	90 - 110	0	20
Chloride	3.00	2.865		mg/L		96	90 - 110	0	20

Lab Sample ID: MB 410-501482/5
Matrix: Water
Analysis Batch: 501482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0900		0.200	0.0900	mg/L			05/03/24 12:17	1
Sulfate	<0.500		1.50	0.500	mg/L			05/03/24 12:17	1
Chloride	<0.600		1.50	0.600	mg/L			05/03/24 12:17	1

Lab Sample ID: LCS 410-501482/3
Matrix: Water
Analysis Batch: 501482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.750	0.7178		mg/L		96	90 - 110
Sulfate	7.50	7.097		mg/L		95	90 - 110
Chloride	3.00	2.807		mg/L		94	90 - 110

Lab Sample ID: LCSD 410-501482/4
Matrix: Water
Analysis Batch: 501482

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.750	0.7147		mg/L		95	90 - 110	0	20
Sulfate	7.50	7.097		mg/L		95	90 - 110	0	20
Chloride	3.00	2.805		mg/L		93	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-499780/1-A
Matrix: Water
Analysis Batch: 500823

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 499780

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		04/30/24 06:55	05/01/24 09:15	1
Lithium	<0.0110		0.0500	0.0110	mg/L		04/30/24 06:55	05/01/24 09:15	1

Lab Sample ID: LCS 410-499780/2-A
Matrix: Water
Analysis Batch: 500823

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 499780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.5189		mg/L		104	83 - 119
Lithium	0.500	0.5050		mg/L		101	88 - 113

Lab Sample ID: MB 410-500201/1-A
Matrix: Water
Analysis Batch: 501013

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0120		0.0500	0.0120	mg/L		05/01/24 06:35	05/01/24 15:30	1
Lithium	<0.0110		0.0500	0.0110	mg/L		05/01/24 06:35	05/01/24 15:30	1

Lab Sample ID: LCS 410-500201/2-A
Matrix: Water
Analysis Batch: 501013

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.4809		mg/L		96	83 - 119
Lithium	0.500	0.4766		mg/L		95	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-499780/1-A
Matrix: Water
Analysis Batch: 500535

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 499780

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		04/30/24 06:55	04/30/24 15:43	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		04/30/24 06:55	04/30/24 15:43	1
Barium	<0.000746		0.00200	0.000746	mg/L		04/30/24 06:55	04/30/24 15:43	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		04/30/24 06:55	04/30/24 15:43	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		04/30/24 06:55	04/30/24 15:43	1
Calcium	<0.0500		0.120	0.0500	mg/L		04/30/24 06:55	04/30/24 15:43	1
Chromium	<0.000550		0.00200	0.000550	mg/L		04/30/24 06:55	04/30/24 15:43	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		04/30/24 06:55	04/30/24 15:43	1
Lead	<0.000120		0.000500	0.000120	mg/L		04/30/24 06:55	04/30/24 15:43	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		04/30/24 06:55	04/30/24 15:43	1
Selenium	<0.000278		0.00100	0.000278	mg/L		04/30/24 06:55	04/30/24 15:43	1
Thallium	<0.000130		0.000500	0.000130	mg/L		04/30/24 06:55	04/30/24 15:43	1
Iron	<0.0200		0.0500	0.0200	mg/L		04/30/24 06:55	04/30/24 15:43	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-499780/2-A
Matrix: Water
Analysis Batch: 500535

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 499780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09925		mg/L		99	90 - 115
Arsenic	0.500	0.4866		mg/L		97	90 - 109
Barium	0.500	0.5004		mg/L		100	90 - 113
Beryllium	0.0500	0.05035		mg/L		101	82 - 120
Cadmium	0.0500	0.05062		mg/L		101	90 - 112
Calcium	5.00	4.901		mg/L		98	90 - 112
Chromium	0.500	0.5011		mg/L		100	90 - 110
Cobalt	0.500	0.4940		mg/L		99	90 - 110
Lead	0.0500	0.04926		mg/L		99	90 - 110
Molybdenum	0.0500	0.05133		mg/L		103	90 - 115
Selenium	0.100	0.09772		mg/L		98	90 - 110
Thallium	0.100	0.09650		mg/L		96	90 - 110
Iron	5.00	5.044		mg/L		101	90 - 111

Lab Sample ID: MB 410-500201/1-A
Matrix: Water
Analysis Batch: 501005

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000200		0.00100	0.000200	mg/L		05/01/24 06:35	05/01/24 17:32	1
Arsenic	<0.000680		0.00200	0.000680	mg/L		05/01/24 06:35	05/01/24 17:32	1
Barium	<0.000746		0.00200	0.000746	mg/L		05/01/24 06:35	05/01/24 17:32	1
Beryllium	<0.000119		0.000500	0.000119	mg/L		05/01/24 06:35	05/01/24 17:32	1
Cadmium	<0.000151		0.000500	0.000151	mg/L		05/01/24 06:35	05/01/24 17:32	1
Calcium	<0.0500		0.120	0.0500	mg/L		05/01/24 06:35	05/01/24 17:32	1
Chromium	<0.000550		0.00200	0.000550	mg/L		05/01/24 06:35	05/01/24 17:32	1
Cobalt	<0.000156		0.000500	0.000156	mg/L		05/01/24 06:35	05/01/24 17:32	1
Lead	<0.000120		0.000500	0.000120	mg/L		05/01/24 06:35	05/01/24 17:32	1
Molybdenum	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 17:32	1
Selenium	<0.000278		0.00100	0.000278	mg/L		05/01/24 06:35	05/01/24 17:32	1
Thallium	<0.000130		0.000500	0.000130	mg/L		05/01/24 06:35	05/01/24 17:32	1
Iron	<0.0200		0.0500	0.0200	mg/L		05/01/24 06:35	05/01/24 17:32	1

Lab Sample ID: LCS 410-500201/2-A
Matrix: Water
Analysis Batch: 501005

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09861		mg/L		99	90 - 115
Arsenic	0.500	0.4737		mg/L		95	90 - 109
Barium	0.500	0.4987		mg/L		100	90 - 113
Beryllium	0.0500	0.04943		mg/L		99	82 - 120
Cadmium	0.0500	0.04939		mg/L		99	90 - 112
Calcium	5.00	4.773		mg/L		95	90 - 112
Chromium	0.500	0.4805		mg/L		96	90 - 110
Cobalt	0.500	0.4654		mg/L		93	90 - 110
Lead	0.0500	0.04945		mg/L		99	90 - 110
Molybdenum	0.0500	0.04985		mg/L		100	90 - 115
Selenium	0.100	0.09718		mg/L		97	90 - 110

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-500201/2-A
Matrix: Water
Analysis Batch: 501005

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.09799		mg/L		98	90 - 110
Iron	5.00	4.744		mg/L		95	90 - 111

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-498587/1-A
Matrix: Water
Analysis Batch: 499081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000790		0.000200	0.0000790	mg/L		04/26/24 05:30	04/26/24 11:22	1

Lab Sample ID: LCS 410-498587/2-A
Matrix: Water
Analysis Batch: 499081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.0009340		mg/L		93	80 - 118

Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 410-497821/1
Matrix: Water
Analysis Batch: 497821

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<12.0		30.0	12.0	mg/L			04/24/24 06:33	1

Lab Sample ID: LCS 410-497821/2
Matrix: Water
Analysis Batch: 497821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	200	196.0		mg/L		98	90 - 110

Method: 9040C - pH

Lab Sample ID: LCS 410-498394/3
Matrix: Water
Analysis Batch: 498394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.000		S.U.		100	95 - 105

HPLC/IC

Analysis Batch: 501018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Total/NA	Water	EPA 300.0 R2.1	
MB 410-501018/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-501018/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-501018/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 501482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-1	AP-1DGWC-48 Influent Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Total/NA	Water	EPA 300.0 R2.1	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Total/NA	Water	EPA 300.0 R2.1	
MB 410-501482/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-501482/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-501482/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 498587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Dissolved	Water	7470A	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Dissolved	Water	7470A	
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	7470A	
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Dissolved	Water	7470A	
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Dissolved	Water	7470A	
MB 410-498587/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-498587/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 499081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Dissolved	Water	7470A	498587
410-168951-2	AP-1DGWC-48 1 Control Day 42	Dissolved	Water	7470A	498587
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	7470A	498587
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Dissolved	Water	7470A	498587
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Dissolved	Water	7470A	498587
MB 410-498587/1-A	Method Blank	Total/NA	Water	7470A	498587
LCS 410-498587/2-A	Lab Control Sample	Total/NA	Water	7470A	498587

Prep Batch: 499780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Dissolved	Water	3005A	
MB 410-499780/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-499780/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 500201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Dissolved	Water	3005A	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Dissolved	Water	3005A	
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 500201 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Dissolved	Water	3005A	
MB 410-500201/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-500201/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 500535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Dissolved	Water	6020B	499780
MB 410-499780/1-A	Method Blank	Total Recoverable	Water	6020B	499780
LCS 410-499780/2-A	Lab Control Sample	Total Recoverable	Water	6020B	499780

Analysis Batch: 500823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Dissolved	Water	6010D	499780
MB 410-499780/1-A	Method Blank	Total Recoverable	Water	6010D	499780
LCS 410-499780/2-A	Lab Control Sample	Total Recoverable	Water	6010D	499780

Analysis Batch: 501005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Dissolved	Water	6020B	500201
410-168951-2	AP-1DGWC-48 1 Control Day 42	Dissolved	Water	6020B	500201
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	6020B	500201
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	6020B	500201
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Dissolved	Water	6020B	500201
MB 410-500201/1-A	Method Blank	Total Recoverable	Water	6020B	500201
LCS 410-500201/2-A	Lab Control Sample	Total Recoverable	Water	6020B	500201

Analysis Batch: 501013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Dissolved	Water	6010D	500201
410-168951-2	AP-1DGWC-48 1 Control Day 42	Dissolved	Water	6010D	500201
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Dissolved	Water	6010D	500201
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Dissolved	Water	6010D	500201
MB 410-500201/1-A	Method Blank	Total Recoverable	Water	6010D	500201
LCS 410-500201/2-A	Lab Control Sample	Total Recoverable	Water	6010D	500201

General Chemistry

Analysis Batch: 497821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Total/NA	Water	2540C - 2015	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Total/NA	Water	2540C - 2015	
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Total/NA	Water	2540C - 2015	
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Total/NA	Water	2540C - 2015	
MB 410-497821/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 410-497821/2	Lab Control Sample	Total/NA	Water	2540C - 2015	

Analysis Batch: 498394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-1	AP-1DGWC-48 Influent Day 42	Total/NA	Water	9040C	
410-168951-2	AP-1DGWC-48 1 Control Day 42	Total/NA	Water	9040C	
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Total/NA	Water	9040C	

General Chemistry (Continued)

Analysis Batch: 498394 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Total/NA	Water	9040C	
LCS 410-498394/3	Lab Control Sample	Total/NA	Water	9040C	

Client Sample ID: AP-1DGWC-48 Influent Day 42
Lab Sample ID: 410-168951-1

Date Collected: 04/23/24 08:00
Matrix: Water
Date Received: 04/23/24 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	501482	L4QM	ELLE	05/03/24 23:23
Total/NA	Analysis	EPA 300.0 R2.1		50	501482	L4QM	ELLE	05/03/24 23:35
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6010D		1	501013	T8CQ	ELLE	05/01/24 15:37
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6020B		1	501005	UCIG	ELLE	05/01/24 18:04
Dissolved	Prep	7470A			498587	UAMX	ELLE	04/26/24 05:30
Dissolved	Analysis	7470A		1	499081	UEFS	ELLE	04/26/24 11:49
Total/NA	Analysis	2540C - 2015		1	497821	M98K	ELLE	04/24/24 06:33 - 04/25/24 10:00 [1]
Total/NA	Analysis	9040C		1	498394	DI9Q	ELLE	04/24/24 19:22

Client Sample ID: AP-1DGWC-48 1 Control Day 42
Lab Sample ID: 410-168951-2

Date Collected: 04/23/24 08:15
Matrix: Water
Date Received: 04/23/24 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	501482	L4QM	ELLE	05/03/24 23:47
Total/NA	Analysis	EPA 300.0 R2.1		50	501482	L4QM	ELLE	05/04/24 00:00
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6010D		1	501013	T8CQ	ELLE	05/01/24 15:40
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6020B		1	501005	UCIG	ELLE	05/01/24 18:06
Dissolved	Prep	7470A			498587	UAMX	ELLE	04/26/24 05:30
Dissolved	Analysis	7470A		1	499081	UEFS	ELLE	04/26/24 11:41
Total/NA	Analysis	2540C - 2015		1	497821	M98K	ELLE	04/24/24 06:33 - 04/25/24 10:00 [1]
Total/NA	Analysis	9040C		1	498394	DI9Q	ELLE	04/24/24 19:26

Client Sample ID: AP-1DGWC-48 2 KHCO3 Day 42
Lab Sample ID: 410-168951-3

Date Collected: 04/23/24 08:30
Matrix: Water
Date Received: 04/23/24 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	501018	L4QM	ELLE	05/02/24 08:29
Total/NA	Analysis	EPA 300.0 R2.1		50	501018	L4QM	ELLE	05/02/24 08:41
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6010D		1	501013	T8CQ	ELLE	05/01/24 15:50
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6020B		1	501005	UCIG	ELLE	05/01/24 18:12
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6020B		5	501005	UCIG	ELLE	05/01/24 18:58
Dissolved	Prep	7470A			498587	UAMX	ELLE	04/26/24 05:30
Dissolved	Analysis	7470A		1	499081	UEFS	ELLE	04/26/24 11:45
Total/NA	Analysis	2540C - 2015		1	497821	M98K	ELLE	04/24/24 06:33 - 04/25/24 10:00 [1]
Total/NA	Analysis	9040C		1	498394	DI9Q	ELLE	04/24/24 19:14

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Client Sample ID: AP-1DGWC-48 3 FeSO4 Day 42
Lab Sample ID: 410-168951-4

Date Collected: 04/23/24 08:45
Matrix: Water
Date Received: 04/23/24 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		5	501018	L4QM	ELLE	05/02/24 08:53
Total/NA	Analysis	EPA 300.0 R2.1		50	501018	L4QM	ELLE	05/02/24 09:29
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6010D		1	501013	T8CQ	ELLE	05/01/24 15:44
Dissolved	Prep	3005A			500201	X3ZX	ELLE	05/01/24 06:35
Dissolved	Analysis	6020B		1	501005	UCIG	ELLE	05/01/24 18:08
Dissolved	Prep	7470A			498587	UAMX	ELLE	04/26/24 05:30
Dissolved	Analysis	7470A		1	499081	UEFS	ELLE	04/26/24 11:47
Total/NA	Analysis	2540C - 2015		1	497821	M98K	ELLE	04/24/24 06:33 - 04/25/24 10:00 [1]
Total/NA	Analysis	9040C		1	498394	DI9Q	ELLE	04/24/24 19:18

Client Sample ID: AP-1DGWC-48 4 ADA Carbon Day 42
Lab Sample ID: 410-168951-5

Date Collected: 04/23/24 09:00
Matrix: Water
Date Received: 04/23/24 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			499780	X3ZX	ELLE	04/30/24 06:55
Dissolved	Analysis	6010D		1	500823	MT26	ELLE	05/01/24 09:53
Dissolved	Prep	3005A			499780	X3ZX	ELLE	04/30/24 06:55
Dissolved	Analysis	6020B		1	500535	UCIG	ELLE	04/30/24 16:52
Dissolved	Prep	7470A			498587	UAMX	ELLE	04/26/24 05:30
Dissolved	Analysis	7470A		1	499081	UEFS	ELLE	04/26/24 11:51

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-12-25
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-24
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Delaware (DW)	State	N/A	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-24 *
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23 *
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-24
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-25
North Carolina (DW)	State	42705	07-31-24
North Carolina (WW/SW)	State	521	12-31-24
Oklahoma	NELAP	9804	08-31-24
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-24 *
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	07-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wyoming	State	8TMS-L	01-31-25
Wyoming (UST)	A2LA	0001.01	11-30-24

Method Summary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	ELLE
9040C	pH	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-168951-1
Project/Site: Golder/WSP column and batch studies

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-168951-1	AP-1DGWC-48 Influent Day 42	Water	04/23/24 08:00	04/23/24 14:55
410-168951-2	AP-1DGWC-48 1 Control Day 42	Water	04/23/24 08:15	04/23/24 14:55
410-168951-3	AP-1DGWC-48 2 KHCO3 Day 42	Water	04/23/24 08:30	04/23/24 14:55
410-168951-4	AP-1DGWC-48 3 FeSO4 Day 42	Water	04/23/24 08:45	04/23/24 14:55
410-168951-5	AP-1DGWC-48 4 ADA Carbon Day 42	Water	04/23/24 09:00	04/23/24 14:55

Environn quest/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-168951 Chain of Custody

Acct. # _____ ple # _____

Client: **Terra Systems, Inc.**			
Project Name/#: WSP Plant McDonough CCR TS III	Site ID #: Srymna, GA		
Project Manager: Michael D. Lee	P.O. #: 232720 4-23-24		
Sampler: Michael D. Lee	PWSID #:		
Phone #: 302-798-9553	Quote #: 41016315		
State where samples were collected: ___ GA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	Surface	NPDES	Other:	Total # of Containers	Analyses Requested: Dis As, Ba, Be, B, Ca, Cd (N)	Co, Cr, Fe, Hg, Li, Mo, Pb (N)	Sb, Se, Tl (field filtered) (N)	Total Dissolved Solids & pH (-)	SO4, Fl, Cl (-)
AP-1DGWC-48 Influent Day 42	4/23/2024	8:00		X				X					3	X	X	X	X	X
AP-1 DGWC-48 1 Control Day 42	4/23/2024	8:15		X				X					3	X	X	X	X	X
AP-1 DGWC-48 2 KHCO3 Day 42	4/23/2024	8:30		X				X					3	X	X	X	X	X
AP-1 DGWC-48 3 FeSO4 Day 42	4/23/2024	8:45		X				X					3	X	X	X	X	X
AP-1 DGWC-48 4 ADA Carbon Day 42	4/23/2024	9:00		X				X					1	X	X	X		

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only: SF #: _____ SCR #: _____

Remarks

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 5/7/24

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: _____

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Michael D Lee	4/23/24	12:40	[illegible]	4/23/24	1240
2	[illegible]	4/23/24	1455			
3						
4						
5				[illegible]	4/23/24	1455

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Raw 0.3 - core 0.4

Temperature upon receipt _____ °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0216

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-168951-1

Login Number: 168951

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Ballard, Megan

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

wsp.com