

# 2023 Annual Groundwater Monitoring and Corrective Action Report

PLANT McMANUS  
Former Ash Pond 1 (AP-1)

Prepared for:  
GEORGIA POWER COMPANY  
Atlanta, Georgia



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July 31, 2023

# Georgia Power Company

## 2023 Annual Groundwater Monitoring and Corrective Action Report

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Former Ash Pond 1 (AP-1)

July 31, 2023



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**CERTIFICATION STATEMENT**

This 2023 *Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant McManus- Former 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 Resolute Environmental & Water Resources Consulting, LLC (Resolute). I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

**RESOLUTE ENVIRONMENTAL & WATER RESOURCES CONSULTING, LLC**

Signature: \_\_\_\_\_



Morris L. Maslia, P.E.

Date: July 31, 2023

## SUMMARY

This summary of the 2023 Annual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program from June 2022 through July 2023 (the annual reporting period) at Georgia Power Company's (Georgia Power's) Former Ash Pond (AP) AP-1 at Plant McManus (the Site). This summary was prepared by Resolute Environmental and Water Resources Consulting, LLC. (Resolute) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste 391-3-4-.10, and by reference, Part A, Section 6<sup>1</sup> of the U.S. Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant McManus is located at 1 Crispin Island Drive in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property. The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to the Georgia Environmental Protection Division (GA EPD) on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit for the Plant McManus Ash Pond was issued by GA EPD Friday June 18<sup>th</sup>, 2021 (063-030D (CCR)).



Former Ash Pond (AP-1) and the Site.

Groundwater at the Site is monitored using a comprehensive monitoring network that meets federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between August 2016 and May 2018. Based on groundwater conditions at the Site, an assessment monitoring program and assessment of corrective measures were established in August 2019 and July 2020, respectively. An *Assessment of Corrective Measures Report* was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020. During the annual reporting period, the Site remained in assessment monitoring as corrective measures were evaluated.

During the 2023 annual reporting period, Resolute conducted the semiannual groundwater and surface water sampling events in September 2022 and March 2023. Samples were submitted to

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

either Eurofins Environmental Testing (Eurofins) or GEL Laboratories (GEL) for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III<sup>2</sup> and Appendix IV<sup>3</sup> parameters in wells provided in the table below.

<b>Appendix III Parameter</b>	<b>September 2022</b>	<b>February 2023</b>
Boron	MCM-17	MCM-17
Calcium	MCM-07	MCM-07
pH	MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17	MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
Sulfate		MCM-14
<b>Appendix IV Parameter<sup>4</sup></b>	<b>September 2022</b>	<b>February 2023</b>
Arsenic	MCM-06	MCM-06
Lithium	MCM-06 and DPZ-02	MCM-06 and DPZ-02

Based on review of the Appendix III and Appendix IV statistical results, the Site will continue in assessment monitoring. Alternate source demonstrations (ASD) were submitted for lithium at wells MCM-06 and DPZ-02 on November 17, 2020 and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17, 2022, respectively. An ASD update was prepared and submitted by Arcadis for lithium in monitoring wells MCM-06 and DPZ-02 on April 21, 2023 with final approval of the ASD provided by GA EPD on May 1, 2023. Georgia Power will continue routine groundwater monitoring, reporting, and groundwater remedy evaluation at the Site. Reports will be posted to the website and provided to GA EPD semiannually.

<sup>2</sup> Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

<sup>3</sup> Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228

<sup>4</sup> An SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the CCR rule specified level (RSL), if no MCL is available, or the calculated background interwell tolerance limit.

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## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, this *2023 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power's) Plant McManus Former Ash Pond AP-1 (the Site) and satisfy the requirements of § 257.90(e). To specify groundwater monitoring requirements, Georgia EPD rule 391-3-4-.10(6)(a) incorporates by reference the USEPA CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015). For ease of reference, the USEPA CCR rules are cited within this report.

Groundwater monitoring and reporting for the former AP-1 is performed in accordance with the monitoring requirements of 40 CFR 257.90 through 257.95 of the USEPA CCR rule, and Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6).

The former AP-1 ceased receiving waste prior to the effective date of the USEPA CCR rule promulgated in April 2015. A notification of intent to initiate closure of the former CCR ash pond was certified on December 7, 2015, and posted to Georgia Power's website. Therefore, groundwater monitoring and reporting for the former AP-1 are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016).

This report documents annual monitoring activities completed from June 2022 through July 2023 (the reporting period) and includes the required report components in accordance with 40 CFR 257.90(e).

### 1.1 SITE LOCATION AND DESCRIPTION

The Site is located at 1 Crispin Island Drive in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property (Figure 1).

The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite, permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to GA EPD on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit (No. 063-030D(CCR)) for the Plant McManus Ash Pond was issued by GA EPD on June 18, 2021. The former AP-1 is monitored by an on-site network of piezometers and wells to define groundwater elevation, flow direction, and monitor groundwater condition. The locations of



the wells and piezometers are shown on Figures 2 and 3 respectively; well and piezometer construction details are listed in Tables 1 and 2, respectively.

### 1.1.1 Regional Geology

The aquifer systems in Brunswick, Glynn County, GA are: (1) the surficial aquifer, (2) the Brunswick aquifer (Upper and Lower) and (3) the Floridan aquifer system (Upper and Lower). The Floridan aquifer system can extend to depths beyond 2,000 feet or more (Clark et al. 1990, Maslia and Prowell, 1990; Jones et al. 2002). The uppermost regional aquifer is the surficial aquifer. In the Brunswick area, this aquifer extends to a depth of approximately 180 feet. Although the surficial aquifer is defined on a regional scale as extending to approximately 180 feet below ground surface, Clarke et al. (1990) acknowledge that localized lower permeability units can create confined or semi-confined conditions within limited areas of the surficial aquifer (ATC Associates Inc., 1997).

Regionally, the surficial aquifer is composed of geologic formations overlying the Hawthorn Formation. These formations include the Satilla, Charlton, and Raysor Formations, as well as undifferentiated Holocene, Pleistocene, Pliocene and late-Miocene deposits. In the Brunswick area, the Satilla is described as extending to approximately 28 feet below ground surface and the Cypresshead to approximately 50 feet below ground surface. Underlying the Satilla and Cypresshead Formations are sands, gravels, and clays which have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation. These alternating units of the Ebenezer Formation are described as an uppermost confining unit extending from approximately 50 to 75 feet below ground surface, followed by a water-bearing zone from approximately 75 to 110 feet below ground surface, another confining unit from approximately 110 to 150 feet below ground surface, and then another water-bearing zone from approximately 150 to 185 feet below ground surface. Depositionally, these sediments represent marginal to shallow marine beds, that are overlain by marine terrace deposits. Fluvial or residual deposits overlay the terrace deposits (Miller, 1986; Clarke et al, 1990).

The regional surficial aquifer is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system. The Brunswick aquifer system is composed of two confined aquifers (the Upper Brunswick aquifer and the Lower Brunswick aquifer) which are separated and confined above and below by less permeable units of the Hawthorn Formation. The Upper Brunswick aquifer extends from approximately 270 feet to 350 feet below ground surface, and the Lower Brunswick aquifer extends from approximately 400 feet to 470 feet below ground surface (Clarke et al, 1990).

### 1.1.2 Site Geology and Hydrogeology

Based on information collected during subsurface investigations, Plant McManus is underlain by very fine sands and clays from land surface (or beneath a shallow fill layer) to depths ranging from 33 to 43 feet below land surface. Very fine sands are predominant, but discontinuous clay

layers of varying thickness were encountered during drilling activities. The clay layers varied from less than one inch to approximately ten feet in thickness. These very fine sands and discontinuous clay layers are interpreted to be the Upper Satilla Formation (ATC Associates, Inc., 1997).

Underlying the Upper Satilla Formation are fine to medium sands with greater silt content, and apparently lower permeability, than the sands of the Upper Satilla. These siltier sands, which were interpreted to be the Lower Satilla Formation, were encountered at depths greater than 35 feet below ground surface during the Site investigation performed in the 1990s (ATC Associates Inc., 1997). These sands may also correspond to the Cypresshead Formation of Huddleston (1988). Sands and clays below the Cypresshead and above the confining unit of the Brunswick aquifer system have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation, extending from approximately 50 to 185 feet below ground surface in the Brunswick area.

The regional surficial aquifer that contains the Upper and Lower Satilla Formations is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system.

The surficial aquifer underlying the mainland, marsh, and island is composed of the very fine to fine grain sand with discontinuous clay layers of the Upper and Lower Satilla Formation. In the marsh, the groundwater elevation at low tide is below the top of the marsh surface. The upper portion of the aquifer in the marsh has been cut by tidal creeks, which meander through the marsh. In addition to current and historically recent (pre-ash pond construction) tidal channels, the marsh is also likely to have paleo (pre-historic) tidal channels present throughout the upper portion of the aquifer in the marsh area, which may provide zones of higher hydraulic conductivity or isolated pockets of groundwater. Vertically, the Satilla formation fines downward to a silty fine sand of the Lower Satilla Formation. The aquifer is generally unconfined, with localized clay layers. Groundwater flowing within the surficial aquifer is separated from deeper aquifers by approximately 90 feet of lower-permeability portions of the Hawthorn Formation (Miocene Unit A) that form the upper confining bed for the Brunswick aquifer system (Clarke et al, 1990).

Groundwater flows from two directions toward the former AP-1. One groundwater flow component originates on the mainland, northeast of the facility, and flows southwest, while the other flow component originates on Crispen Island and flows north and northeast (Figures 4-11). Groundwater elevations in the monitoring wells on the mainland (MCM-02, -15, and -16) and on the island (MCM-08, and -11) have consistently exhibited higher groundwater elevations than the monitoring wells and piezometers installed along the dikes (Table 3), with MCM-01 and -04 exhibiting intermediate elevations between the mainland and dike wells. The potentiometric surface of the surficial aquifer and the resultant groundwater flow direction in the vicinity of the former AP-1 is a reflection of the topography of the mainland, Crispen Island, and the tidal marsh surrounding the area.



## 1.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91, Georgia Power installed a groundwater monitoring system within the uppermost aquifer around former AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the former AP-1 within the uppermost aquifer. As part of the assessment monitoring program, DPZ-02, an assessment monitoring well, was added to the program during the 2020 semiannual monitoring program to vertically characterize the nature and extent of groundwater downgradient of former AP-1. Pursuant to § 257.195(g)(1)(iv), the well classified as “assessment well” (formerly known as “delineation well”) will continue to be sampled concurrently with the detection monitoring well network (formerly known as “compliance monitoring wells”) as part of the ongoing assessment groundwater monitoring program.

An on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients. The piezometers may be sampled as needed to support the Assessment of Corrective Measures (ACM) program.

The location of the detection monitoring wells, assessment wells, and piezometers are shown on Tables 1 and 2 and Figures 2 and 3.

## 2.0 GROUNDWATER AND SURFACE WATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the reporting period and discusses any change in status of the monitoring program.

### 2.1 WELL INSTALLATION, MAINTENANCE, AND ABANDONMENTS

In May 2022, six piezometers (DR-01, DR-02, PT-01, PT-02, PT-03, PT-04D) were installed and developed in the vicinity of MCM-06 to aid in the ACM evaluation at MCM-06 and to be utilized during pilot study testing either as injection points or performance monitoring wells. Additional details are presented in the *Draft Remedy Selection Report* by Arcadis U.S., Inc. (Arcadis), submitted to EPD under a separate cover on February 28, 2023. Piezometer locations are shown on Figure 3, and construction details are included in Table 2. A well installation report that includes detailed boring and well construction logs is provided in Appendix A.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In September 2022 and February 2023, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix A. In summary, monitoring activities for this reporting period included:

- Visual inspection of well conditions prior to sampling, recording Site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions; and,
- Re-development of existing wells: MCM-06, and DPZ-02.
- Well Pad and Vault Maintenance of MW-04, PT-03 and DR-01.
- Installation of LevelTroll 500 transducer in MCM-10 and replacement of AquaTroll 200 transducers in MCM-17, MCM-19, and MCM-20 on September 27, 2022.
- Installation of AquaTroll 200 transducers in piezometers PT-01, PT-02, PT-03, and PT-04D.

The well maintenance and repair documentation from June 2022 through July 2023 are presented in Appendix A.

### 2.2 ASSESSMENT MONITORING

Based on results of the August 2019 *Annual Groundwater and Corrective Action Monitoring Report*, assessment monitoring was initiated at the Site. Currently identified SSLs of Appendix IV constituents exceeding their respective GWPS at former AP-1 are arsenic in MCM-06 and lithium in MCM-06 and DPZ-02.

An alternate source demonstration (ASD) was prepared and submitted to GA EPD for lithium at wells MCM-06 and DPZ-02 on November 17, 2020, and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17,

2022, respectively. An ASD update was submitted by Arcadis for lithium at MCM-06 and DPZ-02 on April 21, 2023 with final approval of the ASD provided on May 1, 2023. Additional details of these ASDs are presented in Section 5.

Pursuant to § 257.96, an *Assessment of Corrective Measures Report (ACM)* was initiated for the former AP-1 on July 9, 2020. An *Assessment of Corrective Measures Report (ACM Report)* was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020 and posted to the CCR compliance website in January 2021. On February 28 2023, a Draft Remedy Selection Report was submitted to GA EPD and is currently under review. In accordance with § 257.96(b), groundwater continues to be monitored at the former AP-1 under the assessment monitoring program while the ACM phase is implemented.

Pursuant to § 257.95(b), the monitoring wells of the certified compliance monitoring network were sampled for the complete list of Appendix III and Appendix IV parameters (Table 4) in the monitoring event conducted in September 2022 and February 2023. A summary of the analyses collected is provided in Table 5A. Details of these events and analytical results are discussed in Section 3, with the field sampling and calibration reports and laboratory analytical reports presented in Appendix B. The statistical results are discussed in Section 4.

## **2.3 ADDITIONAL SAMPLING**

### **2.3.1 ACM Sampling**

To establish baseline conditions prior to implementation of a pilot study, the six newly installed piezometers (PT-01, PT-02, PT-03, PT-04D, DR-01, and DR-02) and nearby wells (MCM-06 and DPZ-02) were sampled in June 2022, September 2022, February 2023, and June 2023. Refer to Figure 3 for the piezometer locations. Data collected from the new piezometers will be summarized in a comprehensive technical memorandum as described in Section 6.2.

Groundwater collected during the supplemental June 2022, September 2022, February 2023, and June 2023 monitoring events were analyzed for additional geochemical parameters (magnesium, potassium, sodium, sulfide, alkalinity, and iron). The data were collected in support of evaluating the geochemical composition of the groundwater and surface water in conjunction with the ACM and ASD activities.

The laboratory reports associated with the data described above are provided in Appendix B.

### **2.3.2 Surface Water Sampling**

To assess horizontal delineation of arsenic, Georgia Power has proactively completed additional sampling to assess concentrations of arsenic in surface water in the tidal salt marsh since February 2020. Georgia Power collects surface water samples along four transects (T1 through T4) in the tidal marsh adjacent to wells MCM-07, MCM-06, MCM-05, and MCM-14, respectively (Figure 12). Background surface water samples are collected at a low tide background location, BG-1LT, in Cowpen Creek, north of its confluence with Burnett Creek, and at high tide background

location, BG-2HT, located in the Turtle River, north of its confluence with Gibson Creek. Surface water samples are collected in accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD), Operating Procedure, Surface Water Sampling SESDPROC-201-R5 (December 23, 2021).

#### June 2022 Sampling

In June 2022, samples were collected during high tide (HT, HTS, HS, HB) at each transect at the fourth location (i.e., T1-4, T2-4, T3-4, T4-4) with additional samples being collected at the transects 2 and 4 at the first, second, and third locations. An additional high tide background sample was collected at background location 1 (BG-1HT).

#### September and December 2022 Sampling

In September 2022, surface water samples were collected during high tide (HT, HTS, HS, HB) from each point along transects T2 and T4 and from the outmost creek locations in transects T1 and T3. Low tide surface water samples (L, LT) were collected from each transect at the fourth location (i.e., T1-4, T2-4, T3-4, T4-4). In December 2022, surface water samples were collected during high tide from the interior points along transects T1 and T3 which included locations T1-1, T1-2, T1-3, T3-1, T3-2 and T3-3.

#### February 2023 Sampling

In February 2023, samples were collected during high tide (HT, HTS, HS, HB) at each transect T1 through T4) at each location (i.e., T1-1, T1-2, T1-3, T1-4). Low tide surface water samples (L, LT) were collected from each transect at the fourth location (i.e., T1-4, T2-4, T3-4, T4-4).

Surface water collected during the June 2022, September/December 2022 and February 2023 sampling were analyzed for arsenic, Appendix III parameters, and additional geochemical parameters (magnesium, potassium, sodium, sulfate, alkalinity). The laboratory reports associated with the surface water sampling events are provided in Appendix C and a summary of the results are presented in Table 6. Surface water data from this reporting period are consistent with historical results.

With the approval of the lithium ASD in May 2023 and based on historic sampling results, future surface water sampling will be limited to transect 2 and background sampling locations at high and low tides. Georgia Power will continue collecting the surface water samples semiannually to support ongoing assessment monitoring.

### 3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater and surface water monitoring, as well as the sampling results that were obtained from sampling events at the former AP-1 during the reporting period.

#### 3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater levels were recorded from piezometers and wells in the network at the former AP-1. Groundwater measurements were taken from transducers installed in 16 wells (MCM-01, -02, -04 through -07, -11, -12, -14 through -20, and DPZ-02) and 9 piezometers (MCM-03, -08, -10 -13, DPZ-01, and DPZ-03 through -06). When other wells and piezometers in the network are utilized for potentiometric surface maps, they were gauged by hand using a Heron water level indicator. Groundwater elevations calculated during the September 2022 and February 2023 monitoring events are summarized in Table 3. Groundwater elevation data was used to develop a high tide and low tide potentiometric surface elevation contour map for each event (Figures 4, 5, 8 and 9). Groundwater flow at the Site is discussed in Section 1.1.

#### 3.2 GROUNDWATER GRADIENT AND HORIZONTAL FLOW VELOCITY

The horizontal groundwater flow velocity at the former AP-1 was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

$K$  = Average Hydraulic Conductivity  $\left(\frac{\text{feet}}{\text{day}}\right)$

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

$\eta_e$  = Effective porosity

Horizontal groundwater flow velocities were calculated for two well pairs at high and low tide using groundwater elevations collected from transducer measurements on September 21, 2022 and September 22, 2022 and February 27, 2023 and February 28, 2023. Groundwater flow velocities representing groundwater flowing from the mainland to former AP-1 (between MCM-16 and MCM-02) and from the island to former AP-1 (between MCM-11 and MCM-12) are presented in (Table 7).

Groundwater flow between MCM-16 and MCM-02 was 0.0064 feet per day (ft/day) at low tide and 0.0090 ft/ day at high tide in September 2022, while groundwater flow for MCM-11 and MCM-12 was 0.0309 ft/ day at low tide and 0.0360 ft/day at high tide. Groundwater flow between MCM-16 and MCM-02 was 0.0051 feet per day (ft/day) at low tide and 0.0013 ft/ day at high tide in February 2023, while groundwater flow between MCM-11 and MCM-12 was 0.0301 ft/ day at low tide and 0.0318 ft/day at high tide. The groundwater direction during both semiannual events (high and low tide) was from former AP-1 to the marsh. For September 2022, average groundwater flow velocities were 0.023 ft/day or 8.21 feet per year (ft/year) at high tide and 0.019 ft/day or 6.82 ft/yr at low tide. For February 2023, average groundwater flow velocities were 0.017 ft/day or 6.03 ft/year at high tide and 0.018 ft/day or 6.43 ft/year at low tide.

### 3.3 GROUNDWATER SAMPLING

Groundwater samples were collected from the compliance well network and select piezometers using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using a peristaltic pump with the intake tubing lowered to the midpoint of the well screen (or as appropriate determined by the water level). QED dedicated pumps are utilized in monitoring wells MCM-01, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-15, MCM-16, and MCM-17. Non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll 400 (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential [ORP]) during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 2020we (or similar) 1970-USEPA and ISO Compliant Model turbidity meter.

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

- $\pm 0.1$  standard units for pH
- $\pm 5\%$  for specific conductance
- $\pm 0.2$  milligrams per liter (mg/L) or  $\pm 10\%$ , whichever is greater for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measurements less than or equal to 5 nephelometric turbidity units (NTU) or measurements between 5 to 10 NTUs following three hours of purging.

Once stabilization was achieved, samples were collected in appropriately preserved laboratory-supplied containers, placed in ice-packed coolers. No filtered samples were collected during this reporting period for Appendix III and IV analyses.

Upon completion of the sampling events, samples were submitted to Pace Analytical in June 2022, Eurofins in September 2022, and GEL Laboratories in February and June 2023, following chain-of-custody protocol. The field sampling forms generated during this reporting period are included in Appendix B.

### **3.4 LABORATORY ANALYSES**

Laboratory analysis was performed by Pace Analytical, Eurofins, and GEL, which are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all Appendix III and Appendix IV constituents analyzed for this project.

The groundwater analytical results from this reporting period are summarized in Table 5A and 5B, and the laboratory analytical reports are provided in Appendix B. The surface water results for the reporting period are summarized in Table 6, and the laboratory analytical reports are provided in Appendix C. The pH field measurements recorded during the groundwater sampling events are also provided in Table 5A.

### **3.5 QUALITY ASSURANCE AND QUALITY CONTROL**

During each sampling event, quality assurance/quality control samples (QA/QC) were collected. QA/QC samples included field blanks (FB taken daily, field equipment rinsate blanks (EB) taken when nondedicated sampling equipment was utilized, and one duplicate (DUP) sample taken per every 10 samples. QA/QC sample data were evaluated during groundwater data validation (as described below) and are included in Appendix B.

Groundwater quality data for the assessment events were independently validated by Environmental Standards in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Based on the data validation, the data collected during the reporting period are acceptable for meeting project objectives, and the results are considered valid. The associated data validation results are provided in Appendix B with the laboratory reports.



## 4.0 STATISTICAL ANALYSIS

Statistical analysis of the reporting period groundwater monitoring data was performed by Groundwater Stats Consulting, LLC (GSC), following the appropriate certified statistical methodology for the Site. The reports generated from the statistical analyses are provided in Appendix D (GSC, 2022). A summary of methods and results are provided in the following sections.

### 4.1 METHODS

The statistical method used at the Site was developed by GSC using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, US EPA 530/ R-09-007 (US EPA, 2009). To develop the statistical methods, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III and IV parameter. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

Appendix III statistical analysis was performed to determine if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in the statistical analysis reports provided in Appendix D and summarized in Sections 4.1.1 and 4.1.2.

#### 4.1.1 Appendix III Constituents

The statistical test used to evaluate the groundwater monitoring data was the interwell prediction limit (PL) method for Appendix III constituents (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids [TDS]) combined with the option of a 1-of-2 verification resampling strategy. Interwell prediction limits, constructed from all available pooled upgradient well data were used to evaluate the most recent compliance sample from each downgradient well reported during the September 2022 and February 2023 sample events.

If data from a sampling event initially exceeds the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSL is determined. When the resample result does not verify the initial result, there is no SSL. If resampling is not performed, the initial exceedance is a confirmed exceedance.

#### 4.1.2 Appendix IV Constituents

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient detection and assessment



monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to previous non-routine (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing number of analytical data points.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL exceedance is identified. USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in 40 CFR § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022.

- (1) The maximum contaminant level (MCL) established under 40 CFR §141.62 and 141.66.
- (2) Where an MCL has not been established:
  - (i) Cobalt 0.006 mg/L;
  - (ii) Lead 0.015 mg/L;
  - (iii) Lithium 0.040 mg/L; and
  - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Following the above rule requirements, GWPS were established for statistical comparison of Appendix IV constituents and are presented in Table 8 and 9.

## 4.2 STATISTICAL ANALYSES RESULTS

Based on review of the full Appendix III statistical analysis discussion presented in Appendix D, groundwater conditions have not returned to background and assessment monitoring should continue. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR §257.95(h) and 391-3-4-.10(6)(a), the following Appendix IV SSLs were identified during the current reporting period:

### September 2022 Assessment Monitoring Event

AP-1 (Federal and GA EPD CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06 and DPZ-02

### February 2023 Assessment Monitoring Event

AP-1 (Federal and GA EPD CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06 and DPZ-02

An ASD was prepared and submitted to GA EPD for lithium at wells MCM-06 and DPZ-02 on November 17, 2020, and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April 22, 2021, and June 17, 2022, respectively. An ASD update was prepared and submitted by Arcadis for lithium at MCM-06 and DPZ-02 on April 21, 2023 with approval of the ASD provided on May 1, 2023.

Based on EPD guidance, groundwater trends at wells with SSLs were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall trend tests. The full report generated from the analyses is provided in Appendix D. No statistically significant trends were identified for arsenic at MCM-06 during the reporting period. Trends will continue to be evaluated as data is collected in future monitoring events.

## 5.0 NATURE AND EXTENT

The SSL identified for arsenic at MCM-06 is vertically delineated to below the GWPS by assessment well DPZ-02.

As described in Section 2.3.1, to assess horizontal delineation of arsenic, Georgia Power proactively collected surface water samples from along four transects in the tidal marsh adjacent to wells MCM-05, MCM-06, MCM-07, and MCM-14 of former AP-1. Arsenic was not detected above the Georgia instream water quality standard for dissolved arsenic for marine estuary environments (0.036 mg/L) and laboratory reporting limits of 0.001 to 0.01 mg/L (depending on sample date and location, with the higher detection limits due to high ionic strength surface water) in surface water samples collected to date (Table 6); therefore, no impacts to surface water have been detected and horizontal delineation is complete. The groundwater data from the September 2022 and February 2023 assessment monitoring events were used to generate the arsenic iso-concentration maps presented on Figure 13 and 14.

## 5.1 ALTERNATE SOURCE DEMONSTRATION

Pursuant to regulations in § 257.95(g)(3)(ii), Arcadis U.S., Inc. (Arcadis) prepared an ASD for the SSLs of lithium reported for wells MCM-06 (Arcadis, 2020a) and DPZ-02 (Arcadis, 2022). The ASDs present multiple lines of evidence that indicate that the lithium observed at former AP-1 is due to a natural source – i.e., the influx of brackish surface water. Lithium is a naturally occurring element in seawater and is present in the brackish water that is a mix of seawater and freshwater surrounding the site. GA EPD provided conditional approval for the ASD for lithium at monitoring well MCM-06 on April 22, 2021, and DPZ-02 on June 17, 2022. An ASD update (Appendix E) was submitted on April 21, 2023 by Arcadis for lithium at MCM-06 and DPZ-02 that provided the two years of additional data requested in EPD conditional concurrence. Final approval of the ASD was provided by EPD on May 1, 2023. Approval of the ASD for lithium on May 1, 2023 allowed for the discontinuation of lithium sampling during future surface water sampling events.

## 6.0 MONITORING PROGRAM STATUS

### 6.1 ASSESSMENT MONITORING STATUS

Pursuant to 40 CFR 257.96(b), Georgia Power will continue to monitor the groundwater at the former AP-1 in accordance with the assessment monitoring program regulations of 40 CFR 257.95 as corrective measures to address arsenic in MCM-06 are evaluated. Pursuant to § 257.95(g)(1)(iv), the assessment wells will continue to be sampled as part of the ongoing semiannual assessment groundwater monitoring program.

### 6.2 ASSESSMENT OF CORRECTIVE MEASURES

During the 2023 annual reporting period, a *Draft Remedy Selection Report* was prepared by Arcadis in lieu of the *Semiannual Remedy Selection and Design Progress Reports* previously included in the appendix of the routine groundwater monitoring and corrective action report. The *Draft Remedy Selection Report* was submitted under separate cover on February 28, 2023. The report summarizes:

- (i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Arcadis, 2020b);
- (ii) an evaluation of each corrective measure retained for further consideration following the completed investigations; and,
- (iii) an evaluation of corrective measure options using the comparative criteria such as long-term and short-term effectiveness and protectiveness, source control effectiveness, and ease of implementation. The *Draft Remedy Selection Report* presents geochemical approaches (in-situ injections) coupled with monitored natural attenuation as the proposed groundwater remedy for former AP-1.

DR and PT piezometers were installed during this reporting period to further characterize the aquifer and will be utilized during pilot testing as either injection points or performance monitoring wells. The baseline data collected from DR and PT piezometers will be summarized in a comprehensive technical memorandum prepared at the conclusion of the pilot study for inclusion in a semiannual groundwater report. This technical memorandum will summarize pilot study results and provide recommendations for the design and implementation of the full-scale remedy.

## 7.0 CONCLUSIONS & FUTURE ACTIONS

This 2023 Annual Groundwater Monitoring and Corrective Action Report for Georgia Power's Plant McManus Former Ash Pond 1 (AP-1) was prepared to fulfill the requirements of USEPA's CCR Rule and GA EPD rule 391-3-4-.10(6)(c). Statistical evaluations of the groundwater monitoring data from the September 2022 and February 2023 events at the former AP-1 identified the continued presence of SSLs of arsenic and lithium in monitoring well MCM-06 and lithium in assessment well DPZ-02. The lithium SSLs in MCM-06 and DPZ-02 have been addressed by an ASD with final approval from EPD on May 1, 2023. Approval of the ASD for lithium on May 1, 2023 allowed for the discontinuation of future lithium sampling during the surface water sampling events. Surface water data in transect 2 will continue to be collected and analyzed for arsenic semiannually and reported in semiannual and annual groundwater monitoring reports. The arsenic SSL in MCM-06 is vertically delineated below the GWPS by DPZ-02. Based on the surface water data collected to date, the arsenic SSL in MCM-06 does not appear in adjacent surface water.

Georgia Power will continue to monitor groundwater in the vicinity of former AP-1 under the current assessment monitoring program and adaptively manage the Site as new data become available. A *Draft Remedy Selection Report*, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on February 28, 2023, under separate cover. The next routine semiannual assessment monitoring event for former AP-1 is scheduled for September 2023. Progress made regarding the remedy selection will be documented in the next groundwater monitoring and corrective action report.

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# TABLES

Table 1  
Monitoring Well Network Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

Well ID	Well Function	Northing <sup>1</sup> (ft)	Easting <sup>1</sup> (ft)	Top of Casing Elevation <sup>2</sup> (ft NAVD 88)	Ground Surface Elevation <sup>2,3</sup> (ft NAVD 88)	Total Depth <sup>4</sup> (ft BTOC)	Top of Screen Elevation <sup>2</sup> (ft NAVD 88)	Bottom of Screen Elevation <sup>2</sup> (ft NAVD 88)
MCM-01	Upgradient Detection	443727.31	852732.08	8.63	5.70	27.32	-7.93	-17.93
MCM-02	Upgradient Detection	444496.53	852663.64	11.25	8.25	27.35	-5.22	-15.22
MCM-04	Downgradient Detection	444804.73	851695.27	12.39	9.50	28.57	-5.18	-15.18
MCM-05	Downgradient Detection	444716.63	851309.91	10.04	7.80	28.05	-7.25	-17.25
MCM-06	Downgradient Detection	444407.22	850782.11	10.15	7.87	27.20	-6.27	-16.27
MCM-07	Downgradient Detection	444059.38	850195.96	10.20	7.52	23.75	-2.76	-12.76
MCM-11	Upgradient Detection	442429.80	851072.91	10.23	7.52	24.00	-3.34	-13.34
MCM-12	Downgradient Detection	442821.17	851312.45	11.87	8.99	29.00	-6.12	-16.12
MCM-14	Downgradient Detection	443358.82	852317.59	11.50	8.66	28.11	-6.23	-16.23
MCM-15	Upgradient Detection	444825.53	851949.02	12.84	10.18	26.60	-4.53	-14.53
MCM-16	Upgradient Detection	444551.32	852716.60	16.02	13.04	28.39	-1.72	-11.72
MCM-17	Downgradient Detection	443074.41	851899.68	11.49	9.09	27.44	-4.81	-14.81
MCM-18	Upgradient Detection	442067.07	851698.41	9.00	6.01	27.86	-8.76	-18.76
MCM-19	Upgradient Detection	441157.82	852338.86	8.71	5.77	28.32	-9.53	-19.53
MCM-20	Upgradient Detection	440944.40	852185.15	10.07	7.07	23.05	-2.98	-12.98
DPZ-02	Downgradient Assessment	444391.02	850757.94	9.54	7.34	43.46	-28.84	-33.84

**Notes:**

1. Georgia State Plane - NAD 83 East Zone.
2. NAVD 88 - North American Vertical Datum of 1988
3. Ground Surface measured at the mag nail in the concrete pad
4. ft BTOC - feet below top of casing

Table 2  
Piezometer Network Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

Well ID	Well Function	Northing <sup>1</sup> (ft)	Easting <sup>1</sup> (ft)	Top of Casing Elevation <sup>2</sup> (ft NAVD 88)	Ground Surface Elevation <sup>2,3</sup> (ft NAVD 88)	Total Depth <sup>4</sup> (ft BTOC)	Top of Screen Elevation <sup>2</sup> (ft NAVD 88)	Bottom of Screen Elevation <sup>2</sup> (ft NAVD 88)
MW-01R	Piezometer	443632.5586	852715.1308	12.61	NA	27.44	0.17	-14.83
MW-02	Piezometer	443354.3859	852304.1959	11.10	NA	26.80	-0.70	-15.70
MW-03	Piezometer	443081.3356	851904.8549	11.26	NA	27.00	-0.60	-15.60
MW-04	Piezometer	442854.6307	851408.1446	9.20	NA	27.40	-3.00	-18.00
MW-05	Piezometer	442578.1982	850752.3477	13.24	NA	27.60	0.90	-14.10
MW-06R	Piezometer	442378.5335	850499.0375	13.25	NA	20.00	3.25	-6.75
MW-07	Piezometer	442792.9894	850224.3520	9.94	NA	21.50	3.40	-11.60
MW-09	Piezometer	443736.7716	849920.8976	10.10	NA	24.20	0.80	-14.20
MW-10	Piezometer	444045.1224	850181.4059	10.24	NA	27.10	-2.80	-17.80
MW-11	Piezometer	444359.5263	850709.3205	10.42	NA	32.20	-8.20	-23.20
MW-12	Piezometer	444667.3620	851186.9003	10.08	NA	32.30	-8.60	-23.60
MCM-03	Piezometer	444414.8800	851984.6700	9.97	7.10	27.70	-7.73	-17.73
MCM-08	Piezometer	443758.8000	849716.9600	9.42	6.55	28.29	-8.39	-18.39
MCM-10	Piezometer	442791.8800	850453.0500	11.75	8.61	23.96	-1.25	-11.25
MCM-13	Piezometer	443030.2300	851826.1900	12.56	9.79	27.46	-4.90	-14.90
PZ-09	Piezometer	444082.13	849471.64	9.41	6.57	24.05	-4.56	-14.56
PZ-10	Piezometer	444949.09	851673.98	12.17	9.74	22.91	-0.66	-10.66
PZ-11	Piezometer	443222.86	849280.51	9.37	6.57	19.08	-4.63	-9.63
PZ-12	Piezometer	443593.34	849396.87	7.90	5.02	18.70	-5.72	-10.72
DPZ-01	Piezometer	444695.71	851277.40	9.71	7.36	40.78	-25.99	-30.99
DPZ-03	Piezometer	444073.16	850218.83	9.46	7.04	47.57	-33.03	-38.03
DPZ-04	Piezometer	443062.60	851881.94	11.45	8.96	51.23	-34.70	-39.70
DPZ-05	Piezometer	443376.32	852342.11	11.00	8.60	51.20	-35.12	-40.12
DPZ-06	Piezometer	444614.79	851846.27	12.04	9.59	40.50	-23.38	-28.38
RW-1	Piezometer	444094.0012	850251.1636	9.39	NA	26.42	-2.61	-12.61
RW-2	Piezometer	444161.8377	850367.2034	9.96	NA	27.27	-2.83	-12.83
RW-3	Piezometer	444228.4307	850479.7659	9.89	NA	32.29	-3.07	-13.07
RW-4	Piezometer	444299.3305	850599.2604	9.49	NA	26.88	-2.97	-12.97
RW-5	Piezometer	444369.6765	850714.2378	10.11	NA	37.22	-2.92	-22.92
RW-6	Piezometer	444436.3732	850831.7225	10.25	NA	36.58	-2.67	-22.67
RW-7	Piezometer	444504.5857	850949.3512	10.19	NA	38.17	-7.69	-22.69
RW-8	Piezometer	444572.9068	851064.4671	10.22	NA	31.62	-2.80	-17.80
RW-9	Piezometer	444641.6045	851181.2956	10.26	NA	37.71	-7.66	-22.66
RW-10	Piezometer	444706.8701	851295.5011	10.56	NA	37.80	-7.54	-22.54
DR-01	Piezometer	444407.62	850777.93	7.58	7.86	30.58	-8.00	-23.00
DR-02	Piezometer	444411.68	850784.46	7.49	7.90	30.03	-7.54	-22.54
PT-01	Piezometer	444408.70	850768.53	7.49	7.82	24.38	-6.89	-16.89
PT-02	Piezometer	444414.19	850777.91	7.64	7.91	24.38	-6.74	-16.74
PT-03	Piezometer	444418.92	850785.95	7.45	7.93	25.36	-7.91	-17.91
PT-04D	Piezometer	444400.23	850753.07	7.51	7.80	40.85	-23.34	-33.34

**Notes:**

1. Georgia State Plane - NAD 83 East Zone.
  2. NAVD 88 - North American Vertical Datum of 1988
  3. Ground Surface measured at the mag nail in the concrete pad
  4. ft BTOC - feet below top of casing
  5. PZ- 1 through PZ-8 were abandoned in 2019
  6. MCM-09 was abandoned in 2020
- NA - Not Available

Table 3  
Summary of Groundwater Elevations  
Plant McManus  
Former AP-1  
Brunswick, Georgia

			September 21, 2022	September 22, 2022	February 27, 2023	February 28, 2023
High Tide			6:44		14:52	
Low Tide				13:00		9:15
Start Collection			6:53	12:52	6:53	8:25
Stop Collection			8:30	14:10	16:52	9:52
Well ID	Top of Casing Elevation [ft NAVD 88]	Well Bottom Elevation (ft NAVD 88)	High Tide GW Elevation (ft NAVD 88) <sup>1</sup>	Low Tide GW Elevation (ft NAVD 88) <sup>1</sup>	High Tide GW Elevation (ft NAVD 88) <sup>1</sup>	Low Tide GW Elevation (ft NAVD 88) <sup>1</sup>
MCM-01	8.63	-18.56	6.10	5.84	5.35	5.18
MCM-02	11.25	-16.77	8.50	8.42	7.54	7.52
MCM-03	9.97	-17.70	5.29	5.16	4.94	4.89
MCM-04	12.39	-16.10	5.08	4.49	4.39	3.78
MCM-05	10.04	-17.96	5.46	4.19	3.74	2.81
MCM-06	10.15	-17.03	4.06	2.57	3.21	1.98
MCM-07	10.20	-13.53	3.88	3.26	3.55	3.14
MCM-08	9.42	-18.88	3.50	3.43	3.90	3.49
MCM-10	11.75	-12.19	6.57	6.41	6.14	6.08
MCM-11	10.23	-13.63	6.13	5.91	5.02	5.00
MCM-12	11.87	-16.97	4.43	4.45	3.52	3.58
MCM-13	12.56	-14.79	3.91	3.72	3.19	2.96
MCM-14	11.50	-16.45	5.31	3.59	3.40	1.92
MCM-15	12.84	-13.73	5.61	5.39	4.91	4.62
MCM-16	16.02	-12.58	8.57	8.47	7.55	7.56
MCM-17	11.49	-15.77	3.69	3.13	3.20	2.77
MCM-18	9.00	-18.86	3.64	3.62	3.21	3.17
MCM-19	8.71	-19.61	3.27	2.12	2.42	1.56
MCM-20	10.07	-12.98	3.54	2.18	2.57	1.40
DR-01	7.58	-23.00	3.69	2.30	3.29	1.98
DR-02	7.49	-22.54	3.66	2.28	3.26	1.95
PT-01	7.49	-16.89	3.57	2.15	4.14	2.72
PT-02	7.64	-16.74	3.62	2.24	4.18	2.81
PT-03	7.45	-17.91	3.62	2.26	4.14	2.81
PT-04D	7.51	-33.34	3.57	2.22	4.24	2.81
MW-01R	12.61	-14.83	5.50	5.00	5.05	4.74
MW-02	11.10	-15.28	4.73	4.62	4.47	4.34
MW-03	11.26	-15.34	4.00	3.77	3.53	3.37
MW-04	9.20	-17.85	3.97	3.93	3.45	3.45
MW-05	13.24	-14.21	7.76	7.60	6.94	6.74
MW-06R	13.31	-10.29	7.56	7.42	6.80	6.62
MW-07	9.94	-11.62	6.84	6.67	6.07	5.97
MW-09	10.10	-14.05	4.61	4.39	4.25	4.12
MW-10	10.24	-17.06	3.83	3.31	3.50	3.10
MW-11	10.35	-23.05	3.45	1.40	3.09	1.25
MW-12	10.08	-23.47	4.47	3.02	3.75	N/A
PZ-9	9.41	-14.64	3.95	3.91	3.67	3.59
PZ-10	12.17	-10.74	4.11	4.11	3.83	3.33
PZ-11	9.37	-9.71	4.17	4.01	3.89	3.83
PZ-12	7.90	-10.80	3.17	2.99	2.57	2.47
DPZ-01	9.71	-8.99	4.27	2.85	3.47	2.43
DPZ-02	9.54	-9.16	4.21	2.71	3.29	1.89
DPZ-03	9.46	-9.24	6.64	5.60	2.94	2.11
DPZ-04	11.45	-7.25	3.86	3.06	3.32	2.63
DPZ-05	11.00	-7.70	4.72	3.55	4.06	3.09
DPZ-06	12.04	-6.66	5.40	5.21	4.85	4.63
RW-1	9.39	-17.03	3.02	2.60	2.40	2.24
RW-2	9.96	-17.31	3.42	3.45	2.88	2.89
RW-3	9.89	-22.40	4.02	3.46	3.64	3.24
RW-4	9.49	-17.39	3.70	3.33	3.32	3.04
RW-5	10.11	-27.11	3.81	2.34	3.38	1.98
RW-6	10.25	-26.34	3.93	3.43	3.59	3.05
RW-7	10.19	-27.99	3.97	2.52	3.42	2.30
RW-8	10.22	-21.40	3.99	3.41	3.51	3.10
RW-9	10.26	-27.45	4.40	2.91	3.63	2.66
RW-10	10.56	-27.24	4.38	2.97	3.69	2.74
Staff Gauge	NS	NS	NM	NM	NM	NM
AP Monitor	NS	NS	5.24	5.09	4.99	4.98
Oil Dock Monitor	NS	NS	2.92	-2.71	2.41	-3.18

Notes:

NS = Not Surveyed  
 NM = Not Measured  
 NA = Not Applicable

Table 4  
Groundwater Sampling Event Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

Well ID	Hydraulic Location	June 2022	September 2022	February 2023	June 2023	Status of Monitoring Well
Purpose of Sampling Event		Supplemental ACM Sampling	Semi-Annual GW Sampling	Semi-Annual GW Sampling	Supplemental ACM Sampling	
<b>MCM-01</b>	Upgradient		X	X		Assessment
<b>MCM-02</b>	Upgradient		X	X		Assessment
<b>MCM-04</b>	Downgradient		X	X		Assessment
<b>MCM-05</b>	Downgradient		X	X		Assessment
<b>MCM-06</b>	Downgradient	X	X	X	X	Assessment
<b>MCM-07</b>	Downgradient		X	X		Assessment
<b>MCM-11</b>	Upgradient		X	X		Assessment
<b>MCM-12</b>	Downgradient		X	X		Assessment
<b>MCM-14</b>	Downgradient		X	X		Assessment
<b>MCM-15</b>	Upgradient		X	X		Assessment
<b>MCM-16</b>	Upgradient		X	X		Assessment
<b>MCM-17</b>	Downgradient		X	X		Assessment
<b>MCM-18</b>	Upgradient		X	X		Assessment
<b>MCM-19</b>	Upgradient		X	X		Assessment
<b>MCM-20</b>	Upgradient		X	X	X	Assessment
<b>DPZ-02</b>	Downgradient	X	X	X	X	Assessment

Notes:

X - Sampled

-- Not Sampled

Table 5A  
Appendix III and IV Groundwater Data Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

WELL ID Sample Date	Appendix III							Appendix IV													
	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
<b>DPZ-02</b>																					
6/28/2022		225	9640		553	15400	7.09		0.0250												
9/20/2022	1.70	240	7400	<4.00	820	13000	7.07	<0.00150	0.0210	0.0690	<0.000200	<0.0000780	<0.00100	<0.000220	<0.000810	<0.00490	<0.0000800	<0.000860	8.20	<0.00120	<0.000260
3/2/2023	1.82	234	6860	<0.330	859	12300	7.12	<0.00100	0.0202	0.0601 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0919	<0.0000670	0.000245 J	9.42	0.00205 J	<0.000600
6/13/2023					1110	9920	7.12		0.0213												
<b>MCM-01</b>																					
9/21/2022	0.350 J	9.20	17.0	<0.0400	39.0	100	4.95	<0.00150	0.00570 J	0.110	<0.000200	<0.0000780	0.00140 J	<0.000220	<0.000810	<0.00490	<0.0000800	<0.000860	0.863	<0.00120	<0.000260
3/1/2023	0.0910	7.87	14.9	<0.0330	45.3	78.0	4.91	<0.00100	0.00493 J	0.0970 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	0.000258 J	1.18 U	<0.00150	<0.000600
<b>MCM-02</b>																					
9/21/2022	0.230 J	4.30	23.0	<0.0400	29.0	90.0	5.14	<0.00150	<0.00120	0.0760	<0.000200	<0.0000780	<0.00100	0.000320 J	<0.000810	<0.00490	<0.0000800	<0.000860	0.789	<0.00120	<0.000260
3/1/2023	0.115	5.26	21.8	<0.0330	27.4	73.0	5.10	<0.00100	<0.00200	0.0806 J	<0.000200	<0.000300	<0.00300	0.000372 J	<0.000500	<0.00300	<0.0000670	<0.000200	0.439 U	<0.00150	<0.000600
<b>MCM-04</b>																					
9/21/2022	0.190 J	7.80	47.0	<0.0400	52.0	180	5.34	<0.00150	0.00170 J	0.0290	<0.000200	<0.0000780	0.00150 J	0.00250	<0.000810	<0.00490	<0.0000800	<0.000860	1.67	<0.00120	<0.000260
3/1/2023	0.108	7.75	45.6	<0.0330	44.2	142	4.93	<0.00100	0.00247 J	0.031 J	<0.000200	<0.000300	<0.00300	0.00256 J	<0.000500	<0.00300	<0.0000670	<0.000200	5.05	<0.00150	<0.000600
<b>MCM-05</b>																					
9/21/2022	0.610	28.0	1100	0.480	100	2100	6.93	<0.00150	0.00770	0.0140	<0.000200	<0.0000780	0.00160 J	0.000260 J	<0.000810	0.0180 J	<0.0000800	0.000950 J	1.42	<0.00120	<0.000260
3/2/2023	0.511	25.9	853	0.388 J	84.2	1710	6.55	<0.00100	0.00578 J	0.0133 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0237 J	<0.0000670	0.000852 J	2.22	<0.00150	<0.000600
<b>MCM-06</b>																					
6/28/2022		73.5	3520		213	6140	7.28		0.170												
9/20/2022	1.10	47.0	2800	1.10 J	320	3900	7.29	<0.00150	0.180	0.0270	<0.000200	<0.0000780	<0.00100	<0.000220	<0.000810	0.0430	<0.0000800	0.00130 J	1.51	<0.00120	<0.000260
3/2/2023	0.961	36.1	1470	0.419 J	157	3120	7.38	<0.00100	0.0764	0.0195 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0361 J	<0.0000670	0.00131 J	1.79	<0.00150	<0.000600
6/14/2023			1770	<0.165	187	3370	7.17		0.0607												
<b>MCM-07</b>																					
9/21/2022	1.30	190	6400	0.180	660	9400	6.27	<0.00150	0.0100	0.120	<0.000200	0.000200 J	0.00270 J	0.000310 J	<0.000810	0.0200 J	<0.0000800	0.000950 J	8.23	<0.00120	<0.000260
3/2/2023	1.25	194	5450	0.440 J	640	10500	6.28	<0.00100	0.0140	0.0982 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0217 J	<0.0000670	0.000963 J	4.50	0.00238 J	<0.000600
<b>MCM-11</b>																					
9/21/2022	0.170 J	7.60	32.0	0.110	23.0	110	4.97	<0.00150	0.0130	0.0400	<0.000200	<0.0000780	0.00150 J	<0.000220	<0.000810	<0.00490	<0.0000800	<0.000860	0.797	<0.00120	<0.000260
3/1/2023	0.0461	6.53	17.7	0.101 J	21.4	67.0	4.78	<0.00100	0.00868 J	0.0405 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	<0.000200	2.35	<0.00150	<0.000600
<b>MCM-12</b>																					
9/21/2022	1.30	4.70	400	1.30	<2.00	1300	6.30	<0.00150	<0.00120	0.0680	0.00110 J	<0.0000780	0.00770 J	0.000420 J	0.000830 J	0.00750 J	<0.0000800	<0.000860	1.54	<0.00120	<0.000260
2/28/2023	1.23	5.17	518	1.21 J	1.33	1290	6.28	<0.00100	<0.00200	0.0710 J	0.00135 J	<0.000300	0.00663 J	0.000520 J	<0.000500	0.0104 J	<0.0000670	0.000362 J	2.29	0.00157 J	<0.000600

Table 5A  
Appendix III and IV Groundwater Data Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

WELL ID Sample Date	Appendix III							Appendix IV													
	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
<b>MCM-14</b>																					
9/21/2022	1.00	74.0	3300	0.120	270	7400	6.61	<0.00150	<0.00120	0.0590	<0.000200	<0.0000780	0.00150 J	<0.000220	<0.000810	0.0280	<0.0000800	<0.000860	4.52	<0.00120	<0.000260
3/2/2023	0.738	48.0	1810	0.188 J	2520	3280	6.53	<0.00100	0.00201 J	0.0356 J	<0.000200	<0.000300	<0.00300	<0.000300	<0.000500	0.0218 J	<0.0000670	<0.000200	8.08	<0.00150	<0.000600
<b>MCM-15</b>																					
9/21/2022	0.140 J	0.830	3.30	<0.0400	6.30	38.0	5.23	<0.00150	0.00440 J	0.0220	<0.000200	<0.0000780	0.00200 J	<0.000220	0.000920 J	<0.00490	<0.0000800	0.000940 J	1.23	<0.00120	<0.000260
3/2/2023	0.0416	1.41	4.88	0.0397 J	8.12	35.0	4.45	<0.00100	0.00756 J	0.0282 J	0.000201 J	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	0.00133 J	10.1	<0.00150	<0.000600
<b>MCM-16</b>																					
9/21/2022	0.120 J	4.60	17.0	<0.0400	24.0	78.0	4.91	<0.00150	<0.00120	0.110	<0.000200	<0.0000780	0.00150 J	0.000240 J	<0.000810	<0.00490	<0.0000800	<0.000860	1.02	<0.00120	<0.000260
3/1/2023	0.0669	4.74	14.2	0.0397 J	25.8	56.0	4.76	<0.00100	0.00223 J	0.109 J	0.000223 J	<0.000300	<0.00300	<0.000300	<0.000500	<0.00300	<0.0000670	0.000517 J	2.30	<0.00150	<0.000600
<b>MCM-17</b>																					
9/21/2022	1.80	110	3300	0.780	330	6200	6.72	<0.00150	<0.00120	0.0890	0.000290 J	<0.0000780	0.00630 J	0.000250 J	<0.000810	0.0230 J	<0.0000800	<0.000860	5.26	<0.00120	<0.000260
2/28/2023	1.78	94.2	2770	0.815 J	334	6810	6.62	<0.00100	0.00226 J	0.0828 J	0.000279 J	<0.000300	0.00623 J	<0.000300	<0.000500	0.0257 J	<0.0000670	0.000313 J	5.48	0.00184 J	<0.000600
<b>MCM-18</b>																					
9/20/2022	0.180 J	20.0	1200	0.610 J	160	2000	4.47	<0.00150	0.00260 J	0.110	0.00300	0.000780 J	0.00210 J	<0.000220	<0.000810	<0.00490	<0.0000800	<0.000860	9.35	<0.00120	<0.000260
2/28/2023	0.185	22.5	1250	0.407 J	186	2090	4.42	<0.00100	0.00273 J	0.105 J	0.00290 J	<0.000300	<0.00300	<0.000300	<0.000500	0.00327 J	<0.0000670	<0.000200	7.34	0.00583 J	<0.000600
<b>MCM-19</b>																					
9/20/2022	0.770	150	6200	<4.00	740	10000	5.14	<0.00150	0.0210	0.120	0.0170	0.00830	<0.00100	<0.000220	<0.000810	0.0140 J	<0.0000800	<0.000860	18.2	0.00460 J	<0.000260
2/28/2023	0.707	150	5760	0.380 J	820	10400	5.08	<0.00100	0.0173	0.0869 J	0.0144	<0.000300	0.00575 J	<0.000300	<0.000500	0.0190 J	<0.0000670	<0.000200	12.4	0.034 J	<0.000600
<b>MCM-20</b>																					
9/20/2022	0.900	100	5700	4.30 J	750	8600	3.63	<0.00150	0.0260	0.120	0.0200	0.00430	<0.00100	0.0300	<0.000810	0.0290	<0.0000800	<0.000860	30.1	0.00270 J	<0.000260
2/28/2023	0.723	104	7930	3.32 J	950	8720	3.70	<0.00100	0.0166	0.0928 J	0.0155	<0.000300	0.00573 J	0.0252 J	<0.000500	0.0221 J	<0.0000670	<0.000200	22.6	0.0225 J	<0.000600
6/13/2023					1030	11300	3.64		0.0168												

Table 5A  
Appendix III and IV Groundwater Data Summary  
Plant McManus  
Former AP-1  
Brunswick, GA

WELL ID	Appendix III							Appendix IV													
Sample Date	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium

Notes:

1. Results for substances (except radium and pH) are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L) and pH is reported in standard units (SU).
2. Radium reported in Combined Radium 226 + 228
3. < indicates the substance was not detected above the analytical Method Detection Limit (MDL)
4. J - Estimated value. Substance was detected above the MDL and below the laboratory's Reporting Limit (RL)
5. U - Estimated value for radium. Substance was detected below the Minimum Detection Concentration (MDC) or a product of inaccurate or imprecise Method Detection Limits.
6. TDS - Total Dissolved Solids
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring
8. Blank values indicate the parameter was not analyzed
9. pH - Parameter measured in the field



Table 5B  
 Geochemical Groundwater Data Summary  
 Plant McManus  
 Former AP-1  
 Brunswick, GA

WELL ID	Total Alkalinity	Bicarbonate	Carbonate	Iron	Iron, Dissolved	Magnesium	Potassium	Sodium	Sulfide
<b>DPZ-02</b>									
6/28/2022	394			0.0220 J	<0.0220	471	184	3610	24.3
9/20/2022	410	410	<5.00	<0.0260	<0.0260	450	140	4100	23.0
3/2/2023	440	440	<1.45	0.121		431	136	3900	0.0379 J
6/13/2023				0.0915 J	0.103				<0.0330
<b>MCM-01</b>									
9/21/2022	5.00	5.00	<5.00	2.70		1.90	2.20	17.0	
3/1/2023	8.00	8.00	<2.42	2.39		1.58	2.08	18.4	
<b>MCM-02</b>									
9/21/2022	5.90	5.90	<5.00	1.20		2.10	0.810 J	19.0	
3/1/2023	10.2	10.2	<1.45	1.16		2.23	0.990	20.4	
<b>MCM-04</b>									
9/21/2022	12.0	12.0	<5.00	2.40		2.40	7.70	39.0	
3/1/2023	6.20	6.20	<1.45	1.52		2.58	7.06	37.8	
<b>MCM-05</b>									
9/21/2022	210	210	<5.00	<0.0260		60.0	33.0	620	
3/2/2023	181	181	<1.45	<0.0330		49.4	33.4	563	
<b>MCM-06</b>									
6/28/2022	286			0.110	<0.0220	154	94.0	1720	23.3
9/20/2022	270	270	<5.00	0.0560 J	<0.0260	91.0	56.0	1400	20.0
3/2/2023	288	288	<1.45	0.0659 J		72.2	49.5	1050	<0.0330

Table 5B  
 Geochemical Groundwater Data Summary  
 Plant McManus  
 Former AP-1  
 Brunswick, GA

WELL ID	Sample Date	Total Alkalinity	Bicarbonate	Carbonate	Iron	Iron, Dissolved	Magnesium	Potassium	Sodium	Sulfide
<b>MCM-06</b>										
	6/14/2023	252	252	<0.725	<0.0330	<0.0330	93.6	50.0	1010	0.0638 J
<b>MCM-07</b>										
	9/21/2022	300	300	<5.00	0.0330 J		410	100	3100	
	3/2/2023	291	291	<1.45	0.176		406	103	3000	
<b>MCM-11</b>										
	9/21/2022	26.0	26.0	<5.00	7.00		1.80	0.690 J	23.0	
	3/1/2023	12.4	12.4	<1.45	5.44		1.74	0.604	17.5	
<b>MCM-12</b>										
	9/21/2022	450	450	<5.00	0.170		8.70	19.0	400	
	2/28/2023	449	449	<1.45	0.307		8.84	18.8	433	
<b>MCM-14</b>										
	9/21/2022	210	210	<5.00	<0.0260		150	61.0	1600	
	3/2/2023	176	176	<1.45	0.0332 J		100	52.4	1130	
<b>MCM-15</b>										
	9/21/2022	6.70	6.70	<5.00	0.460		0.330 J	7.30	2.60	
	3/2/2023	8.00	8.00	<1.45	0.912		0.502	7.34	4.12	
<b>MCM-16</b>										
	9/21/2022	3.40 J	<5.00	<5.00	1.70		2.30	1.00	11.0	
	3/1/2023	5.33 J	5.33 J	<2.42	2.99		2.58	1.25	13.2	
<b>MCM-17</b>										
	9/21/2022	570	570	<5.00	0.0340 J		170	86.0	1800	

Table 5B  
 Geochemical Groundwater Data Summary  
 Plant McManus  
 Former AP-1  
 Brunswick, GA

WELL ID	Sample Date	Total Alkalinity	Bicarbonate	Carbonate	Iron	Iron, Dissolved	Magnesium	Potassium	Sodium	Sulfide
<b>MCM-17</b>										
	2/28/2023	473	473	<1.45	0.390		173	88.1	1960	
<b>MCM-18</b>										
	9/20/2022	<2.20	<5.00	<5.00	32.0		62.0	9.00	690	
	2/28/2023	1.60 J	1.60 J	<1.45	31.7		73.5	9.22	697	
<b>MCM-19</b>										
	9/20/2022	29.0	29.0	<5.00	120		430	73.0	3200	
	2/28/2023	28.0	28.0	<1.45	117		421	67.8	3000	
<b>MCM-20</b>										
	9/20/2022	<2.20	<5.00	<5.00	130	120	330	74.0	2900	2.10
	2/28/2023	<1.45	<1.45	<1.45	118		294	62.2	2810	<0.0330
	6/13/2023				105	113				<0.0330

- Notes:
1. Results for substances are reported in milligrams per liter (mg/L).
  2. < indicates the substance was not detected above the analytical Method Detection Limit (MDL)
  3. J - Estimated value. Substance was detected above the MDL and below the laboratory's Reporting Limit (RL)
  4. Blank values indicate the parameter was not analyzed

Table 6  
 Surface Water Analytical Results  
 Plant McManus  
 Former AP-1  
 Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
BG-1LT	6/8/2022	6.58	222	690	252	5370	<0.00430	2.90	0.0970	99.2	<5.00	99.2	23000	7920	<5.00	1040
BG-1LT	9/28/2022	5.95	260	780	200	6000	<0.00600	2.80	0.100	110	<5.00	110	20000	13000	<8.00	1600
BG-1LT	3/2/2023	7.11	250	667	207	6090	0.00302	2.44	0.105	97.4	<1.45	97.4	21700	14600	<1.32	2220
BG-2HT	6/7/2022	7.51	284	890	330	6990	<0.00430	3.60	0.110	118	<5.00	118	26000	10200	<5.00	1370
BG-2HT	9/22/2022	7.12	280	840	250	7200	0.00260	2.90	0.110	110	<5.00	110	24000	14000	<1.60	1900
BG-2HT	2/28/2023	7.68	274	730	227	6710	0.00314	2.67	0.114	100	<1.45	100	21000	11600	<0.825	1960
T1-1HT	12/20/2022	7.56	360	1000	320	8300	0.00200	3.60	0.140	130	<5.00	130	24000	16000	<10.0	2000
T1-1HT	3/1/2023	5.93	246	367	226	6250	0.00558	2.88	0.113	96.6	<1.45	96.6	19000	10200	<1.32	2150
T1-2HT	12/20/2022	7.55	370	1100	340	8800	0.00190	3.80	0.150	130	<5.00	130	27000	16000	<10.0	2100
T1-2HT	3/1/2023	7.58	257	736	233	6390	0.00573	2.72	0.117	99.8	<1.45	99.8	21100	9800	<1.32	1980
T1-2HTS	12/20/2022	7.57	360	1000	330	8500	0.00210	3.70	0.140	130	<5.00	130	24000	18000	<10.0	2300
T1-2HTS	3/1/2023	6.54	247	716	231	6390	0.00611	2.69	0.113	98.6	<1.45	98.6	22300	9570	<0.825	1580
T1-3HT	12/20/2022	7.53	370	1100	340	8800	0.00250	4.00	0.140	130	<5.00	130	25000	29000	<10.0	3900
T1-3HT	3/1/2023	7.39	251	727	232	6110	0.00610	2.92	0.121	99.0	<1.45	99.0	22800	10100	<0.825	1710
T1-3HTS	12/20/2022	7.54	380	1100	330	9300	0.00180	4.10	0.140	130	<5.00	130	23000	20000	<10.0	2600
T1-3HTS	3/1/2023	7.12	253	725	234	6450	0.00613	2.81	0.121	99.8	<1.45	99.8	21300	9850	<0.825	1770
T1-4HT	6/7/2022	7.43	242	755	274	5740	0.00490	3.40	0.110	98.8	<5.00	98.8	22700	3260	<5.00	380
T1-4HT	9/22/2022	6.98	240	720	240	5700	0.00270	2.00	0.0920	100	<5.00	100	18000	12000	<10.0	1400
T1-4HT	3/1/2023	7.48	254	787	237	6670	0.00606	2.93	0.125	99.2	<1.45	99.2	23500	10400	<0.825	1630
T1-4HTS	6/7/2022	7.50	248	775	282	5990	<0.00430	3.60	0.110	99.8	<5.00	99.8	24500	4270	1.10	1230
T1-4HTS	9/22/2022	7.03	240	720	250	5700	0.00230	2.10	0.0920	100	<5.00	100	17000	12000	<1.60	1500

Table 6  
Surface Water Analytical Results  
Plant McManus  
Former AP-1  
Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T1-4HTS	3/1/2023	7.41	262	767	227	6570	0.00598	2.95	0.126	101	<1.45	101	23600	10500	<0.825	1790
T1-4LT	9/28/2022	6.69	260	770	190	6100	<0.00600	2.50	0.100	110	<5.00	110	20000	13000	<8.00	1500
T1-4LT	3/2/2023	7.97	252	698	217	6240	0.00298	2.48	0.106	99.8	<1.45	99.8	21400	13500	<1.32	2070
T2-1HT	6/7/2022	7.55	214	663	242	5180	<0.00430	3.40	0.0980	87.5	<5.00	87.5	21200	3560	1.00	1050
T2-1HT	9/22/2022	7.28	230	700	240	5500	0.00270	2.10	0.0900	100	<5.00	100	17000	15000	<1.60	1500
T2-1HT	2/28/2023	7.61	254	765	226	6470	0.00629	2.97	0.122	94.2	<1.45	94.2	22400	10100	<0.825	1850
T2-2HT	6/7/2022	7.4	244	762	279	5940	<0.00430	3.80	0.110	98.5	<5.00	98.5	20600	4550	1.00	1210
T2-2HT	9/22/2022	6.99	250	750	250	5900	0.00250	2.00	0.0960	100	<5.00	100	16000	15000	<1.60	1500
T2-2HT	2/28/2023	7.62	253	717	222	6400	0.00613	2.95	0.123	99.6	<1.45	99.6	23700	9980	<0.825	1860
T2-2HTS	6/7/2022	7.49	206	634	232	4990	<0.00430	3.10	0.0980	83.3	<5.00	83.3	18400	3430	1.00	1010
T2-2HTS	9/22/2022	7.06	230	690	230	5400	0.00280	1.90	0.0880	100	<5.00	100	19000	12000	<1.60	1500
T2-2HTS	2/28/2023	7.62	258	733	220	6260	0.00589	2.90	0.126	99.2	<1.45	99.2	23400	9970	<0.825	1700
T2-3HT	6/7/2022	7.43	253	795	290	6130	<0.00430	3.80	0.120	98.3	<5.00	98.3	24100	4090	1.10	1250
T2-3HT	9/22/2022	6.97	250	760	250	6000	0.00300	2.20	0.0970	100	<5.00	100	20000	13000	<1.60	1600
T2-3HT	2/28/2023	7.60	251	754	226	6520	0.00619	2.81	0.125	101	<1.45	101	20100	10700	<0.825	1650
T2-3HTS	6/7/2022	7.58	230	717	263	5530	<0.00430	3.50	0.110	95.7	<5.00	95.7	23400	3740	1.00	1210
T2-3HTS	9/22/2022	7.03	240	710	240	5600	0.00240	1.90	0.0870	100	<5.00	100	17000	12000	<1.60	1400
T2-3HTS	2/28/2023	7.65	248	743	227	6360	0.00654	2.81	0.128	99.4	<1.45	99.4	20900	10800	<0.825	1700
T2-4HT	6/7/2022	7.44	229	718	262	5460	<0.00430	3.30	0.100	89.8	<5.00	89.8	21600	3810	1.00	1040
T2-4HT	9/22/2022	7.01	240	720	240	5700	0.00270	2.10	0.0900	100	<5.00	100	17000	12000	<1.60	1600
T2-4HT	3/1/2023	7.50	253	781	227	6540	0.00600	2.77	0.124	94.2	<1.45	94.2	21500	8740	<0.660	1170
T2-4HTS	6/7/2022	7.56	208	647	235	4990	<0.00430	3.00	0.0960	86.6	<5.00	86.6	19900	3700	1.00	1040

Table 6  
Surface Water Analytical Results  
Plant McManus  
Former AP-1  
Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T2-4HTS	9/22/2022	7.04	240	730	250	5700	0.00250	1.70	0.0910	100	<5.00	100	22000	11000	<1.60	1500
T2-4HTS	3/1/2023	7.50	258	744	220	6390	0.00624	2.81	0.129	98.6	<1.45	98.6	21200	10800	<0.825	1620
T2-4LT	9/28/2022	7.06	260	760	190	5900	<0.00600	2.50	0.100	110	<5.00	110	19000	14000	<8.00	1700
T2-4LT	3/2/2023	7.93	256	662	203	6070	0.00324	2.52	0.109	102	<1.45	102	22900	10600	<1.32	1650
T3-1HT	12/20/2022	6.58	360	1100	320	8800	0.00200	3.80	0.140	130	<5.00	130	25000	20000	<10.0	2500
T3-1HT	2/28/2023	7.64	255	724	222	6250	0.00677	2.99	0.126	99.6	<1.45	99.6	21500	10700	<0.825	1470
T3-2HT	12/20/2022	7.31	370	1100	330	8400	0.00180	3.90	0.120	130	<5.00	130	26000	20000	<10.0	2600
T3-2HT	2/28/2023	7.61	252	744	224	6780	0.00639	3.01	0.124	98.6	<1.45	98.6	19100	11000	<1.32	1870
T3-2HTS	12/20/2022	7.14	360	1100	330	10000	0.00190	3.80	0.130	130	<5.00	130	26000	16000	<10.0	2000
T3-2HTS	2/28/2023	7.64	245	779	225	6500	0.00663	2.75	0.126	99.6	<1.45	99.6	20600	10100	<1.32	1830
T3-3HT	12/20/2022	7.46	360	1100	330	24000	0.00200	4.00	0.140	130	<5.00	130	24000	23000	<10.0	3100
T3-3HT	3/1/2023	7.50	251	792	226	6680	0.00621	2.87	0.129	98.8	<1.45	98.8	19400	10600	<1.32	1740
T3-3HTS	12/20/2022	7.39	360	1100	330	9100	0.00230	3.80	0.150	130	<5.00	130	24000	16000	<10.0	2100
T3-3HTS	3/1/2023	7.49	261	705	218	6140	0.00634	2.82	0.126	101	<1.45	101	19200	10300	<1.32	1770
T3-4HT	6/7/2022	7.37	247	775	283	5870	<0.00430	3.30	0.110	101	<5.00	101	22800	3930	1.10	1240
T3-4HT	9/22/2022	6.98	240	750	250	5800	0.00270	2.20	0.0910	100	<5.00	100	22000	13000	<1.60	1600
T3-4HT	3/1/2023	7.53	255	758	235	6730	0.00601	2.90	0.131	98.6	<1.45	98.6	20600	11000	<0.825	1490
T3-4HTS	6/7/2022	7.51	171	521	187	4080	<0.00430	2.40	0.0790	73.1	<5.00	73.1	16900	2660	<1.00	861
T3-4HTS	9/22/2022	7.09	210	620	210	4900	0.00210	2.10	0.0790	95.0	<5.00	95.0	19000	11000	<1.60	1400
T3-4HTS	3/1/2023	7.51	250	703	217	5970	0.00299	2.50	0.103	96.4	<1.45	96.4	20200	11100	<0.825	1710
T3-4LT	9/28/2022	7.16	260	780	200	6100	<0.00600	2.70	0.100	110	<5.00	110	17000	14000	<8.00	1600
T3-4LT	3/2/2023	7.90	251	691	215	6000	0.00319	2.43	0.103	99.2	<1.45	99.2	19300	10400	0.700	1650

Table 6  
Surface Water Analytical Results  
Plant McManus  
Former AP-1  
Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T4-1HB	6/7/2022	7.34	245	770	280	5830	<0.00430	3.50	0.110	96.6	<5.00	96.6	22900	3930	1.10	1250
T4-1HB	9/22/2022	6.85	260	770	250	6800	0.00300	2.90	0.0990	110	<5.00	110	20000	13000	<1.60	1600
T4-1HB	2/28/2023	7.60	258	721	221	6320	0.00366	2.71	0.107	107	<1.45	107	21600	15600	<1.32	1830
T4-1HS	6/7/2022	7.03	241	760	279	5790	<0.00430	3.50	0.110	98.9	<5.00	98.9	18900	4040	1.10	1240
T4-1HS	9/22/2022	6.59	250	760	250	6700	0.00300	2.90	0.0990	110	<5.00	110	21000	13000	<1.60	1700
T4-1HS	2/28/2023	7.63	263	716	222	6630	0.00362	2.67	0.111	104	<1.45	104	20700	16700	<1.32	2040
T4-2HB	6/7/2022	7.38	251	787	287	6000	<0.00430	3.70	0.110	99.8	<5.00	99.8	23100	4140	1.10	1300
T4-2HB	9/22/2022	6.98	260	770	240	6700	0.00300	2.90	0.100	110	<5.00	110	24000	13000	<1.60	1700
T4-2HB	2/28/2023	7.59	263	732	226	6790	0.00358	2.61	0.109	106	<1.45	106	24300	10600	<1.32	1740
T4-2HS	6/7/2022	7.49	236	741	272	5670	<0.00430	3.40	0.110	99.6	<5.00	99.6	21400	3860	1.10	1210
T4-2HS	9/22/2022	6.96	260	770	240	6800	0.00230	2.90	0.100	110	<5.00	110	11000	13000	<1.60	1700
T4-2HS	2/28/2023	7.59	255	736	227	6750	0.00347	2.63	0.107	106	<1.45	106	24100	14500	<1.32	1710
T4-3HB	6/7/2022	7.33	249	787	285	6020	<0.00430	3.50	0.110	105	<5.00	105	24700	4080	1.10	1360
T4-3HB	9/22/2022	6.97	260	790	250	6800	0.00270	3.40	0.100	110	<5.00	110	21000	13000	<1.60	1700
T4-3HB	2/28/2023	7.62	271	723	224	6690	0.00339	2.69	0.111	106	<1.45	106	23200	16100	<1.32	2020
T4-3HS	6/7/2022	7.51	242	761	279	5880	<0.00430	3.40	0.100	97.5	<5.00	97.5	20800	8700	<5.00	1160
T4-3HS	9/22/2022	7.01	260	780	240	6700	0.00300	2.70	0.100	110	<5.00	110	23000	13000	<1.60	1600
T4-3HS	2/28/2023	7.61	270	722	223	6490	0.00338	2.67	0.110	103	<1.45	103	22100	13900	<1.32	1970
T4-4HB	6/7/2022	7.49	263	829	305	6340	<0.00430	3.80	0.120	106	<5.00	106	25000	9750	<5.00	1300
T4-4HB	9/22/2022	7.06	270	810	230	6700	0.00270	2.70	0.110	110	<5.00	110	23000	13000	<1.60	1700
T4-4HB	2/28/2023	7.65	263	715	219	6540	0.00329	2.56	0.108	102	<1.45	102	22300	15000	<1.32	1730
T4-4HS	6/7/2022	7.53	248	782	284	5980	<0.0043	3.40	0.110	101	<5.00	101	22000	9120	<5.00	1190

Table 6  
 Surface Water Analytical Results  
 Plant McManus  
 Former Ash Pond (AP-1)  
 Brunswick, GA

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T4-4HS	9/22/2022	7.03	260	790	250	7000	0.00290	2.80	0.100	110	<5.00	110	21000	13000	<1.60	1700
T4-4HS	2/28/2023	7.64	260	686	215	6490	0.00301	2.63	0.109	104	<1.45	104	21700	11800	0.718	1910
T4-4L	9/27/2022	7.14	260	760	190	5900	<0.00600	2.60	0.100	130	<5.00	130	21000	13000	<8.00	1500
T4-4L	3/2/2023	7.35	264	710	221	6420	0.00350	2.65	0.114	109	<1.45	109	24600	14000	<1.32	2140

1. Results shown in milligrams per liter (mg/L).
2. "<" - not detected at the laboratory's Method Detection Limit (MDL) shown
3. "J" - Estimated concentration greater than the laboratory's MDL, but less than the laboratory's reporting limit.
4. Total Alk - Total Alkalinity
5. TDS - Total Dissolved Solids



Table 7  
 2023 Horizontal Groundwater Flow Velocity Calculations  
 Plant McManus  
 Former AP-1  
 Brunswick, GA

	9/22/2022		9/21/2022		2/28/2023		2/27/2023	
Tide Level	Low	Low	High	High	Low	Low	High	High
Well 1	MCM-16	MCM-11	MCM-16	MCM-11	MCM-16	MCM-11	MCM-16	MCM-11
Well 2	MCM-02	MCM-12	MCM-02	MCM-12	MCM-02	MCM-12	MCM-02	MCM-12
Distance between	75.63	458.82	75.63	458.82	75.63	458.82	75.63	458.82
Head Well 1	8.47	5.91	8.57	6.13	7.56	5.00	7.55	5.02
Head Well 2	8.42	4.45	8.50	4.43	7.52	3.58	7.54	3.52
Hydraulic gradient i	0.00066	0.00318	0.00093	0.00371	0.00053	0.00309	0.00013	0.00327
K (cm/s site avg. from slug tests)	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012
Ne (0.35 from HAR)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Velocity in cm/s	2.27E-06	1.09E-05	3.17E-06	1.27E-05	1.81E-06	1.06E-05	4.53E-07	1.12E-05
Velocity in ft/day	0.0064	0.0309	0.0090	0.0360	0.0051	0.0301	0.0013	0.0318
Velocity in ft/year	2.35	11.29	3.28	13.14	1.88	10.98	0.47	11.60
Average Velocity ft/day	0.019		0.023		0.018		0.017	
Average Velocity ft/year	6.82		8.21		6.43		6.03	

K - Hydraulic Conductivity  
 HAR - Hydraulic Assessment Report  
 cm/s - Centimeters per second  
 ft/ day - feet per day  
 ft/year - feet per year

Table 8  
 Federal and Georgia EPD Groundwater Protection Standards September 2022  
 Plant McManus  
 Former AP-1  
 Brunswick, Georgia

<b>MCMANUS ASH POND GWPS – FEDERAL AND GEORGIA EPD</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>RSL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, September 2022

Notes:

mg/L = milligram per liter;  
 pCi/L = picocuries per liter;  
 n/a = Not Available;  
 MCL = Maximum Contaminant Level;  
 RSL = Rule Specified Limit (Adopted by EPD on February 2022)

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

[2] Under 40 CFR § 257(h)(1-3) the GWPS is: (i) the MCL, (ii) where the MCL is not established, the rule specific GWPS, or (iii) background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

Table 9  
 Federal and Georgia EPD Groundwater Protection Standards February 2023  
 Plant McManus  
 Former AP-1  
 Brunswick, Georgia

<b>MCMANUS ASH POND GWPS – FEDERAL AND GEORGIA EPD</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>RSL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		34.9	34.9
Fluoride, Total (mg/L)	4		3.32	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.01
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting,  
 February 2023

Notes:

mg/L = milligram per liter;

pCi/L = picocuries per liter;

n/a = Not Available;

MCL = Maximum Contaminant Level;

RSL = Rule Specified Limit (Not adopted by EPD as of September 2021)

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

[2] Under 40 CFR § 257(h)(1-3) the GWPS is: (i) the MCL, (ii) where the MCL is not established, the rule specific GWPS, or (iii) background levels for constituents where the background level is higher than the MCL or rule specified GWPS

# FIGURES





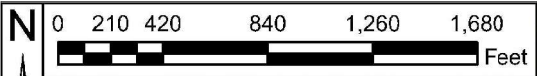
Woodstock, GA

July 2023




**Plant McManus  
Former AP-1  
Site Location Map**  
Brunswick, GA

**Figure  
1**





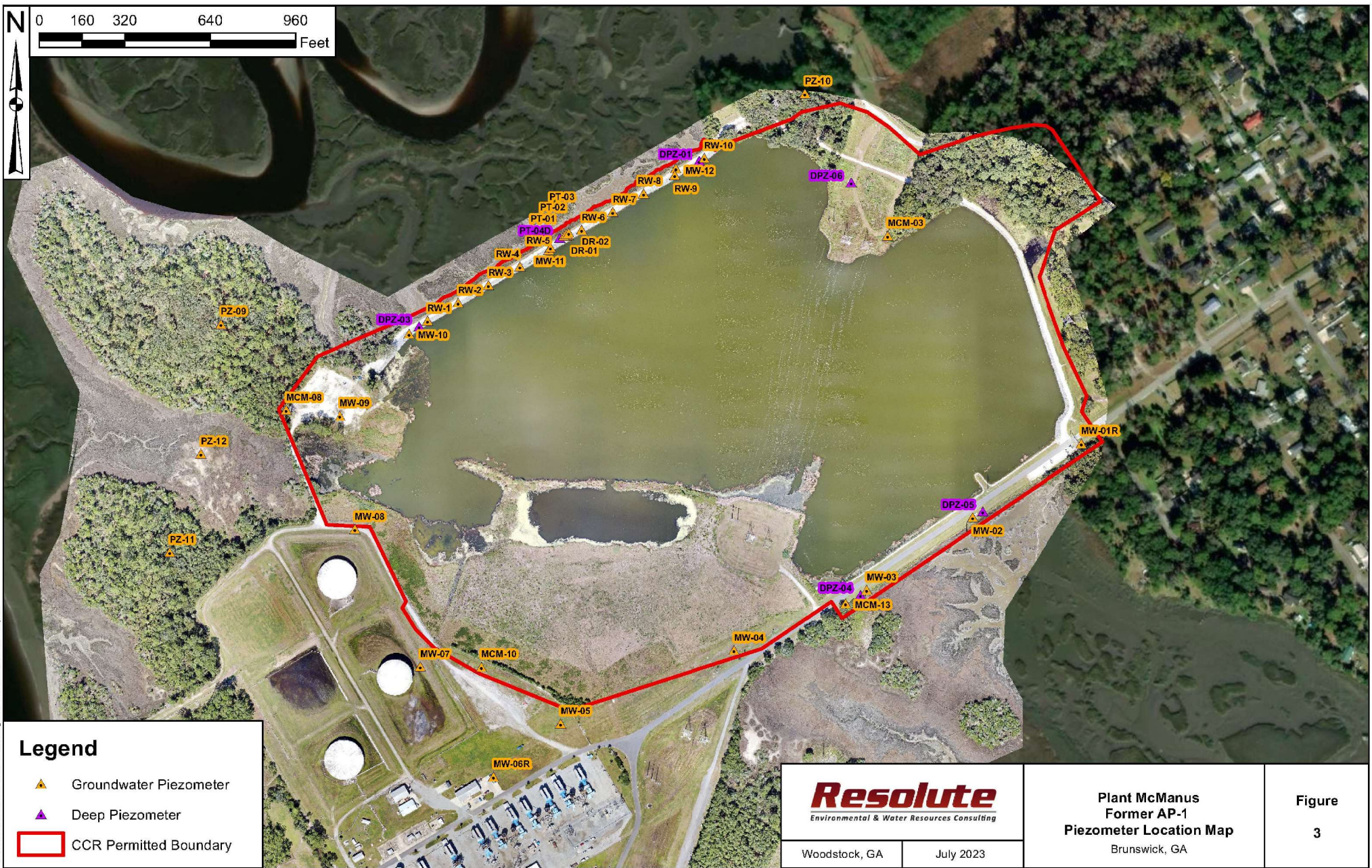
**Legend**

-  Detection Well
-  Assessment Well
-  CCR Permitted Boundary

		<b>Plant McManus Former AP-1 Monitoring Well Location Map</b> Brunswick, GA	

Figure  
2





**Legend**

- ▲ Groundwater Piezometer
- ▲ Deep Piezometer
- CCR Permitted Boundary

**Resolute**  
 Environmental & Water Resources Consulting

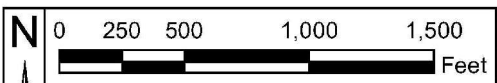
Woodstock, GA      July 2023

**Plant McManus  
 Former AP-1  
 Piezometer Location Map**

Brunswick, GA

**Figure  
 3**





**Legend**

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

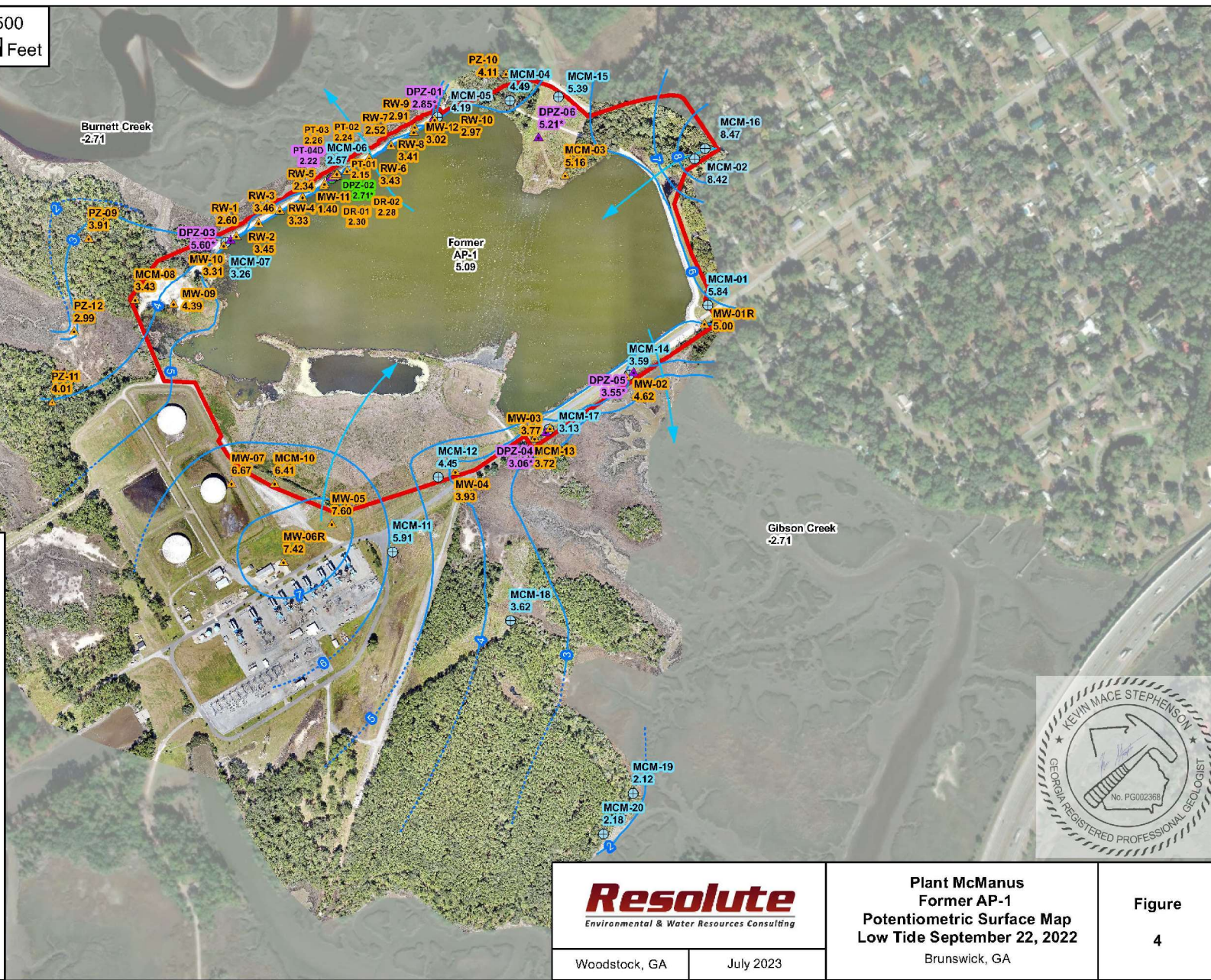
**MCM-12** Groundwater Elevation (Detection Well)  
4.45

**MCM-08** Groundwater Elevation (Piezometer)  
3.43

**DPZ-04** Groundwater Elevation (Deep Piezometer)  
3.06\*

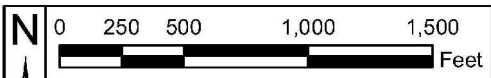
**DPZ-02** Groundwater Elevation (Assessment Well)  
2.71\*

**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.



<b>Resolute</b> <small>Environmental &amp; Water Resources Consulting</small>		<b>Plant McManus Former AP-1 Potentiometric Surface Map Low Tide September 22, 2022</b>	<b>Figure 4</b>
Woodstock, GA	July 2023	Brunswick, GA	





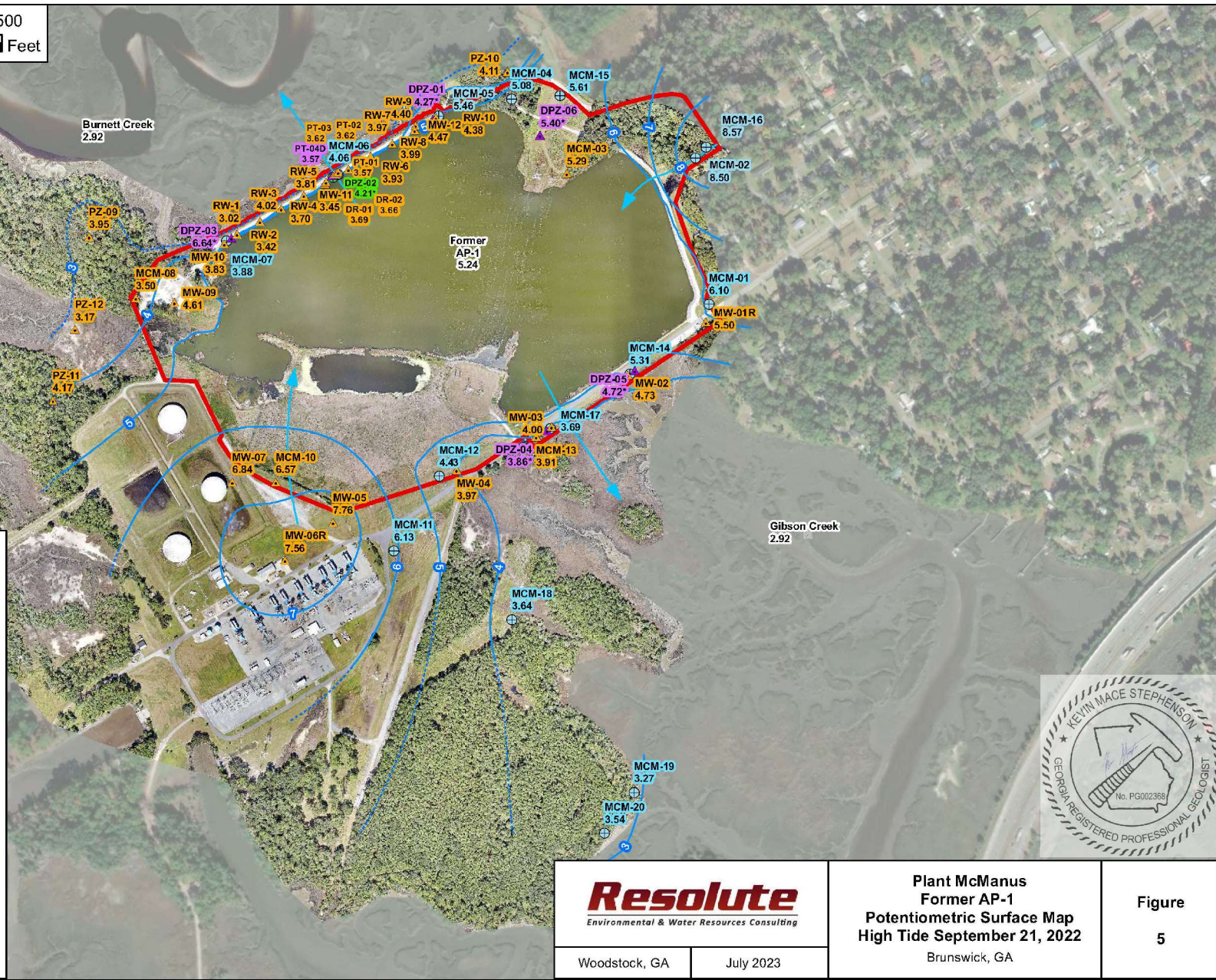
**Legend**

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- Groundwater Potentiometric Contour
- CCR Permitted Boundary

**Groundwater Elevation Data:**

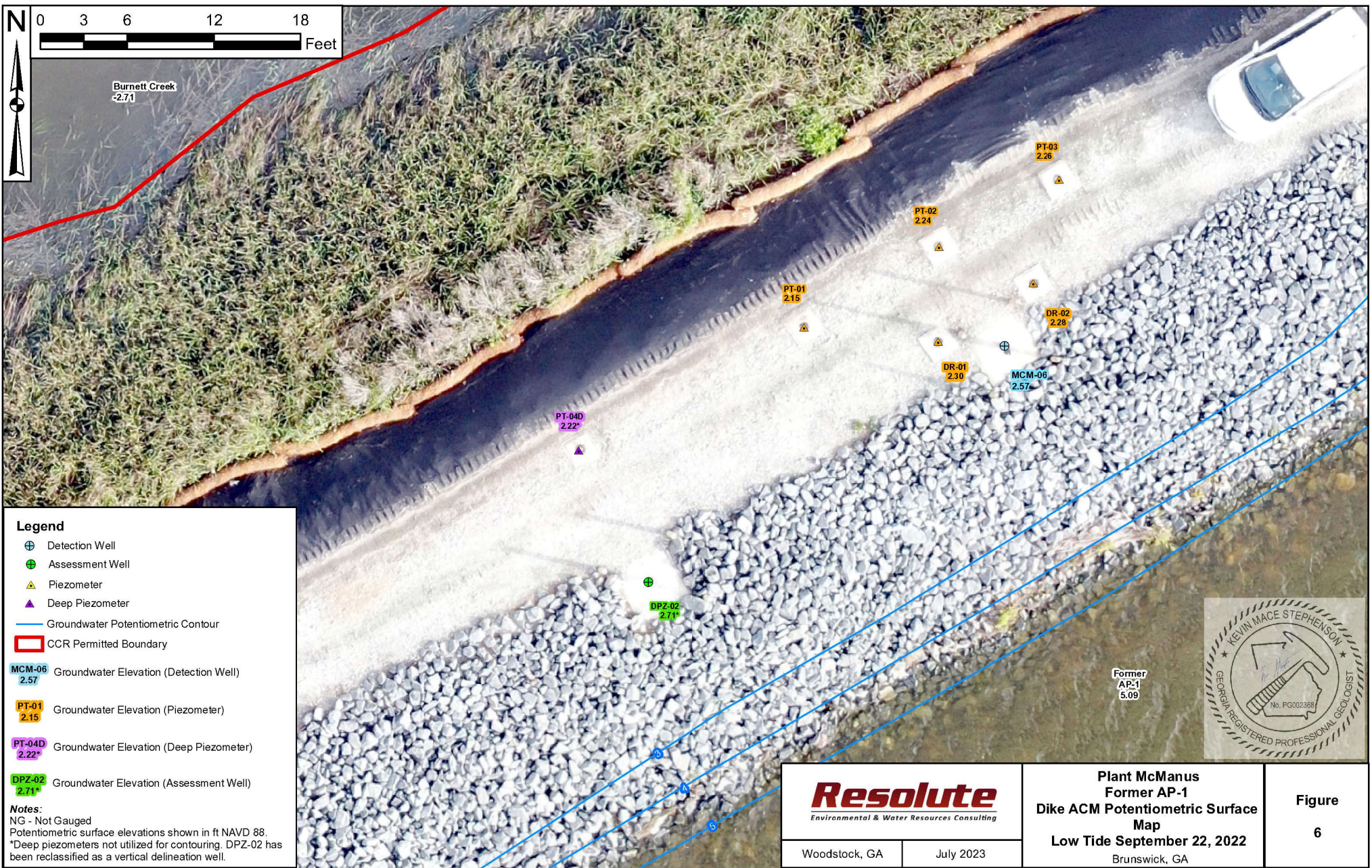
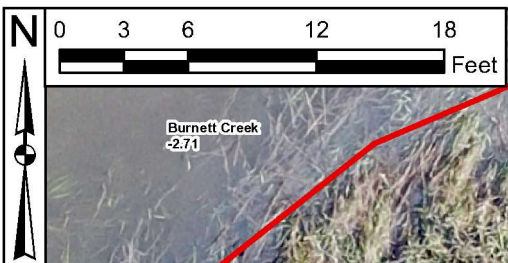
- MCM-12 4.43 Groundwater Elevation (Detection Well)
- MCM-08 3.50 Groundwater Elevation (Piezometer)
- DPZ-04 3.86\* Groundwater Elevation (Deep Piezometer)
- DPZ-02 4.21\* Groundwater Elevation (Assessment Well)

**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.



<b>Resolute</b> Environmental & Water Resources Consulting		<b>Plant McManus Former AP-1 Potentiometric Surface Map High Tide September 21, 2022</b>	<b>Figure 5</b>
Woodstock, GA	July 2023	Brunswick, GA	





**Legend**

- ⊕ Detection Well
- ⊕ Assessment Well
- ▲ Piezometer
- ▲ Deep Piezometer
- Groundwater Potentiometric Contour
- CCR Permitted Boundary

<span style="color: blue;">MCM-06</span>	Groundwater Elevation (Detection Well)
<span style="color: yellow;">PT-01</span>	Groundwater Elevation (Piezometer)
<span style="color: purple;">PT-04D</span>	Groundwater Elevation (Deep Piezometer)
<span style="color: green;">DPZ-02</span>	Groundwater Elevation (Assessment Well)

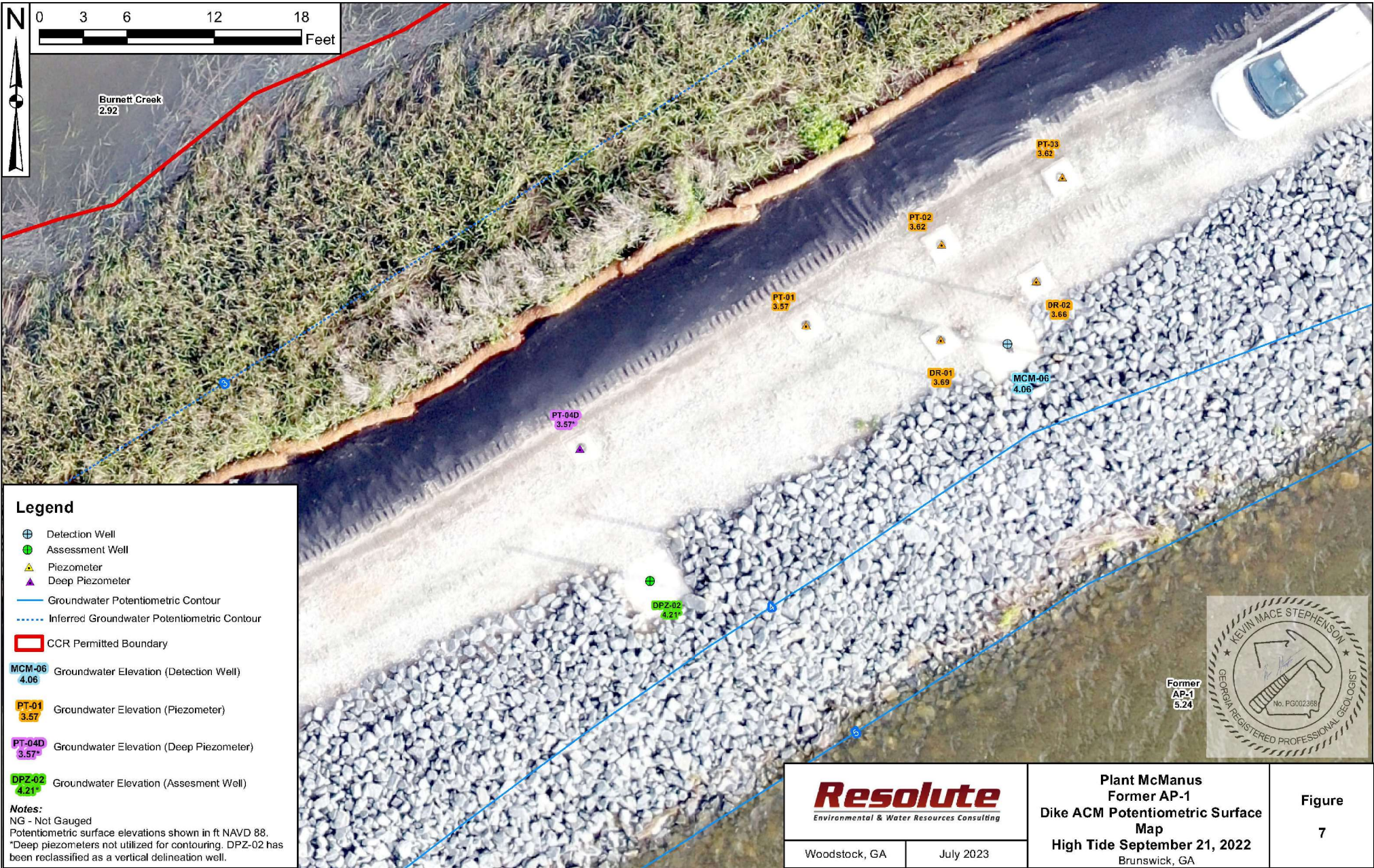
**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



Former AP-1  
5.09

<b>Resolute</b> <small>Environmental &amp; Water Resources Consulting</small>		<b>Plant McManus Former AP-1 Dike ACM Potentiometric Surface Map Low Tide September 22, 2022</b>	<b>Figure 6</b>
Woodstock, GA	July 2023		





**Legend**

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- CCR Permitted Boundary

MCM-06	Groundwater Elevation (Detection Well)
PT-01	Groundwater Elevation (Piezometer)
PT-04D	Groundwater Elevation (Deep Piezometer)
DPZ-02	Groundwater Elevation (Assesment Well)

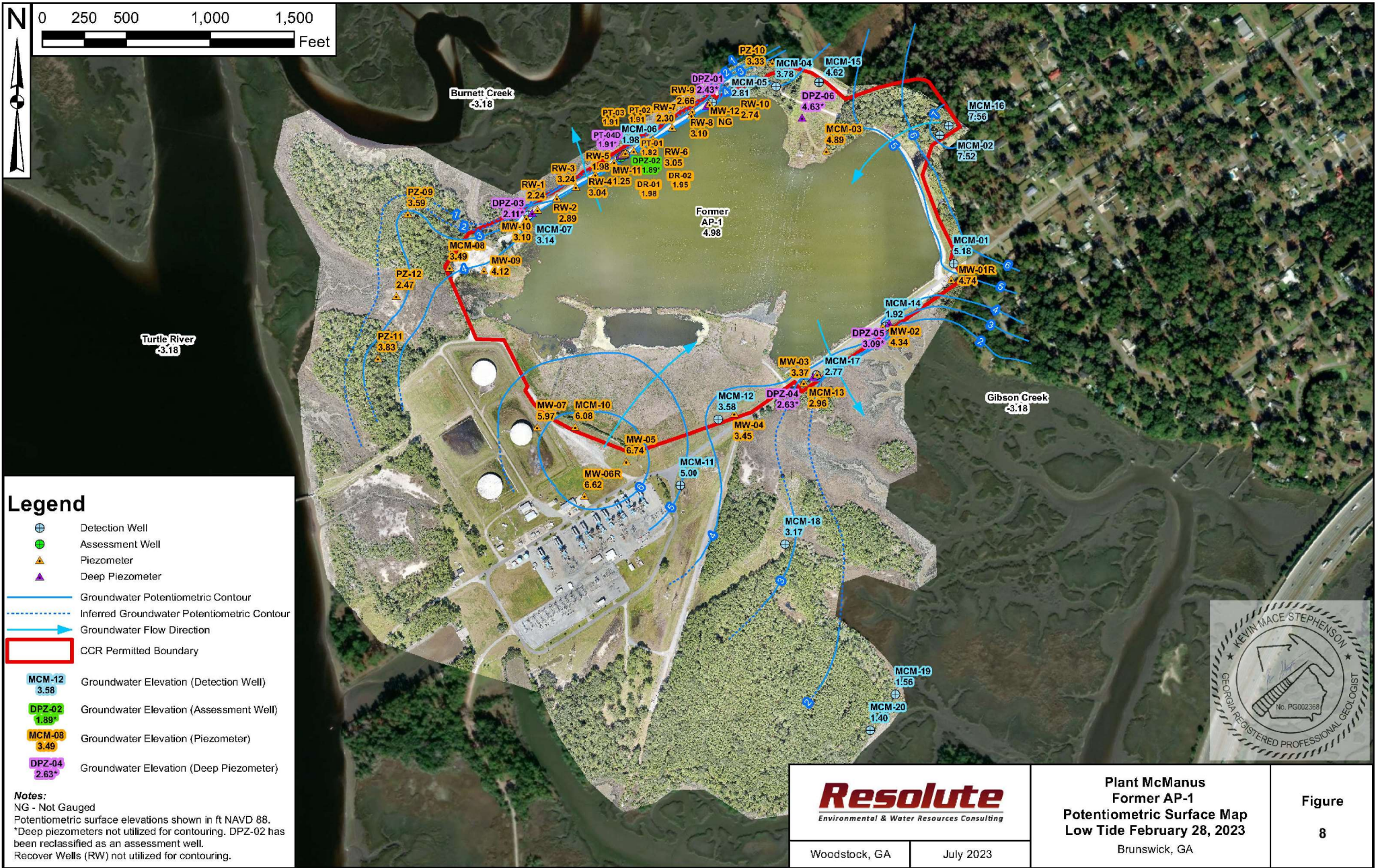
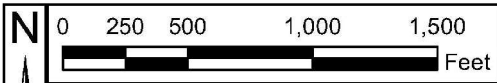
**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



Former  
AP-1  
5.24

		<b>Plant McManus</b> Former AP-1 Dike ACM Potentiometric Surface Map High Tide September 21, 2022 Brunswick, GA	Figure 7
Woodstock, GA	July 2023		





### Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

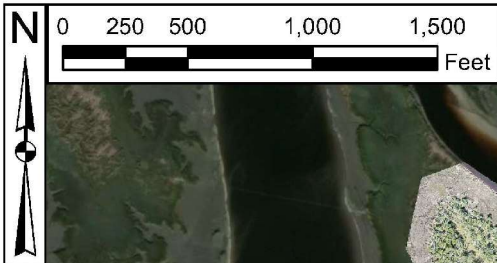
MCM-12	Groundwater Elevation (Detection Well)
DPZ-02	Groundwater Elevation (Assessment Well)
MCM-08	Groundwater Elevation (Piezometer)
DPZ-04	Groundwater Elevation (Deep Piezometer)

**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.  
 Recover Wells (RW) not utilized for contouring.



		<b>Plant McManus Former AP-1 Potentiometric Surface Map Low Tide February 28, 2023</b> Brunswick, GA	<b>Figure</b> 8



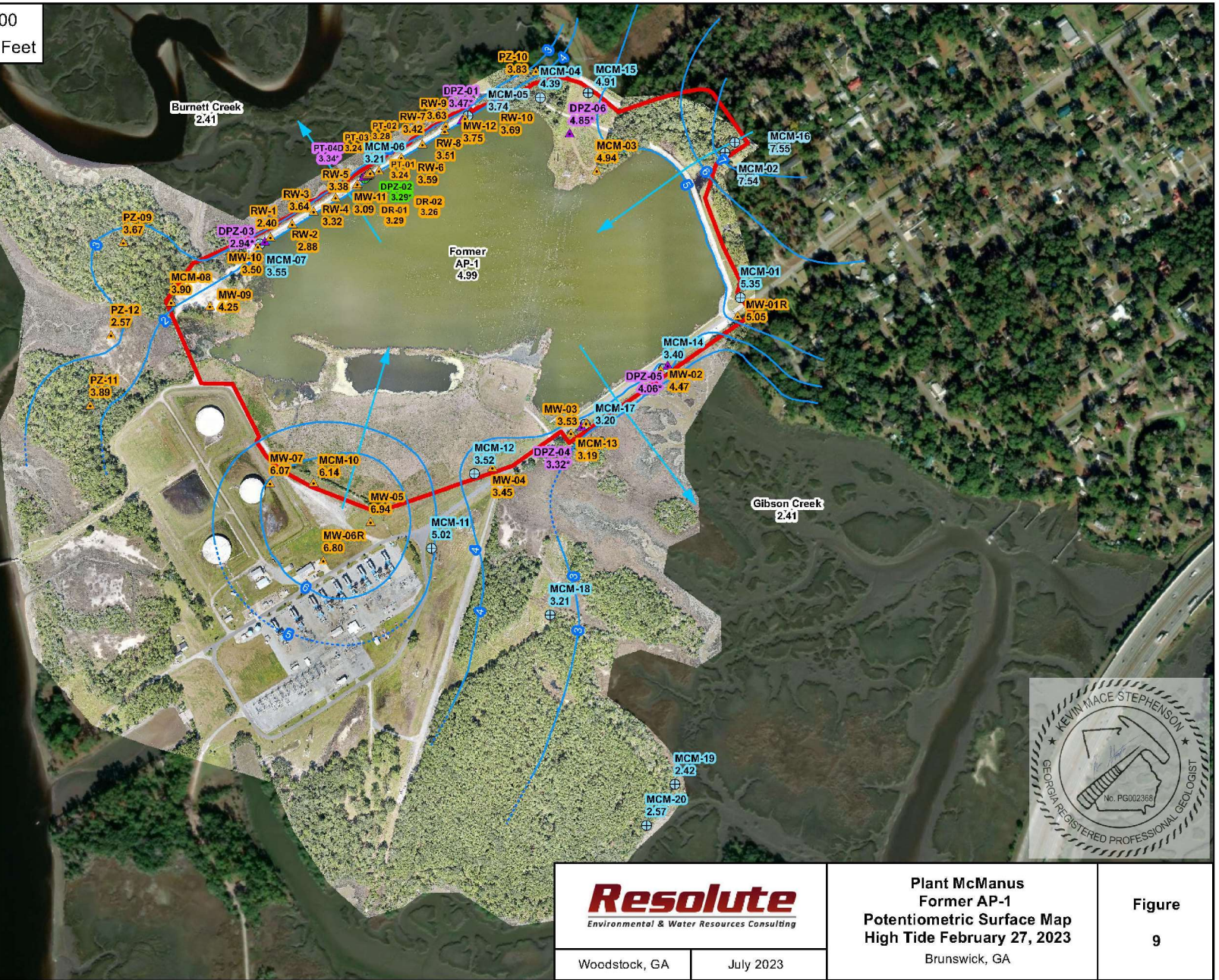


### Legend

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

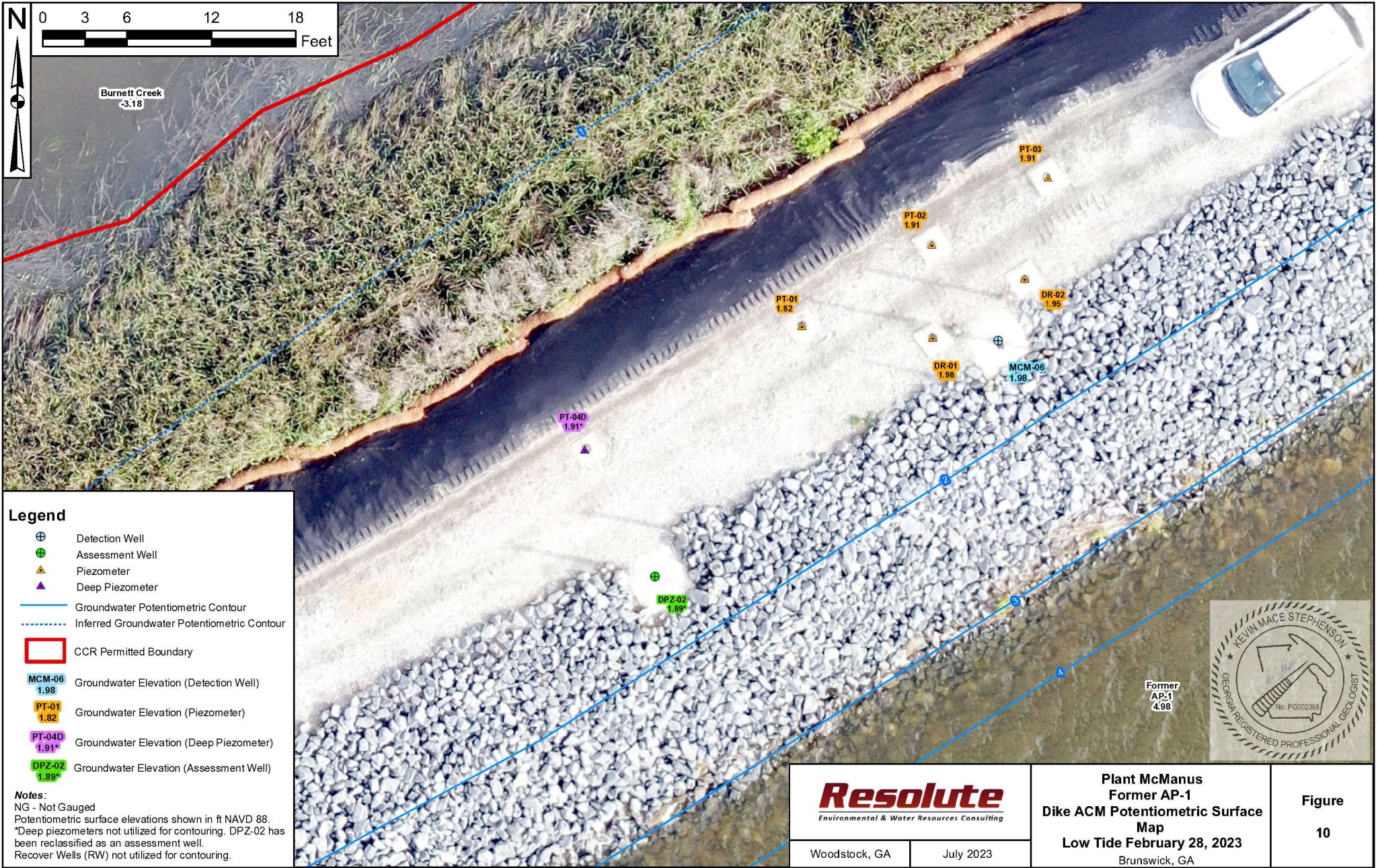
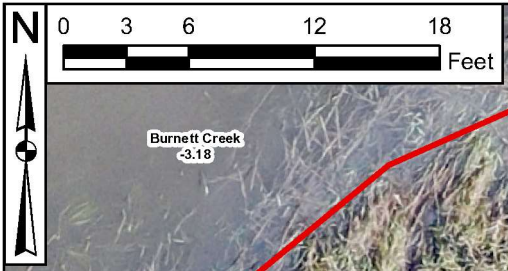
MCM-12 3.52	Groundwater Elevation (Detection Well)
DPZ-02 3.29*	Groundwater Elevation (Assessment Well)
MCM-08 3.90	Groundwater Elevation (Piezometer)
DPZ-04 3.32*	Groundwater Elevation (Deep Piezometer)

**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.  
 Recover Wells (RW) not utilized for contouring.



		<b>Plant McManus Former AP-1 Potentiometric Surface Map High Tide February 27, 2023</b>		<b>Figure 9</b>
		Woodstock, GA	July 2023	





**Legend**

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- CCR Permitted Boundary
- MCM-06**  
1.98  
Groundwater Elevation (Detection Well)
- PT-01**  
1.82  
Groundwater Elevation (Piezometer)
- PT-04D**  
1.91  
Groundwater Elevation (Deep Piezometer)
- DPZ-02**  
1.89  
Groundwater Elevation (Assessment Well)

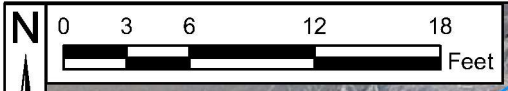
**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.  
 Recover Wells (RW) not utilized for contouring.



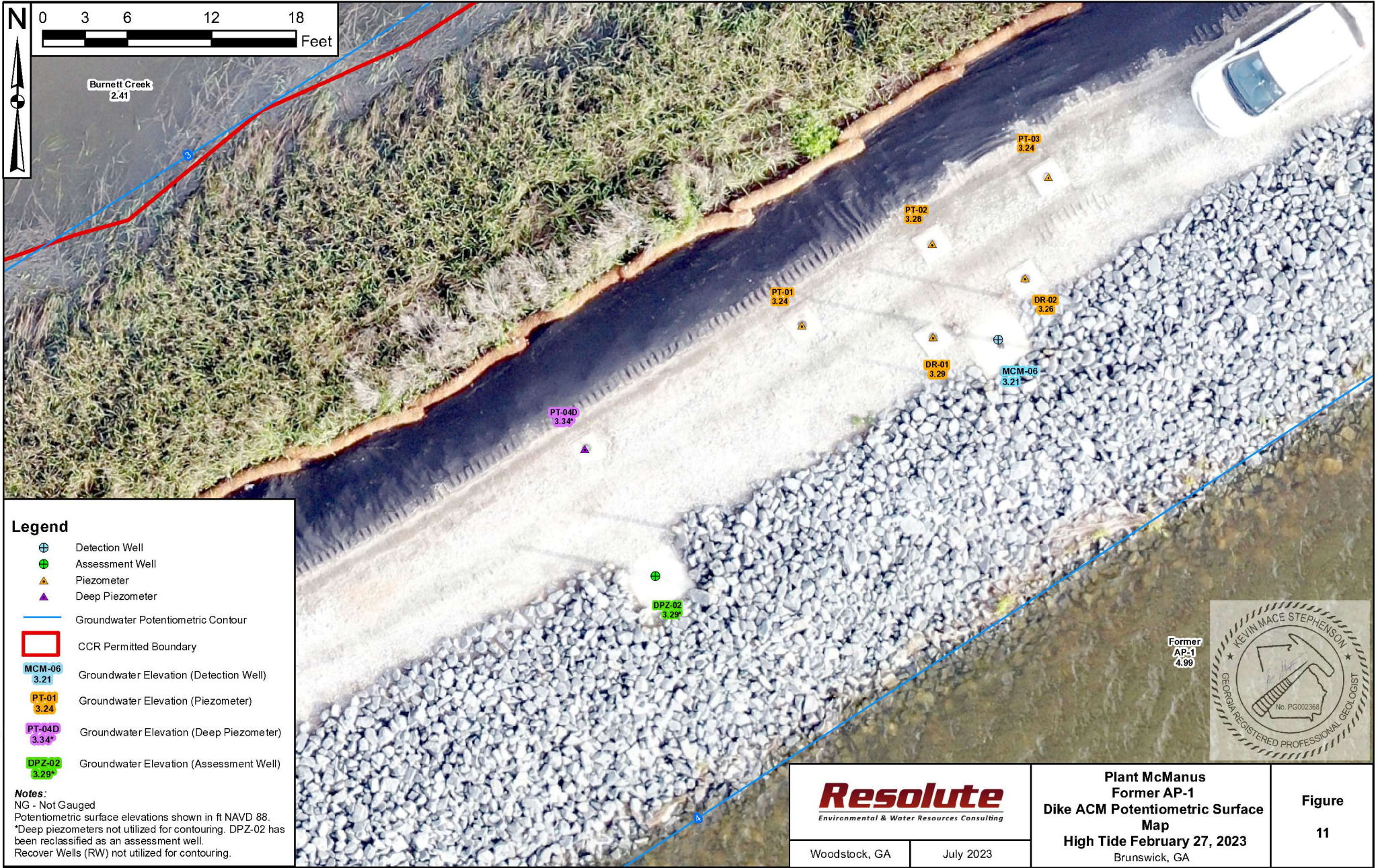
Former  
AP-1  
4.98

	<b>Plant McManus Former AP-1 Dike ACM Potentiometric Surface Map Low Tide February 28, 2023</b> Brunswick, GA		<b>Figure 10</b>
	Woodstock, GA	July 2023	





Burnett Creek  
2.41



**Legend**

- Detection Well
- Assessment Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- CCR Permitted Boundary
- Groundwater Elevation (Detection Well)
- Groundwater Elevation (Piezometer)
- Groundwater Elevation (Deep Piezometer)
- Groundwater Elevation (Assessment Well)

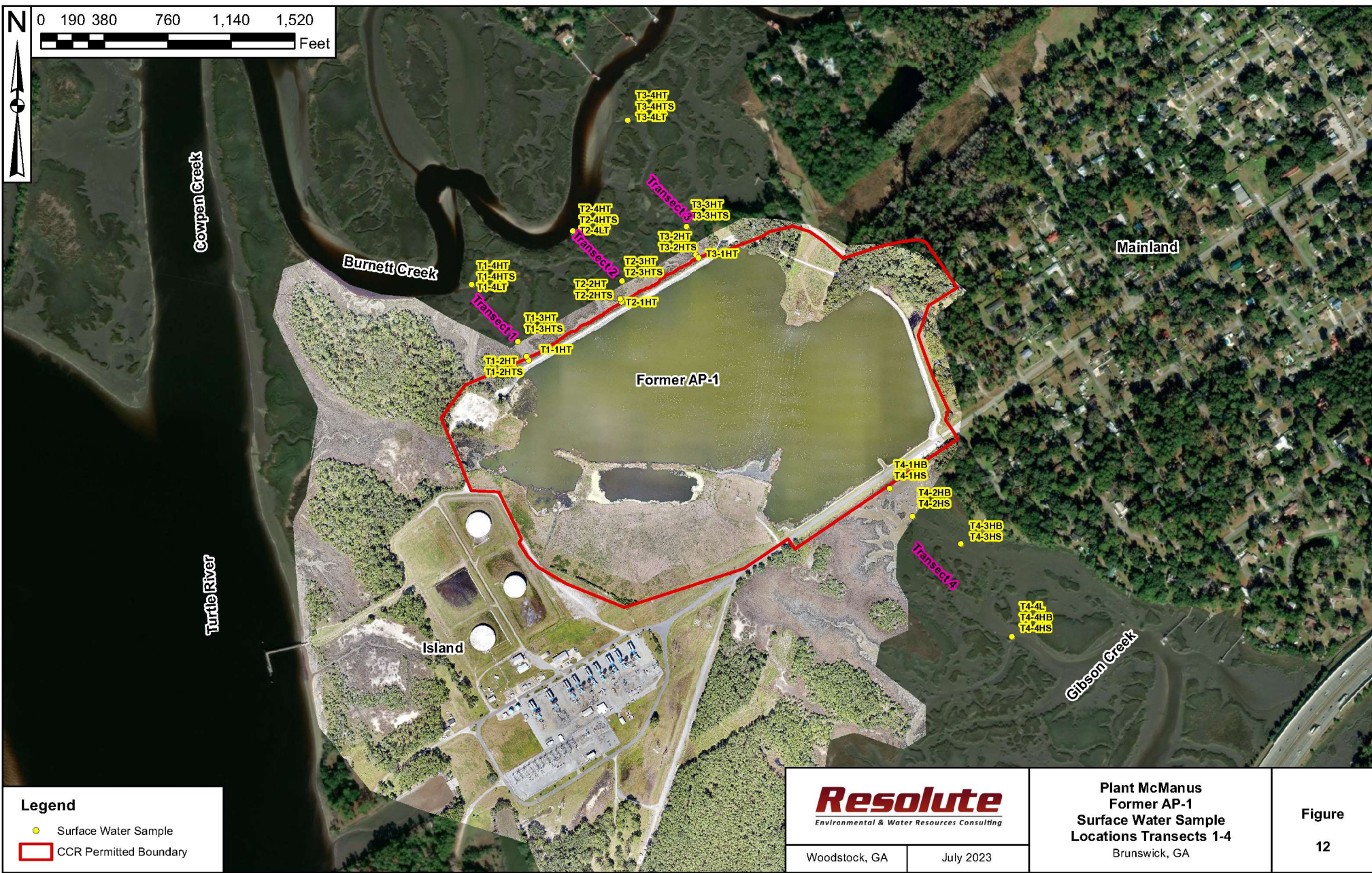
**Notes:**  
 NG - Not Gauged  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as an assessment well.  
 Recover Wells (RW) not utilized for contouring.



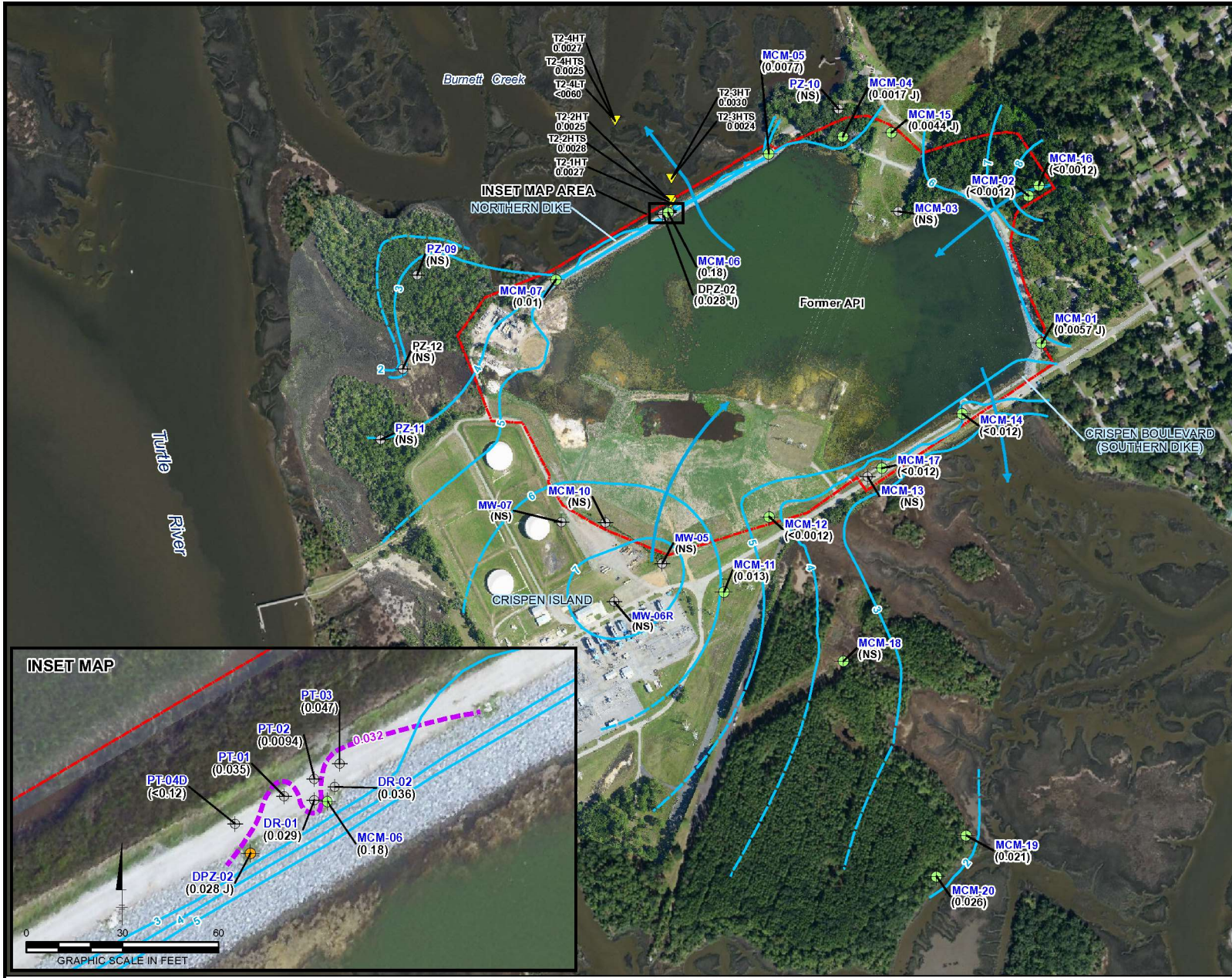
Former  
AP-1  
4.99

	<b>Plant McManus Former AP-1 Dike ACM Potentiometric Surface Map High Tide February 27, 2023</b>		<b>Figure 11</b>
	Woodstock, GA	July 2023	



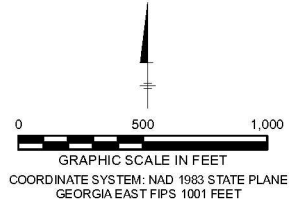






- LEGEND**
- PERMITTED CCR BOUNDARY
  - DETECTION WELL
  - ⊕ PIEZOMETER
  - ASSESSMENT WELL
  - ▼ SURFACE WATER SAMPLE
  - ARSENIC ISOCONCENTRATION LINE (SEPTEMBER 2022)
  - - - DASHED WHERE INFERRED
  - **MCM-01** (0.0043) WELL ID WITH ARSENIC CONCENTRATION

- NOTES:**
1. BLUE LABELS INDICATE WELL WAS USED FOR GROUNDWATER ELEVATION CONTOURING. BLACK LABELS ARE ARSENIC CONCENTRATIONS.
  2. DATA SHOWN FROM GROUNDWATER SAMPLING EVENT CONDUCTED SEPTEMBER 2022.
  3. ISOCONCENTRATION LINE DEVELOPED FROM GROUNDWATER COLLECTED DURING SEPTEMBER 2022 SAMPLING EVENT AND HIGH RESOLUTION INVESTIGATION (ARCADIS 2021B) ISOCONTOUR DASHED WHERE APPROXIMATE.
  4. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (MG/L).
  5. DELINEATION WELL DPZ-02 DATA ARE NOT USED IN ISOCONTOUR DEVELOPMENT.
  6. NS = NOT SAMPLED.
  7. CCR = COAL COMBUSTION RESIDUALS
  8. < = NOT DETECTED AT OR ABOVE ADJUSTED REPORTING LIMIT.
  9. ARSENIC GROUNDWATER PROTECTION STANDARD = 0.032 MILLIGRAMS PER LITER.
  11. LOW TIDE GROUNDWATER CONTOURS BASED ON INTERPRETATION PRESENTED IN 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT (RESOLUTE, 2023).



**Georgia Power**  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

**ARSENIC ISOCONCENTRATION MAP  
 SEPTEMBER 2022**


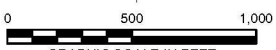




**LEGEND**

- PERMITTED CCR BOUNDARY
- DETECTION WELL
- ⊕ PIEZOMETER
- ⊕ ASSESSMENT WELL
- ▼ SURFACE WATER SAMPLE
- ARSENIC ISOCONCENTRATION LINE (FEBRUARY/MARCH 2023)  
DASHED WHERE INFERRED
- WELL ID WITH ARSENIC CONCENTRATION (0.0043)

- NOTES:**
1. BLUE LABELS INDICATE WELL WAS USED FOR GROUNDWATER ELEVATION CONTOURING. BLACK LABELS ARE ARSENIC CONCENTRATIONS.
  2. DATA SHOWN FROM GROUNDWATER SAMPLING EVENT CONDUCTED FEBRUARY/MARCH 2023.
  3. ISOCONCENTRATION LINE DEVELOPED FROM GROUNDWATER COLLECTED DURING FEBRUARY/MARCH 2023 SAMPLING EVENT AND HIGH RESOLUTION INVESTIGATION (ARCADIS 2021B). ISOCONTOUR DASHED WHERE APPROXIMATE.
  4. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (MG/L).
  5. ASSESSMENT WELL DPZ-02 DATA ARE NOT USED IN ISOCONTOUR DEVELOPMENT.
  6. NS = NOT SAMPLED.
  7. CCR = COAL COMBUSTION RESIDUALS
  8. < = NOT DETECTED AT OR ABOVE ADJUSTED REPORTING LIMIT.
  9. ARSENIC GROUNDWATER PROTECTION STANDARD = 0.032 MILLIGRAMS PER LITER.
  10. FEBRUARY/MARCH 2023 LOW TIDE GROUNDWATER CONTOURS BASED ON INTERPRETATION PRESENTED IN 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT (RESOLUTE, 2023).

  
  
 GRAPHIC SCALE IN FEET  
 COORDINATE SYSTEM: NAD 1983 STATE PLANE  
 GEORGIA EAST FIPS 1001 FEET

  
**Georgia Power**  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

**ARSENIC ISOCONCENTRATION MAP  
FEBRUARY/MARCH 2023**


FIGURE  
**14**

# **APPENDIX A**

## **WELL INSTALLATION, MAINTENANCE AND REPAIR DOCUMENTATION**



# WELL INSTALLATION REPORT

**Plant McManus Former Ash Pond 1  
Brunswick, Georgia**

August 26, 2022

Well Installation Report  
Plant McManus – Former Ash Pond 1

## Well Installation Report

**Plant McManus – Former Ash Pond 1**  
**Brunswick, Georgia**

August 26, 2022

**Prepared By:**

Arcadis U.S., Inc.  
2839 Paces Ferry Road, Suite 900  
Atlanta  
Georgia 30339  
Phone: 770 431 8666  
Fax: 770 435 2666

**Prepared For:**

Georgia Power Company



---

Mathew Webb  
Senior Geologist



---

Geoffrey Gay, PE  
Technical Expert (Eng)



## Professional Engineer Certification

I certify that I am a qualified groundwater scientist in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01 and 40 CFR Part 258.50(g) who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and have sufficient training and experience in groundwater hydrology and related fields as demonstrated by state registration and completion of accredited university courses that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction.



8.26.22

J. Geoffrey Gay, P.E.  
Technical Expert  
Georgia Registration No. 27801

Date

## Contents

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2.3.2	Annular seal .....	2
2.3.3	Cap and Protective Seal.....	2
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Table 1. Well Completion Details

## Figures

Figure 1. Site Map and Compliance Monitoring Well Network

Figure 2. Well Location Map

## Appendices

- A Well Driller Performance Bond
- B Boring Logs and Well Construction Details
- C Well Development Logs
- D Survey Report

## Introduction

This report documents the installation of five piezometers (DR-01, DR-02, PT-01, PT-02, and PT-03) screened at similar depth and lithology to compliance monitoring well MCM-06 and installed in accordance with the Permit No. 063-030D(CCR) groundwater monitoring plan (GWMP). An additional piezometer (PT-04D) was installed across the dike from the existing delineation well DPZ-02 (36 to 41 feet below ground surface [ft bgs]). The piezometers were installed for evaluation of assessment of corrective measures, and additional details will be presented in the upcoming Draft Remedy Selection Report to be submitted to EPD under separate cover in February 2023.

## Drilling and Well Installation

The piezometer locations are shown on **Figure 2**. The installation date, location, elevation, screen interval, and designations for the installed wells are provided in the following sections. Boring logs with well construction details are provided in **Appendix A**. A summary of well construction details is provided in **Table 1**.

## Drilling Method

The wells were installed by Cascade Environmental under contract with Southern Company Services (SCS) Field Services. Cascade had a current and valid bond with the Water Wells Standards Advisory Council for the state of Georgia at the time of drilling and well installation, provided in **Appendix A**. The well installations were performed under the oversight and direction of a Georgia Registered Professional Engineer with Arcadis. Borehole advancement drilling was completed using roto-sonic drilling techniques. A Boart-Longyear Mini Sonic was used to drill the boreholes where the wells were installed. During the drilling, continuous core samples were logged in the field for lithologic properties.

## Screened Interval

The DR and PT piezometers were installed with pre-packed well screens, the screen intervals are provided along with the construction details in **Table 1**. The screen was placed near the bottom of the borehole with a flush-threaded PVC end cap placed on the bottom of each screen to provide a 0.4-foot sump/sediment trap. DR piezometers were constructed with 15 ft wells screens (16-31 ft bgs) to have the capability to support potential pilot study activities as part of assessment of corrective measures and remedy selection process.

## Well Construction Materials

The piezometers were designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the wells; and (3) ensure sufficient structural integrity to prevent collapse of the well. The wells were constructed of 2-inch inside diameter Schedule 40 polyvinyl chloride (PVC) casing affixed to a dual-wall slotted U-Pack® PVC screen. The U-Pack® well screens consist of a 3-inch diameter outer PVC well screen and a 2-inch centralized inner PVC well screen in one integrated unit. Factory slotted 0.010-inch screens were used. The construction materials are ink-free, National Science Foundation (NSF) approved, and do not contain glues or solvents. The casing and screen sections are flush-threaded (ASTM-F-480).



## Filter Pack

Following placement of the well screen and casing, the annular space around the screen and casing was filled with Southern Products and Silica 20/30 filter pack sand from the base of the borehole 2 to 3 feet above the top of the screen, followed by 2 to 3 more feet of a Standard Sand & Silica Co. fine sand (30/65 filter sand). Approximately 7.5 50-lb bags of filter sand were used for DR-01 and DR-02 each; four bags were used for PT-04D; and 5.5 bags were used for PT-01, PT-02, and PT-03.

After placing the filter pack and prior to installing the annular seal, the well was pumped for at least 30 minutes to ensure proper settlement of the filter pack. Prior to installing the annular seal, the depth to the filter pack was remeasured to ensure a minimum of two feet was present above the screen. Well construction and boring logs are provided in **Appendix B**.

## Annular seal

An annular seal composed of non-coated, bentonite pellets was placed on top of the filter pack by slowly pouring the material down the borehole and tamping it into place with a tremie pipe. Bentonite pellets were placed from the top of the fine sand extending up to approximately 5 ft bgs in order to prevent grout contamination into the water-bearing zone. Approximately 1.5 50-lb bucket of bentonite pellets were placed in each well except for PT-04D where approximately seven 50-lb buckets were used. The bentonite was allowed hydrate and the remainder of the annular space was then filled with neat Portland Cement up to ground surface. Approximately 6.2 gallons of cement grout was used in each piezometer.

## Cap and Protective Seal

At the surface, the well casings were secured with a locking J-plug cap within a 6-inch flush mounted, steel manhole cover in a 2-foot by 2-foot concrete pad. Pea gravel was placed inside the protective casing between the riser pipe and the outer casing. The protective cap guards the casing from damage and the locking cap serves as a security device to prevent well tampering.

## Well Development

The newly installed piezometers were initially developed using a combination of surging and pumping with a Proactive Tornado submersible pump to minimize turbidity during groundwater sampling by Resolute Environmental & Water Resources Consulting. Turbidity, pH, temperature, and conductivity measurements ensured that the well was fully developed. Final turbidity measurements following development were less than 10 NTUs. The development forms are included in **Appendix C**.

## Survey

The vertical and horizontal locations were surveyed by Jackson Surveying, Inc. Horizontal survey locations are relative to the Georgia State Plane Coordinate System, East Zone, NAD83, US Survey Feet. All horizontal locations meet or exceed an accuracy of 0.5 foot. Vertical elevations are referenced to NAVD88, US Survey Feet and meet an accuracy standard of 0.01 foot. The ground surface was surveyed at the well pad. A survey report is included in **Appendix D**.

## References

Arcadis. 2022. 2022 Semiannual Remedy Selection and Design Progress Report, Plant McManus – Former Ash Pond 1, Brunswick, Georgia. July 29, 2022.

# Tables

**Table 1 - Well Completion Details**  
**Georgia Power Company**  
**Plant McManus**  
**Brunswick, Georgia**



Well ID	Installation Date	Northing <sup>1</sup> (feet)	Easting <sup>1</sup> (feet)	Ground Surface Elevation <sup>2</sup>	Top of Casing Elevation <sup>2</sup>	Total Depth (feet bgs)	Screened Interval (feet bgs)	
							Top	Bottom
DR-01	5/26/2022	444,407.62	850,777.93	7.86	7.58	31.0	16.0	31.0
DR-02	5/26/2022	444,411.68	850,784.46	7.90	7.49	31.0	16.0	31.0
PT-01	5/26/2022	444,408.70	850,768.53	7.82	7.49	25.0	15.0	25.0
PT-02	5/31/2022	444,414.19	850,777.91	7.91	7.64	25.0	14.5	24.5
PT-03	6/1/2022	444,418.92	850,785.95	7.93	7.45	25.2	15.2	25.2
PT-04D	5/25/2022	444,400.23	850,753.07	7.80	7.51	41.0	36.0	41.0

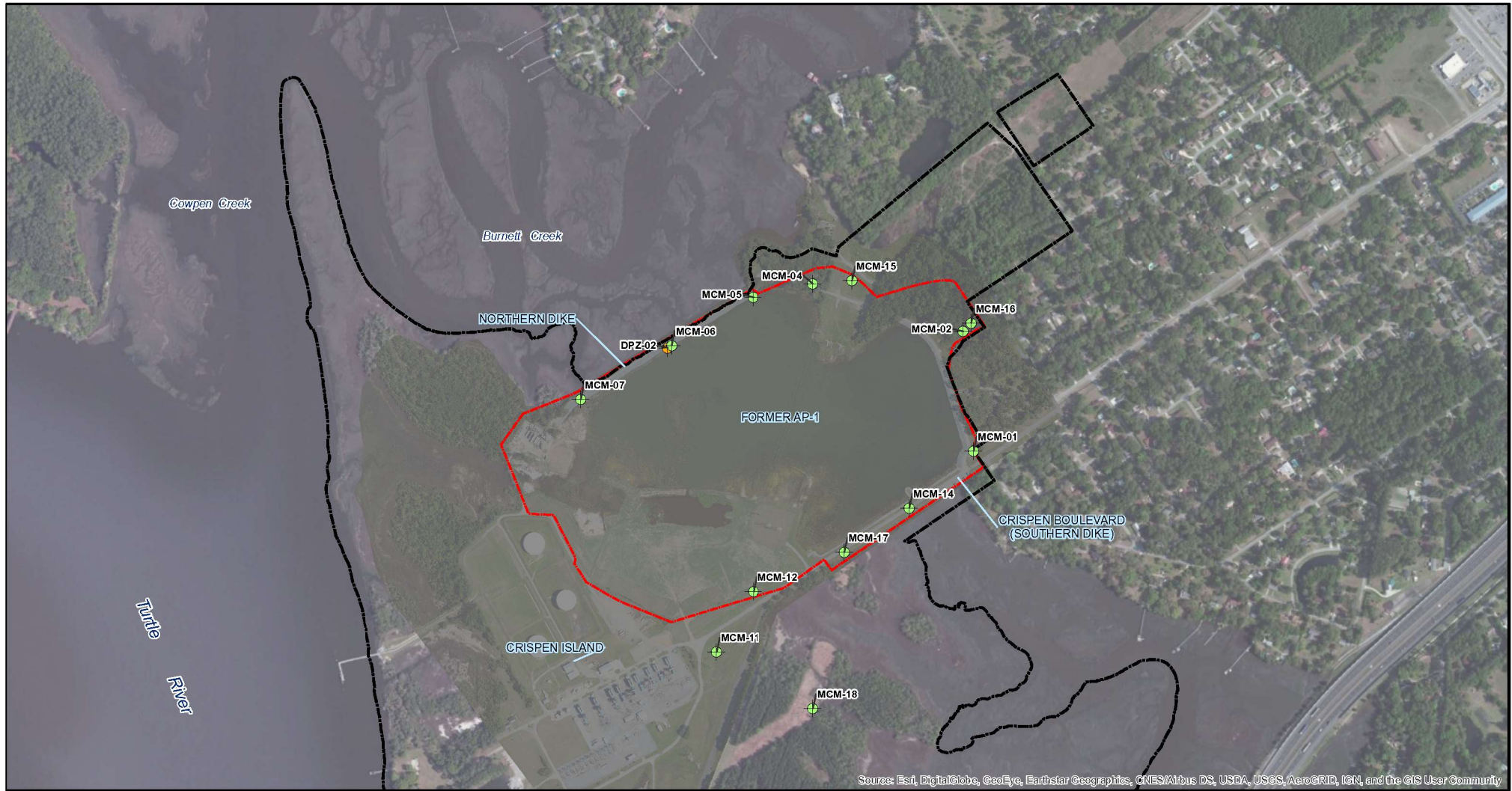
**Notes:**

- 1 - All horizontal locations surveyed to the Georgia State Plane Coordinate System, East Zone, NAD83
- 2 - Vertical elevations surveyed relative to NAVD88 (U.S. Survey Feet)

**Acronyms & Abbreviations:**

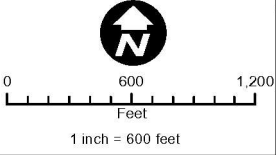
- bgs - below ground surface
- NAD83 - North American Datum of 1983
- NAVD88 - North American Vertical Datum of 1988

# Figures



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- Legend**
- PROPERTY BOUNDARY
  - PERMITTED CCR BOUNDARY
  - COMPLIANCE MONITORING WELL
  - DELINEATION WELL








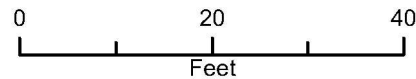
GEORGIA POWER PLANT MCMANUS FORMER ASH POND 1 BRUNSWICK, GEORGIA	
<b>SITE MAP AND COMPLIANCE          MONITORING WELL NETWORK</b>	
	FIGURE <b>1</b>





**Legend**

-  Permitted CCR boundary
-  Compliance Monitoring Well
-  Delineation Well
-  Dewatering Well
-  Piezometers



GEORGIA POWER  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

**WELL LOCATION MAP**



FIGURE

**2**

# Appendix A

## Well Driller Performance Bond





# Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

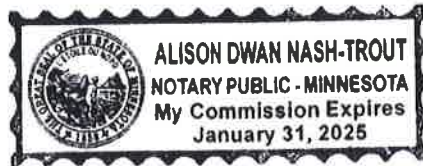
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.



By *Paul J. Brehm*  
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA  
HENNEPIN COUNTY

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

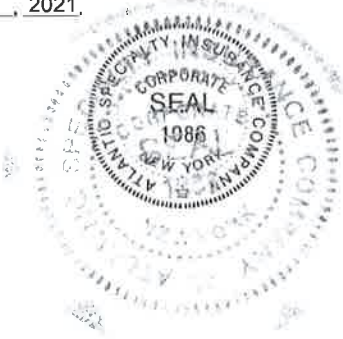


*Alison Nash-Trout*  
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

This Power of Attorney expires  
January 31, 2025



*Kara Barrow*  
Kara Barrow, Secretary

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017  
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.  
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021  
(MONTH-DAY-YEAR)

and ending on 06/30/2023  
(MONTH-DAY-YEAR)

Amount of bond Thirty Thousand and 00/100 Dollars (\$30,000.00)

Description of bond Performance Bond for Water Well Contractors

**PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.**

Signed and dated on April 12th, 2021  
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By Andrew P. Larsen  
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.

Agent  
2233 112th Ave NE Bellevue, WA 98004

Address of Agent

425-709-3600

Telephone Number of Agent

# Appendix B

## Boring Logs and Well Construction Details







Boring No.: DR-01

# Soil Boring and Construction Log

Sheet: 2 of 2

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(17-31 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, no clay, dark gray to black		<p>2" 10-Slot U Screen</p> <p>Filter Sand 20/30</p>
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
					31 ft. bgs End of Boring		
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GPI GINT DATA TEMPLATE.GDT 8/23/22

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

# Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
1					(0.0-0.5 ft) Gravel.	(0 ft) Drilling fluid of potable water-used approximately 150 gallons	 Portland Cement
2					(0.5-13 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, brown to tan, moist to very moist at 5-6 ft; Fill.		
3							2" PVC Casing  Bentonite Pellets  Fine Sand 30/65  Filter Sand 20/30  2" 10-Slot U Screen
4							
5							
6							
7							
8							
9					(9.0-13 ft) Increase to 10% clay.		
10							
11							
12							
13					(13-15 ft) Clay: 80% clay, consistency firm, moist, no visual porosity, 2.5YR 3/1 dark gray to black.		
14							
15					(15-18 ft) Silty Sand: 60% silt, 20% fine-grained sand, 20% clay, density soft, very moist, no visual porosity, 2.5YR 3/1 dark gray to black.		
16							
17							
18					(18-31 ft) Poorly Sorted Sand: 90% fine-grained sand, 10% silt, density firm, no visual porosity, 2.5YR 3/1 dark gray to black.		
19							
20							

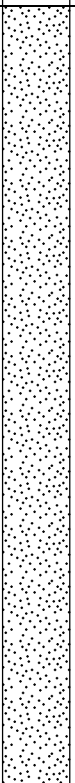
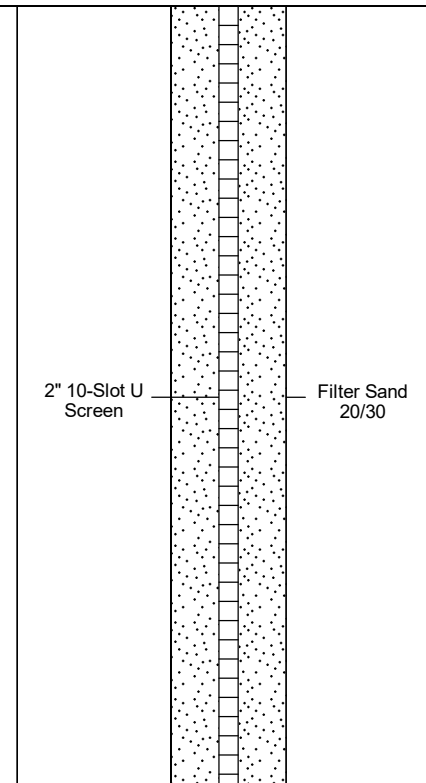
Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel  
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"  
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA  
 Drill Rig: \_\_\_\_\_ Static Water Level (ft bgs): 4.24  
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.49  
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.90  
= recovery. North Coordinate: 444411.68  
 East Coordinate: 850784.46

SOIL BORING AND CONSTRUCTION LOG - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22



# Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(18-31 ft) Poorly Sorted Sand: 90% fine-grained sand, 10% silt, density firm, no visual porosity, 2.5YR 3/1 dark gray to black. (20-25 ft) Density soft, very moist, poor visual porosity, GLEY2 5/1 blueish gray.		
22							
23							
24							
25						(25-31 ft) Increase to 100% fine-grained sand.	
26							
27							
28							
29							
30							
31							
					31 ft. bgs End of Boring		
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

# Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
1					(0.0-0.5 ft) Gravel.	(0 ft) Drilling fluid of potable water-used approximately 75 gallons	6-inch Flush steel manhole cover with 2'x2' cement pad Portland Cement
2					(0.5-12 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, moist, 2.5YR 5/8 tan to brown; Fill.		
3							
4							
5					(5.0-12 ft) Increase to 5% clay, consistency soft, no visual porosity.		
6							
7							
8							2" PVC Casing
9							Bentonite Pellets
10							
11							
12							Fine Sand 30/65
13					(12-17 ft) Silty Clay: 50% clay, 50% silt, consistency firm, moist, no visual porosity, 5Y 3/1 dark gray to black, no fines, no shell fragments, more of a silty sand at 17 ft with less clay.		
14							
15							
16							Filter Sand 20/30
17							
18					(17-25 ft) Poorly Sorted Sand: 90% fine-grained sand, density soft, moist, poor visual porosity, 5Y 3/1 dark gray to black.		2" 10-Slot U Screen
19							
20							

Drilling Company: <u>Cascade Drilling</u>	Sampling Method: <u>Sonic Core Barrel</u>
Driller: <u>J. Reynolds</u>	Sampling Dimensions: <u>5' x 6"</u>
Drilling Method: <u>Rotosonic</u>	First Encountered Water (ft bgs): <u>NA</u>
Drill Rig: _____	Static Water Level (ft bgs): <u>4.38</u>
Remarks: <u>bgs = below ground surface; ft = feet; PID =</u>	Top of Casing Elevation: <u>7.49</u>
<u>photo-ionization detector; ppm = parts per million; Rec.</u>	Surface Elevation: <u>7.82</u>
<u>= recovery.</u>	North Coordinate: <u>444408.70</u>
	East Coordinate: <u>850768.53</u>

SOIL BORING AND CONSTRUCTION LOG - ARCADIS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22

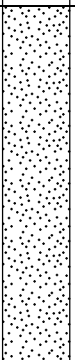
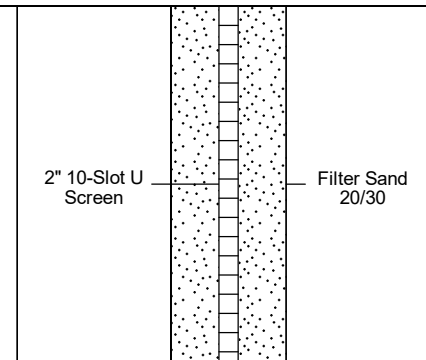


Boring No.: PT-01

# Soil Boring and Construction Log

Sheet: 2 of 2

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(17-25 ft) Poorly Sorted Sand: 90% fine-grained sand, density soft, moist, poor visual porosity, 5Y 3/1 dark gray to black.		 2" 10-Slot U Screen      Filter Sand 20/30
22							
23							
24							
25					25 ft. bgs End of Boring		
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GPI GINT DATA TEMPLATE.GDT 8/23/22



# Soil Boring and Construction Log


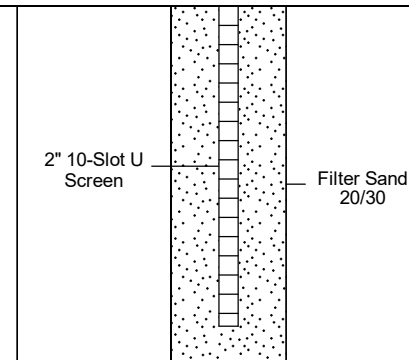




Client Name: McManus Date Started: 05-27-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-31-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
1					(0.0-0.5 ft) Gravel.	(0 ft) Drilling fluid of potable water-used approximately 100 gallons	
2					(0.5-8.0 ft) Silty Sand: fine-grained sand, tan to brown, moist; Fill.		
3							
4							
5							
6							
7							
8							
9					(8.0-17 ft) Clayey Sand: 40% silt, 30% clay, 30% fine-grained sand, consistency firm, moist, no visual porosity, tan to brown.		
10							
11					(10-17 ft) Clay content slightly higher, no hard clay present.		
12							
13							
14							
15							
16							
17							
18					(17-18 ft) Silty Sand: 75% fine-grained sand, 25% silt, density firm, moist, no visual porosity, dark gray to black.		
19							
20					(18-25 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, dark gray to black.		

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel  
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"  
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA  
 Drill Rig: \_\_\_\_\_ Static Water Level (ft bgs): 4.56  
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.64  
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.91  
= recovery. North Coordinate: 444414.19  
 East Coordinate: 850777.91

# Soil Boring and Construction Log

Client Name: McManus Date Started: 05-27-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-31-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(18-25 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, dark gray to black.		 <p>2" 10-Slot U Screen</p> <p>Filter Sand 20/30</p>
22							
23							
24							
25							
					25 ft. bgs End of Boring		
26							
27							
28							
29							
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Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22



Boring No.: PT-03

# Soil Boring and Construction Log

Sheet: 1 of 2

Client Name: McManus Date Started: 06-01-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 06-01-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.2 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
1					(0.0-0.5 ft) Gravel.	(0 ft) Drilling fluid of potable water-used approximately 75 gallons	
2					(0.5-8.0 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, dry, Fill.		
3					(5.0-8.0 ft) Tan to brown.	2" PVC Casing	
4							
5							
6							
7					(8.0-13 ft) Silty Sand with Clay: 50% fine-grained sand, 40% silt, 10% clay, consistency soft, moist, poor visual porosity.	2" 10-Slot U Screen	
8							
9					(10-13 ft) Increase to 15% clay.	(13-15.5 ft) Clay: 90% stiff clay, 10% fine-grained sand, consistency firm, moist, no visual porosity, black to dark gray.	
10							
11							
12					(15.5-16 ft) Silty Sand: 75% sand, 15% silt, 10% clay, density firm, moist, no visual porosity, dark gray to black.	(16-25 ft) Poorly Sorted Sands: 90% sand, density soft, saturated, dark gray to black. (17-17.3 ft) Small lends of silty sand.	
13							
14							
15							
16							
17							
18							
19							
20							

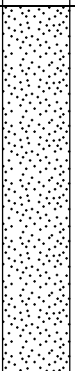
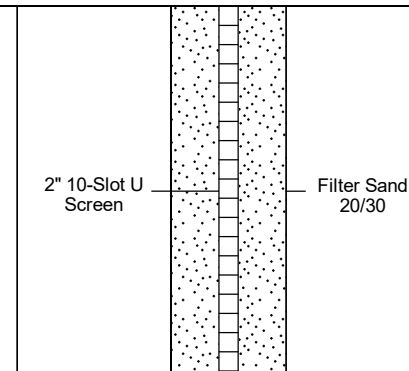
Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel  
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"  
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA  
 Drill Rig: \_\_\_\_\_ Static Water Level (ft bgs): 4.17  
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.45  
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.93  
= recovery. North Coordinate: 444418.92  
 East Coordinate: 850785.95

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22



# Soil Boring and Construction Log

Client Name: McManus Date Started: 06-01-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 06-01-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 25.2 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(16-25 ft) Poorly Sorted Sands: 90% sand, density soft, saturated, dark gray to black.		 2" 10-Slot U Screen   Filter Sand 20/30
22							
23							
24							
25							
					25.2 ft. bgs End of Boring		
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22



Boring No.: PT-04D

# Soil Boring and Construction Log

Sheet: 1 of 2

Client Name: McManus

Date Started: 05-25-2022

Logger: C. Lawson

Project Number: 30050105

Date Completed: 05-25-2022

Reviewer: \_\_\_\_\_

Project Name: Brunswick, GA

Total Depth: 41.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
1					(0.0-0.5 ft) Mainly gravel.	(0-5 ft) Hand auger. Drilling fluid of potable water-used approximately 150 gallons.	
2					(0.5-12 ft) Silty Sand: 75% sand, 20% silt, 5% clay, consistency firm, brown to tan, very moist; Fill.		
3					(5.0-12 ft) Increase to 90% fine-grained sand, density soft, 5YR 6/6 light tan.		
4							
5							
6							
7					(12-15.5 ft) Silty Clay: 40% silt, 40% fine-grained sand, 20% clay, consistency soft, no visual porosity, 5YR 2/3 dark gray.		
8							
9							
10					(15.5-19 ft) Silty Sand: 80% fine-grained sand, 10% silt, 10% clay, density firm, no visual porosity, 5YR 2/3 dark gray to black.		
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Drilling Company: Cascade Drilling

Sampling Method: Sonic Core Barrel

Driller: J. Reynolds

Sampling Dimensions: 5' x 6"

Drilling Method: Mini Sonic

First Encountered Water (ft bgs): NA

Drill Rig: \_\_\_\_\_

Static Water Level (ft bgs): 4.39

Remarks: bgs = below ground surface; ft = feet; PID =

Top of Casing Elevation: 7.51

photo-ionization detector; ppm = parts per million; Rec.

Surface Elevation: 7.80

= recovery.

North Coordinate: 444400.23

East Coordinate: 850753.07

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22

# Soil Boring and Construction Log

Client Name: McManus Date Started: 05-25-2022 Logger: C. Lawson  
 Project Number: 30050105 Date Completed: 05-25-2022 Reviewer: \_\_\_\_\_  
 Project Name: Brunswick, GA Total Depth: 41.0 ft bgs

Depth (feet)	Sample ID	Rec. (ft)	Blow Counts	Graphic	Description	Drilling Fluid and Notes	Construction Details
21					(19-28 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, poor visual porosity, large piece of woods at depth, top foot of sample has shell fragments ~1/8 to 1/4 inch.		
22					(20-28 ft) Increase to 100% fine-grained sand, moist, GLEY2 0/1 blueish to light brown, no clays.		
23							
24					(24 ft) Shell fragments.		
25							Bentonite Pellets
26							
27							
28					(28-28.4 ft) Silty Sand: minor clay, consistency firm, moist.		2" PVC Casing
29					(28.4-41 ft) Poorly Sorted Sand: 100% sand with shell fragments, density soft, moderate visual porosity, GLEY2 3/1 dark gray to black gray, no clays, shell fragments only at 24 ft.		
30					(30-35 ft) Shell fragments throughout.		
31							Fine Sand 30/65
32							
33							
34							
35					(35-41 ft) Shell fragments are large to ~1 inch, density firm, poor visual porosity.		
36							
37							Filter Sand 20/30
38							
39							2" 10-Slot U Screen
40							
41							
					41 ft. bgs End of Boring		
42							

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 8/23/22



# Appendix C

## Well Development Logs

# Low-Flow Test Report:

**Test Date / Time:** 6/15/2022 9:32:41 AM  
**Project:** McManus Dike Well Development  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> DR-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 15.32 ft <b>Total Depth:</b> 30.32 ft <b>Initial Depth to Water:</b> 5.25 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> PVC <b>Pump Intake From TOC:</b> 22.82 ft <b>Estimated Total Volume Pumped:</b> 80000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 4000 ml/min <b>Final Draw Down:</b> 0.00 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:** Pre-purged 210 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/15/2022 9:32 AM	00:00	7.56 pH	21.91 °C	17,412 µS/cm	0.02 mg/L	12.60 NTU	-277.6 mV	5.25 ft	4,000.0 ml/min
6/15/2022 9:36 AM	04:00	7.29 pH	21.74 °C	16,821 µS/cm	0.01 mg/L	14.30 NTU	-285.0 mV	5.21 ft	4,000.0 ml/min
6/15/2022 9:40 AM	08:00	7.28 pH	21.74 °C	16,789 µS/cm	0.00 mg/L	12.40 NTU	-291.5 mV	5.20 ft	4,000.0 ml/min
6/15/2022 9:44 AM	12:00	7.28 pH	21.76 °C	16,889 µS/cm	0.00 mg/L	7.30 NTU	-295.1 mV	5.15 ft	4,000.0 ml/min
6/15/2022 9:48 AM	16:00	7.28 pH	21.78 °C	16,889 µS/cm	0.00 mg/L	4.61 NTU	-296.2 mV	5.09 ft	4,000.0 ml/min
6/15/2022 9:52 AM	20:00	7.29 pH	21.78 °C	16,708 µS/cm	0.00 mg/L	3.14 NTU	-295.7 mV	5.06 ft	4,000.0 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/14/2022 1:48:08 PM  
**Project:** McManus Dike Well Development  
**Operator Name:** Kevin Stephenson

<b>Location Name:</b> DR-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 14.59 ft <b>Total Depth:</b> 29.59 ft <b>Initial Depth to Water:</b> 5.18 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 22.09 ft <b>Estimated Total Volume Pumped:</b> 96000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 4000 ml/min <b>Final Draw Down:</b> 1.14 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789317
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**Test Notes:**  
Pre-purged 135 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 1000 %	+/- 10	+/- 1000 %	+/- 0.5	+/- 1000 %	
6/14/2022 1:48 PM	00:00	7.56 pH	73.10 °F	19,282 µS/cm	0.01 mg/L	9.55 NTU	-223.8 mV	6.16 ft	11.62 PSU	4,000.0 ml/min
6/14/2022 1:52 PM	04:00	7.32 pH	71.81 °F	19,146 µS/cm	0.01 mg/L	9.22 NTU	-271.8 mV	6.28 ft	11.52 PSU	4,000.0 ml/min
6/14/2022 1:56 PM	08:00	7.30 pH	71.80 °F	19,060 µS/cm	0.00 mg/L	13.20 NTU	-233.1 mV	6.28 ft	11.47 PSU	4,000.0 ml/min
6/14/2022 2:00 PM	12:00	7.27 pH	71.72 °F	19,322 µS/cm	0.00 mg/L	7.45 NTU	-216.2 mV	6.28 ft	11.64 PSU	4,000.0 ml/min
6/14/2022 2:04 PM	16:00	7.27 pH	71.74 °F	19,281 µS/cm	0.00 mg/L	9.92 NTU	-231.1 mV	6.32 ft	11.61 PSU	4,000.0 ml/min
6/14/2022 2:08 PM	20:00	7.26 pH	71.75 °F	19,135 µS/cm	0.00 mg/L	8.13 NTU	-213.4 mV	6.32 ft	11.52 PSU	4,000.0 ml/min
6/14/2022 2:12 PM	24:00	7.26 pH	71.78 °F	19,374 µS/cm	0.00 mg/L	9.07 NTU	-241.2 mV	6.32 ft	11.67 PSU	4,000.0 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/14/2022 1:50:58 PM  
**Project:** McManus Dike Well Development  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.2 ft <b>Total Depth:</b> 24.2 ft <b>Initial Depth to Water:</b> 9.5 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> PVC <b>Pump Intake From TOC:</b> 19.2 ft <b>Estimated Total Volume Pumped:</b> 80000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 4000 ml/min <b>Final Draw Down:</b> 0.33 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:** Pre-purged 98 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/14/2022 1:50 PM	00:00	7.50 pH	23.30 °C	11,687 µS/cm	0.01 mg/L	1.20 NTU	-283.5 mV	9.50 ft	4,000.0 ml/min
6/14/2022 1:54 PM	04:00	7.38 pH	22.01 °C	12,264 µS/cm	0.00 mg/L	0.66 NTU	-360.9 mV	9.73 ft	4,000.0 ml/min
6/14/2022 1:58 PM	08:00	7.36 pH	21.92 °C	12,231 µS/cm	0.00 mg/L	0.57 NTU	-399.9 mV	9.76 ft	4,000.0 ml/min
6/14/2022 2:02 PM	12:00	7.35 pH	21.94 °C	12,297 µS/cm	0.00 mg/L	0.74 NTU	-424.0 mV	9.79 ft	4,000.0 ml/min
6/14/2022 2:06 PM	16:00	7.34 pH	21.92 °C	12,328 µS/cm	0.00 mg/L	0.58 NTU	-439.3 mV	9.82 ft	4,000.0 ml/min
6/14/2022 2:10 PM	20:00	7.33 pH	21.96 °C	12,481 µS/cm	0.00 mg/L	0.40 NTU	-449.1 mV	9.83 ft	4,000.0 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/14/2022 11:18:11 AM  
**Project:** McManus Dike Well Development  
**Operator Name:** Kevin Stephenson

<b>Location Name:</b> PT-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.35 ft <b>Total Depth:</b> 24.35 ft <b>Initial Depth to Water:</b> 4.31 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 19.35 ft <b>Estimated Total Volume Pumped:</b> 56000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 3500 ml/min <b>Final Draw Down:</b> 2.67 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789317
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**Test Notes:**  
Pre-purged 105 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 1000 %	+/- 10	+/- 1000 %	+/- 0.5	+/- 1000 %	
6/14/2022 11:18 AM	00:00	7.46 pH	73.35 °F	9,649.5 µS/cm	0.01 mg/L	1.95 NTU	-141.0 mV	7.04 ft	5.50 PSU	3,500.0 ml/min
6/14/2022 11:22 AM	04:00	7.35 pH	71.93 °F	9,793.0 µS/cm	0.00 mg/L	1.22 NTU	-143.2 mV	6.98 ft	5.58 PSU	3,500.0 ml/min
6/14/2022 11:26 AM	08:00	7.34 pH	71.90 °F	9,843.3 µS/cm	-0.01 mg/L	0.70 NTU	-151.8 mV	6.97 ft	5.61 PSU	3,500.0 ml/min
6/14/2022 11:30 AM	12:00	7.32 pH	71.89 °F	9,999.0 µS/cm	-0.01 mg/L	0.59 NTU	-164.1 mV	6.97 ft	5.71 PSU	3,500.0 ml/min
6/14/2022 11:34 AM	16:00	7.31 pH	71.89 °F	10,082 µS/cm	-0.01 mg/L	0.53 NTU	-180.6 mV	6.98 ft	5.76 PSU	3,500.0 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/15/2022 9:48:17 AM  
**Project:** McManus Dike Well Development  
**Operator Name:** Kevin Stephenson

<b>Location Name:</b> PT-03 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 15.36 ft <b>Total Depth:</b> 25.36 ft <b>Initial Depth to Water:</b> 4.71 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 20.36 ft <b>Estimated Total Volume Pumped:</b> 60000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 3000 ml/min <b>Final Draw Down:</b> 0.16 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789317
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**Test Notes:**  
Pre-purged 168 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 1000 %	+/- 10	+/- 1000 %	+/- 0.5	+/- 1000 %	
6/15/2022 9:48 AM	00:00	7.41 pH	71.90 °F	9,053.5 µS/cm	0.02 mg/L	12.60 NTU	-137.6 mV	5.17 ft	5.13 PSU	3,000.0 ml/min
6/15/2022 9:52 AM	04:00	7.27 pH	71.77 °F	9,279.7 µS/cm	0.01 mg/L	11.80 NTU	-140.4 mV	5.16 ft	5.27 PSU	3,000.0 ml/min
6/15/2022 9:56 AM	08:00	7.28 pH	71.86 °F	9,400.5 µS/cm	0.00 mg/L	9.70 NTU	-143.2 mV	5.02 ft	5.34 PSU	3,000.0 ml/min
6/15/2022 10:00 AM	12:00	7.28 pH	71.84 °F	9,504.4 µS/cm	0.00 mg/L	9.22 NTU	-144.6 mV	4.94 ft	5.40 PSU	3,000.0 ml/min
6/15/2022 10:04 AM	16:00	7.28 pH	71.82 °F	9,516.6 µS/cm	0.00 mg/L	8.27 NTU	-145.1 mV	4.91 ft	5.41 PSU	3,000.0 ml/min
6/15/2022 10:08 AM	20:00	7.28 pH	71.80 °F	9,566.9 µS/cm	0.00 mg/L	7.17 NTU	-145.8 mV	4.87 ft	5.44 PSU	3,000.0 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/14/2022 11:07:15 AM  
**Project:** McManus Dike Well Development  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-04D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.83 ft <b>Total Depth:</b> 40.83 ft <b>Initial Depth to Water:</b> 14.05 ft	<b>Pump Type:</b> Proactive 12V <b>Tubing Type:</b> PVC <b>Pump Intake From TOC:</b> 35.83 ft <b>Estimated Total Volume Pumped:</b> 64000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 4000 ml/min <b>Final Draw Down:</b> 0.54 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:** Pre-purged 168 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/14/2022 11:07 AM	00:00	7.29 pH	22.77 °C	20,150 µS/cm	0.02 mg/L	1.09 NTU	-235.8 mV	14.05 ft	4,000.0 ml/min
6/14/2022 11:11 AM	04:00	7.24 pH	22.14 °C	20,450 µS/cm	0.01 mg/L	0.33 NTU	-267.3 mV	14.46 ft	4,000.0 ml/min
6/14/2022 11:15 AM	08:00	7.23 pH	22.12 °C	20,368 µS/cm	0.00 mg/L	0.24 NTU	-291.3 mV	14.53 ft	4,000.0 ml/min
6/14/2022 11:19 AM	12:00	7.22 pH	22.10 °C	20,260 µS/cm	0.00 mg/L	0.35 NTU	-307.3 mV	14.54 ft	4,000.0 ml/min
6/14/2022 11:23 AM	16:00	7.21 pH	22.11 °C	20,189 µS/cm	0.00 mg/L	0.42 NTU	-319.4 mV	14.59 ft	4,000.0 ml/min

## Samples

Sample ID:	Description:
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# Appendix D

## Survey Report



CHART TO SHOW SELECT TEST WELL LOCATIONS OF  
**GEORGIA POWER COMPANY,**  
**PLANT McMANUS,**  
**1356th G.M.D., GLYNN COUNTY, GEORGIA**

FOR: RESOLUTE ENVIRONMENTAL

TEST WELL LOCATIONS					
LOCATION DESIGNATION	NORTHING	EASTING	PVC TOP MARK	MAG NAIL ELEVATION	TYPE
DR 01	444407.62	850777.93	7.58'	7.86'	FLUSH
DR 02	444411.68	850784.46	7.49'	7.90'	FLUSH
PT 01	444408.70	850768.53	7.49'	7.82'	FLUSH
PT 02	444414.19	850777.91	7.64'	7.91'	FLUSH
PT 03	444418.92	850785.95	7.45'	7.93'	FLUSH
PT 04 D	444400.23	850753.07	7.51'	7.80'	FLUSH

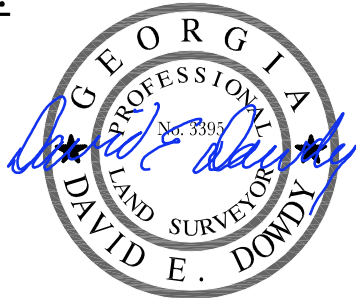
**NOTES:**

1. BEARINGS SHOWN HEREON ARE BASED ON GRID NORTH-NAD83 COORDINATE DATUM FOR THE GEORGIA EAST ZONE UTILIZING THE TRIMBLE VRS NETWORK.
2. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) UTILIZING THE TRIMBLE VRS NETWORK.

SURVEY DATA CERTIFICATION FOR SOUTHERN COMPANY TO DETERMINE NORTHING, EASTING, AND VERTICAL ELEVATION OF MAG NAIL IN THE CONCRETE PAD FOR THE WELL  
 DATE OF FIELD SURVEY & INSPECTION: JUNE 27, 2022  
 FIELD SURVEY TOLERANCE = 0.10 FEET HORIZONTAL - NAD 83 & 0.01 FEET VERTICAL - NAVD88  
 EQUIPMENT USED TO RECORD DATA: CHAMPION WR1 GPS RECEIVER, TRIMBLE S5 TOTAL STATION, SOKKIA AUTO LEVEL

DATE OF FIELD SURVEY: JUNE 27, 2022

**APPROVED BY:**



\_\_\_\_\_  
 DAVID E. DOWDY  
 GA. PROFESSIONAL SURVEYOR No. 3395



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*Surveyors and Land Planners*

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DWN. BY: DED

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**MEMORANDUM**

Date: February 28, 2023  
 To: Kristen Jurinko – Georgia Power  
 CC: Ben Hodges  
 From: Resolute Environmental  
 Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation  
 Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

<b>Georgia Power Site/Unit</b>	<b>Date Performed</b>	<b>Well ID</b>	<b>Maintenance/ Repair Performed</b>
Plant McManus Ash Pond	9/27/22	MCM-10	Installed Level TROLL 500
Plant McManus Ash Pond	9/27/22	MCM-17	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	9/27/22	MCM-19	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	9/27/22	MCM-20	Replaced broken transducer with new AquaTROLL 200 unit
Plant McManus Ash Pond	10/5/22	PT-01	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-02	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-03	Installed AquaTROLL 200
Plant McManus Ash Pond	10/5/22	PT-04D	Installed AquaTROLL 200
Plant McManus Ash Pond	12/01/22	PT-02	Added concrete floor to flush mount vault

All maintenance and repairs are also documented in the 2022 Semiannual Groundwater Monitoring and Corrective Action report.

## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MGW-01  
 Date 9/2/22

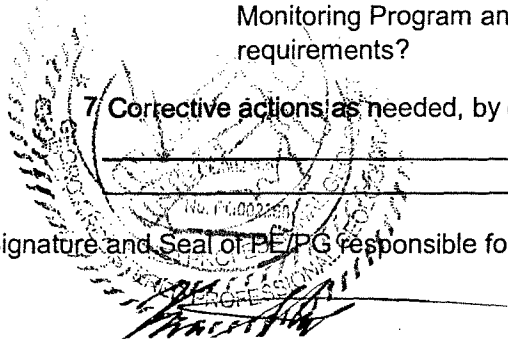
	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions, as needed, by date:**

\_\_\_\_\_

\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection





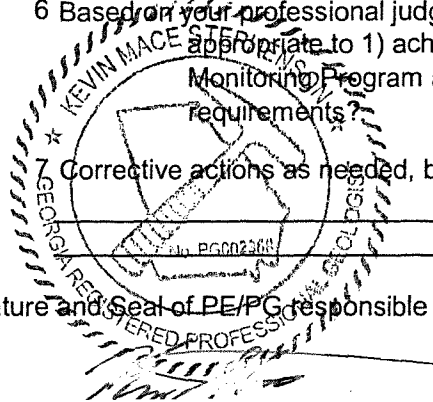
## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MCM-07  
 Date 9/21/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



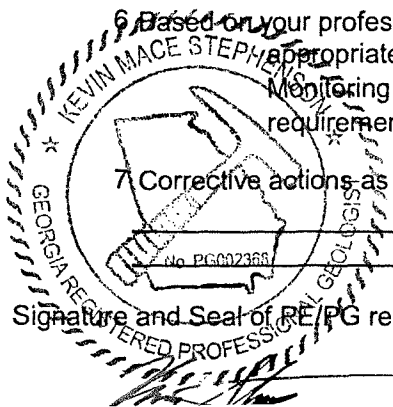
# Groundwater Monitoring Well Integrity Form

Site Name McMannus  
 Permit Number \_\_\_\_\_  
 Well ID McM-03  
 Date 9/20/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**6** Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?

**7** Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

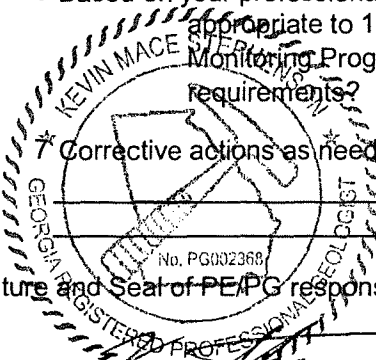
# Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID LGM-04  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



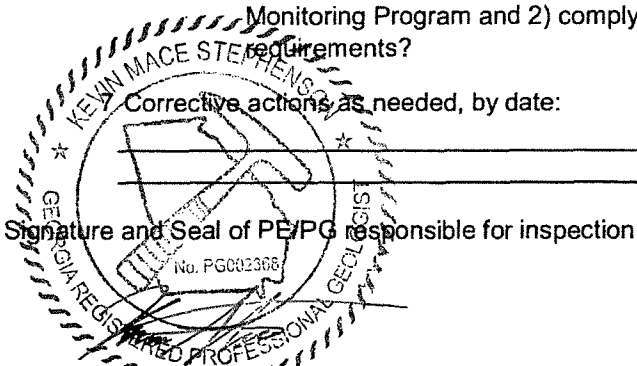
\_\_\_\_\_  
 \_\_\_\_\_

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-05  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>X</u>	_____	_____
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>X</u>	_____	_____

Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection



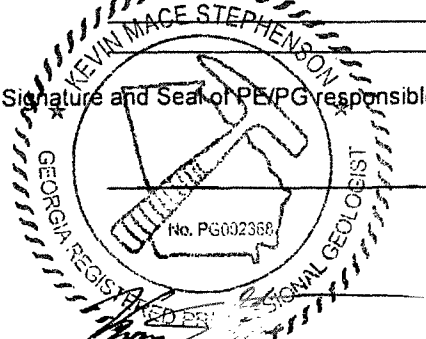
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-06  
 Date 9/20/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



The seal is circular with a double border. The outer border contains the text 'KEVIN MACE STEPHENSON' at the top and 'PROFESSIONAL GEOLOGIST' at the bottom. The inner border contains 'GEORGIA REGISTRATION' on the left and 'No. PG002368' at the bottom. In the center of the seal is a graphic of a geological hammer and a pickaxe.

### Groundwater Monitoring Well Integrity Form

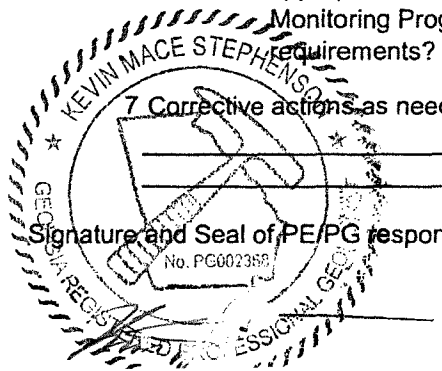
Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-07  
 Date 9/21/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>X</u>	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

**7 Corrective actions, as needed, by date:**

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\_\_\_\_\_



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## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCN-08  
 Date 9/20/22

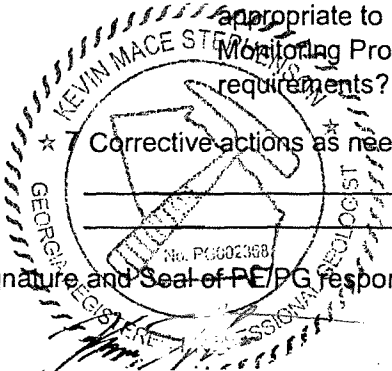
	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>X</u>	_____	_____

Corrective actions as needed, by date:

\_\_\_\_\_

\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



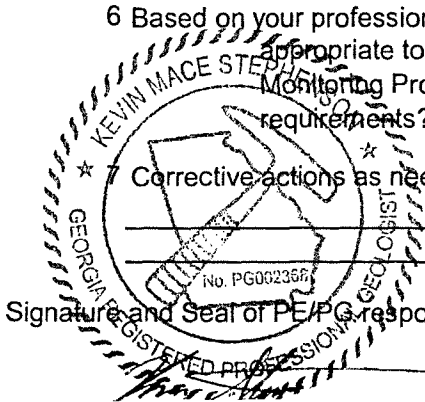
## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MCM-10  
 Date 9/20/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**6** Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?
 
 yes     no     n/a

**7** Corrective actions as needed, by date: \_\_\_\_\_  
 \_\_\_\_\_



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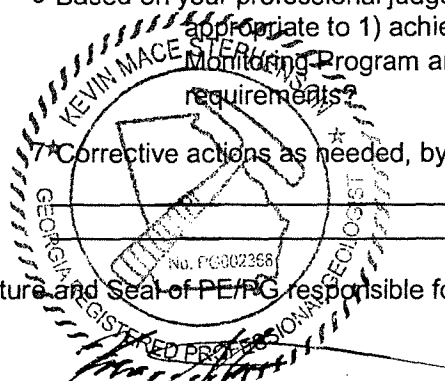
# Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MCM-11  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



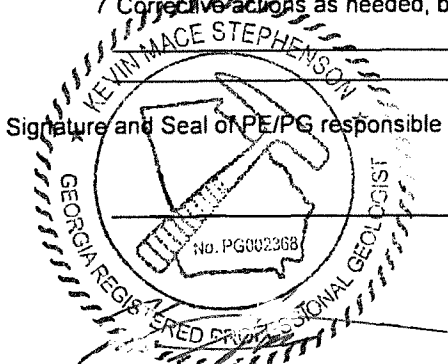
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-12  
 Date 9/21/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection

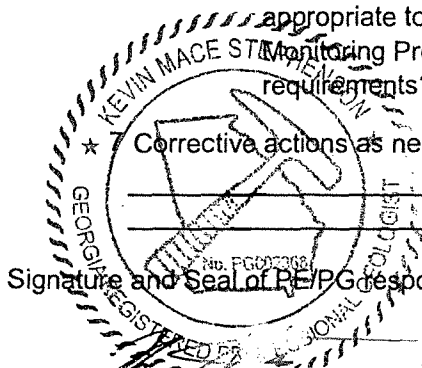


## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MACM-13  
 Date \_\_\_\_\_

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

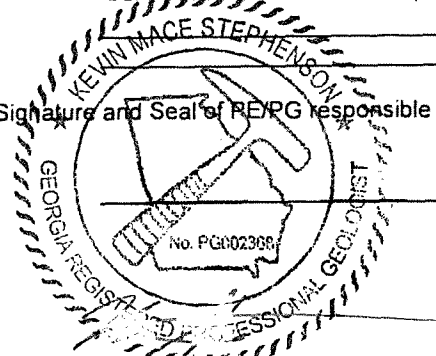
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-14  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

\_\_\_\_\_  
 Signature and Seal of RD/PG responsible for inspection





### Groundwater Monitoring Well Integrity Form

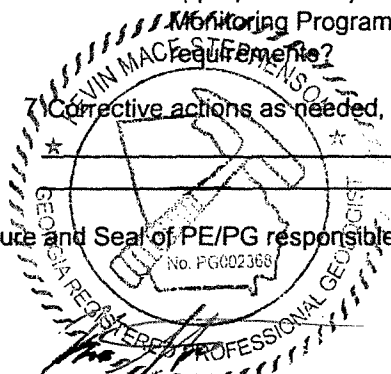
Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID McM-15  
 Date 9/21/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>X</u>	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

7 Corrective actions as needed, by date:

\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



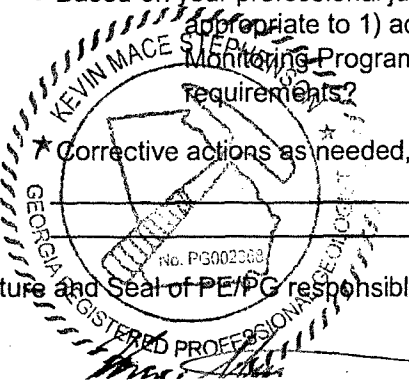
## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MCM-16  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



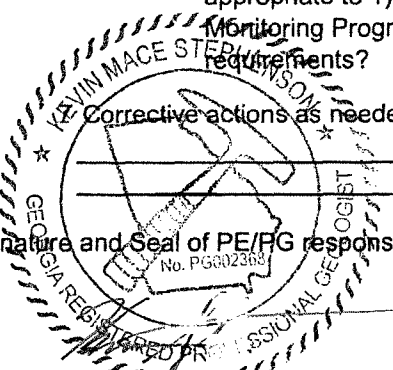
### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-17  
 Date \_\_\_\_\_

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>X</u>	_____	_____
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>	<u>X</u>	_____	_____

Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection

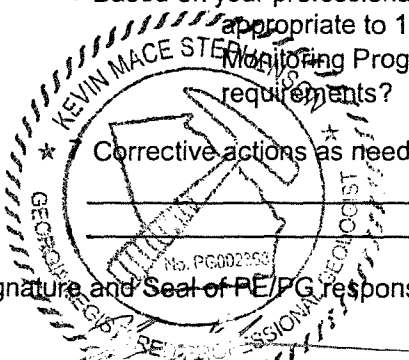


## Groundwater Monitoring Well Integrity Form

Site Name Mcdanals  
 Permit Number \_\_\_\_\_  
 Well ID MCN-18  
 Date 9/20/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:


  
 Signature and Seal of PE/PG responsible for inspection



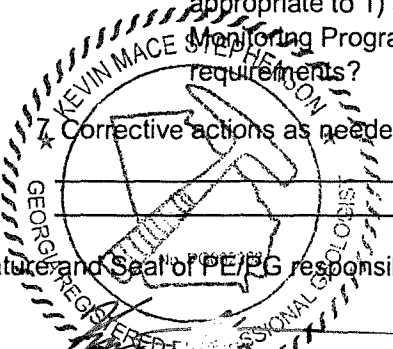
# Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-19  
 Date 9/20/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/EG responsible for inspection



\_\_\_\_\_  
 \_\_\_\_\_

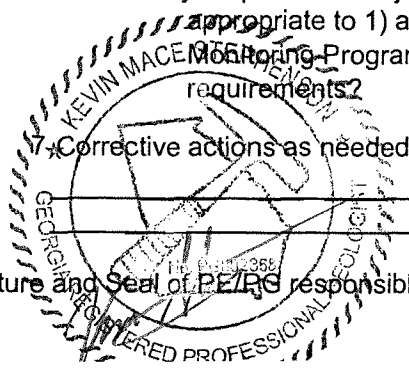
## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID WCM-70  
 Date 9/30/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection

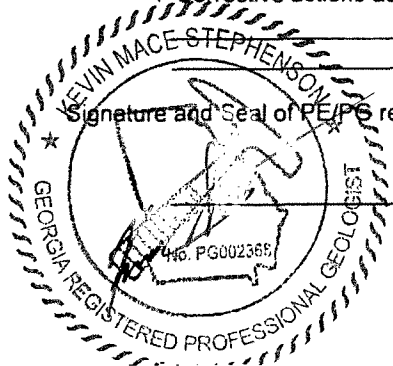


### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PZ-09  
 Date 9/27/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

\_\_\_\_\_  
 Signature and Seal of PE/PG responsible for inspection  
 \_\_\_\_\_  


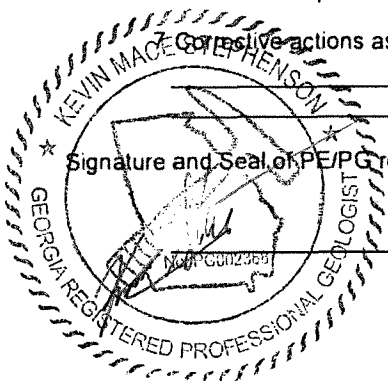
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PZ-10  
 Date 9/27/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection \_\_\_\_\_



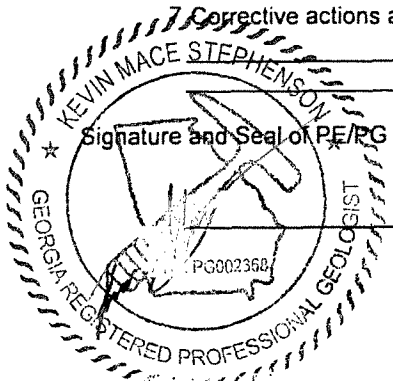
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PZ-11  
 Date 9/27/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**

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 Signature and Seal of PE/PG responsible for inspection





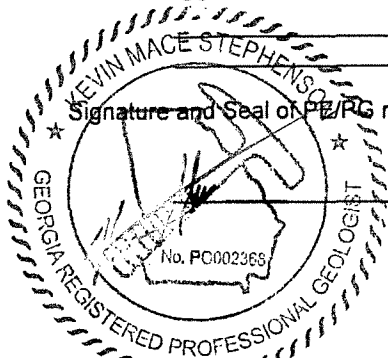
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PZ-12  
 Date 9/27/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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 Signature and Seal of PE/PG responsible for inspection



## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-01  
 Date 9/22/22

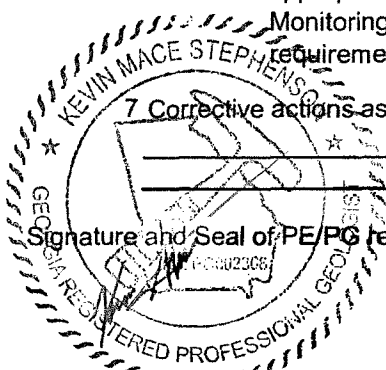
	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	_____	_____	<u>/</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>/</u>
c Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>X</u>	_____	_____

7 Corrective actions, as needed, by date:

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\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection

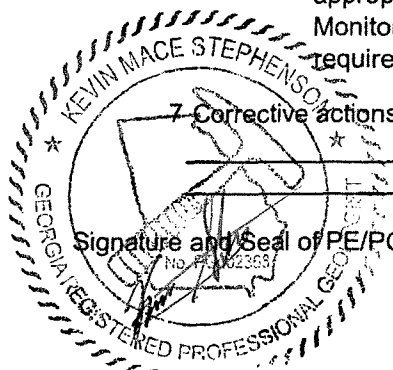


## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DP2-02  
 Date 9/20/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

**7 Corrective actions as needed, by date:**



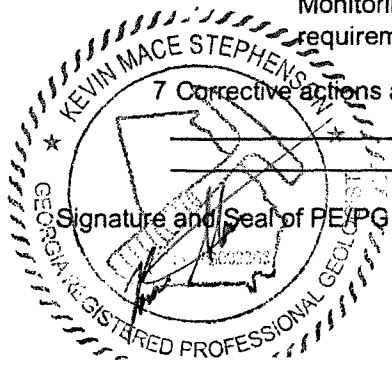
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-03  
 Date 4/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>X</u>	_____	_____

7 Corrective actions as needed, by date:  
 \_\_\_\_\_  
 \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

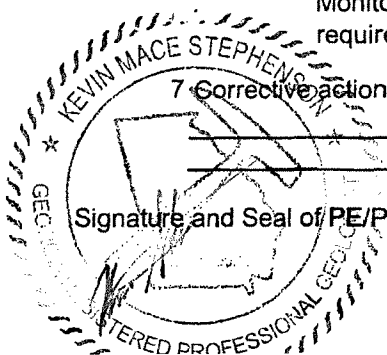
Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DP2-04  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	_____	_____	<u>X</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>X</u>	_____	_____

7 Corrective actions as needed, by date:

\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection





## Groundwater Monitoring Well Integrity Form

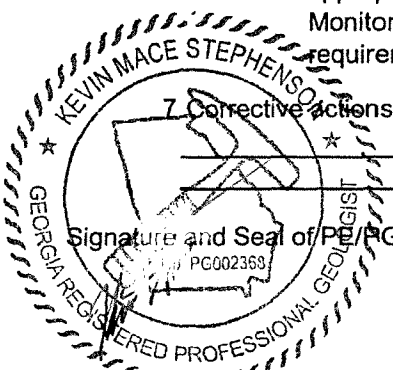
Site Name Mc Manus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-05  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

\_\_\_\_\_

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Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-06  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>X</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>X</u>	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>X</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	_____	_____	<u>X</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>X</u>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

**7 Corrective actions as needed, by date:**

\_\_\_\_\_

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Signature and Seal of PE/PG responsible for inspection

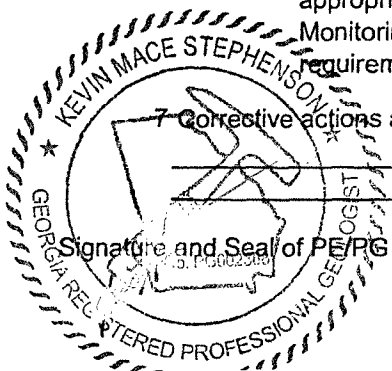


## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-1  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



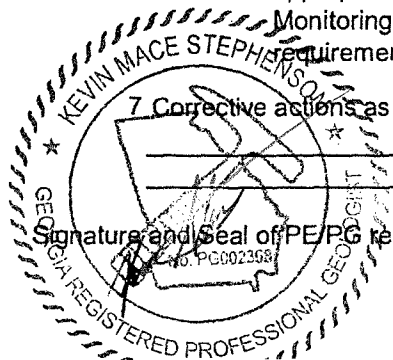
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-2  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



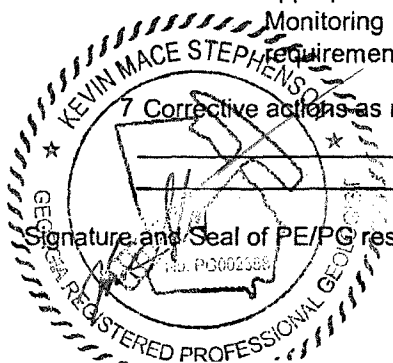
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-3  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**



Signature and Seal of PE/PG responsible for inspection



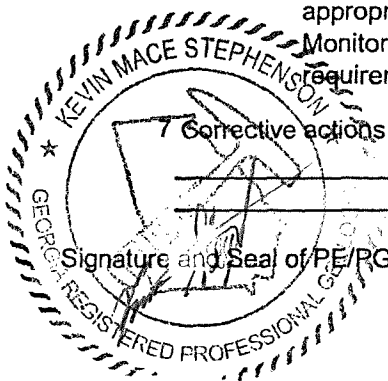
## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-4  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	_____	_____	✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	✓
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	✓

6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?
 
 yes     no     n/a

7 Corrective actions as needed, by date:  
 \_\_\_\_\_  
 \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

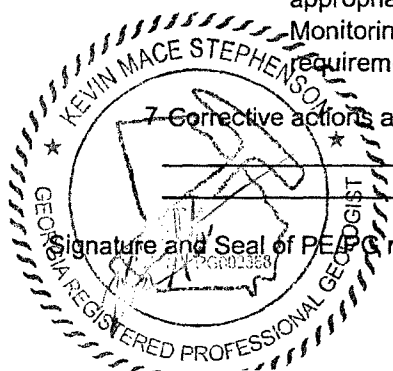
## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-5  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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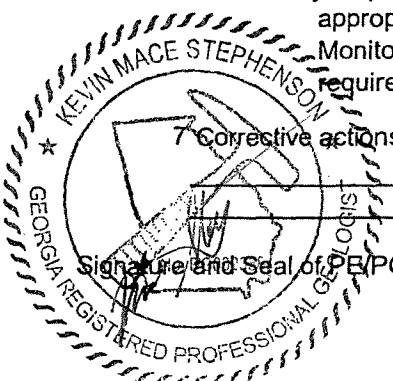
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-6  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



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## Groundwater Monitoring Well Integrity Form

Site Name Piant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-7  
 Date 9/22/22

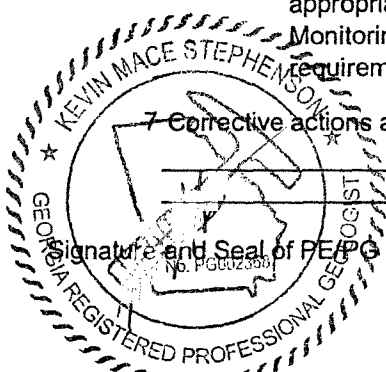
		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**

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### Groundwater Monitoring Well Integrity Form

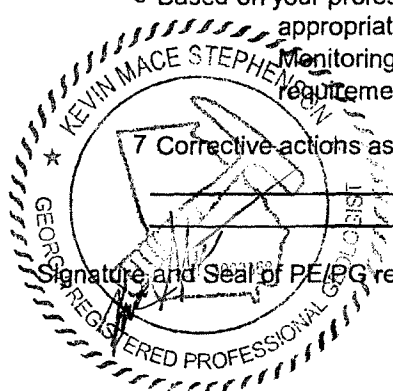
Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-8  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**

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### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-9  
 Date 9/22/22

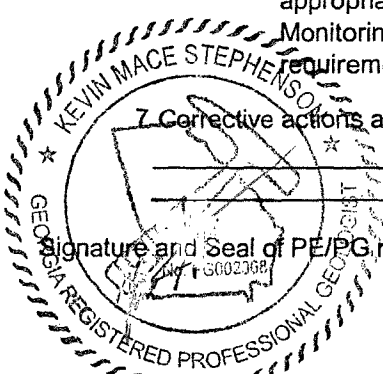
	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Corrective actions as needed, by date:

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Signature and Seal of PE/PG responsible for inspection

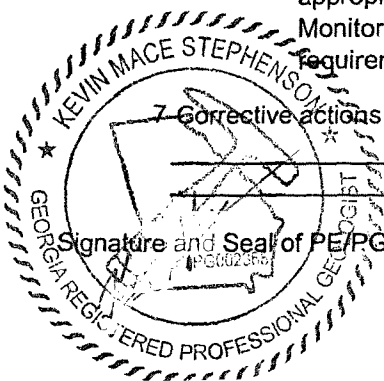


## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-10  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

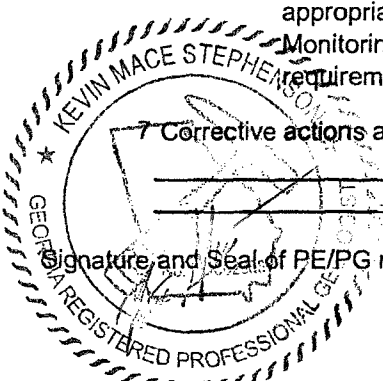
Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-01R  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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Signature and Seal of PE/PG responsible for inspection



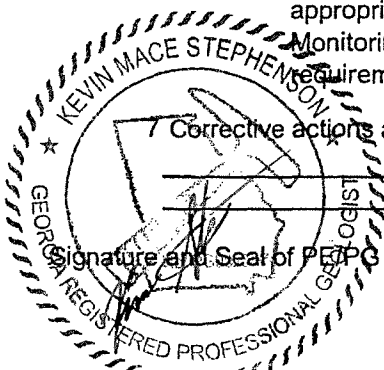
## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-02  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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Signature and Seal of PE responsible for inspection

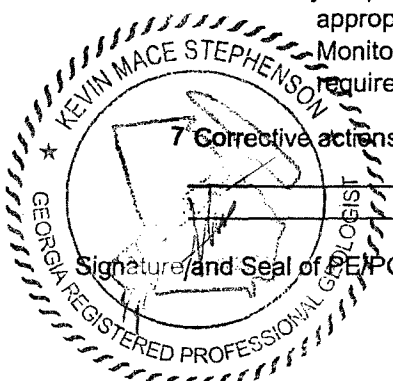
## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-03  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of DEPG responsible for inspection





### Groundwater Monitoring Well Integrity Form

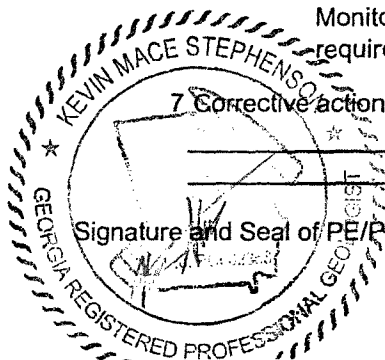
Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-04  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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Signature and Seal of PE/PG responsible for inspection

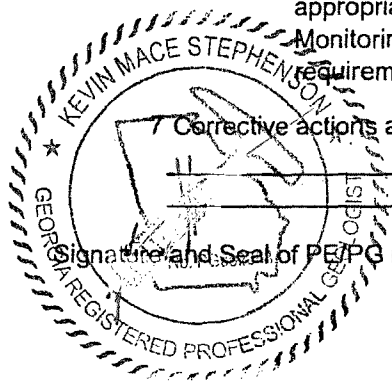


### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-05  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**  
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Signature and Seal of PE/PG responsible for inspection

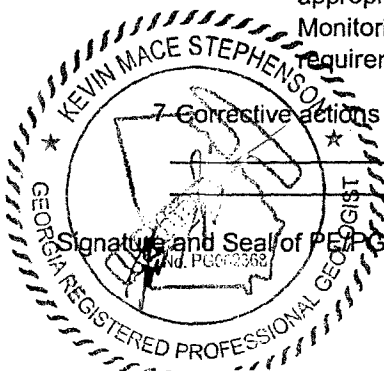
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-06R  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

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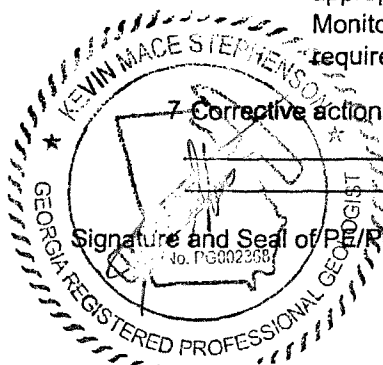
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-07  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



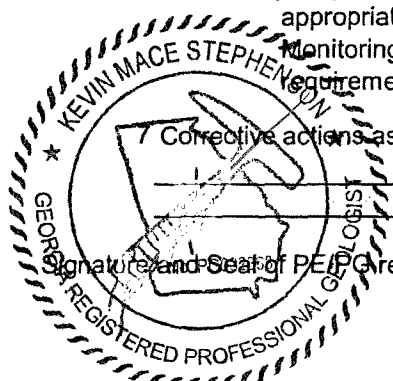
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-09  
 Date 9/22/22

		yes	no	n/a
<u>1 Location/Identification</u>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>2 Protective Casing</u>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>3 Surface pad</u>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>4 Internal casing</u>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>5 Sampling: Groundwater Wells Only:</u>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</u>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection



## Groundwater Monitoring Well Integrity Form

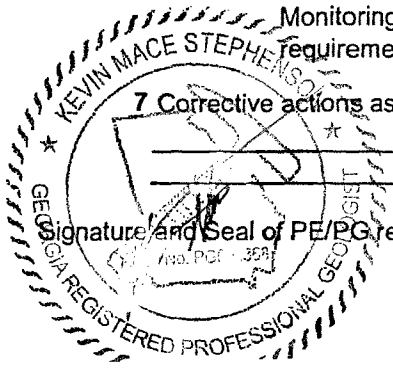
Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-10  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective actions as needed, by date:**

\_\_\_\_\_

\_\_\_\_\_



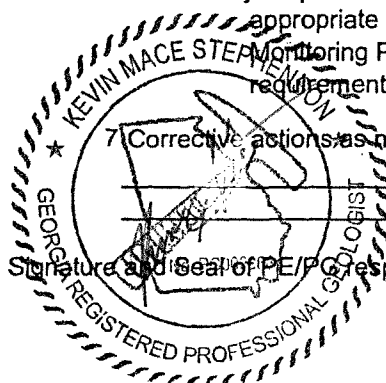
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-11  
 Date 9/22/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



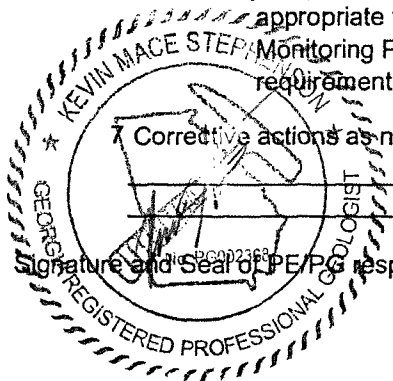
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-12  
 Date 9/22/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-01  
 Date 9/20/22

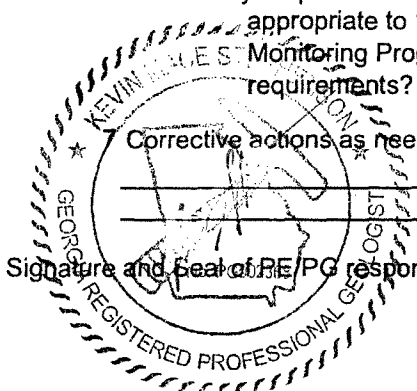
	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Flush Mount

Corrective actions as needed, by date:

\_\_\_\_\_

Signature and Seal of PE/PG responsible for inspection



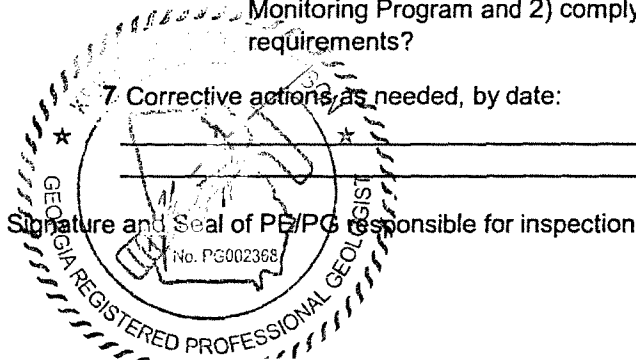
**Groundwater Monitoring Well Integrity Form**

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-02  
 Date 9/20/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	_____	_____	<u>X</u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	_____	_____	<u>X</u>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	_____	_____	<u>X</u>
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

*Flush Mount*

7. Corrective actions, as needed, by date: \_\_\_\_\_



Signature and Seal of PG/PG responsible for inspection

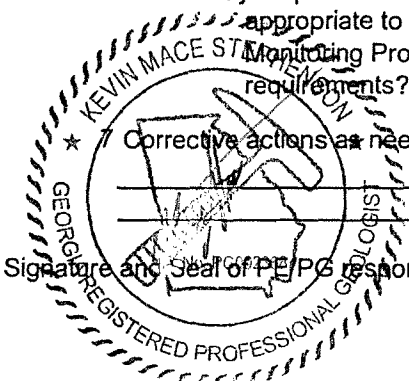


### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-03  
 Date 9/20/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

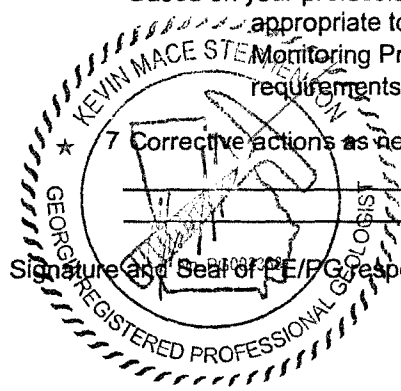
Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-04D  
 Date 9/21/22

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<u>X</u>	_____	_____
b Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c Does the casing have a functioning weep hole?	_____	_____	<u>X</u>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e Is the well locked and is the lock in good condition?	_____	_____	<u>X</u>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	_____	_____	<u>X</u>
d Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<u>X</u>	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<u>X</u>	_____	_____

Flush Mount

7 Corrective actions as needed, by date:

\_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection

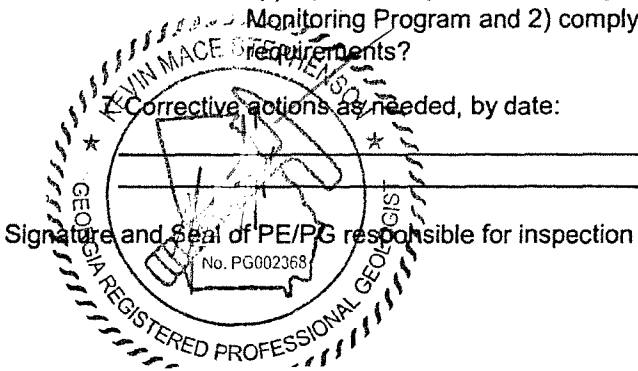
### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DR-01  
 Date 9/26/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<u>X</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>X</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>X</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>X</u>	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<u>X</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>X</u>	_____	_____
c	Does the casing have a functioning weep hole?	_____	_____	<u>X</u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>X</u>	_____	_____
e	Is the well locked and is the lock in good condition?	_____	_____	<u>X</u>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<u>X</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>X</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>X</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>X</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>X</u>	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<u>X</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>X</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	_____	_____	<u>X</u>
d	Is the survey point clearly marked on the inner casing?	<u>X</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	<u>X</u>	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>X</u>	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<u>X</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>X</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>X</u>	_____
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<u>X</u>	_____	_____

Flush Mount

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

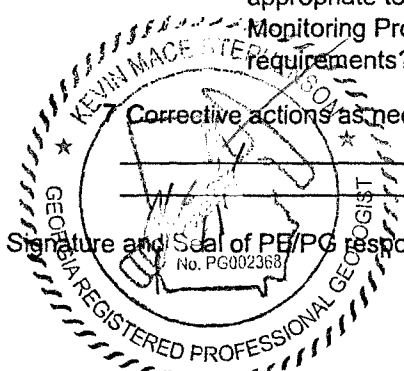
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID DR-02  
 Date 9/20/22

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

\_\_\_\_\_



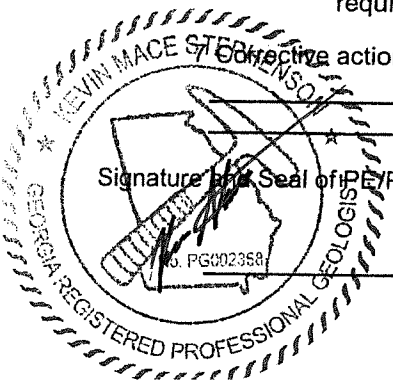
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-01  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

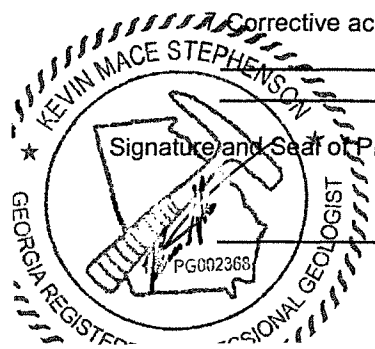


### Groundwater Monitoring Well Integrity Form

Site Name ~~MCM-02~~ Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-02  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

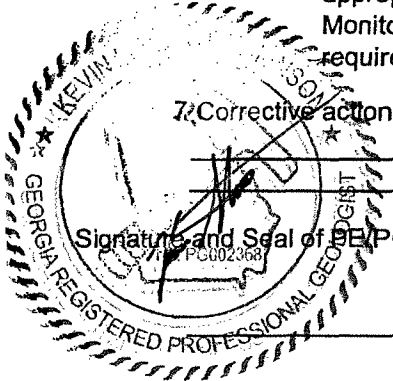
\_\_\_\_\_  
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### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-03  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Corrective actions as needed, by date:



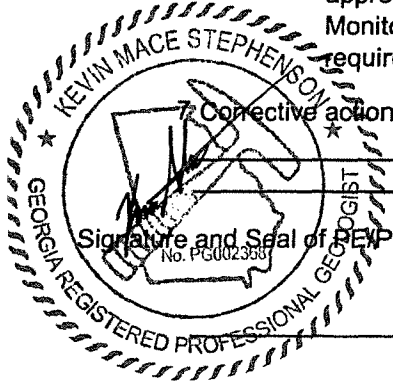
\_\_\_\_\_  
 Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-04  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



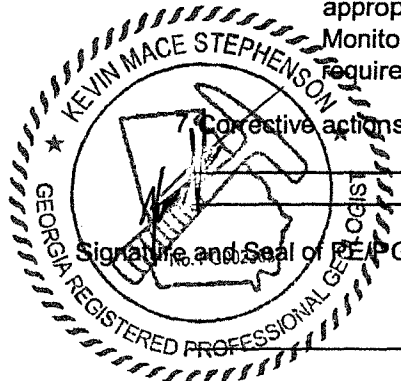
Signature and Seal of P.E. responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-05  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



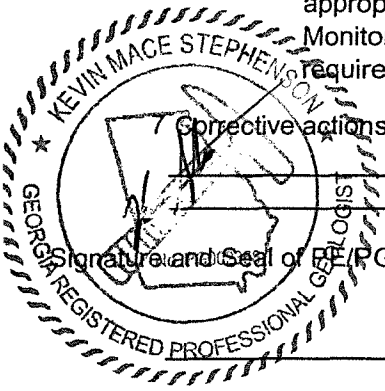
Signature and Seal of R.E.P.G responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-06  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PE/PG responsible for inspection \_\_\_\_\_

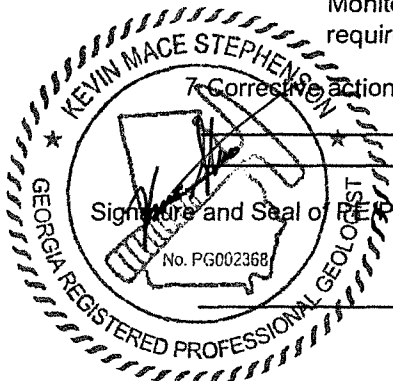


### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-07  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of R.E.P.G responsible for inspection

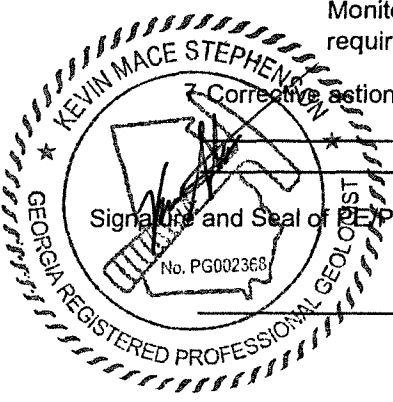
No. PG002368

### Groundwater Monitoring Well Integrity Form

Site Name McMinn  
 Permit Number \_\_\_\_\_  
 Well ID WGM-08  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



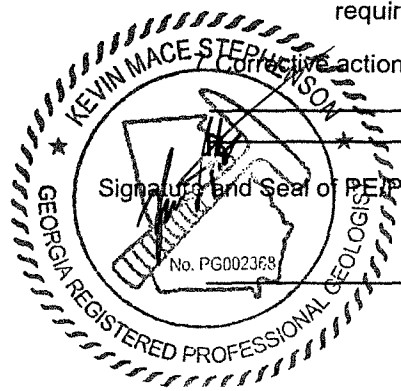
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID WCH-10  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

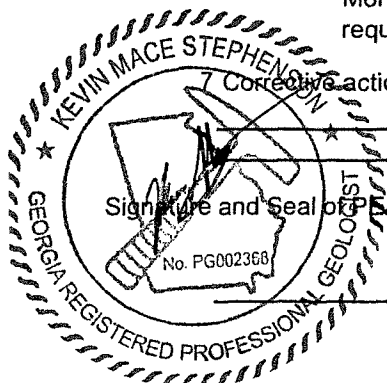
No. PG002368

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-11  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



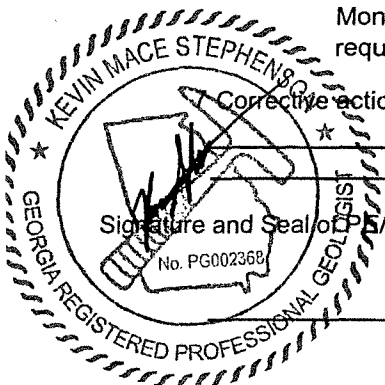
Signature and Seal of P/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-12  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



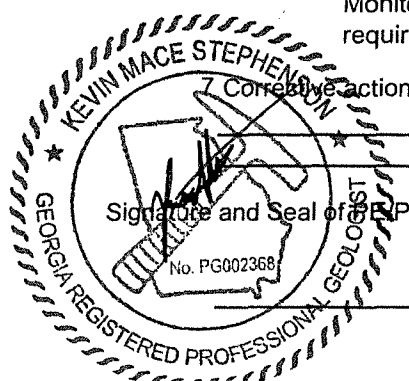
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-13  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:  
 \_\_\_\_\_  
 \_\_\_\_\_



Signature and Seal of RMPG responsible for inspection



## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-14  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



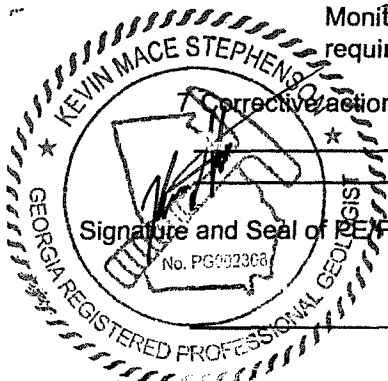
Signature and Seal of PEPG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Piant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-15  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



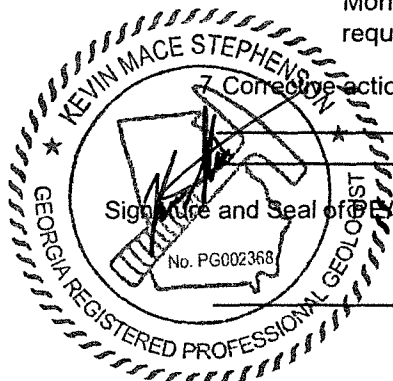
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Piant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-16  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



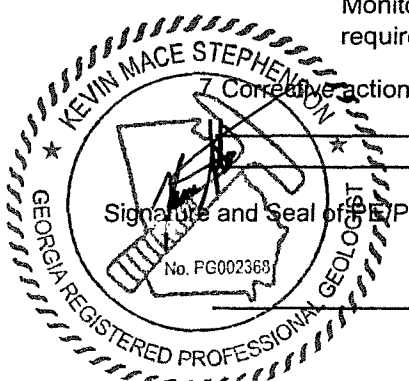
Signature and Seal of PPG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MCM-17  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



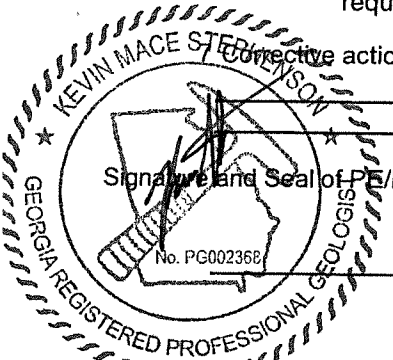
Signature and Seal of P/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Melbourne  
 Permit Number \_\_\_\_\_  
 Well ID MOM-18  
 Date 2/25/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



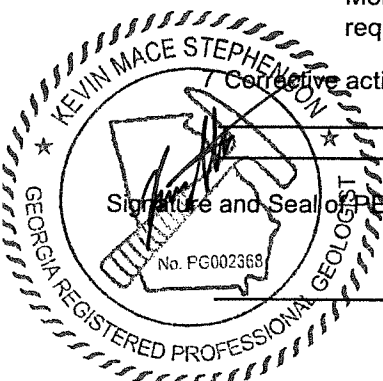
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Molokini  
 Permit Number \_\_\_\_\_  
 Well ID MGM-19  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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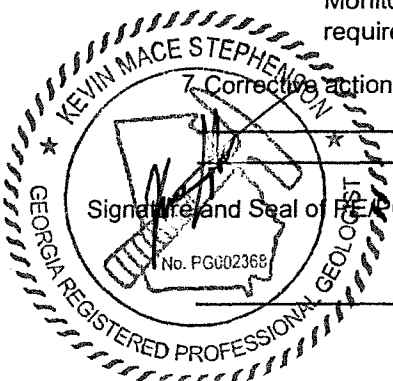


### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MSH-20  
 Date 2/27/20

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



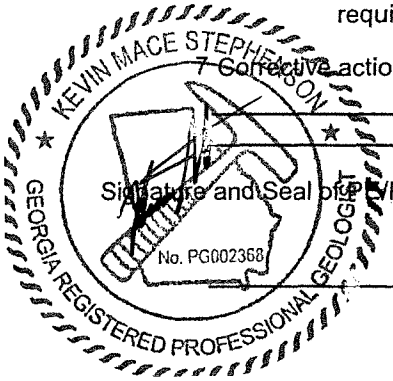
Signature and Seal of PEG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID PZ-09  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PPG responsible for inspection

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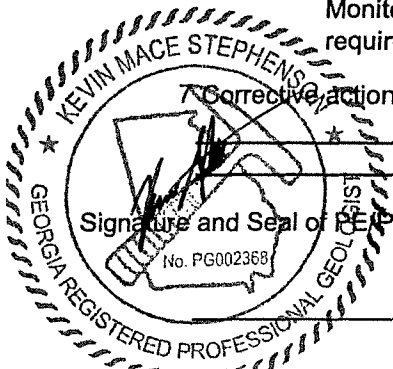
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### Groundwater Monitoring Well Integrity Form

Site Name Piant McManus  
 Permit Number \_\_\_\_\_  
 Well ID PZ-10  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



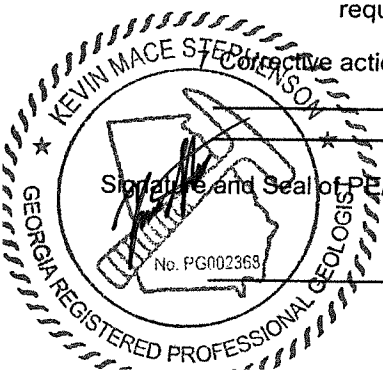
Signature and Seal of PEG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McMannis  
 Permit Number \_\_\_\_\_  
 Well ID SZ-11  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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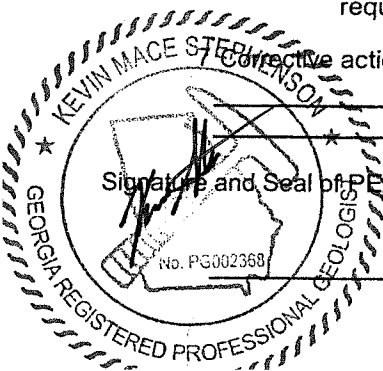
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## Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID 02-12  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of P/PG responsible for inspection

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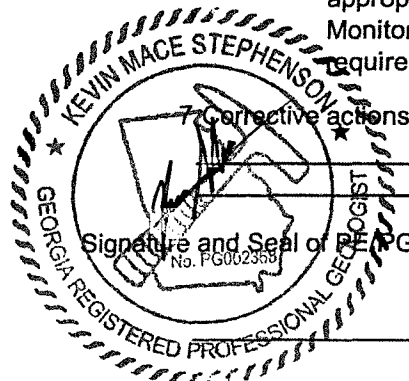
### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-01  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?

7 Corrective actions as needed, by date: \_\_\_\_\_  
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Signature and Seal of P.E.G. responsible for inspection



### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-02  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



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## Groundwater Monitoring Well Integrity Form

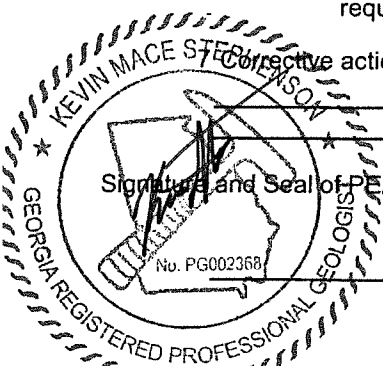
Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DP2-03  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:

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No. PG002368

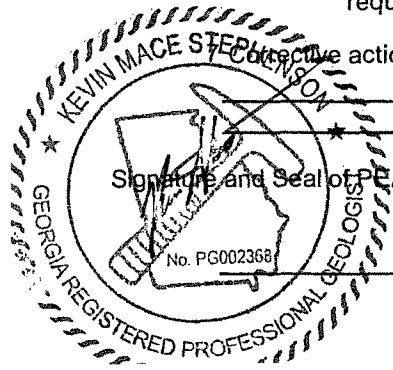


## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-04  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



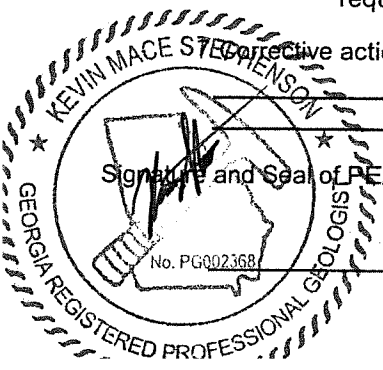
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-05  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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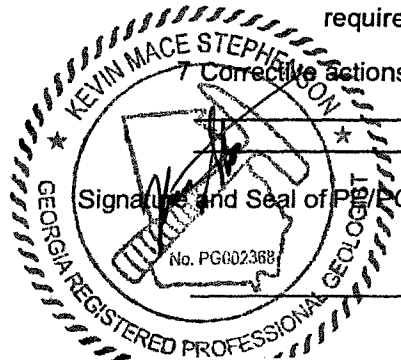
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### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID DPZ-06  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



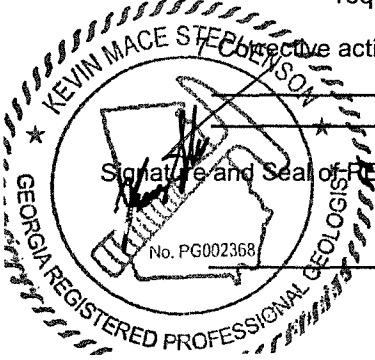
Signature and Seal of PG/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McNamus  
 Permit Number \_\_\_\_\_  
 Well ID RW-1  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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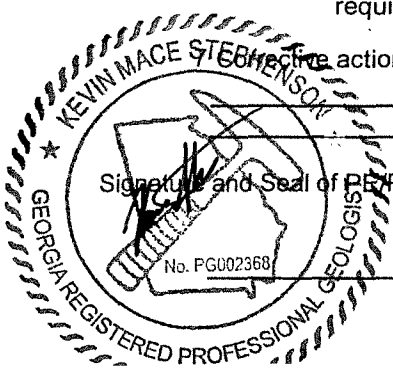


### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-2  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Recommended actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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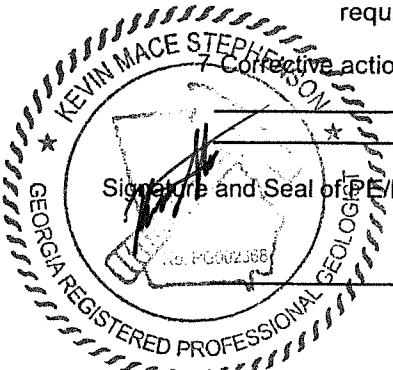
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### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID BW-3  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



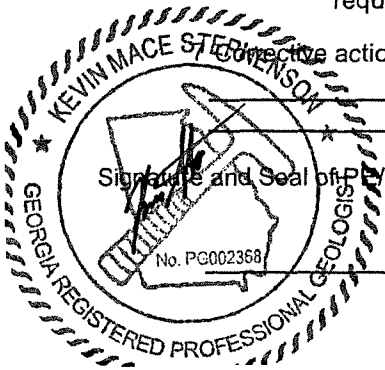
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-4  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



Signature and Seal of P/PG responsible for inspection

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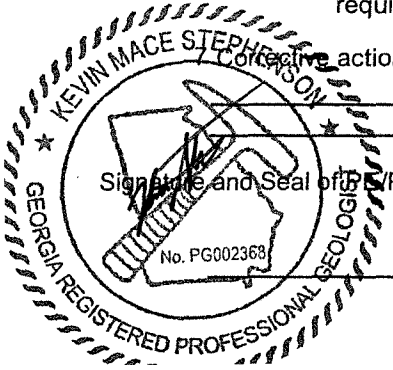
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### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW - 5  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of R/PG responsible for inspection

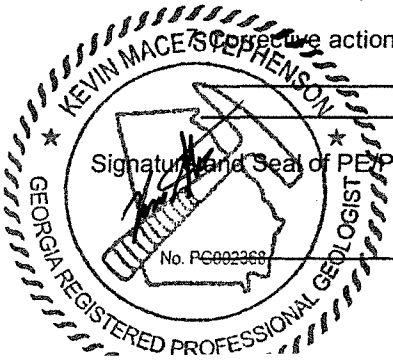
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### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID BW-6  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

\_\_\_\_\_

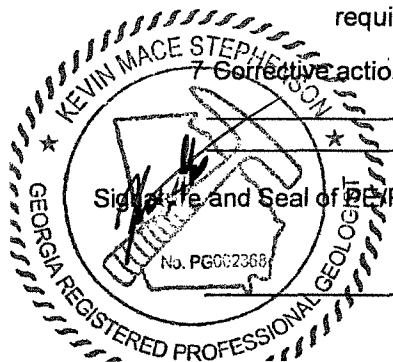
\_\_\_\_\_

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-7  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PMPG responsible for inspection



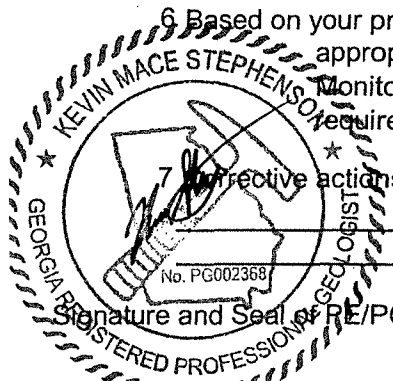
## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-8  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?

7 Corrective actions as needed, by date:



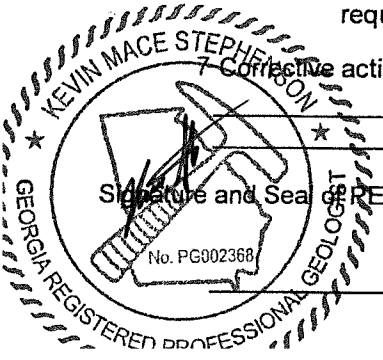
Signature and Seal of RE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-9  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	_____	_____	✓
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	✓
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	✓
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		✓	_____	_____

7 Corrective actions as needed, by date:



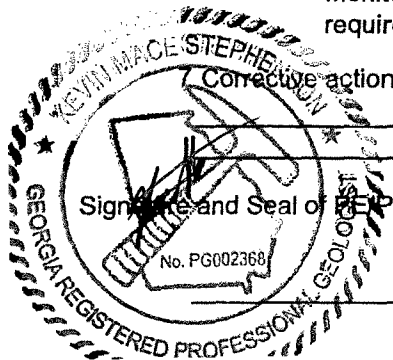
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID RW-10  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-1R  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



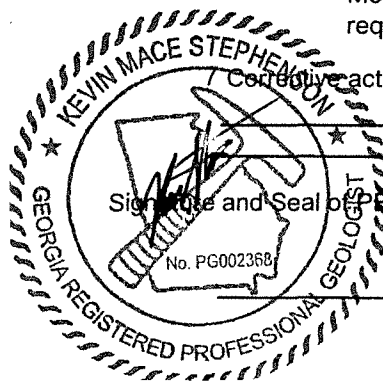
Signature and Seal of R.E.P.G responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-2  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



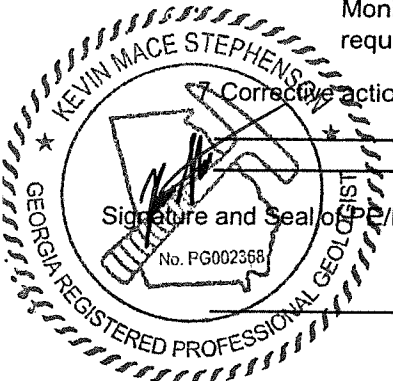
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-3  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



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No. PG002368

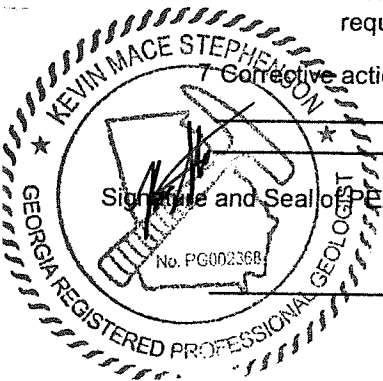


## Groundwater Monitoring Well Integrity Form

Site Name Plant McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-4  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



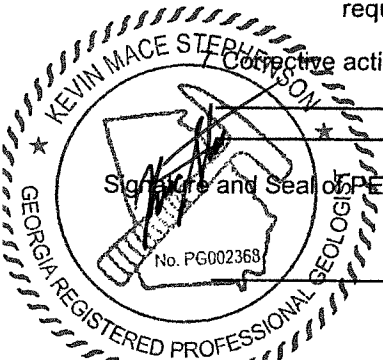
Signature and Seal of PE/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McMinnis  
 Permit Number \_\_\_\_\_  
 Well ID KA181-5  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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No. PG002368

### Groundwater Monitoring Well Integrity Form

Site Name McManns  
 Permit Number \_\_\_\_\_  
 Well ID MUN-62  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PG/PG responsible for inspection

\_\_\_\_\_

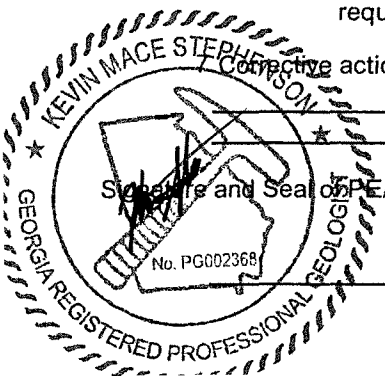
\_\_\_\_\_

### Groundwater Monitoring Well Integrity Form

Site Name NAO Homes  
 Permit Number \_\_\_\_\_  
 Well ID NAO-7  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



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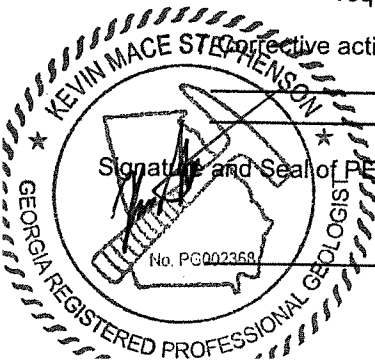
No. PG002368

## Groundwater Monitoring Well Integrity Form

Site Name Mechanics  
 Permit Number \_\_\_\_\_  
 Well ID MW-9  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

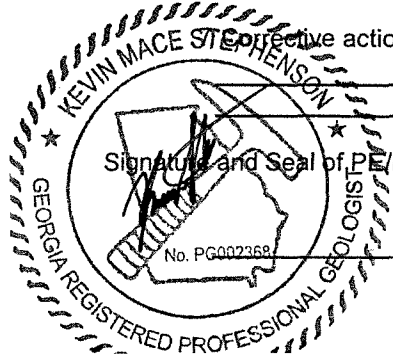
No. PG002358

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-10  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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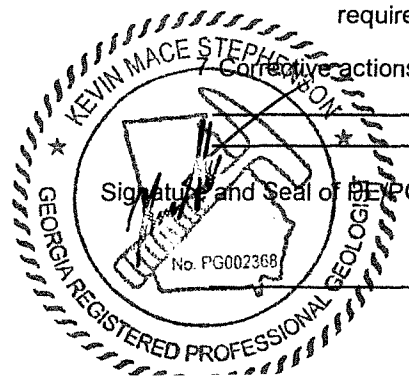


### Groundwater Monitoring Well Integrity Form

Site Name McMORRIS  
 Permit Number \_\_\_\_\_  
 Well ID MW-11  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_  
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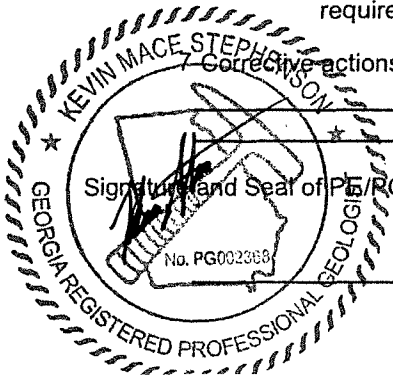
Signature and Seal of RPYG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID MW-12  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



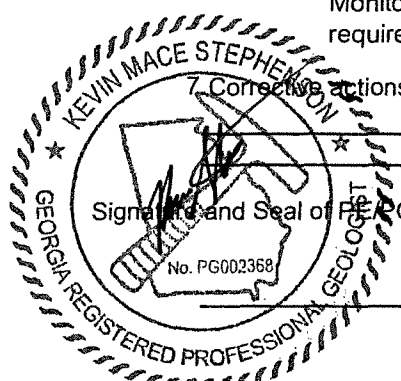
Signature and Seal of PE/PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McMannus  
 Permit Number \_\_\_\_\_  
 Well ID PT-01  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_  
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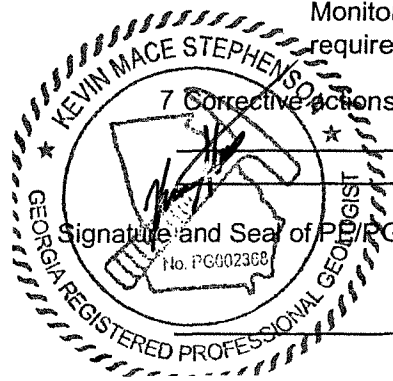
Signature and Seal of P.E./G responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-02  
 Date 2/21/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



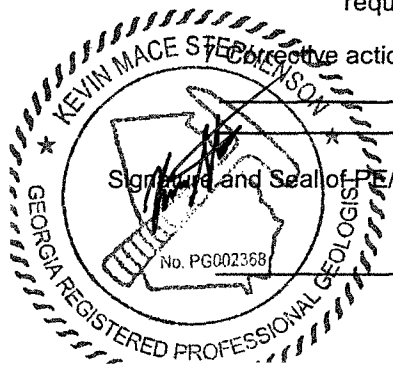
Signature and Seal of PG/PG responsible for inspection

### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID ~~PT-03~~ PT-03  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:



Signature and Seal of PE/PG responsible for inspection

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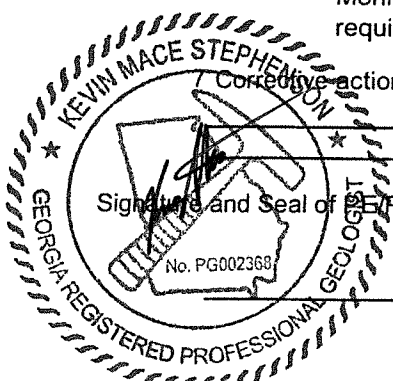
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### Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID PT-04D  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Corrective actions as needed, by date: \_\_\_\_\_



Signature and Seal of PG responsible for inspection

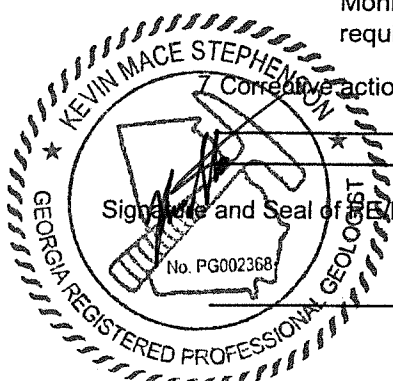


### Groundwater Monitoring Well Integrity Form

Site Name McMannus  
 Permit Number \_\_\_\_\_  
 Well ID DR-01  
 Date 2/27/23

	yes	no	n/a
<b>1 Location/Identification</b>			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>			
a Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date: \_\_\_\_\_



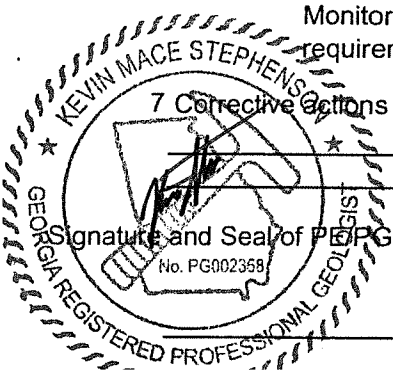
Signature and Seal of PG responsible for inspection

## Groundwater Monitoring Well Integrity Form

Site Name McManus  
 Permit Number \_\_\_\_\_  
 Well ID DR-02  
 Date 2/27/23

		yes	no	n/a
<b>1 Location/Identification</b>				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 Protective Casing</b>				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 Surface pad</b>				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4 Internal casing</b>				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5 Sampling: Groundwater Wells Only:</b>				
a	Does well recharge adequately when purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?</b>				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7 Corrective Actions as needed, by date:**



Signature and Seal of PEG responsible for inspection

# APPENDIX B

## LABORATORY ANALYTICAL, DATA VALIDATION AND FIELD SAMPLING REPORTS

July 27, 2022

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

RE: Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 30, 2022. 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 - Minneapolis

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

Sincerely,



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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources  
Trent Godwin, Resolute Environmental & Water Resources  
Kristen Jurinko  
Laura Midkiff, Georgia Power  
Ms. Lauren Petty, Southern Company  
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC  
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

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**Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab  
A2LA Certification #: 2926.01\*  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Approval: via MN 027-053-137  
Minnesota Petrofund Registration #: 1240\*  
Mississippi Certification #: MN00064

Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification (A2LA) #: R-036  
North Dakota Certification (MN) #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification (1700) #: CL101  
Ohio VAP Certification (1800) #: CL110\*  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #:74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

**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

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## SAMPLE SUMMARY

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92612546001	PT-01	Water	06/28/22 15:55	06/30/22 11:05
92612546002	PT-02	Water	06/28/22 10:00	06/30/22 11:05
92612546003	PT-03	Water	06/28/22 14:50	06/30/22 11:05
92612546004	PT-04D	Water	06/28/22 14:20	06/30/22 11:05
92612546005	DR-01	Water	06/28/22 14:52	06/30/22 11:05
92612546006	DR-02	Water	06/28/22 16:05	06/30/22 11:05
92612546007	MCM-06	Water	06/28/22 16:00	06/30/22 11:05
92612546008	DPZ-02	Water	06/28/22 11:45	06/30/22 11:05
92612546009	DUP-1	Water	06/28/22 00:00	06/30/22 11:05
92612546010	FB-1	Water	06/28/22 10:40	06/30/22 11:05

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92612546001	PT-01	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
92612546002	PT-02	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
92612546003	PT-03	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
92612546004	PT-04D	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
92612546005	DR-01	EPA 6010D	DM	5	PASI-M

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### SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
<b>92612546006</b>	<b>DR-02</b>	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
<b>92612546007</b>	<b>MCM-06</b>	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
<b>92612546008</b>	<b>DPZ-02</b>	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
<b>92612546009</b>	<b>DUP-1</b>	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M

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### SAMPLE ANALYTE COUNT

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A
92612546010	FB-1	EPA 6010D	DM	5	PASI-M
		EPA 6010D	IP	5	PASI-M
		EPA 6020B	PW1	1	PASI-M
		EPA 6020B	PW1	1	PASI-M
		SM 2320B-2011	SMS	1	PASI-A
		SM 2540C-2011	MAB2	1	PASI-A
		SM 4500-S2D-2011	JP1	1	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		SM 4500-CI-E-2011	ANM	1	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92612546001</b>	<b>PT-01</b>					
EPA 6010D	Calcium	81.1	mg/L	0.50	07/07/22 11:32	
EPA 6010D	Iron	0.22	mg/L	0.050	07/07/22 11:32	
EPA 6010D	Magnesium	179	mg/L	0.50	07/07/22 11:32	
EPA 6010D	Potassium	101	mg/L	2.5	07/07/22 11:32	
EPA 6010D	Sodium	1800	mg/L	25.0	07/07/22 12:34	P6
EPA 6010D	Calcium, Dissolved	75.9	mg/L	0.50	07/07/22 13:49	
EPA 6010D	Iron, Dissolved	0.062	mg/L	0.050	07/07/22 13:49	
EPA 6010D	Magnesium, Dissolved	174	mg/L	0.50	07/07/22 13:49	P6
EPA 6010D	Potassium, Dissolved	89.3	mg/L	2.5	07/07/22 13:49	P6
EPA 6010D	Sodium, Dissolved	2100	mg/L	20.0	07/07/22 14:37	P6
EPA 6020B	Arsenic	0.026	mg/L	0.00050	07/15/22 15:39	
EPA 6020B	Arsenic, Dissolved	0.028	mg/L	0.00050	07/15/22 14:22	
SM 2320B-2011	Alkalinity, Total as CaCO3	290	mg/L	5.0	07/05/22 11:39	
SM 2540C-2011	Total Dissolved Solids	6820	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	18.7	mg/L	2.5	07/01/22 03:59	
EPA 300.0 Rev 2.1 1993	Sulfate	269	mg/L	50.0	07/01/22 10:48	
SM 4500-Cl-E-2011	Chloride	3950	mg/L	500	07/05/22 14:44	
<b>92612546002</b>	<b>PT-02</b>					
EPA 6010D	Calcium	56.7	mg/L	0.50	07/07/22 11:41	
EPA 6010D	Iron	0.22	mg/L	0.050	07/07/22 11:41	
EPA 6010D	Magnesium	124	mg/L	0.50	07/07/22 11:41	
EPA 6010D	Potassium	81.1	mg/L	2.5	07/07/22 11:41	
EPA 6010D	Sodium	1340	mg/L	10.0	07/07/22 12:01	
EPA 6010D	Calcium, Dissolved	54.9	mg/L	0.50	07/07/22 14:19	
EPA 6010D	Iron, Dissolved	0.051	mg/L	0.050	07/07/22 14:19	
EPA 6010D	Magnesium, Dissolved	125	mg/L	0.50	07/07/22 14:19	
EPA 6010D	Potassium, Dissolved	75.6	mg/L	2.5	07/07/22 14:19	
EPA 6010D	Sodium, Dissolved	1460	mg/L	20.0	07/07/22 14:46	
EPA 6020B	Arsenic	0.0019	mg/L	0.00050	07/15/22 15:42	
EPA 6020B	Arsenic, Dissolved	0.0018	mg/L	0.00050	07/15/22 14:26	
SM 2320B-2011	Alkalinity, Total as CaCO3	272	mg/L	5.0	07/05/22 11:49	
SM 2540C-2011	Total Dissolved Solids	5060	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	12.7	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	203	mg/L	50.0	07/01/22 11:04	
SM 4500-Cl-E-2011	Chloride	2870	mg/L	500	07/05/22 14:47	
<b>92612546003</b>	<b>PT-03</b>					
EPA 6010D	Calcium	30.1	mg/L	0.50	07/07/22 11:42	
EPA 6010D	Iron	0.24	mg/L	0.050	07/07/22 11:42	
EPA 6010D	Magnesium	80.0	mg/L	0.50	07/07/22 11:42	
EPA 6010D	Potassium	69.4	mg/L	2.5	07/07/22 11:42	
EPA 6010D	Sodium	889	mg/L	10.0	07/07/22 12:03	
EPA 6010D	Calcium, Dissolved	29.2	mg/L	0.50	07/07/22 14:21	
EPA 6010D	Iron, Dissolved	0.044J	mg/L	0.050	07/07/22 14:21	
EPA 6010D	Magnesium, Dissolved	80.9	mg/L	0.50	07/07/22 14:21	
EPA 6010D	Potassium, Dissolved	64.2	mg/L	2.5	07/07/22 14:21	
EPA 6010D	Sodium, Dissolved	1110	mg/L	20.0	07/07/22 14:47	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92612546003</b>	<b>PT-03</b>					
EPA 6020B	Arsenic	0.0011	mg/L	0.00050	07/15/22 16:08	
EPA 6020B	Arsenic, Dissolved	0.0012	mg/L	0.00050	07/15/22 14:52	
SM 2320B-2011	Alkalinity, Total as CaCO <sub>3</sub>	197	mg/L	5.0	07/05/22 11:58	
SM 2540C-2011	Total Dissolved Solids	3260	mg/L	312	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	8.2	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	142	mg/L	20.0	07/01/22 11:20	M1
SM 4500-Cl-E-2011	Chloride	1790	mg/L	500	07/05/22 14:48	
<b>92612546004</b>	<b>PT-04D</b>					
EPA 6010D	Calcium	193	mg/L	0.50	07/07/22 11:44	
EPA 6010D	Iron	0.12	mg/L	0.050	07/07/22 11:44	
EPA 6010D	Magnesium	427	mg/L	0.50	07/07/22 11:44	
EPA 6010D	Potassium	183	mg/L	5.0	07/07/22 12:46	
EPA 6010D	Sodium	3360	mg/L	25.0	07/07/22 12:05	
EPA 6010D	Calcium, Dissolved	189	mg/L	0.50	07/07/22 14:22	
EPA 6010D	Iron, Dissolved	0.084	mg/L	0.050	07/07/22 14:22	
EPA 6010D	Magnesium, Dissolved	428	mg/L	0.50	07/07/22 14:22	
EPA 6010D	Potassium, Dissolved	175	mg/L	2.5	07/07/22 14:22	
EPA 6010D	Sodium, Dissolved	3600	mg/L	50.0	07/07/22 15:02	
EPA 6020B	Arsenic	0.0027	mg/L	0.00050	07/15/22 16:12	
EPA 6020B	Arsenic, Dissolved	0.0036	mg/L	0.0025	07/18/22 11:17	
SM 2320B-2011	Alkalinity, Total as CaCO <sub>3</sub>	451	mg/L	5.0	07/05/22 13:38	
SM 2540C-2011	Total Dissolved Solids	13700	mg/L	2500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	18.4	mg/L	2.5	07/01/22 04:00	
EPA 300.0 Rev 2.1 1993	Sulfate	465	mg/L	100	07/01/22 08:20	
SM 4500-Cl-E-2011	Chloride	6670	mg/L	500	07/05/22 14:49	
<b>92612546005</b>	<b>DR-01</b>					
EPA 6010D	Calcium	84.1	mg/L	0.50	07/07/22 11:49	
EPA 6010D	Iron	0.12	mg/L	0.050	07/07/22 11:49	
EPA 6010D	Magnesium	184	mg/L	0.50	07/07/22 11:49	
EPA 6010D	Potassium	97.9	mg/L	2.5	07/07/22 11:49	
EPA 6010D	Sodium	1800	mg/L	25.0	07/07/22 12:07	
EPA 6010D	Calcium, Dissolved	79.5	mg/L	0.50	07/07/22 14:24	
EPA 6010D	Iron, Dissolved	0.069	mg/L	0.050	07/07/22 14:24	
EPA 6010D	Magnesium, Dissolved	178	mg/L	0.50	07/07/22 14:24	
EPA 6010D	Potassium, Dissolved	88.0	mg/L	2.5	07/07/22 14:24	
EPA 6010D	Sodium, Dissolved	2070	mg/L	20.0	07/07/22 14:54	
EPA 6020B	Arsenic	0.077	mg/L	0.00050	07/15/22 16:15	
EPA 6020B	Arsenic, Dissolved	0.083	mg/L	0.00050	07/15/22 14:59	
SM 2320B-2011	Alkalinity, Total as CaCO <sub>3</sub>	271	mg/L	5.0	07/05/22 12:14	
SM 2540C-2011	Total Dissolved Solids	6280	mg/L	500	07/01/22 10:53	
SM 4500-S2D-2011	Sulfide	17.4	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	238	mg/L	100	07/01/22 08:36	
SM 4500-Cl-E-2011	Chloride	2470	mg/L	500	07/05/22 14:50	
<b>92612546006</b>	<b>DR-02</b>					
EPA 6010D	Calcium	107	mg/L	0.50	07/07/22 11:51	
EPA 6010D	Iron	0.21	mg/L	0.050	07/07/22 11:51	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92612546006</b>	<b>DR-02</b>					
EPA 6010D	Magnesium	253	mg/L	0.50	07/07/22 11:51	
EPA 6010D	Potassium	136	mg/L	2.5	07/07/22 11:51	
EPA 6010D	Sodium	2360	mg/L	25.0	07/07/22 12:49	
EPA 6010D	Calcium, Dissolved	106	mg/L	0.50	07/07/22 14:26	
EPA 6010D	Iron, Dissolved	0.13	mg/L	0.050	07/07/22 14:26	
EPA 6010D	Magnesium, Dissolved	258	mg/L	0.50	07/07/22 14:26	
EPA 6010D	Potassium, Dissolved	126	mg/L	2.5	07/07/22 14:26	
EPA 6010D	Sodium, Dissolved	2930	mg/L	20.0	07/07/22 14:56	
EPA 6020B	Arsenic	0.0078	mg/L	0.00050	07/15/22 16:19	
EPA 6020B	Arsenic, Dissolved	0.0075	mg/L	0.00050	07/15/22 15:03	
SM 2320B-2011	Alkalinity, Total as CaCO3	354	mg/L	5.0	07/05/22 12:23	
SM 2540C-2011	Total Dissolved Solids	8220	mg/L	625	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	23.0	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	299	mg/L	100	07/01/22 08:51	
SM 4500-Cl-E-2011	Chloride	4540	mg/L	500	07/05/22 14:51	
<b>92612546007</b>	<b>MCM-06</b>					
EPA 6010D	Calcium	73.5	mg/L	0.50	07/07/22 11:53	
EPA 6010D	Iron	0.11	mg/L	0.050	07/07/22 11:53	
EPA 6010D	Magnesium	154	mg/L	0.50	07/07/22 11:53	
EPA 6010D	Potassium	94.0	mg/L	2.5	07/07/22 11:53	
EPA 6010D	Sodium	1720	mg/L	25.0	07/07/22 12:51	
EPA 6010D	Calcium, Dissolved	69.6	mg/L	0.50	07/07/22 14:27	
EPA 6010D	Magnesium, Dissolved	151	mg/L	0.50	07/07/22 14:27	
EPA 6010D	Potassium, Dissolved	83.0	mg/L	2.5	07/07/22 14:27	
EPA 6010D	Sodium, Dissolved	2160	mg/L	20.0	07/07/22 14:57	
EPA 6020B	Arsenic	0.17	mg/L	0.00050	07/15/22 16:23	
EPA 6020B	Arsenic, Dissolved	0.20	mg/L	0.00050	07/15/22 15:06	
SM 2320B-2011	Alkalinity, Total as CaCO3	286	mg/L	5.0	07/05/22 12:34	
SM 2540C-2011	Total Dissolved Solids	6140	mg/L	500	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	23.3	mg/L	2.5	07/01/22 04:01	
EPA 300.0 Rev 2.1 1993	Sulfate	213	mg/L	100	07/01/22 09:07	
SM 4500-Cl-E-2011	Chloride	3520	mg/L	500	07/05/22 14:52	
<b>92612546008</b>	<b>DPZ-02</b>					
EPA 6010D	Calcium	225	mg/L	0.50	07/07/22 11:54	
EPA 6010D	Iron	0.022J	mg/L	0.050	07/07/22 11:54	
EPA 6010D	Magnesium	471	mg/L	0.50	07/07/22 11:54	
EPA 6010D	Potassium	184	mg/L	5.0	07/07/22 12:48	
EPA 6010D	Sodium	3610	mg/L	25.0	07/07/22 12:53	
EPA 6010D	Calcium, Dissolved	233	mg/L	0.50	07/07/22 14:29	
EPA 6010D	Magnesium, Dissolved	503	mg/L	0.50	07/07/22 14:29	
EPA 6010D	Potassium, Dissolved	182	mg/L	5.0	07/11/22 15:35	
EPA 6010D	Sodium, Dissolved	4370	mg/L	50.0	07/07/22 15:04	
EPA 6020B	Arsenic	0.025	mg/L	0.0025	07/18/22 11:25	
EPA 6020B	Arsenic, Dissolved	0.032	mg/L	0.0025	07/18/22 11:21	
SM 2320B-2011	Alkalinity, Total as CaCO3	394	mg/L	5.0	07/05/22 12:44	
SM 2540C-2011	Total Dissolved Solids	15400	mg/L	2500	07/01/22 10:54	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92612546008</b>	<b>DPZ-02</b>					
SM 4500-S2D-2011	Sulfide	24.3	mg/L	2.5	07/01/22 04:02	
EPA 300.0 Rev 2.1 1993	Sulfate	553	mg/L	100	07/01/22 12:07	
SM 4500-Cl-E-2011	Chloride	9640	mg/L	500	07/05/22 14:53	
<b>92612546009</b>	<b>DUP-1</b>					
EPA 6010D	Calcium	32.2	mg/L	0.50	07/07/22 11:56	
EPA 6010D	Iron	0.25	mg/L	0.050	07/07/22 11:56	
EPA 6010D	Magnesium	83.5	mg/L	0.50	07/07/22 11:56	
EPA 6010D	Potassium	72.7	mg/L	2.5	07/07/22 11:56	
EPA 6010D	Sodium	926	mg/L	10.0	07/07/22 12:54	
EPA 6010D	Calcium, Dissolved	29.3	mg/L	0.50	07/07/22 14:34	
EPA 6010D	Iron, Dissolved	0.046J	mg/L	0.050	07/07/22 14:34	
EPA 6010D	Magnesium, Dissolved	80.4	mg/L	0.50	07/07/22 14:34	
EPA 6010D	Potassium, Dissolved	63.6	mg/L	2.5	07/07/22 14:34	
EPA 6010D	Sodium, Dissolved	1070	mg/L	20.0	07/07/22 15:01	
EPA 6020B	Arsenic	0.0011	mg/L	0.00050	07/15/22 16:30	
EPA 6020B	Arsenic, Dissolved	0.0014	mg/L	0.00050	07/15/22 15:14	
SM 2320B-2011	Alkalinity, Total as CaCO <sub>3</sub>	192	mg/L	5.0	07/05/22 13:05	
SM 2540C-2011	Total Dissolved Solids	3340	mg/L	357	07/01/22 10:54	
SM 4500-S2D-2011	Sulfide	8.2	mg/L	2.5	07/01/22 04:02	
EPA 300.0 Rev 2.1 1993	Sulfate	142	mg/L	20.0	07/01/22 12:22	
SM 4500-Cl-E-2011	Chloride	1390	mg/L	500	07/05/22 14:54	
<b>92612546010</b>	<b>FB-1</b>					
EPA 6010D	Potassium, Dissolved	0.34J	mg/L	2.5	07/07/22 14:36	
EPA 6010D	Sodium, Dissolved	0.70J	mg/L	1.0	07/07/22 14:36	
EPA 6020B	Arsenic	0.00013J	mg/L	0.00050	07/15/22 16:34	
EPA 6020B	Arsenic, Dissolved	0.00010J	mg/L	0.00050	07/15/22 15:17	
SM 4500-Cl-E-2011	Chloride	0.86J	mg/L	1.0	07/05/22 14:54	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: PT-01		Lab ID: 92612546001		Collected: 06/28/22 15:55		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>81.1</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:32	7440-70-2	
Iron	<b>0.22</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:32	7439-89-6	
Magnesium	<b>179</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:32	7439-95-4	
Potassium	<b>101</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:32	7440-09-7	
Sodium	<b>1800</b>	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:34	7440-23-5	P6
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>75.9</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 13:49	7440-70-2	
Iron, Dissolved	<b>0.062</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 13:49	7439-89-6	
Magnesium, Dissolved	<b>174</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 13:49	7439-95-4	P6
Potassium, Dissolved	<b>89.3</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 13:49	7440-09-7	P6
Sodium, Dissolved	<b>2100</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:37	7440-23-5	P6
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.026</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 15:39	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.028</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:22	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>290</b>	mg/L	5.0	5.0	1		07/05/22 11:39		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>6820</b>	mg/L	500	500	1		07/01/22 10:53		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>18.7</b>	mg/L	2.5	1.2	25		07/01/22 03:59	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>269</b>	mg/L	50.0	25.0	50		07/01/22 10:48	14808-79-8	
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>3950</b>	mg/L	500	250	500		07/05/22 14:44	16887-00-6	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: PT-02		Lab ID: 92612546002		Collected: 06/28/22 10:00		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>56.7</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:41	7440-70-2	
Iron	<b>0.22</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:41	7439-89-6	
Magnesium	<b>124</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:41	7439-95-4	
Potassium	<b>81.1</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:41	7440-09-7	
Sodium	<b>1340</b>	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:01	7440-23-5	
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>54.9</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:19	7440-70-2	
Iron, Dissolved	<b>0.051</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:19	7439-89-6	
Magnesium, Dissolved	<b>125</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:19	7439-95-4	
Potassium, Dissolved	<b>75.6</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:19	7440-09-7	
Sodium, Dissolved	<b>1460</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:46	7440-23-5	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.0019</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 15:42	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.0018</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:26	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>272</b>	mg/L	5.0	5.0	1		07/05/22 11:49		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>5060</b>	mg/L	500	500	1		07/01/22 10:53		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>12.7</b>	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>203</b>	mg/L	50.0	25.0	50		07/01/22 11:04	14808-79-8	
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>2870</b>	mg/L	500	250	500		07/05/22 14:47	16887-00-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: PT-03		Lab ID: 92612546003		Collected: 06/28/22 14:50		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>30.1</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:42	7440-70-2	
Iron	<b>0.24</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:42	7439-89-6	
Magnesium	<b>80.0</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:42	7439-95-4	
Potassium	<b>69.4</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:42	7440-09-7	
Sodium	<b>889</b>	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:03	7440-23-5	
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>29.2</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:21	7440-70-2	
Iron, Dissolved	<b>0.044J</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:21	7439-89-6	
Magnesium, Dissolved	<b>80.9</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:21	7439-95-4	
Potassium, Dissolved	<b>64.2</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:21	7440-09-7	
Sodium, Dissolved	<b>1110</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:47	7440-23-5	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.0011</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:08	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.0012</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:52	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>197</b>	mg/L	5.0	5.0	1		07/05/22 11:58		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>3260</b>	mg/L	312	312	1		07/01/22 10:53		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>8.2</b>	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>142</b>	mg/L	20.0	10.0	20		07/01/22 11:20	14808-79-8	M1
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>1790</b>	mg/L	500	250	500		07/05/22 14:48	16887-00-6	

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: PT-04D		Lab ID: 92612546004		Collected: 06/28/22 14:20		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>193</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:44	7440-70-2	
Iron	<b>0.12</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:44	7439-89-6	
Magnesium	<b>427</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:44	7439-95-4	
Potassium	<b>183</b>	mg/L	5.0	0.43	2	07/06/22 06:48	07/07/22 12:46	7440-09-7	
Sodium	<b>3360</b>	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:05	7440-23-5	
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>189</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:22	7440-70-2	
Iron, Dissolved	<b>0.084</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:22	7439-89-6	
Magnesium, Dissolved	<b>428</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:22	7439-95-4	
Potassium, Dissolved	<b>175</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:22	7440-09-7	
Sodium, Dissolved	<b>3600</b>	mg/L	50.0	10.9	50	07/07/22 05:20	07/07/22 15:02	7440-23-5	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.0027</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:12	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.0036</b>	mg/L	0.0025	0.00041	5	07/07/22 05:39	07/18/22 11:17	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>451</b>	mg/L	5.0	5.0	1		07/05/22 13:38		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>13700</b>	mg/L	2500	2500	1		07/01/22 10:53		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>18.4</b>	mg/L	2.5	1.2	25		07/01/22 04:00	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>465</b>	mg/L	100	50.0	100		07/01/22 08:20	14808-79-8	
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>6670</b>	mg/L	500	250	500		07/05/22 14:49	16887-00-6	

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### ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: DR-01		Lab ID: 92612546005		Collected: 06/28/22 14:52		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>84.1</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:49	7440-70-2	
Iron	<b>0.12</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:49	7439-89-6	
Magnesium	<b>184</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:49	7439-95-4	
Potassium	<b>97.9</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:49	7440-09-7	
Sodium	<b>1800</b>	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:07	7440-23-5	
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>79.5</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:24	7440-70-2	
Iron, Dissolved	<b>0.069</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:24	7439-89-6	
Magnesium, Dissolved	<b>178</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:24	7439-95-4	
Potassium, Dissolved	<b>88.0</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:24	7440-09-7	
Sodium, Dissolved	<b>2070</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:54	7440-23-5	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.077</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:15	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.083</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 14:59	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>271</b>	mg/L	5.0	5.0	1		07/05/22 12:14		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>6280</b>	mg/L	500	500	1		07/01/22 10:53		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>17.4</b>	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>238</b>	mg/L	100	50.0	100		07/01/22 08:36	14808-79-8	
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>2470</b>	mg/L	500	250	500		07/05/22 14:50	16887-00-6	

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: DR-02		Lab ID: 92612546006		Collected: 06/28/22 16:05		Received: 06/30/22 11:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>107</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:51	7440-70-2	
Iron	<b>0.21</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:51	7439-89-6	
Magnesium	<b>253</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:51	7439-95-4	
Potassium	<b>136</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:51	7440-09-7	
Sodium	<b>2360</b>	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:49	7440-23-5	
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium, Dissolved	<b>106</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:26	7440-70-2	
Iron, Dissolved	<b>0.13</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:26	7439-89-6	
Magnesium, Dissolved	<b>258</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:26	7439-95-4	
Potassium, Dissolved	<b>126</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:26	7440-09-7	
Sodium, Dissolved	<b>2930</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:56	7440-23-5	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic	<b>0.0078</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:19	7440-38-2	
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis							
Arsenic, Dissolved	<b>0.0075</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:03	7440-38-2	
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity, Total as CaCO3	<b>354</b>	mg/L	5.0	5.0	1		07/05/22 12:23		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>8220</b>	mg/L	625	625	1		07/01/22 10:54		
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	<b>23.0</b>	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Sulfate	<b>299</b>	mg/L	100	50.0	100		07/01/22 08:51	14808-79-8	
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville							
Chloride	<b>4540</b>	mg/L	500	250	500		07/05/22 14:51	16887-00-6	

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: MCM-06		Lab ID: 92612546007		Collected: 06/28/22 16:00	Received: 06/30/22 11:05	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	73.5	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:53	7440-70-2		
Iron	0.11	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:53	7439-89-6		
Magnesium	154	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:53	7439-95-4		
Potassium	94.0	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:53	7440-09-7		
Sodium	1720	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:51	7440-23-5		
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	69.6	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:27	7440-70-2		
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:27	7439-89-6		
Magnesium, Dissolved	151	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:27	7439-95-4		
Potassium, Dissolved	83.0	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:27	7440-09-7		
Sodium, Dissolved	2160	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 14:57	7440-23-5		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	0.17	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:23	7440-38-2		
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	0.20	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:06	7440-38-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	286	mg/L	5.0	5.0	1		07/05/22 12:34			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	6140	mg/L	500	500	1		07/01/22 10:54			
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	23.3	mg/L	2.5	1.2	25		07/01/22 04:01	18496-25-8		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	213	mg/L	100	50.0	100		07/01/22 09:07	14808-79-8		
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	3520	mg/L	500	250	500		07/05/22 14:52	16887-00-6		

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: DPZ-02		Lab ID: 92612546008		Collected: 06/28/22 11:45	Received: 06/30/22 11:05	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	<b>225</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:54	7440-70-2		
Iron	<b>0.022J</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:54	7439-89-6		
Magnesium	<b>471</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:54	7439-95-4		
Potassium	<b>184</b>	mg/L	5.0	0.43	2	07/06/22 06:48	07/07/22 12:48	7440-09-7		
Sodium	<b>3610</b>	mg/L	25.0	5.4	25	07/06/22 06:48	07/07/22 12:53	7440-23-5		
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	<b>233</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:29	7440-70-2		
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:29	7439-89-6		
Magnesium, Dissolved	<b>503</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:29	7439-95-4		
Potassium, Dissolved	<b>182</b>	mg/L	5.0	0.43	2	07/07/22 05:20	07/11/22 15:35	7440-09-7		
Sodium, Dissolved	<b>4370</b>	mg/L	50.0	10.9	50	07/07/22 05:20	07/07/22 15:04	7440-23-5		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	<b>0.025</b>	mg/L	0.0025	0.00041	5	07/06/22 06:20	07/18/22 11:25	7440-38-2		
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	<b>0.032</b>	mg/L	0.0025	0.00041	5	07/07/22 05:39	07/18/22 11:21	7440-38-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	<b>394</b>	mg/L	5.0	5.0	1		07/05/22 12:44			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>15400</b>	mg/L	2500	2500	1		07/01/22 10:54			
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	<b>24.3</b>	mg/L	2.5	1.2	25		07/01/22 04:02	18496-25-8		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	<b>553</b>	mg/L	100	50.0	100		07/01/22 12:07	14808-79-8		
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	<b>9640</b>	mg/L	500	250	500		07/05/22 14:53	16887-00-6		

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### ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: DUP-1		Lab ID: 92612546009		Collected: 06/28/22 00:00	Received: 06/30/22 11:05	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	<b>32.2</b>	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 11:56	7440-70-2		
Iron	<b>0.25</b>	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 11:56	7439-89-6		
Magnesium	<b>83.5</b>	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 11:56	7439-95-4		
Potassium	<b>72.7</b>	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 11:56	7440-09-7		
Sodium	<b>926</b>	mg/L	10.0	2.2	10	07/06/22 06:48	07/07/22 12:54	7440-23-5		
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	<b>29.3</b>	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:34	7440-70-2		
Iron, Dissolved	<b>0.046J</b>	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:34	7439-89-6		
Magnesium, Dissolved	<b>80.4</b>	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:34	7439-95-4		
Potassium, Dissolved	<b>63.6</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:34	7440-09-7		
Sodium, Dissolved	<b>1070</b>	mg/L	20.0	4.4	20	07/07/22 05:20	07/07/22 15:01	7440-23-5		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	<b>0.0011</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:30	7440-38-2		
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	<b>0.0014</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:14	7440-38-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	<b>192</b>	mg/L	5.0	5.0	1		07/05/22 13:05			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	<b>3340</b>	mg/L	357	357	1		07/01/22 10:54			
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	<b>8.2</b>	mg/L	2.5	1.2	25		07/01/22 04:02	18496-25-8		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	<b>142</b>	mg/L	20.0	10.0	20		07/01/22 12:22	14808-79-8		
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	<b>1390</b>	mg/L	500	250	500		07/05/22 14:54	16887-00-6		

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Sample: FB-1		Lab ID: 92612546010		Collected: 06/28/22 10:40	Received: 06/30/22 11:05	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	ND	mg/L	0.50	0.097	1	07/06/22 06:48	07/07/22 12:14	7440-70-2		
Iron	ND	mg/L	0.050	0.022	1	07/06/22 06:48	07/07/22 12:14	7439-89-6		
Magnesium	ND	mg/L	0.50	0.029	1	07/06/22 06:48	07/07/22 12:14	7439-95-4		
Potassium	ND	mg/L	2.5	0.22	1	07/06/22 06:48	07/07/22 12:14	7440-09-7		
Sodium	ND	mg/L	1.0	0.22	1	07/06/22 06:48	07/07/22 12:14	7440-23-5		
<b>6010D MET ICP, Lab Filtered</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium, Dissolved	ND	mg/L	0.50	0.097	1	07/07/22 05:20	07/07/22 14:36	7440-70-2		
Iron, Dissolved	ND	mg/L	0.050	0.022	1	07/07/22 05:20	07/07/22 14:36	7439-89-6		
Magnesium, Dissolved	ND	mg/L	0.50	0.029	1	07/07/22 05:20	07/07/22 14:36	7439-95-4		
Potassium, Dissolved	<b>0.34J</b>	mg/L	2.5	0.22	1	07/07/22 05:20	07/07/22 14:36	7440-09-7		
Sodium, Dissolved	<b>0.70J</b>	mg/L	1.0	0.22	1	07/07/22 05:20	07/07/22 14:36	7440-23-5		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic	<b>0.00013J</b>	mg/L	0.00050	0.000083	1	07/06/22 06:20	07/15/22 16:34	7440-38-2		
<b>6020B MET ICPMS, Lab Filtered</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3020A Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	<b>0.00010J</b>	mg/L	0.00050	0.000083	1	07/07/22 05:39	07/15/22 15:17	7440-38-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		07/02/22 20:53			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		07/04/22 11:06			
<b>4500S2D Sulfide Water</b>		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		07/01/22 04:03	18496-25-8		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Sulfate	ND	mg/L	1.0	0.50	1		07/01/22 04:08	14808-79-8		
<b>4500 Chloride</b>		Analytical Method: SM 4500-Cl-E-2011 Pace Analytical Services - Asheville								
Chloride	<b>0.86J</b>	mg/L	1.0	0.50	1		07/05/22 14:54	16887-00-6		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch:	825861	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D Water
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4374763 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.097	07/07/22 11:29	
Iron	mg/L	ND	0.050	0.022	07/07/22 11:29	
Magnesium	mg/L	ND	0.50	0.029	07/07/22 11:29	
Potassium	mg/L	ND	2.5	0.22	07/07/22 11:29	
Sodium	mg/L	ND	1.0	0.22	07/07/22 11:29	

LABORATORY CONTROL SAMPLE: 4374764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	19.3	96	80-120	
Iron	mg/L	20	19.7	98	80-120	
Magnesium	mg/L	20	19.5	98	80-120	
Potassium	mg/L	20	19.6	98	80-120	
Sodium	mg/L	20	19.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4374765 4374766

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92612546001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	81.1	20	20	97.0	99.3	79	91	75-125	2	20
Iron	mg/L	0.22	20	20	19.6	19.9	97	99	75-125	2	20
Magnesium	mg/L	179	20	20	196	200	84	101	75-125	2	20
Potassium	mg/L	101	20	20	122	125	103	119	75-125	3	20
Sodium	mg/L	1800	20	20	1850	1850	221	223	75-125	0	20 P6

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**QUALITY CONTROL DATA**

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

QC Batch:	826173	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D Water Dissolved
		Laboratory:	Pace Analytical Services - Minneapolis
Associated Lab Samples:	92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010		

METHOD BLANK:	4376218	Matrix:	Water
Associated Lab Samples:	92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	mg/L	ND	0.50	0.097	07/07/22 13:44	
Iron, Dissolved	mg/L	ND	0.050	0.022	07/07/22 13:44	
Magnesium, Dissolved	mg/L	ND	0.50	0.029	07/07/22 13:44	
Potassium, Dissolved	mg/L	ND	2.5	0.22	07/07/22 13:44	
Sodium, Dissolved	mg/L	ND	1.0	0.22	07/07/22 13:44	

LABORATORY CONTROL SAMPLE: 4376219						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	mg/L	20	17.8	89	80-120	
Iron, Dissolved	mg/L	20	18.5	92	80-120	
Magnesium, Dissolved	mg/L	20	18.0	90	80-120	
Potassium, Dissolved	mg/L	20	18.5	93	80-120	
Sodium, Dissolved	mg/L	20	18.1	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4376220												4376221	
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92612546001 Result	Spike Conc.	Spike Conc.	Conc.								
Calcium, Dissolved	mg/L	75.9	20	20	20	98.9	97.5	115	108	75-125	1	20	
Iron, Dissolved	mg/L	0.062	20	20	20	19.2	19.5	96	97	75-125	1	20	
Magnesium, Dissolved	mg/L	174	20	20	20	205	202	158	139	75-125	2	20	P6
Potassium, Dissolved	mg/L	89.3	20	20	20	118	116	144	134	75-125	2	20	P6
Sodium, Dissolved	mg/L	2100	20	20	20	2290	2310	927	1060	75-125	1	20	P6

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch:	825866	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3020A	Analysis Description:	6020B Water UPD5
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4374788 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	0.000083	07/15/22 15:32	

LABORATORY CONTROL SAMPLE: 4374789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4374790 4374791

Parameter	Units	92612546002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0019	0.1	0.1	0.11	0.11	109	105	75-125	4	20	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch:	826179	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3020A	Analysis Description:	6020B Water Dissolved UPD5
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 4376245 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	mg/L	ND	0.00050	0.000083	07/15/22 14:15	

LABORATORY CONTROL SAMPLE: 4376246

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4376247 4376248

Parameter	Units	92612546002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	mg/L	0.0018	0.1	0.1	0.10	0.11	101	104	75-125	3	20	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch: 708484      Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011      Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92612546001, 92612546002

METHOD BLANK: 3695062      Matrix: Water

Associated Lab Samples: 92612546001, 92612546002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	07/02/22 16:05	

LABORATORY CONTROL SAMPLE: 3695063

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: 3695064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695065      3695066

Parameter	Units	92612726001 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	52.7	52.1	105	104	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695067      3695068

Parameter	Units	92612726011 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	53.4	53.0	105	104	80-120	1	25	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

QC Batch: 708485 Analysis Method: SM 2320B-2011  
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3695069 Matrix: Water  
 Associated Lab Samples: 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	07/02/22 19:14	

LABORATORY CONTROL SAMPLE: 3695070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.6	101	80-120	

LABORATORY CONTROL SAMPLE: 3695071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695072 3695073

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92612546003 Result	Spike Conc.	Spike Conc.	Conc.								
Alkalinity, Total as CaCO3	mg/L	197	50	50	255	256	117	119	80-120	0	25		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695074 3695075

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92612809002 Result	Spike Conc.	Spike Conc.	Conc.								
Alkalinity, Total as CaCO3	mg/L	128000 ug/L	50	50	138	137	20	17	80-120	1	25	M1	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch:	708223	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009

METHOD BLANK: 3693528 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/01/22 10:52	

LABORATORY CONTROL SAMPLE: 3693529

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

SAMPLE DUPLICATE: 3693530

Parameter	Units	92611876001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	81.0	0	25	

SAMPLE DUPLICATE: 3693531

Parameter	Units	92612546007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6140	6080	1	25	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch: 708545	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92612546010

METHOD BLANK: 3695257 Matrix: Water  
Associated Lab Samples: 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	07/04/22 11:06	

LABORATORY CONTROL SAMPLE: 3695258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 3695259

Parameter	Units	92612546010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch: 708171 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: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3693375 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	07/01/22 03:55	

LABORATORY CONTROL SAMPLE: 3693376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693377 3693378

Parameter	Units	92612399003 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	0.52	0.54	102	105	80-120	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693379 3693380

Parameter	Units	92612399002 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	0.51	0.52	99	102	80-120	3	10	

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch: 708118 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3693181 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.50	06/30/22 20:58	

LABORATORY CONTROL SAMPLE: 3693182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	52.0	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693183 3693184

Parameter	Units	92610803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	175	50	50	213	211	77	72	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3693185 3693186

Parameter	Units	92612546003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	142	50	50	177	178	71	72	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

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### QUALITY CONTROL DATA

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

QC Batch: 708577 Analysis Method: SM 4500-Cl-E-2011  
QC Batch Method: SM 4500-Cl-E-2011 Analysis Description: 4500 Chloride  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

METHOD BLANK: 3695347 Matrix: Water  
Associated Lab Samples: 92612546001, 92612546002, 92612546003, 92612546004, 92612546005, 92612546006, 92612546007, 92612546008, 92612546009, 92612546010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.50	07/05/22 13:55	

LABORATORY CONTROL SAMPLE: 3695348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695349 3695350

Parameter	Units	92612051002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	99.2	10	10	111	109	114	93	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3695351 3695352

Parameter	Units	92612054001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	56.0	10	10	67.5	66.2	115	102	90-110	2	10	M1

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

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

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MCMANUS JUNE 2022  
Pace Project No.: 92612546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92612546001	PT-01	EPA 3010A	825861	EPA 6010D	826326
92612546002	PT-02	EPA 3010A	825861	EPA 6010D	826326
92612546003	PT-03	EPA 3010A	825861	EPA 6010D	826326
92612546004	PT-04D	EPA 3010A	825861	EPA 6010D	826326
92612546005	DR-01	EPA 3010A	825861	EPA 6010D	826326
92612546006	DR-02	EPA 3010A	825861	EPA 6010D	826326
92612546007	MCM-06	EPA 3010A	825861	EPA 6010D	826326
92612546008	DPZ-02	EPA 3010A	825861	EPA 6010D	826326
92612546009	DUP-1	EPA 3010A	825861	EPA 6010D	826326
92612546010	FB-1	EPA 3010A	825861	EPA 6010D	826326
92612546001	PT-01	EPA 3010A	826173	EPA 6010D	826585
92612546002	PT-02	EPA 3010A	826173	EPA 6010D	826585
92612546003	PT-03	EPA 3010A	826173	EPA 6010D	826585
92612546004	PT-04D	EPA 3010A	826173	EPA 6010D	826585
92612546005	DR-01	EPA 3010A	826173	EPA 6010D	826585
92612546006	DR-02	EPA 3010A	826173	EPA 6010D	826585
92612546007	MCM-06	EPA 3010A	826173	EPA 6010D	826585
92612546008	DPZ-02	EPA 3010A	826173	EPA 6010D	826585
92612546009	DUP-1	EPA 3010A	826173	EPA 6010D	826585
92612546010	FB-1	EPA 3010A	826173	EPA 6010D	826585
92612546001	PT-01	EPA 3020A	825866	EPA 6020B	826624
92612546002	PT-02	EPA 3020A	825866	EPA 6020B	826624
92612546003	PT-03	EPA 3020A	825866	EPA 6020B	826624
92612546004	PT-04D	EPA 3020A	825866	EPA 6020B	826624
92612546005	DR-01	EPA 3020A	825866	EPA 6020B	826624
92612546006	DR-02	EPA 3020A	825866	EPA 6020B	826624
92612546007	MCM-06	EPA 3020A	825866	EPA 6020B	826624
92612546008	DPZ-02	EPA 3020A	825866	EPA 6020B	826624
92612546009	DUP-1	EPA 3020A	825866	EPA 6020B	826624
92612546010	FB-1	EPA 3020A	825866	EPA 6020B	826624
92612546001	PT-01	EPA 3020A	826179	EPA 6020B	826670
92612546002	PT-02	EPA 3020A	826179	EPA 6020B	826670
92612546003	PT-03	EPA 3020A	826179	EPA 6020B	826670
92612546004	PT-04D	EPA 3020A	826179	EPA 6020B	826670
92612546005	DR-01	EPA 3020A	826179	EPA 6020B	826670
92612546006	DR-02	EPA 3020A	826179	EPA 6020B	826670
92612546007	MCM-06	EPA 3020A	826179	EPA 6020B	826670
92612546008	DPZ-02	EPA 3020A	826179	EPA 6020B	826670
92612546009	DUP-1	EPA 3020A	826179	EPA 6020B	826670
92612546010	FB-1	EPA 3020A	826179	EPA 6020B	826670
92612546001	PT-01	SM 2320B-2011	708484		
92612546002	PT-02	SM 2320B-2011	708484		
92612546003	PT-03	SM 2320B-2011	708485		
92612546004	PT-04D	SM 2320B-2011	708485		
92612546005	DR-01	SM 2320B-2011	708485		
92612546006	DR-02	SM 2320B-2011	708485		

**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS JUNE 2022

Pace Project No.: 92612546

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92612546007	MCM-06	SM 2320B-2011	708485		
92612546008	DPZ-02	SM 2320B-2011	708485		
92612546009	DUP-1	SM 2320B-2011	708485		
92612546010	FB-1	SM 2320B-2011	708485		
92612546001	PT-01	SM 2540C-2011	708223		
92612546002	PT-02	SM 2540C-2011	708223		
92612546003	PT-03	SM 2540C-2011	708223		
92612546004	PT-04D	SM 2540C-2011	708223		
92612546005	DR-01	SM 2540C-2011	708223		
92612546006	DR-02	SM 2540C-2011	708223		
92612546007	MCM-06	SM 2540C-2011	708223		
92612546008	DPZ-02	SM 2540C-2011	708223		
92612546009	DUP-1	SM 2540C-2011	708223		
92612546010	FB-1	SM 2540C-2011	708545		
92612546001	PT-01	SM 4500-S2D-2011	708171		
92612546002	PT-02	SM 4500-S2D-2011	708171		
92612546003	PT-03	SM 4500-S2D-2011	708171		
92612546004	PT-04D	SM 4500-S2D-2011	708171		
92612546005	DR-01	SM 4500-S2D-2011	708171		
92612546006	DR-02	SM 4500-S2D-2011	708171		
92612546007	MCM-06	SM 4500-S2D-2011	708171		
92612546008	DPZ-02	SM 4500-S2D-2011	708171		
92612546009	DUP-1	SM 4500-S2D-2011	708171		
92612546010	FB-1	SM 4500-S2D-2011	708171		
92612546001	PT-01	EPA 300.0 Rev 2.1 1993	708118		
92612546002	PT-02	EPA 300.0 Rev 2.1 1993	708118		
92612546003	PT-03	EPA 300.0 Rev 2.1 1993	708118		
92612546004	PT-04D	EPA 300.0 Rev 2.1 1993	708118		
92612546005	DR-01	EPA 300.0 Rev 2.1 1993	708118		
92612546006	DR-02	EPA 300.0 Rev 2.1 1993	708118		
92612546007	MCM-06	EPA 300.0 Rev 2.1 1993	708118		
92612546008	DPZ-02	EPA 300.0 Rev 2.1 1993	708118		
92612546009	DUP-1	EPA 300.0 Rev 2.1 1993	708118		
92612546010	FB-1	EPA 300.0 Rev 2.1 1993	708118		
92612546001	PT-01	SM 4500-CI-E-2011	708577		
92612546002	PT-02	SM 4500-CI-E-2011	708577		
92612546003	PT-03	SM 4500-CI-E-2011	708577		
92612546004	PT-04D	SM 4500-CI-E-2011	708577		
92612546005	DR-01	SM 4500-CI-E-2011	708577		
92612546006	DR-02	SM 4500-CI-E-2011	708577		
92612546007	MCM-06	SM 4500-CI-E-2011	708577		
92612546008	DPZ-02	SM 4500-CI-E-2011	708577		
92612546009	DUP-1	SM 4500-CI-E-2011	708577		
92612546010	FB-1	SM 4500-CI-E-2011	708577		

## REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Face Analytical

Billing Information: Leslie Environmental

Site Collection Info/Address: 7100 E 1st Ave

State: Country/City: Time Zone Collected: A1 Kansasville [ ] PT [ ] MT [ ] CT [ ] ET

Compliance Monitoring? [ ] Yes [ ] No

DW PWS ID #: DW Location Code:

Immediately Packed on Ice: [ ] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day

Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (S), Oil (O), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix \*

Comp / Grab

Collected (or Composite Start) Date

Composite End Date

Res CI

# of Cms

PT-01

PT-02

PT-03

PT-04

DE-01

DE-02

MUM-06

DPZ-02

DUP-1

FB-1

Customer Remarks / Special Conditions / Possible Hazards: Metals - As, Fe, Co, Mg, Ni, K Lab filtration for dissolved metals (not F-01 F-1 heads)

Relinquished by/Company (Signature): [Signature]

Relinquished by/Company (Signature): [Signature]

Relinquished by/Company (Signature): [Signature]

LAB USE ONLY - Affix Workorder/MTI Container Preservative Type \*\* ALL SHADED ARE

W0#: 92612546 92612546

Analyses: Total Metals, Dissolved Metals, Sulfide SM4500, Sulfate EPA 300.0, Alkalinity SM2320B, Chloride SM 4500, TDS

Lab Profile/Time: Lab Sample Receipts, Checklist: Custody Seals present/Intact, Customer Signature Present, Collector Signature Present, Bottles Intact, Corrected Volume, Sufficient Volume, Samples Received on Ice, VOA - Headspace Acceptable, USDA Regulated Soils, Residual Chlorine Present, CI Strips, Sample pH Acceptable, pH Strips, Sulfide Present, Lead Acetate Strips: Y N NA

Table with columns for Lab Tracking #, Samples received via, Client, Courier, and various analysis results (Total Metals, Dissolved Metals, Sulfide, Sulfate, Alkalinity, Chloride, TDS).

Form containing Lab Tracking # (2655160), Date/Time (9/30/02 11:30), Received by/Company (Signature), and Trip Blank Received (Y N NA).





Document Name:  
Sample Condition Upon Receipt (SEUR)  
Document No.:  
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021  
Page 2 of 2  
Issuing Authority:  
Pace Carolinas Quality Office

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

Exceptions: VOA, Coliform, TGC, Oil and Grease, DRO/8035 (water) DOC, L/Hg

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

Project:

**WO# : 92612546**

PM: NMG

Due Date: 07/15/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-Wide-mouthed Glass Jar Unpreserved	AG31U-1 liter Amber Unpreserved (N/A) (Cl-)	AG31H-2 liter Amber HCl (pH < 2)	AG31U-250 mL Amber Unpreserved (N/A) (Cl-)	AG31S-1 liter Amber H2SO4 (pH < 2)	AG31S-250 mL Amber H2SO4 (pH < 2)	AG32A(DG3A)-250 mL Amber NH4Cl (N/A) (Cl-)	DE9H-40 mL VOA HCl (N/A)	V69T-40 mL VOA Na2S2O3 (N/A)	V69U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-S035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Rigids (NH2)2SD4 (9.3-9.7)	AG50U-100 mL Amber Unpreserved vials (N/A)	V50U-20 mL Schindleron vials (N/A)	D59U-40 mL Amber Unpreserved vials (N/A)		
1	3	1																												
2	3	1																												
3	3	1																												
4	3	1																												
5	3	1																												
6	3	1																												
7	3	1																												
8	3	1																												
9	3	1																												
10	3	1																												
11																														
12																														

**pH Adjustment Log for Preserved Samples**

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

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



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kristen N Jurinko  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Generated 12/16/2022 3:54:27 PM Revision 2

## JOB DESCRIPTION

Plant McManus AP1

## JOB NUMBER

680-221504-1

# Eurofins Savannah

## Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

## Authorization



Authorized for release by  
David Fuller, Project Manager  
[David.Fuller@et.eurofinsus.com](mailto:David.Fuller@et.eurofinsus.com)  
(770)344-8986

Generated  
12/16/2022 3:54:27 PM  
Revision 2

# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
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.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control 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
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

Eurofins Savannah

# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

1

2

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11

12

# Sample Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-221504-1	MCM-18	Water	09/20/22 14:30	09/21/22 17:30
680-221504-2	MCM-19	Water	09/20/22 15:58	09/21/22 17:30
680-221504-3	DUP-1	Water	09/20/22 00:00	09/21/22 17:30
680-221504-4	FB-1	Water	09/20/22 17:50	09/21/22 17:30
680-221504-5	EB-1	Water	09/20/22 17:40	09/21/22 17:30
680-221504-6	MCM-06	Water	09/20/22 10:14	09/21/22 17:30
680-221504-7	MCM-20	Water	09/20/22 11:22	09/21/22 17:30
680-221504-8	DPZ-2	Water	09/20/22 12:20	09/21/22 17:30
680-221504-9	PT-01	Water	09/20/22 10:15	09/21/22 17:30
680-221504-10	PT-02	Water	09/20/22 16:45	09/21/22 17:30
680-221504-11	PT-03	Water	09/20/22 16:28	09/21/22 17:30
680-221504-12	DR-01	Water	09/20/22 15:15	09/21/22 17:30
680-221504-13	DR-02	Water	09/20/22 15:05	09/21/22 17:30
680-221590-1	MCM-01	Water	09/21/22 18:08	09/23/22 10:40
680-221590-2	MCM-02	Water	09/21/22 13:56	09/23/22 10:40
680-221590-3	MCM-04	Water	09/21/22 15:20	09/23/22 10:40
680-221590-4	MCM-05	Water	09/21/22 15:20	09/23/22 10:40
680-221590-5	MCM-07	Water	09/21/22 10:50	09/23/22 10:40
680-221590-6	MCM-11	Water	09/21/22 11:26	09/23/22 10:40
680-221590-7	MCM-12	Water	09/21/22 11:10	09/23/22 10:40
680-221590-8	MCM-14	Water	09/21/22 14:00	09/23/22 10:40
680-221590-9	MCM-15	Water	09/21/22 16:45	09/23/22 10:40
680-221590-10	MCM-16	Water	09/21/22 17:00	09/23/22 10:40
680-221590-11	MCM-17	Water	09/21/22 18:45	09/23/22 10:40
680-221590-12	DUP-2	Water	09/21/22 00:00	09/23/22 10:40
680-221590-13	FB-2	Water	09/21/22 17:25	09/23/22 10:40
680-221590-14	EB-2	Water	09/21/22 17:35	09/23/22 10:40
680-221590-15	PT-04D	Water	09/21/22 14:00	09/23/22 10:40

# Case Narrative

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Job ID: 680-221504-1**

**Laboratory: Eurofins Savannah**

## Narrative

### Job Narrative 680-221504-1

#### Revision 2

The report being provided is a revision of the original report sent on 10/18/2022. The report (revision 2) is being revised in order to report Lithium with less of a dilution for samples: DUP-1 (680-221504-3), MCM-06 (680-221504-6) and MCM-20 (680-221504-7) 680-221504-3. The same recent changes in the Pensacola's lab's control limits for internal standards made this possible. However, these Lithium results still did not meet the data quality objectives for this site, so these same three samples listed above were sent to Eurofins Pittsburgh in an attempt to report Lithium without dilution. These Lithium results are now reported with the 12/15/22 6020B analyses for DUP-1 (680-221504-3), MCM-06 (680-221504-6) and MCM-20 (680-221504-7).

#### Report revision history

Revision 1 - 11/18/2022 - Reason - in order to correct 6020B metals results, that were originally reported at 50, 100 or even 500 times diluted. to now report with only a 5X dilution. Recent changes in the lab's control limits for internal standards made this possible. NOTE: three samples still required 50 times dilution for Lithium due to matrix interferences as noted below.

#### Receipt

The samples were received on 9/21/2022 5:30 PM and 9/23/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.8°C, 2.0°C, 2.0°C, 2.2°C, 2.4°C, 2.5°C, 2.6°C, 3.0°C and 3.0°C

#### HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike (MS) recovery for analytical batch 680-743856 were outside control limits for fluoride. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

Method 6020B: The following samples were diluted due to the abundance of non-target analytes: MCM-17 (680-221590-11), DR-01 (680-221504-12), DR-02 (680-221504-13) PT-04D (680-221590-15). Elevated reporting limits (RLs) are provided.

Method 6020B: Internal standard responses were outside of acceptance limits for the following sample(s): DUP-1 (680-221504-3), MCM-06 (680-221504-6) and MCM-20 (680-221504-7). The samples show evidence of matrix interference so a dilution of 50X was required.

Method 6020B: The method blank for Analytical Batches 594928 and 595577 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-742786 and analytical batch 680-743020 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

Method 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-741871 was outside control limits: (680-221381-H-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-742241 was outside control limits: (680-221557-A-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.



# Case Narrative

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

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## Job ID: 680-221504-1 (Continued)

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### Laboratory: Eurofins Savannah (Continued)

Method SM4500\_S2\_F: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-742189 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-18**

**Lab Sample ID: 680-221504-1**

Date Collected: 09/20/22 14:30

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200		10	2.0	mg/L			10/03/22 16:32	10
Fluoride	0.61	J	1.0	0.40	mg/L			10/03/22 16:32	10
Sulfate	160		10	4.0	mg/L			10/03/22 16:32	10

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 22:57	5
Barium	0.11		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:41	1
Arsenic	0.0026	J	0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 22:57	5
Beryllium	0.0030		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:41	1
Boron	0.18	J B	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 22:57	5
Cadmium	0.00078	J	0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:41	1
Calcium	20		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:41	1
Chromium	0.0021	J	0.013	0.0010	mg/L		10/01/22 11:45	10/13/22 21:48	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:41	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 22:57	5
Iron	32		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:41	1
Lithium	<0.0049	F1	0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 21:48	5
Magnesium	62		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:41	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:41	1
Potassium	9.0		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:41	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:41	1
Sodium	690		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:26	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:41	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 15:58	0

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/26/22 14:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:15	1
Total Dissolved Solids (SM 2540C-2011)	2000		80	80	mg/L			09/23/22 10:39	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.47				SU			09/20/22 14:30	1

**Client Sample ID: MCM-19**

**Lab Sample ID: 680-221504-2**

Date Collected: 09/20/22 15:58

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6200		100	20	mg/L			10/03/22 16:44	100
Fluoride	<4.0		10	4.0	mg/L			10/03/22 16:44	100

Eurofins Savannah

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-19**

**Lab Sample ID: 680-221504-2**

Date Collected: 09/20/22 15:58

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	740		100	40	mg/L			10/03/22 16:44	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:12	5
Barium	0.12		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:53	1
Arsenic	0.021		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:12	5
Beryllium	0.017		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:53	1
Boron	0.77	B	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:12	5
Cadmium	0.0083		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:53	1
Calcium	150		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:53	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:12	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:53	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:12	5
Iron	120		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:53	1
Lithium	0.014	J	0.050	0.0098	mg/L		10/01/22 11:45	10/13/22 21:54	10
Magnesium	430		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:53	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:53	1
Potassium	73		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:53	1
Selenium	0.0046	J	0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:53	1
Sodium	3200		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:38	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:53	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	29		5.0	2.2	mg/L			09/26/22 14:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	29		5.0	5.0	mg/L			09/26/22 14:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:01	1
Total Dissolved Solids (SM 2540C-2011)	10000		2000	2000	mg/L			09/23/22 10:39	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.14				SU			09/20/22 15:58	1

**Client Sample ID: DUP-1**

**Lab Sample ID: 680-221504-3**

Date Collected: 09/20/22 00:00

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2200		25	5.0	mg/L			10/03/22 16:57	25
Fluoride	1.1	J	2.5	1.0	mg/L			10/03/22 16:57	25
Sulfate	290		25	10	mg/L			10/03/22 16:57	25

Eurofins Savannah

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DUP-1**  
Date Collected: 09/20/22 00:00  
Date Received: 09/21/22 17:30

**Lab Sample ID: 680-221504-3**  
Matrix: Water

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:15	5
<b>Barium</b>	<b>0.028</b>		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Arsenic</b>	<b>0.18</b>		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:15	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Boron</b>	<b>1.1</b>	<b>B</b>	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:15	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Calcium</b>	<b>49</b>		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:56	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:15	5
<b>Cobalt</b>	<b>0.00025</b>	<b>J</b>	0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:56	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:15	5
<b>Iron</b>	<b>0.075</b>	<b>J</b>	0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:56	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:00	50
<b>Magnesium</b>	<b>92</b>		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Molybdenum</b>	<b>0.0013</b>	<b>J</b>	0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Potassium</b>	<b>61</b>		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:56	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:56	1
<b>Sodium</b>	<b>1400</b>		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:42	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:56	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:03	1

**Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lithium</b>	<b>0.043</b>		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 12:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)</b>	<b>250</b>		5.0	2.2	mg/L			09/26/22 14:26	1
<b>Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)</b>	<b>250</b>		5.0	5.0	mg/L			09/26/22 14:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:26	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>4000</b>		400	400	mg/L			09/23/22 10:39	1

**Client Sample ID: FB-1**

Date Collected: 09/20/22 17:50  
Date Received: 09/21/22 17:30

**Lab Sample ID: 680-221504-4**  
Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 17:09	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 17:09	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 17:09	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:37	5
Barium	<0.00089		0.010	0.00089	mg/L		09/23/22 07:50	09/24/22 04:06	1

Eurofins Savannah

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: FB-1**

**Lab Sample ID: 680-221504-4**

Date Collected: 09/20/22 17:50

Matrix: Water

Date Received: 09/21/22 17:30

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:37	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/23/22 07:50	09/24/22 04:06	1
<b>Boron</b>	<b>0.0051</b>	<b>J B</b>	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:37	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/23/22 07:50	09/24/22 04:06	1
Calcium	<0.14		0.50	0.14	mg/L		09/23/22 07:50	09/24/22 04:06	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:37	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/23/22 07:50	09/24/22 04:06	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:37	5
Iron	<0.026		0.10	0.026	mg/L		09/23/22 07:50	09/24/22 04:06	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 22:07	5
Magnesium	<0.023		0.50	0.023	mg/L		09/23/22 07:50	09/26/22 17:24	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/23/22 07:50	09/24/22 04:06	1
Potassium	<0.16		1.0	0.16	mg/L		09/23/22 07:50	09/24/22 04:06	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/23/22 07:50	09/24/22 04:06	1
Sodium	<0.20		0.50	0.20	mg/L		09/23/22 07:50	09/24/22 04:06	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/23/22 07:50	09/24/22 04:06	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/26/22 14:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/26/22 14:32	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/23/22 10:39	1

**Client Sample ID: EB-1**

**Lab Sample ID: 680-221504-5**

Date Collected: 09/20/22 17:40

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 17:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 17:21	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 17:21	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:40	5
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 22:10	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:40	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 22:10	1
<b>Boron</b>	<b>0.0033</b>	<b>J B</b>	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:40	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 22:10	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 22:10	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:40	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: EB-1**

**Lab Sample ID: 680-221504-5**

Date Collected: 09/20/22 17:40

Matrix: Water

Date Received: 09/21/22 17:30

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 22:10	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:40	5
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 22:10	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 22:13	5
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 22:10	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 22:10	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 22:10	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 22:10	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:18	09/23/22 22:10	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 22:10	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 18:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 18:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 18:51	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/23/22 10:39	1

**Client Sample ID: MCM-06**

**Lab Sample ID: 680-221504-6**

Date Collected: 09/20/22 10:14

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2800		25	5.0	mg/L			10/03/22 17:34	25
Fluoride	1.1	J	2.5	1.0	mg/L			10/03/22 17:34	25
Sulfate	320		25	10	mg/L			10/03/22 17:34	25

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:43	5
Barium	0.027		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 22:14	1
Arsenic	0.18		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:43	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 22:14	1
Boron	1.1	B	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:43	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 22:14	1
Calcium	47		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 22:14	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:43	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 22:14	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:43	5
Iron	0.056	J	0.10	0.026	mg/L		09/22/22 14:18	09/23/22 22:14	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:34	50
Magnesium	91		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 22:14	1
Molybdenum	0.0013	J	0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 22:14	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-06**

**Lab Sample ID: 680-221504-6**

Date Collected: 09/20/22 10:14

Matrix: Water

Date Received: 09/21/22 17:30

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	56		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 22:14	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 22:14	1
Sodium	1400		5.0	2.0	mg/L		09/22/22 14:18	09/26/22 16:06	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 22:14	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:31	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:16	1

**Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.043		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 13:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	270		5.0	2.2	mg/L			09/27/22 19:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	270		5.0	5.0	mg/L			09/27/22 19:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:18	1
Total Dissolved Solids (SM 2540C-2011)	3900		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	20	F1	0.83	0.83	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.29				SU			09/20/22 10:14	1

**Client Sample ID: MCM-20**

**Lab Sample ID: 680-221504-7**

Date Collected: 09/20/22 11:22

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5700		50	10	mg/L			10/03/22 17:46	50
Fluoride	4.3	J	5.0	2.0	mg/L			10/03/22 17:46	50
Sulfate	750		50	20	mg/L			10/03/22 17:46	50

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:46	5
Barium	0.12		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 21:51	1
Arsenic	0.026		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:46	5
Beryllium	0.020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 21:51	1
Boron	0.90	B	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:46	5
Cadmium	0.0043		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 21:51	1
Calcium	100		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 21:51	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-20**

**Lab Sample ID: 680-221504-7**

Date Collected: 09/20/22 11:22

Matrix: Water

Date Received: 09/21/22 17:30

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:46	5
<b>Cobalt</b>	<b>0.030</b>		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 21:51	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:46	5
<b>Iron</b>	<b>130</b>		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 21:51	1
Lithium	<0.049		0.25	0.049	mg/L		10/01/22 11:45	10/13/22 22:41	50
<b>Magnesium</b>	<b>330</b>		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 21:51	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 21:51	1
<b>Potassium</b>	<b>74</b>		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 21:51	1
<b>Selenium</b>	<b>0.0027</b>	<b>J</b>	0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 21:51	1
<b>Sodium</b>	<b>2900</b>		5.0	2.0	mg/L		09/22/22 14:18	09/26/22 15:51	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 21:51	1

### Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron, Dissolved</b>	<b>120</b>		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 18:06	1

### Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:18	1

### Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lithium</b>	<b>0.029</b>		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 13:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 19:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:06	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>8600</b>		2000	2000	mg/L			09/23/22 10:39	1
<b>Sulfide (SM 4500 S2 F-2011)</b>	<b>2.1</b>		0.86	0.86	mg/L			09/26/22 10:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Field pH</b>	<b>3.63</b>				SU			09/20/22 11:22	1

**Client Sample ID: DPZ-2**

**Lab Sample ID: 680-221504-8**

Date Collected: 09/20/22 12:20

Matrix: Water

Date Received: 09/21/22 17:30

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>7400</b>		100	20	mg/L			10/06/22 16:18	100
Fluoride	<4.0		10	4.0	mg/L			10/06/22 16:18	100
<b>Sulfate</b>	<b>820</b>		100	40	mg/L			10/06/22 16:18	100

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DPZ-2**  
Date Collected: 09/20/22 12:20  
Date Received: 09/21/22 17:30

**Lab Sample ID: 680-221504-8**  
Matrix: Water

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 23:49	5
<b>Barium</b>	<b>0.069</b>		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 20:00	1
<b>Arsenic</b>	<b>0.021</b>		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 23:49	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 20:00	1
<b>Boron</b>	<b>1.7 B</b>		0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 23:49	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 20:00	1
<b>Calcium</b>	<b>240</b>		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 20:00	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 23:49	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 20:00	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 23:49	5
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 20:00	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/07/22 23:49	5
<b>Magnesium</b>	<b>450</b>		5.0	0.23	mg/L		09/22/22 14:42	09/26/22 16:45	10
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 20:00	1
<b>Potassium</b>	<b>140</b>		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 20:00	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 20:00	1
<b>Sodium</b>	<b>4100</b>		5.0	2.0	mg/L		09/22/22 14:42	09/26/22 16:45	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 20:00	1

### Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:42	1

### Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 16:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)</b>	<b>410</b>		5.0	2.2	mg/L			09/27/22 19:24	1
<b>Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)</b>	<b>410</b>		5.0	5.0	mg/L			09/27/22 19:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:24	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>13000</b>		2000	2000	mg/L			09/23/22 10:39	1
<b>Sulfide (SM 4500 S2 F-2011)</b>	<b>23</b>		0.83	0.83	mg/L			09/26/22 10:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Field pH</b>	<b>7.07</b>				SU			09/20/22 12:20	1

**Client Sample ID: PT-01**  
Date Collected: 09/20/22 10:15  
Date Received: 09/21/22 17:30

**Lab Sample ID: 680-221504-9**  
Matrix: Water

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2400</b>		25	5.0	mg/L			10/06/22 16:30	25
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:30	25
<b>Sulfate</b>	<b>210</b>		25	10	mg/L			10/06/22 16:30	25

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: PT-01**

**Lab Sample ID: 680-221504-9**

Date Collected: 09/20/22 10:15

Matrix: Water

Date Received: 09/21/22 17:30

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.035		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:52	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:52	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.039	J	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:53	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	4600		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	19		0.83	0.83	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.12				SU			09/20/22 10:15	1

**Client Sample ID: PT-02**

**Lab Sample ID: 680-221504-10**

Date Collected: 09/20/22 16:45

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		25	5.0	mg/L			10/06/22 16:43	25
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:43	25
Sulfate	190		25	10	mg/L			10/06/22 16:43	25

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0094		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:55	5
Iron	0.12	J	0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:55	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.035	J	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	3800		400	400	mg/L			09/23/22 10:39	1
Sulfide (SM 4500 S2 F-2011)	19		0.83	0.83	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.38				SU			09/20/22 16:45	1

**Client Sample ID: PT-03**

**Lab Sample ID: 680-221504-11**

Date Collected: 09/20/22 16:28

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900		25	5.0	mg/L			10/06/22 16:56	25

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: PT-03**

**Lab Sample ID: 680-221504-11**

Date Collected: 09/20/22 16:28

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.0		2.5	1.0	mg/L			10/06/22 16:56	25
Sulfate	210		25	10	mg/L			10/06/22 16:56	25

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.047		0.0013	0.0012	mg/L		10/01/22 11:45	10/07/22 23:58	5
Iron	0.097	J	0.13	0.079	mg/L		10/01/22 11:45	10/07/22 23:58	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	3700		200	200	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	18		0.83	0.83	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.30				SU			09/20/22 16:28	1

**Client Sample ID: DR-01**

**Lab Sample ID: 680-221504-12**

Date Collected: 09/20/22 15:15

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3100		25	5.0	mg/L			10/06/22 21:37	25
Fluoride	1.0	J	2.5	1.0	mg/L			10/06/22 21:37	25
Sulfate	330		25	10	mg/L			10/06/22 21:37	25

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.030		0.0013	0.0012	mg/L		10/01/22 11:45	10/08/22 00:01	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/08/22 00:01	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	5800		400	400	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	24		0.81	0.81	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.36				SU			09/20/22 15:15	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DR-02**

**Lab Sample ID: 680-221504-13**

Date Collected: 09/20/22 15:05

Matrix: Water

Date Received: 09/21/22 17:30

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3700		50	10	mg/L			10/06/22 19:52	50
Fluoride	<2.0		5.0	2.0	mg/L			10/06/22 19:52	50
Sulfate	430		50	20	mg/L			10/06/22 19:52	50

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.036		0.0013	0.0012	mg/L		10/01/22 11:45	10/08/22 00:05	5
Iron	<0.079		0.13	0.079	mg/L		10/01/22 11:45	10/08/22 00:05	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.035	J	0.10	0.026	mg/L		09/23/22 05:58	09/24/22 03:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	7800		2000	2000	mg/L			09/26/22 13:05	1
Sulfide (SM 4500 S2 F-2011)	22		0.86	0.86	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.32				SU			09/20/22 15:05	1

**Client Sample ID: MCM-01**

**Lab Sample ID: 680-221590-1**

Date Collected: 09/21/22 18:08

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		1.0	0.20	mg/L			10/07/22 23:36	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 23:36	1
Sulfate	39		1.0	0.40	mg/L			10/07/22 23:36	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:31	5
Barium	0.11		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:55	1
Arsenic	0.0057	J	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:31	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:55	1
Boron	0.35	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:31	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:55	1
Calcium	9.2		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:55	1
Chromium	0.0014	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:31	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:55	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:31	5
Iron	2.7		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:55	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:31	5
Magnesium	1.9		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:55	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:55	1
Potassium	2.2		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:55	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:55	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-01**  
Date Collected: 09/21/22 18:08  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-1**  
Matrix: Water

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	17		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:55	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:55	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:52	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0		5.0	2.2	mg/L			09/27/22 19:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	5.0		5.0	5.0	mg/L			09/27/22 19:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:38	1
Total Dissolved Solids (SM 2540C-2011)	100		10	10	mg/L			09/26/22 13:05	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.95				SU			09/21/22 18:08	1

**Client Sample ID: MCM-02**  
Date Collected: 09/21/22 13:56  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-2**  
Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		1.0	0.20	mg/L			10/07/22 23:49	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 23:49	1
Sulfate	29		1.0	0.40	mg/L			10/07/22 23:49	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:35	5
Barium	0.076		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:36	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:35	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:36	1
Boron	0.23	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:35	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:36	1
Calcium	4.3		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:36	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:35	5
Cobalt	0.00032	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:36	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:35	5
Iron	1.2		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:36	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:35	5
Magnesium	2.1		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:36	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:36	1
Potassium	0.81	J	1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:36	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:36	1
Sodium	19		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:36	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:36	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-02**

**Lab Sample ID: 680-221590-2**

Date Collected: 09/21/22 13:56

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.9		5.0	2.2	mg/L			09/27/22 21:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	5.9		5.0	5.0	mg/L			09/27/22 21:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:37	1
Total Dissolved Solids (SM 2540C-2011)	90		10	10	mg/L			09/26/22 13:05	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.14				SU			09/21/22 13:56	1

**Client Sample ID: MCM-04**

**Lab Sample ID: 680-221590-3**

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		1.0	0.20	mg/L			10/08/22 00:02	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 00:02	1
Sulfate	52		1.0	0.40	mg/L			10/08/22 00:02	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:38	5
Barium	0.029		0.010	0.00089	mg/L		09/29/22 10:24	09/30/22 17:27	1
Arsenic	0.0017	J	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:38	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/29/22 10:24	09/30/22 17:27	1
Boron	0.19	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:38	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/29/22 10:24	09/30/22 17:27	1
Calcium	7.8		0.50	0.14	mg/L		09/29/22 10:24	09/30/22 17:27	1
Chromium	0.0015	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:38	5
Cobalt	0.0025		0.0025	0.00022	mg/L		09/29/22 10:24	09/30/22 17:27	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:38	5
Iron	2.4		0.10	0.026	mg/L		09/29/22 10:24	09/30/22 17:27	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:38	5
Magnesium	2.4		0.50	0.023	mg/L		09/29/22 10:24	09/30/22 17:27	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/29/22 10:24	09/30/22 17:27	1
Potassium	7.7		1.0	0.16	mg/L		09/29/22 10:24	09/30/22 17:27	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/29/22 10:24	09/30/22 17:27	1
Sodium	39		0.50	0.20	mg/L		09/29/22 10:24	09/30/22 17:27	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/29/22 10:24	09/30/22 17:27	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:57	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-04**

**Lab Sample ID: 680-221590-3**

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	12		5.0	2.2	mg/L			09/27/22 19:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	12		5.0	5.0	mg/L			09/27/22 19:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:49	1
Total Dissolved Solids (SM 2540C-2011)	180		40	40	mg/L			09/26/22 13:05	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.34				SU			09/21/22 15:20	1

**Client Sample ID: MCM-05**

**Lab Sample ID: 680-221590-4**

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		10	2.0	mg/L			10/09/22 10:33	10
Fluoride	0.48		0.10	0.040	mg/L			10/08/22 00:14	1
Sulfate	100		1.0	0.40	mg/L			10/08/22 00:14	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:41	5
Barium	0.014		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:09	1
Arsenic	0.0077		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:41	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:09	1
Boron	0.61	B	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:41	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:09	1
Calcium	28		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:09	1
Chromium	0.0016	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:41	5
Cobalt	0.00026	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:09	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:41	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:09	1
Lithium	0.018	J	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:41	5
Magnesium	60		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:09	1
Molybdenum	0.00095	J	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:09	1
Potassium	33		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:09	1
Selenium	<0.0012	F1	0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:09	1
Sodium	620		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 17:46	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:09	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:59	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	210		5.0	2.2	mg/L			09/27/22 21:08	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-05**

**Lab Sample ID: 680-221590-4**

Date Collected: 09/21/22 15:20

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	210		5.0	5.0	mg/L			09/27/22 21:08	1
Carbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:08	1
Total Dissolved Solids (SM 2540C-2011)	2100		80	80	mg/L			09/27/22 12:02	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.93				SU			09/21/22 15:20	1

**Client Sample ID: MCM-07**

**Lab Sample ID: 680-221590-5**

Date Collected: 09/21/22 10:50

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6400		100	20	mg/L			10/09/22 10:46	100
Fluoride	0.18		0.10	0.040	mg/L			10/08/22 00:27	1
Sulfate	660		100	40	mg/L			10/09/22 10:46	100

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:44	5
Barium	0.12		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:21	1
Arsenic	0.010		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:44	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:21	1
Boron	1.3	B	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:44	5
Cadmium	0.00020	J	0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:21	1
Calcium	190		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:21	1
Chromium	0.0027	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:44	5
Cobalt	0.00031	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:21	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:44	5
Iron	0.033	J	0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:21	1
Lithium	0.020	J	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:44	5
Magnesium	410		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:21	1
Molybdenum	0.00095	J	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:21	1
Potassium	100		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:21	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:21	1
Sodium	3100		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 17:58	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:21	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:02	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO <sub>3</sub> to pH 4.5 (SM 2320B-2011)	300		5.0	2.2	mg/L			09/27/22 20:45	1
Bicarbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	300		5.0	5.0	mg/L			09/27/22 20:45	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-07**

**Lab Sample ID: 680-221590-5**

Date Collected: 09/21/22 10:50

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:45	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>9400</b>		2000	2000	mg/L			09/27/22 12:02	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.27				SU			09/21/22 10:50	1

**Client Sample ID: MCM-11**

**Lab Sample ID: 680-221590-6**

Date Collected: 09/21/22 11:26

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32		1.0	0.20	mg/L			10/08/22 00:40	1
Fluoride	0.11		0.10	0.040	mg/L			10/08/22 00:40	1
Sulfate	23		1.0	0.40	mg/L			10/08/22 00:40	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 23:47	5
Barium	0.040		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:07	1
Arsenic	0.013		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 23:47	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:07	1
Boron	0.17	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 23:47	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:07	1
Calcium	7.6		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:07	1
Chromium	0.0015	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 23:47	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:07	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 23:47	5
Iron	7.0		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:07	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 23:47	5
Magnesium	1.8		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:07	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:07	1
Potassium	0.69	J	1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:07	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:07	1
Sodium	23		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:07	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:07	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:04	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Alkalinity as CaCO<sub>3</sub> to pH 4.5 (SM 2320B-2011)</b>	<b>26</b>		5.0	2.2	mg/L			09/27/22 21:23	1
<b>Bicarbonate Alkalinity as CaCO<sub>3</sub> (SM 2320B-2011)</b>	<b>26</b>		5.0	5.0	mg/L			09/27/22 21:23	1
Carbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:23	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-11**

Date Collected: 09/21/22 11:26

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-6**

Matrix: Water

### General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	110		10	10	mg/L			09/27/22 12:02	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.97				SU			09/21/22 11:26	1

**Client Sample ID: MCM-12**

Date Collected: 09/21/22 11:10

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-7**

Matrix: Water

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	400		5.0	1.0	mg/L			10/08/22 01:56	5
Fluoride	1.3		0.50	0.20	mg/L			10/08/22 01:56	5
Sulfate	<2.0		5.0	2.0	mg/L			10/08/22 01:56	5

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:01	5
Barium	0.068		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:03	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:01	5
Beryllium	0.0011	J	0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:03	1
Boron	1.3		0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:01	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:03	1
Calcium	4.7		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:03	1
Chromium	0.0077	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:01	5
Cobalt	0.00042	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:03	1
Lead	0.00083	J	0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:01	5
Iron	0.17		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:03	1
Lithium	0.0075	J	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:01	5
Magnesium	8.7		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:03	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:03	1
Potassium	19		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:03	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:03	1
Sodium	400		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:03	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:03	1

### Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:07	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	450		5.0	2.2	mg/L			09/27/22 21:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	450		5.0	5.0	mg/L			09/27/22 21:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:17	1
Total Dissolved Solids (SM 2540C-2011)	1300		40	40	mg/L			09/27/22 12:02	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-12**

Date Collected: 09/21/22 11:10

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-7**

Matrix: Water

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.30				SU			09/21/22 11:10	1

**Client Sample ID: MCM-14**

Date Collected: 09/21/22 14:00

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-8**

Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3300		100	20	mg/L			10/09/22 10:58	100
Fluoride	0.12		0.10	0.040	mg/L			10/08/22 02:08	1
Sulfate	270		100	40	mg/L			10/09/22 10:58	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 19:46	5
Barium	0.059		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:25	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 19:46	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:25	1
Boron	1.0	B	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 19:46	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:25	1
Calcium	74		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:25	1
Chromium	0.0015	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 19:46	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:25	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 19:46	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:25	1
Lithium	0.028		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 19:46	5
Magnesium	150		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:25	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:25	1
Potassium	61		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:25	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:25	1
Sodium	1600		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 18:01	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:25	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	210		5.0	2.2	mg/L			09/27/22 19:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	210		5.0	5.0	mg/L			09/27/22 19:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 19:56	1
Total Dissolved Solids (SM 2540C-2011)	7400		400	400	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.61				SU			09/21/22 14:00	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-15**

**Lab Sample ID: 680-221590-9**

Date Collected: 09/21/22 16:45

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.20	mg/L			10/08/22 02:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 02:21	1
Sulfate	6.3		1.0	0.40	mg/L			10/08/22 02:21	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:04	5
Barium	0.022		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:15	1
Arsenic	0.0044	J	0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:04	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:15	1
Boron	0.14	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:04	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:15	1
Calcium	0.83		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:15	1
Chromium	0.0020	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:04	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:15	1
Lead	0.00092	J	0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:04	5
Iron	0.46		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:15	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:04	5
Magnesium	0.33	J	0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:15	1
Molybdenum	0.00094	J	0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:15	1
Potassium	7.3		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:15	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:15	1
Sodium	2.6		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:15	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:15	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:17	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	6.7		5.0	2.2	mg/L			09/27/22 20:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	6.7		5.0	5.0	mg/L			09/27/22 20:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:02	1
Total Dissolved Solids (SM 2540C-2011)	38		10	10	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.23				SU			09/21/22 16:45	1

**Client Sample ID: MCM-16**

**Lab Sample ID: 680-221590-10**

Date Collected: 09/21/22 17:00

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		1.0	0.20	mg/L			10/08/22 01:18	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 01:18	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-16**

**Lab Sample ID: 680-221590-10**

Date Collected: 09/21/22 17:00

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	24		1.0	0.40	mg/L			10/08/22 01:18	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:08	5
Barium	0.11		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:48	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:08	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:48	1
Boron	0.12	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:08	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:48	1
Calcium	4.6		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:48	1
Chromium	0.0015	J	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:08	5
Cobalt	0.00024	J	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:48	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:08	5
Iron	1.7		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:48	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:08	5
Magnesium	2.3		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:48	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:48	1
Potassium	1.0		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:48	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:48	1
Sodium	11		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:48	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:48	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	3.4	J	5.0	2.2	mg/L			09/27/22 20:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 20:23	1
Total Dissolved Solids (SM 2540C-2011)	78		10	10	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.91				SU			09/21/22 17:00	1

**Client Sample ID: MCM-17**

**Lab Sample ID: 680-221590-11**

Date Collected: 09/21/22 18:45

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3300		100	20	mg/L			10/09/22 11:10	100
Fluoride	0.78		0.20	0.080	mg/L			10/08/22 02:34	2
Sulfate	330		2.0	0.80	mg/L			10/08/22 02:34	2

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-17**

**Lab Sample ID: 680-221590-11**

Date Collected: 09/21/22 18:45

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:11	5
<b>Barium</b>	<b>0.089</b>		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:52	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 20:11	5
<b>Beryllium</b>	<b>0.00029</b>	<b>J</b>	0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Boron</b>	<b>1.8</b>		0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:11	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Calcium</b>	<b>110</b>		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Chromium</b>	<b>0.0063</b>	<b>J</b>	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:11	5
<b>Cobalt</b>	<b>0.00025</b>	<b>J</b>	0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:52	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:11	5
<b>Iron</b>	<b>0.034</b>	<b>J</b>	0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Lithium</b>	<b>0.023</b>	<b>J</b>	0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:11	5
<b>Magnesium</b>	<b>170</b>		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:52	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Potassium</b>	<b>86</b>		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:52	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:52	1
<b>Sodium</b>	<b>1800</b>		5.0	2.0	mg/L		09/27/22 06:03	09/28/22 18:05	10
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:52	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)</b>	<b>570</b>		5.0	2.2	mg/L			09/27/22 21:44	1
<b>Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)</b>	<b>570</b>		5.0	5.0	mg/L			09/27/22 21:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:44	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>6200</b>		400	400	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Field pH</b>	<b>6.72</b>				SU			09/21/22 18:45	1

**Client Sample ID: DUP-2**

**Lab Sample ID: 680-221590-12**

Date Collected: 09/21/22 00:00

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.0</b>		1.0	0.20	mg/L			10/08/22 03:12	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:12	1
<b>Sulfate</b>	<b>5.9</b>		1.0	0.40	mg/L			10/08/22 03:12	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:38	5
<b>Barium</b>	<b>0.022</b>		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:59	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DUP-2**  
Date Collected: 09/21/22 00:00  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-12**  
Matrix: Water

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.0030</b>	<b>J</b>	0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:30	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Boron</b>	<b>0.036</b>	<b>J B</b>	0.40	0.0012	mg/L		10/02/22 11:35	10/07/22 21:30	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Calcium</b>	<b>0.86</b>		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Chromium</b>	<b>0.0018</b>	<b>J</b>	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:38	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:59	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:38	5
<b>Iron</b>	<b>0.45</b>		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:59	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:38	5
<b>Magnesium</b>	<b>0.33</b>	<b>J</b>	0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Molybdenum</b>	<b>0.00094</b>	<b>J</b>	0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Potassium</b>	<b>7.5</b>		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:59	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:59	1
<b>Sodium</b>	<b>2.7</b>		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:59	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:59	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)</b>	<b>7.1</b>		5.0	2.2	mg/L			09/27/22 21:50	1
<b>Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)</b>	<b>7.1</b>		5.0	5.0	mg/L			09/27/22 21:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:50	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>38</b>		10	10	mg/L			09/27/22 12:02	1

**Client Sample ID: FB-2**  
Date Collected: 09/21/22 17:25  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221590-13**  
Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 03:24	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:24	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 03:24	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:41	5
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/28/22 00:11	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:33	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/28/22 00:11	1
<b>Boron</b>	<b>0.025</b>	<b>J</b>	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:41	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/28/22 00:11	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/28/22 00:11	1
<b>Chromium</b>	<b>0.0010</b>	<b>J</b>	0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:41	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: FB-2**

**Lab Sample ID: 680-221590-13**

Date Collected: 09/21/22 17:25

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/28/22 00:11	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:41	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/28/22 00:11	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:41	5
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/28/22 00:11	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/28/22 00:11	1
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/28/22 00:11	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/28/22 00:11	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/28/22 00:11	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/28/22 00:11	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 21:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 21:55	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/27/22 12:02	1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221590-14**

Date Collected: 09/21/22 17:35

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 03:37	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 03:37	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 03:37	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 20:45	5
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:32	1
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/07/22 21:36	5
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:32	1
<b>Boron</b>	<b>0.021</b>	<b>J</b>	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 20:45	5
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:32	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:32	1
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 20:45	5
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:32	1
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 20:45	5
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:32	1
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 20:45	5
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:32	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:32	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221590-14**

Date Collected: 09/21/22 17:35

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:32	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:32	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:32	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:32	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 11:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			09/27/22 22:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:05	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/27/22 12:02	1

**Client Sample ID: PT-04D**

**Lab Sample ID: 680-221590-15**

Date Collected: 09/21/22 14:00

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6200		100	20	mg/L			10/09/22 11:23	100
Fluoride	<1.0		2.5	1.0	mg/L			10/08/22 02:46	25
Sulfate	750		25	10	mg/L			10/08/22 02:46	25

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0041		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:48	5
Iron	<0.079		0.13	0.079	mg/L		10/02/22 11:35	10/03/22 20:48	5

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 17:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	11000		2000	2000	mg/L			09/27/22 12:02	1
Sulfide (SM 4500 S2 F-2011)	23		0.83	0.83	mg/L			09/26/22 10:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.20				SU			09/21/22 14:00	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 680-743228/2**  
**Matrix: Water**  
**Analysis Batch: 743228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/03/22 10:21	1
Fluoride	<0.040		0.10	0.040	mg/L			10/03/22 10:21	1
Sulfate	<0.40		1.0	0.40	mg/L			10/03/22 10:21	1

**Lab Sample ID: LCS 680-743228/3**  
**Matrix: Water**  
**Analysis Batch: 743228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	90 - 110
Fluoride	2.00	2.06		mg/L		103	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

**Lab Sample ID: LCSD 680-743228/4**  
**Matrix: Water**  
**Analysis Batch: 743228**

**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
Chloride	10.0	10.4		mg/L		104	90 - 110	0	15
Fluoride	2.00	2.07		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	0	15

**Lab Sample ID: 680-221244-A-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 743228**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11		10.0	21.2		mg/L		106	80 - 120	0	15
Fluoride	0.24		2.00	2.37		mg/L		106	80 - 120	0	15
Sulfate	4.9		10.0	14.6		mg/L		96	80 - 120	1	15

**Lab Sample ID: 680-221244-AS-3 MS**  
**Matrix: Water**  
**Analysis Batch: 743228**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	11		10.0	21.2		mg/L		106	80 - 120
Fluoride	0.24		2.00	2.37		mg/L		107	80 - 120
Sulfate	4.9		10.0	14.7		mg/L		97	80 - 120

**Lab Sample ID: MB 680-743856/2**  
**Matrix: Water**  
**Analysis Batch: 743856**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/06/22 10:55	1
Fluoride	<0.040		0.10	0.040	mg/L			10/06/22 10:55	1
Sulfate	<0.40		1.0	0.40	mg/L			10/06/22 10:55	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 680-743856/3**  
**Matrix: Water**  
**Analysis Batch: 743856**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	2.00	2.14		mg/L		107	90 - 110
Sulfate	10.0	9.94		mg/L		99	90 - 110

**Lab Sample ID: LCSD 680-743856/4**  
**Matrix: Water**  
**Analysis Batch: 743856**

**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
Chloride	10.0	9.94		mg/L		99	90 - 110	0	15
Fluoride	2.00	2.17		mg/L		108	90 - 110	1	15
Sulfate	10.0	9.98		mg/L		100	90 - 110	0	15

**Lab Sample ID: 680-221851-C-8 MS**  
**Matrix: Water**  
**Analysis Batch: 743856**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50		10.0	60.5	4	mg/L		102	80 - 120
Fluoride	0.66	F1	2.00	3.11	F1	mg/L		122	80 - 120
Sulfate	7.1		10.0	17.3		mg/L		101	80 - 120

**Lab Sample ID: 680-221851-C-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 743856**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50		10.0	60.3	4	mg/L		100	80 - 120	0	15
Fluoride	0.66	F1	2.00	2.82		mg/L		108	80 - 120	10	15
Sulfate	7.1		10.0	17.1		mg/L		100	80 - 120	1	15

**Lab Sample ID: MB 680-743937/2**  
**Matrix: Water**  
**Analysis Batch: 743937**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/06/22 14:13	1
Fluoride	<0.040		0.10	0.040	mg/L			10/06/22 14:13	1
Sulfate	<0.40		1.0	0.40	mg/L			10/06/22 14:13	1

**Lab Sample ID: LCS 680-743937/3**  
**Matrix: Water**  
**Analysis Batch: 743937**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	2.00	2.04		mg/L		102	90 - 110
Sulfate	10.0	9.75		mg/L		97	90 - 110

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 680-743937/4**  
**Matrix: Water**  
**Analysis Batch: 743937**

**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
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	2.00	2.05		mg/L		102	90 - 110	0	15
Sulfate	10.0	9.83		mg/L		98	90 - 110	1	15

**Lab Sample ID: 190-29941-A-5 MS**  
**Matrix: Water**  
**Analysis Batch: 743937**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	76		10.0	86.1	4	mg/L		102	80 - 120
Fluoride	0.51		2.00	2.65		mg/L		107	80 - 120
Sulfate	24		10.0	33.7		mg/L		100	80 - 120

**Lab Sample ID: 190-29941-A-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 743937**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	76		10.0	86.3	4	mg/L		104	80 - 120	0	15
Fluoride	0.51		2.00	2.67		mg/L		108	80 - 120	1	15
Sulfate	24		10.0	33.8		mg/L		101	80 - 120	0	15

**Lab Sample ID: MB 680-744183/41**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/07/22 21:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 21:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/07/22 21:43	1

**Lab Sample ID: LCS 680-744183/42**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	2.00	1.99		mg/L		100	90 - 110
Sulfate	10.0	9.74		mg/L		97	90 - 110

**Lab Sample ID: LCSD 680-744183/43**  
**Matrix: Water**  
**Analysis Batch: 744183**

**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
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	2.00	1.99		mg/L		100	90 - 110	0	15
Sulfate	10.0	9.82		mg/L		98	90 - 110	1	15

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 190-29943-A-8 MS**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	160		10.0	164	4	mg/L		93	80 - 120
Fluoride	0.064	J	2.00	2.23		mg/L		108	80 - 120
Sulfate	20		10.0	31.0		mg/L		106	80 - 120

**Lab Sample ID: 190-29943-A-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	160		10.0	164	4	mg/L		89	80 - 120	0	15
Fluoride	0.064	J	2.00	2.16		mg/L		105	80 - 120	3	15
Sulfate	20		10.0	30.7		mg/L		102	80 - 120	1	15

**Lab Sample ID: 680-221590-10 MS**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: MCM-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		10.0	27.8		mg/L		104	80 - 120
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120
Sulfate	24		10.0	34.3		mg/L		101	80 - 120

**Lab Sample ID: 680-221590-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: MCM-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		10.0	27.9		mg/L		105	80 - 120	1	15
Fluoride	<0.040		2.00	2.09		mg/L		104	80 - 120	1	15
Sulfate	24		10.0	34.5		mg/L		102	80 - 120	1	15

**Lab Sample ID: MB 680-744301/2**  
**Matrix: Water**  
**Analysis Batch: 744301**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 08:41	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 08:41	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 08:41	1

**Lab Sample ID: LCS 680-744301/3**  
**Matrix: Water**  
**Analysis Batch: 744301**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	2.00	2.04		mg/L		102	90 - 110
Sulfate	10.0	9.31		mg/L		93	90 - 110

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 680-744301/4**  
**Matrix: Water**  
**Analysis Batch: 744301**

**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
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	2.00	2.05		mg/L		102	90 - 110	0	15
Sulfate	10.0	9.28		mg/L		93	90 - 110	0	15

**Lab Sample ID: 660-123946-G-3 MS**  
**Matrix: Water**  
**Analysis Batch: 744301**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	23		10.0	33.6		mg/L		102	80 - 120
Fluoride	<0.040		2.00	2.16		mg/L		108	80 - 120
Sulfate	1.2		10.0	9.23		mg/L		80	80 - 120

**Lab Sample ID: 660-123946-G-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 744301**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	23		10.0	33.6		mg/L		101	80 - 120	0	15
Fluoride	<0.040		2.00	2.11		mg/L		106	80 - 120	2	15
Sulfate	1.2		10.0	9.28		mg/L		81	80 - 120	1	15

## Method: 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 400-594662/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/01/22 11:45	10/07/22 22:50	5
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/01/22 11:45	10/07/22 22:50	5
Iron	<0.079		0.63	0.079	mg/L		10/01/22 11:45	10/07/22 22:50	5
Boron	0.00232	J	0.40	0.0012	mg/L		10/01/22 11:45	10/07/22 22:50	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/01/22 11:45	10/07/22 22:50	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/01/22 11:45	10/07/22 22:50	5

**Lab Sample ID: MB 400-594662/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 596288**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0049		0.025	0.0049	mg/L		10/01/22 11:45	10/13/22 20:57	5

**Lab Sample ID: LCS 400-594662/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.0500	0.0519		mg/L		104	80 - 120
Arsenic	0.0500	0.0486		mg/L		97	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-594662/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	5.00	4.81		mg/L		96	80 - 120
Boron	0.100	0.0953	J	mg/L		95	80 - 120
Lead	0.0500	0.0489		mg/L		98	80 - 120

**Lab Sample ID: LCS 400-594662/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 596288**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.0500	0.0466		mg/L		93	80 - 120
Lithium	0.0500	0.0443		mg/L		89	80 - 120

**Lab Sample ID: 680-221504-1 MS**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0015		0.0500	0.0520		mg/L		104	75 - 125
Arsenic	0.0026	J	0.0500	0.0524		mg/L		100	75 - 125
Iron	34000		5.00	37.9	4	mg/L		-6741	75 - 125
Boron	0.18	J B	0.100	0.283	J	mg/L		103	75 - 125
Chromium	<0.0010	*-	0.0500	0.0383		mg/L		77	75 - 125
Lead	<0.00081		0.0500	0.0496		mg/L		99	75 - 125

**Lab Sample ID: 680-221504-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594662**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0522		mg/L		104	75 - 125	0	20
Arsenic	0.0026	J	0.0500	0.0522		mg/L		99	75 - 125	0	20
Iron	34000		5.00	37.6	4	mg/L		-6741	75 - 125	1	20
Boron	0.18	J B	0.100	0.276	J	mg/L		96	75 - 125	2	20
Chromium	<0.0010	*-	0.0500	0.0407		mg/L		81	75 - 125	6	20
Lead	<0.00081		0.0500	0.0499		mg/L		100	75 - 125	0	20

**Lab Sample ID: MB 400-594690/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594690**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 21:46	5
Boron	0.155	J	0.40	0.0012	mg/L		10/02/22 11:35	10/03/22 21:46	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 21:46	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 21:46	5
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 21:46	5

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-594690/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594690**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Antimony	0.0500	0.0496		mg/L		99	80 - 120	
Chromium	0.0500	0.0448		mg/L		90	80 - 120	
Lead	0.0500	0.0468		mg/L		94	80 - 120	
Lithium	0.0500	0.0441		mg/L		88	80 - 120	

**Lab Sample ID: MB 400-594691/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0015		0.013	0.0015	mg/L		10/02/22 11:35	10/03/22 19:15	5
Arsenic	<0.0012		0.0063	0.0012	mg/L		10/02/22 11:35	10/03/22 19:15	5
Iron	<0.079		0.63	0.079	mg/L		10/02/22 11:35	10/03/22 19:15	5
Chromium	<0.0010		0.013	0.0010	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lead	<0.00081		0.0063	0.00081	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lithium	<0.0049		0.025	0.0049	mg/L		10/02/22 11:35	10/03/22 19:15	5

**Lab Sample ID: MB 400-594691/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	0.00156	J	0.40	0.0012	mg/L		10/02/22 11:35	10/07/22 21:11	5

**Lab Sample ID: LCS 400-594691/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Antimony	0.0500	0.0512		mg/L		102	80 - 120	
Arsenic	0.0500	0.0494		mg/L		99	80 - 120	
Iron	5.00	4.61		mg/L		92	80 - 120	
Chromium	0.0500	0.0482		mg/L		96	80 - 120	
Lead	0.0500	0.0467		mg/L		93	80 - 120	
Lithium	0.0500	0.0460		mg/L		92	80 - 120	

**Lab Sample ID: LCS 400-594691/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Boron	0.100	0.0862	J	mg/L		86	80 - 120	

**Lab Sample ID: 680-221590-8 MS**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: MCM-14**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	
Antimony	<0.0015		0.0500	0.0525		mg/L		105	75 - 125	
Iron	<79		5.00	4.57	4	mg/L		91	75 - 125	

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221590-8 MS**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: MCM-14**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.0	B	0.100	1.21	4	mg/L		178	75 - 125
Chromium	0.0015	J	0.0500	0.0482		mg/L		93	75 - 125
Lead	<0.00081		0.0500	0.0485		mg/L		97	75 - 125
Lithium	0.028		0.0500	0.0755		mg/L		95	75 - 125

**Lab Sample ID: 680-221590-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: MCM-14**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0508		mg/L		102	75 - 125	3	20
Iron	<79		5.00	4.38	4	mg/L		88	75 - 125	4	20
Boron	1.0	B	0.100	1.17	4	mg/L		139	75 - 125	3	20
Chromium	0.0015	J	0.0500	0.0453		mg/L		88	75 - 125	6	20
Lead	<0.00081		0.0500	0.0468		mg/L		94	75 - 125	4	20
Lithium	0.028		0.0500	0.0727		mg/L		90	75 - 125	4	20

**Lab Sample ID: MB 680-741743/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741743**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:18	09/23/22 20:38	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:18	09/23/22 20:38	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:18	09/23/22 20:38	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:18	09/23/22 20:38	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:18	09/23/22 20:38	1
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:18	09/23/22 20:38	1
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:18	09/23/22 20:38	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:18	09/23/22 20:38	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:18	09/23/22 20:38	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:18	09/23/22 20:38	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:18	09/23/22 20:38	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:18	09/23/22 20:38	1

**Lab Sample ID: LCS 680-741743/2-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741743**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.0988		mg/L		99	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Calcium	5.00	5.05		mg/L		101	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120
Iron	5.00	5.10		mg/L		102	80 - 120
Magnesium	5.01	4.88		mg/L		97	80 - 120
Molybdenum	0.100	0.0984		mg/L		98	80 - 120
Potassium	6.97	7.16		mg/L		103	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 680-741743/2-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741743**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.100	0.101		mg/L		101	80 - 120
Sodium	5.05	4.92		mg/L		97	80 - 120
Thallium	0.0500	0.0480		mg/L		96	80 - 120

**Lab Sample ID: 680-221513-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741743**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.022		0.100	0.119		mg/L		98	75 - 125
Beryllium	<0.00020		0.0500	0.0559		mg/L		112	75 - 125
Cadmium	<0.000078		0.0500	0.0522		mg/L		104	75 - 125
Calcium	8.6		5.00	13.5		mg/L		100	75 - 125
Cobalt	<0.00022		0.0500	0.0576		mg/L		115	75 - 125
Iron	<0.026		5.00	5.82		mg/L		116	75 - 125
Magnesium	3.1		5.01	8.12		mg/L		99	75 - 125
Molybdenum	<0.00086		0.100	0.107		mg/L		107	75 - 125
Potassium	2.0		6.97	9.84		mg/L		112	75 - 125
Selenium	<0.0012		0.100	0.108		mg/L		108	75 - 125
Sodium	7.5		5.05	12.6		mg/L		101	75 - 125
Thallium	<0.00026		0.0500	0.0517		mg/L		103	75 - 125

**Lab Sample ID: 680-221513-C-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741743**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Barium	0.022		0.100	0.114		mg/L		93	75 - 125	4	20
Beryllium	<0.00020		0.0500	0.0492		mg/L		98	75 - 125	13	20
Cadmium	<0.000078		0.0500	0.0493		mg/L		99	75 - 125	6	20
Calcium	8.6		5.00	12.9		mg/L		87	75 - 125	5	20
Cobalt	<0.00022		0.0500	0.0551		mg/L		110	75 - 125	4	20
Iron	<0.026		5.00	5.54		mg/L		111	75 - 125	5	20
Magnesium	3.1		5.01	7.55		mg/L		88	75 - 125	7	20
Molybdenum	<0.00086		0.100	0.103		mg/L		103	75 - 125	4	20
Potassium	2.0		6.97	9.30		mg/L		104	75 - 125	6	20
Selenium	<0.0012		0.100	0.105		mg/L		105	75 - 125	3	20
Sodium	7.5		5.05	12.0		mg/L		90	75 - 125	5	20
Thallium	<0.00026		0.0500	0.0501		mg/L		100	75 - 125	3	20

**Lab Sample ID: MB 680-741757/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/22/22 14:42	09/23/22 19:33	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/22/22 14:42	09/23/22 19:33	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/22/22 14:42	09/23/22 19:33	1
Calcium	<0.14		0.50	0.14	mg/L		09/22/22 14:42	09/23/22 19:33	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 680-741757/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/22/22 14:42	09/23/22 19:33	1
Iron	<0.026		0.10	0.026	mg/L		09/22/22 14:42	09/23/22 19:33	1
Magnesium	<0.023		0.50	0.023	mg/L		09/22/22 14:42	09/23/22 19:33	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/22/22 14:42	09/23/22 19:33	1
Potassium	<0.16		1.0	0.16	mg/L		09/22/22 14:42	09/23/22 19:33	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/22/22 14:42	09/23/22 19:33	1
Sodium	<0.20		0.50	0.20	mg/L		09/22/22 14:42	09/23/22 19:33	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/22/22 14:42	09/23/22 19:33	1

**Lab Sample ID: LCS 680-741757/2-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Cadmium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	5.16		mg/L		103	80 - 120
Cobalt	0.0500	0.0525		mg/L		105	80 - 120
Iron	5.00	5.23		mg/L		105	80 - 120
Magnesium	5.01	4.96		mg/L		99	80 - 120
Molybdenum	0.100	0.0989		mg/L		99	80 - 120
Potassium	6.97	7.34		mg/L		105	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120
Sodium	5.05	5.02		mg/L		99	80 - 120
Thallium	0.0500	0.0488		mg/L		98	80 - 120

**Lab Sample ID: 680-221504-1 MS**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Barium	0.11		0.100	0.213		mg/L		100	75 - 125
Beryllium	0.0030		0.0500	0.0559		mg/L		106	75 - 125
Cadmium	0.00078	J	0.0500	0.0508		mg/L		100	75 - 125
Calcium	20		5.00	24.9		mg/L		102	75 - 125
Cobalt	<0.00022		0.0500	0.0517		mg/L		104	75 - 125
Iron	32		5.00	37.4	4	mg/L		98	75 - 125
Magnesium	62		5.01	65.9	4	mg/L		70	75 - 125
Molybdenum	<0.00086		0.100	0.103		mg/L		103	75 - 125
Potassium	9.0		6.97	15.9		mg/L		100	75 - 125
Selenium	<0.0012		0.100	0.102		mg/L		102	75 - 125
Thallium	<0.00026		0.0500	0.0478		mg/L		96	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221504-1 MS**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	690		5.05	645	4	mg/L		-830	75 - 125

**Lab Sample ID: 680-221504-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.11		0.100	0.206		mg/L		93	75 - 125	4	20
Beryllium	0.0030		0.0500	0.0528		mg/L		100	75 - 125	6	20
Cadmium	0.00078	J	0.0500	0.0491		mg/L		97	75 - 125	3	20
Calcium	20		5.00	23.6		mg/L		76	75 - 125	5	20
Cobalt	<0.00022		0.0500	0.0493		mg/L		99	75 - 125	5	20
Iron	32		5.00	35.1	4	mg/L		53	75 - 125	6	20
Magnesium	62		5.01	63.7	4	mg/L		24	75 - 125	3	20
Molybdenum	<0.00086		0.100	0.0982		mg/L		98	75 - 125	4	20
Potassium	9.0		6.97	15.2		mg/L		90	75 - 125	5	20
Selenium	<0.0012		0.100	0.0978		mg/L		98	75 - 125	4	20
Thallium	<0.00026		0.0500	0.0464		mg/L		93	75 - 125	3	20

**Lab Sample ID: 680-221504-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: MCM-18**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741757**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	690		5.05	659	4	mg/L		-551	75 - 125	2	20

**Lab Sample ID: MB 680-741803/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741803**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/23/22 05:58	09/24/22 02:23	1

**Lab Sample ID: LCS 680-741803/2-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741803**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	5.00	5.84		mg/L		117	80 - 120

**Lab Sample ID: MB 680-741808/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/23/22 07:50	09/24/22 03:20	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/23/22 07:50	09/24/22 03:20	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/23/22 07:50	09/24/22 03:20	1
Calcium	<0.14		0.50	0.14	mg/L		09/23/22 07:50	09/24/22 03:20	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/23/22 07:50	09/24/22 03:20	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 680-741808/1-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.026		0.10	0.026	mg/L		09/23/22 07:50	09/24/22 03:20	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/23/22 07:50	09/24/22 03:20	1
Potassium	<0.16		1.0	0.16	mg/L		09/23/22 07:50	09/24/22 03:20	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/23/22 07:50	09/24/22 03:20	1
Sodium	<0.20		0.50	0.20	mg/L		09/23/22 07:50	09/24/22 03:20	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/23/22 07:50	09/24/22 03:20	1

**Lab Sample ID: MB 680-741808/1-A**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	<0.023		0.50	0.023	mg/L		09/23/22 07:50	09/26/22 17:05	1

**Lab Sample ID: LCS 680-741808/2-A**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.101		mg/L		101	80 - 120
Beryllium	0.0500	0.0516		mg/L		103	80 - 120
Cadmium	0.0500	0.0501		mg/L		100	80 - 120
Calcium	5.00	5.15		mg/L		103	80 - 120
Cobalt	0.0500	0.0531		mg/L		106	80 - 120
Iron	5.00	5.32		mg/L		106	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Potassium	6.97	7.15		mg/L		103	80 - 120
Selenium	0.100	0.106		mg/L		106	80 - 120
Sodium	5.05	4.90		mg/L		97	80 - 120
Thallium	0.0500	0.0497		mg/L		99	80 - 120

**Lab Sample ID: LCS 680-741808/2-A**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	5.01	5.16		mg/L		103	80 - 120

**Lab Sample ID: 680-221525-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.20		0.100	0.289		mg/L		92	75 - 125
Beryllium	<0.00020		0.0500	0.0498		mg/L		100	75 - 125
Cadmium	<0.000078		0.0500	0.0493		mg/L		99	75 - 125
Calcium	87		5.00	88.5	4	mg/L		37	75 - 125
Cobalt	0.0022	J	0.0500	0.0538		mg/L		103	75 - 125
Iron	5.6		5.00	11.1		mg/L		110	75 - 125
Molybdenum	0.0061	J	0.100	0.105		mg/L		98	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221525-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	3.0		6.97	10.2		mg/L		103	75 - 125
Selenium	<0.0012		0.100	0.100		mg/L		100	75 - 125
Sodium	19		5.05	24.6		mg/L		101	75 - 125
Thallium	<0.00026		0.0500	0.0472		mg/L		94	75 - 125

**Lab Sample ID: 680-221525-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	33		5.01	36.4	4	mg/L		72	75 - 125

**Lab Sample ID: 680-221525-C-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.20		0.100	0.280		mg/L		83	75 - 125	3	20
Beryllium	<0.00020		0.0500	0.0487		mg/L		97	75 - 125	2	20
Cadmium	<0.000078		0.0500	0.0453		mg/L		91	75 - 125	8	20
Calcium	87		5.00	85.4	4	mg/L		-25	75 - 125	4	20
Cobalt	0.0022	J	0.0500	0.0515		mg/L		99	75 - 125	4	20
Iron	5.6		5.00	10.6		mg/L		100	75 - 125	5	20
Molybdenum	0.0061	J	0.100	0.101		mg/L		95	75 - 125	4	20
Potassium	3.0		6.97	9.84		mg/L		98	75 - 125	3	20
Selenium	<0.0012		0.100	0.0979		mg/L		98	75 - 125	2	20
Sodium	19		5.05	23.6		mg/L		82	75 - 125	4	20
Thallium	<0.00026		0.0500	0.0459		mg/L		92	75 - 125	3	20

**Lab Sample ID: 680-221525-C-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 742343**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 741808**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	33		5.01	34.9	4	mg/L		40	75 - 125	4	20

**Lab Sample ID: MB 680-742309/1-A**  
**Matrix: Water**  
**Analysis Batch: 742503**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00089		0.010	0.00089	mg/L		09/27/22 06:03	09/27/22 23:02	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/27/22 06:03	09/27/22 23:02	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/27/22 06:03	09/27/22 23:02	1
Calcium	<0.14		0.50	0.14	mg/L		09/27/22 06:03	09/27/22 23:02	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/27/22 06:03	09/27/22 23:02	1
Iron	<0.026		0.10	0.026	mg/L		09/27/22 06:03	09/27/22 23:02	1
Magnesium	<0.023		0.50	0.023	mg/L		09/27/22 06:03	09/27/22 23:02	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/27/22 06:03	09/27/22 23:02	1
Potassium	<0.16		1.0	0.16	mg/L		09/27/22 06:03	09/27/22 23:02	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 680-742309/1-A**  
**Matrix: Water**  
**Analysis Batch: 742503**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0012		0.0050	0.0012	mg/L		09/27/22 06:03	09/27/22 23:02	1
Sodium	<0.20		0.50	0.20	mg/L		09/27/22 06:03	09/27/22 23:02	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/27/22 06:03	09/27/22 23:02	1

**Lab Sample ID: LCS 680-742309/2-A**  
**Matrix: Water**  
**Analysis Batch: 742503**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.103		mg/L		103	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Cadmium	0.0500	0.0532		mg/L		106	80 - 120
Calcium	5.00	5.30		mg/L		106	80 - 120
Cobalt	0.0500	0.0529		mg/L		106	80 - 120
Iron	5.00	5.48		mg/L		110	80 - 120
Magnesium	5.01	5.29		mg/L		106	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Potassium	6.97	7.29		mg/L		105	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120
Sodium	5.05	5.13		mg/L		102	80 - 120
Thallium	0.0500	0.0517		mg/L		103	80 - 120

**Lab Sample ID: 680-221590-4 MS**  
**Matrix: Water**  
**Analysis Batch: 742503**

**Client Sample ID: MCM-05**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.014		0.100	0.113		mg/L		99	75 - 125
Beryllium	<0.00020		0.0500	0.0455		mg/L		91	75 - 125
Cadmium	<0.000078		0.0500	0.0498		mg/L		100	75 - 125
Calcium	28		5.00	34.3	4	mg/L		118	75 - 125
Cobalt	0.00026	J	0.0500	0.0490		mg/L		98	75 - 125
Iron	<0.026		5.00	4.99		mg/L		100	75 - 125
Magnesium	60		5.01	63.6	4	mg/L		80	75 - 125
Molybdenum	0.00095	J	0.100	0.0995		mg/L		99	75 - 125
Potassium	33		6.97	38.4	4	mg/L		85	75 - 125
Selenium	<0.0012	F1	0.100	0.0507	F1	mg/L		51	75 - 125
Thallium	<0.00026		0.0500	0.0506		mg/L		101	75 - 125

**Lab Sample ID: 680-221590-4 MS**  
**Matrix: Water**  
**Analysis Batch: 742780**

**Client Sample ID: MCM-05**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	620		5.05	658	4	mg/L		814	75 - 125

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221590-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 742503**

**Client Sample ID: MCM-05**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Barium	0.014		0.100	0.114		mg/L		100	75 - 125	0	20
Beryllium	<0.00020		0.0500	0.0459		mg/L		92	75 - 125	1	20
Cadmium	<0.000078		0.0500	0.0498		mg/L		100	75 - 125	0	20
Calcium	28		5.00	34.7	4	mg/L		126	75 - 125	1	20
Cobalt	0.00026	J	0.0500	0.0493		mg/L		98	75 - 125	1	20
Iron	<0.026		5.00	5.20		mg/L		104	75 - 125	4	20
Magnesium	60		5.01	65.6	4	mg/L		119	75 - 125	3	20
Molybdenum	0.00095	J	0.100	0.100		mg/L		99	75 - 125	1	20
Potassium	33		6.97	39.4	4	mg/L		98	75 - 125	2	20
Selenium	<0.0012	F1	0.100	0.0492	F1	mg/L		49	75 - 125	3	20
Thallium	<0.00026		0.0500	0.0508		mg/L		102	75 - 125	0	20

**Lab Sample ID: 680-221590-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 742780**

**Client Sample ID: MCM-05**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742309**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Sodium	620		5.05	597	4	mg/L		-398	75 - 125	10	20

**Lab Sample ID: MB 680-742784/1-A**  
**Matrix: Water**  
**Analysis Batch: 743044**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742784**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.00089		0.010	0.00089	mg/L		09/29/22 10:24	09/30/22 17:08	1
Beryllium	<0.00020		0.0025	0.00020	mg/L		09/29/22 10:24	09/30/22 17:08	1
Cadmium	<0.000078		0.0025	0.000078	mg/L		09/29/22 10:24	09/30/22 17:08	1
Calcium	<0.14		0.50	0.14	mg/L		09/29/22 10:24	09/30/22 17:08	1
Cobalt	<0.00022		0.0025	0.00022	mg/L		09/29/22 10:24	09/30/22 17:08	1
Iron	<0.026		0.10	0.026	mg/L		09/29/22 10:24	09/30/22 17:08	1
Magnesium	<0.023		0.50	0.023	mg/L		09/29/22 10:24	09/30/22 17:08	1
Molybdenum	<0.00086		0.015	0.00086	mg/L		09/29/22 10:24	09/30/22 17:08	1
Potassium	<0.16		1.0	0.16	mg/L		09/29/22 10:24	09/30/22 17:08	1
Selenium	<0.0012		0.0050	0.0012	mg/L		09/29/22 10:24	09/30/22 17:08	1
Sodium	<0.20		0.50	0.20	mg/L		09/29/22 10:24	09/30/22 17:08	1
Thallium	<0.00026		0.0010	0.00026	mg/L		09/29/22 10:24	09/30/22 17:08	1

**Lab Sample ID: LCS 680-742784/2-A**  
**Matrix: Water**  
**Analysis Batch: 743044**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742784**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Barium	0.100	0.101		mg/L		101	80 - 120
Beryllium	0.0500	0.0530		mg/L		106	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	5.00	5.29		mg/L		106	80 - 120
Cobalt	0.0500	0.0539		mg/L		108	80 - 120
Iron	5.00	5.35		mg/L		107	80 - 120
Magnesium	5.01	5.45		mg/L		109	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 680-742784/2-A**  
**Matrix: Water**  
**Analysis Batch: 743044**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742784**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Potassium	6.97	7.61		mg/L		109	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Sodium	5.05	5.40		mg/L		107	80 - 120
Thallium	0.0500	0.0514		mg/L		103	80 - 120

**Lab Sample ID: 680-221820-C-3-E MS**  
**Matrix: Water**  
**Analysis Batch: 743044**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742784**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.24		0.100	0.325		mg/L		87	75 - 125
Beryllium	<0.00020		0.0500	0.0563		mg/L		113	75 - 125
Cadmium	<0.000078		0.0500	0.0526		mg/L		105	75 - 125
Calcium	130		5.00	124	4	mg/L		-74	75 - 125
Cobalt	0.00037	J	0.0500	0.0540		mg/L		107	75 - 125
Iron	1.5		5.00	6.51		mg/L		101	75 - 125
Magnesium	47		5.01	48.9	4	mg/L		38	75 - 125
Molybdenum	0.0022	J	0.100	0.108		mg/L		106	75 - 125
Potassium	1.7		6.97	9.07		mg/L		106	75 - 125
Selenium	<0.0012		0.100	0.104		mg/L		103	75 - 125
Sodium	25		5.05	29.0	4	mg/L		75	75 - 125
Thallium	<0.00026		0.0500	0.0544		mg/L		109	75 - 125

**Lab Sample ID: 680-221820-C-3-F MSD**  
**Matrix: Water**  
**Analysis Batch: 743044**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 742784**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Barium	0.24		0.100	0.342		mg/L		104	75 - 125	5	20
Beryllium	<0.00020		0.0500	0.0581		mg/L		116	75 - 125	3	20
Cadmium	<0.000078		0.0500	0.0545		mg/L		109	75 - 125	4	20
Calcium	130		5.00	133	4	mg/L		96	75 - 125	7	20
Cobalt	0.00037	J	0.0500	0.0549		mg/L		109	75 - 125	2	20
Iron	1.5		5.00	6.62		mg/L		103	75 - 125	2	20
Magnesium	47		5.01	51.0	4	mg/L		81	75 - 125	4	20
Molybdenum	0.0022	J	0.100	0.112		mg/L		110	75 - 125	3	20
Potassium	1.7		6.97	9.17		mg/L		107	75 - 125	1	20
Selenium	<0.0012		0.100	0.108		mg/L		107	75 - 125	4	20
Sodium	25		5.05	29.8	4	mg/L		92	75 - 125	3	20
Thallium	<0.00026		0.0500	0.0543		mg/L		109	75 - 125	0	20

**Lab Sample ID: 400-226578-B-23-E MS**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 594690**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0015		0.0500	0.0522		mg/L		104	75 - 125
Arsenic	0.041		0.0500	0.0914		mg/L		102	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-226578-B-23-E MS**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 594690**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.15	J B ** ^+ ^2 F1 F2	0.100	0.240	J ^+	mg/L		86	75 - 125
Chromium	<0.0010		0.0500	0.0487		mg/L		97	75 - 125
Lead	<0.00081		0.0500	0.0490		mg/L		98	75 - 125
Lithium	<0.0049		0.0500	0.0464		mg/L		93	75 - 125

**Lab Sample ID: 400-226578-B-23-F MSD**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 594690**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0015		0.0500	0.0506		mg/L		101	75 - 125	3	20
Arsenic	0.041		0.0500	0.0854		mg/L		90	75 - 125	7	20
Boron	0.15	J B ** ^+ ^2 F1 F2	0.100	0.188	J F1 F2	mg/L		34	75 - 125	24	20
Chromium	<0.0010		0.0500	0.0479		mg/L		96	75 - 125	2	20
Lead	<0.00081		0.0500	0.0484		mg/L		97	75 - 125	1	20
Lithium	<0.0049		0.0500	0.0469		mg/L		94	75 - 125	1	20

**Lab Sample ID: 680-221504-6 MS**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: MCM-06**  
**Prep Type: Dissolved**  
**Prep Batch: 741803**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	<0.026		5.00	5.04		mg/L		101	75 - 125

**Lab Sample ID: 680-221504-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 741983**

**Client Sample ID: MCM-06**  
**Prep Type: Dissolved**  
**Prep Batch: 741803**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	<0.026		5.00	5.35		mg/L		107	75 - 125	6	20

**Lab Sample ID: MB 680-742387/9-B**  
**Matrix: Water**  
**Analysis Batch: 742906**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 742388**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	<0.026		0.10	0.026	mg/L		09/27/22 11:35	09/29/22 17:40	1

**Lab Sample ID: LCS 680-742387/10-B**  
**Matrix: Water**  
**Analysis Batch: 742906**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Dissolved**  
**Prep Batch: 742388**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	5.00	5.34		mg/L		107	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221590-15 MS**  
**Matrix: Water**  
**Analysis Batch: 742906**

**Client Sample ID: PT-04D**  
**Prep Type: Dissolved**  
**Prep Batch: 742388**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	<0.026		5.00	5.10		mg/L		102	75 - 125

**Lab Sample ID: 680-221590-15 MSD**  
**Matrix: Water**  
**Analysis Batch: 742906**

**Client Sample ID: PT-04D**  
**Prep Type: Dissolved**  
**Prep Batch: 742388**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	<0.026		5.00	5.05		mg/L		101	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 680-742335/1-A**  
**Matrix: Water**  
**Analysis Batch: 742459**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 742335**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/27/22 08:00	09/27/22 15:25	1

**Lab Sample ID: LCS 680-742335/2-A**  
**Matrix: Water**  
**Analysis Batch: 742459**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 742335**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00242		mg/L		97	80 - 120

**Lab Sample ID: 660-123999-H-1-D MS**  
**Matrix: Water**  
**Analysis Batch: 742459**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 742335**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000080		0.00100	0.000918		mg/L		92	80 - 120

**Lab Sample ID: 660-123999-H-1-E MSD**  
**Matrix: Water**  
**Analysis Batch: 742459**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 742335**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000080		0.00100	0.000940		mg/L		94	80 - 120	2	20

**Lab Sample ID: MB 680-742786/1-A**  
**Matrix: Water**  
**Analysis Batch: 743020**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 742786**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000080		0.00020	0.000080	mg/L		09/29/22 10:35	09/30/22 10:26	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 680-742786/2-A**  
**Matrix: Water**  
**Analysis Batch: 743020**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 742786**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00250	0.00242		mg/L		97	80 - 120

**Lab Sample ID: 680-221747-A-11-D MS**  
**Matrix: Water**  
**Analysis Batch: 743020**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 742786**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.000082	J F1	0.00100	0.000378	F1	mg/L		30	80 - 120

**Lab Sample ID: 680-221747-A-11-E MSD**  
**Matrix: Water**  
**Analysis Batch: 743020**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 742786**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.000082	J F1	0.00100	0.000371	F1	mg/L		29	80 - 120	2	20

## Method: EPA 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 180-420635/1-A**  
**Matrix: Water**  
**Analysis Batch: 420993**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 420635**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00083		0.0050	0.00083	mg/L		12/13/22 14:00	12/15/22 12:28	1

**Lab Sample ID: LCS 180-420635/2-A**  
**Matrix: Water**  
**Analysis Batch: 420993**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 420635**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.483		mg/L		97	80 - 120

**Lab Sample ID: 180-148538-F-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 420993**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 420635**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.064		0.500	0.550		mg/L		97	75 - 125

**Lab Sample ID: 180-148538-F-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 420993**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 420635**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lithium	0.064		0.500	0.537		mg/L		95	75 - 125	2	20

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 2320B-2011 - Alkalinity, Total

**Lab Sample ID: MB 680-742373/4**  
**Matrix: Water**  
**Analysis Batch: 742373**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/26/22 13:35	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/26/22 13:35	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/26/22 13:35	1

**Lab Sample ID: LCS 680-742373/6**  
**Matrix: Water**  
**Analysis Batch: 742373**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	250		mg/L		100	90 - 112

**Lab Sample ID: LCSD 680-742373/31**  
**Matrix: Water**  
**Analysis Batch: 742373**

**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
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112	2	30

**Lab Sample ID: 680-221504-2 DU**  
**Matrix: Water**  
**Analysis Batch: 742373**

**Client Sample ID: MCM-19**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	29		28.9		mg/L		0.3	30
Bicarbonate Alkalinity as CaCO3	29		28.9		mg/L		0.3	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: MB 680-742597/4**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/27/22 18:23	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

**Lab Sample ID: LCS 680-742597/6**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 2320B-2011 - Alkalinity, Total (Continued)

**Lab Sample ID: LCSD 680-742597/31**  
**Matrix: Water**  
**Analysis Batch: 742597**

**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
Total Alkalinity as CaCO3 to pH 4.5	250	244		mg/L		98	90 - 112	1	30

**Lab Sample ID: 680-221504-5 DU**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: EB-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	<2.2		<2.2		mg/L		NC	30
Bicarbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: 680-221590-5 DU**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: MCM-07**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300		293		mg/L		1	30
Bicarbonate Alkalinity as CaCO3	300		293		mg/L		1	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

**Lab Sample ID: MB 680-741871/1**  
**Matrix: Water**  
**Analysis Batch: 741871**

**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	<10		10	10	mg/L			09/23/22 10:39	1

**Lab Sample ID: LCS 680-741871/2**  
**Matrix: Water**  
**Analysis Batch: 741871**

**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	2420	2480		mg/L		102	80 - 120

**Lab Sample ID: LCSD 680-741871/3**  
**Matrix: Water**  
**Analysis Batch: 741871**

**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
Total Dissolved Solids	2420	2420		mg/L		100	80 - 120	3	25

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

**Lab Sample ID: 680-221381-H-1 DU**  
**Matrix: Water**  
**Analysis Batch: 741871**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	150		128	F5	mg/L		13	5

**Lab Sample ID: 680-221395-B-1 DU**  
**Matrix: Water**  
**Analysis Batch: 741871**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	650		630		mg/L		4	5

**Lab Sample ID: MB 680-742241/1**  
**Matrix: Water**  
**Analysis Batch: 742241**

**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	<10		10	10	mg/L			09/26/22 13:05	1

**Lab Sample ID: LCS 680-742241/2**  
**Matrix: Water**  
**Analysis Batch: 742241**

**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	2420	2450		mg/L		101	80 - 120

**Lab Sample ID: LCSD 680-742241/3**  
**Matrix: Water**  
**Analysis Batch: 742241**

**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
Total Dissolved Solids	2420	2430		mg/L		100	80 - 120	1	25

**Lab Sample ID: 680-221557-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 742241**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		146	F5	mg/L		12	5

**Lab Sample ID: 680-221564-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 742241**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		244		mg/L		0.8	5

**Lab Sample ID: MB 680-742396/1**  
**Matrix: Water**  
**Analysis Batch: 742396**

**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	<10		10	10	mg/L			09/27/22 12:02	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

**Lab Sample ID: LCS 680-742396/2**  
**Matrix: Water**  
**Analysis Batch: 742396**

**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	2420	2440		mg/L		101	80 - 120

**Lab Sample ID: LCSD 680-742396/3**  
**Matrix: Water**  
**Analysis Batch: 742396**

**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
Total Dissolved Solids	2420	2410		mg/L		100	80 - 120	1	25

**Lab Sample ID: 680-221590-4 DU**  
**Matrix: Water**  
**Analysis Batch: 742396**

**Client Sample ID: MCM-05**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2100		2010		mg/L		3	5

**Lab Sample ID: 680-221590-7 DU**  
**Matrix: Water**  
**Analysis Batch: 742396**

**Client Sample ID: MCM-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1270		mg/L		0.2	5

## Method: 4500 S2 F-2011 - Sulfide, Total

**Lab Sample ID: MB 680-742189/1**  
**Matrix: Water**  
**Analysis Batch: 742189**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.0		1.0	1.0	mg/L			09/26/22 10:21	1

**Lab Sample ID: LCS 680-742189/2**  
**Matrix: Water**  
**Analysis Batch: 742189**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	10.4		mg/L		104	75 - 125

**Lab Sample ID: LCSD 680-742189/3**  
**Matrix: Water**  
**Analysis Batch: 742189**

**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
Sulfide	10.0	9.82		mg/L		98	75 - 125	5	30

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

**Lab Sample ID: 680-221504-6 MS**  
**Matrix: Water**  
**Analysis Batch: 742189**

**Client Sample ID: MCM-06**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	20	F1	6.94	22.0	F1	mg/L		27	75 - 125

**Lab Sample ID: 680-221504-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 742189**

**Client Sample ID: MCM-06**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	20	F1	6.94	22.0	F1	mg/L		27	75 - 125	0	30

**Lab Sample ID: 400-226324-D-4 DU**  
**Matrix: Water**  
**Analysis Batch: 742189**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	6.3		5.86		mg/L		8	30



# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## HPLC/IC

### Analysis Batch: 743228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	300.0-1993 R2.1	
680-221504-2	MCM-19	Total/NA	Water	300.0-1993 R2.1	
680-221504-3	DUP-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-4	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-5	EB-1	Total/NA	Water	300.0-1993 R2.1	
680-221504-6	MCM-06	Total/NA	Water	300.0-1993 R2.1	
680-221504-7	MCM-20	Total/NA	Water	300.0-1993 R2.1	
MB 680-743228/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743228/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743228/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221244-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-221244-AS-3 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 743856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-8	DPZ-2	Total/NA	Water	300.0-1993 R2.1	
680-221504-9	PT-01	Total/NA	Water	300.0-1993 R2.1	
680-221504-10	PT-02	Total/NA	Water	300.0-1993 R2.1	
680-221504-11	PT-03	Total/NA	Water	300.0-1993 R2.1	
680-221504-13	DR-02	Total/NA	Water	300.0-1993 R2.1	
MB 680-743856/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743856/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743856/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221851-C-8 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-221851-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 743937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-12	DR-01	Total/NA	Water	300.0-1993 R2.1	
MB 680-743937/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-743937/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-743937/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
190-29941-A-5 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
190-29941-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	300.0-1993 R2.1	
680-221590-2	MCM-02	Total/NA	Water	300.0-1993 R2.1	
680-221590-3	MCM-04	Total/NA	Water	300.0-1993 R2.1	
680-221590-4	MCM-05	Total/NA	Water	300.0-1993 R2.1	
680-221590-5	MCM-07	Total/NA	Water	300.0-1993 R2.1	
680-221590-6	MCM-11	Total/NA	Water	300.0-1993 R2.1	
680-221590-7	MCM-12	Total/NA	Water	300.0-1993 R2.1	
680-221590-8	MCM-14	Total/NA	Water	300.0-1993 R2.1	
680-221590-9	MCM-15	Total/NA	Water	300.0-1993 R2.1	
680-221590-10	MCM-16	Total/NA	Water	300.0-1993 R2.1	
680-221590-11	MCM-17	Total/NA	Water	300.0-1993 R2.1	
680-221590-12	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221590-13	FB-2	Total/NA	Water	300.0-1993 R2.1	
680-221590-14	EB-2	Total/NA	Water	300.0-1993 R2.1	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## HPLC/IC (Continued)

### Analysis Batch: 744183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-15	PT-04D	Total/NA	Water	300.0-1993 R2.1	
MB 680-744183/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744183/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744183/43	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
190-29943-A-8 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
190-29943-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-221590-10 MS	MCM-16	Total/NA	Water	300.0-1993 R2.1	
680-221590-10 MSD	MCM-16	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total/NA	Water	300.0-1993 R2.1	
680-221590-5	MCM-07	Total/NA	Water	300.0-1993 R2.1	
680-221590-8	MCM-14	Total/NA	Water	300.0-1993 R2.1	
680-221590-11	MCM-17	Total/NA	Water	300.0-1993 R2.1	
680-221590-15	PT-04D	Total/NA	Water	300.0-1993 R2.1	
MB 680-744301/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744301/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744301/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
660-123946-G-3 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
660-123946-G-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

## Metals

### Prep Batch: 420635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
MB 180-420635/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-420635/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-148538-F-1-B MS	Matrix Spike	Dissolved	Water	3005A	
180-148538-F-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Analysis Batch: 420993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-3	DUP-1	Total Recoverable	Water	EPA 6020B	420635
680-221504-6	MCM-06	Total Recoverable	Water	EPA 6020B	420635
680-221504-7	MCM-20	Total Recoverable	Water	EPA 6020B	420635
MB 180-420635/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	420635
LCS 180-420635/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	420635
180-148538-F-1-B MS	Matrix Spike	Dissolved	Water	EPA 6020B	420635
180-148538-F-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	EPA 6020B	420635

### Prep Batch: 594662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	3005A	
680-221504-2	MCM-19	Total Recoverable	Water	3005A	
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-4	FB-1	Total Recoverable	Water	3005A	
680-221504-5	EB-1	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals (Continued)

### Prep Batch: 594662 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
680-221504-8	DPZ-2	Total Recoverable	Water	3005A	
680-221504-9	PT-01	Total Recoverable	Water	3005A	
680-221504-10	PT-02	Total Recoverable	Water	3005A	
680-221504-11	PT-03	Total Recoverable	Water	3005A	
680-221504-12	DR-01	Total Recoverable	Water	3005A	
680-221504-13	DR-02	Total Recoverable	Water	3005A	
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-1 MS	MCM-18	Total Recoverable	Water	3005A	
680-221504-1 MSD	MCM-18	Total Recoverable	Water	3005A	

### Prep Batch: 594690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	3005A	
680-221590-2	MCM-02	Total Recoverable	Water	3005A	
680-221590-3	MCM-04	Total Recoverable	Water	3005A	
680-221590-4	MCM-05	Total Recoverable	Water	3005A	
680-221590-5	MCM-07	Total Recoverable	Water	3005A	
680-221590-6	MCM-11	Total Recoverable	Water	3005A	
MB 400-594690/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594690/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-226578-B-23-E MS	Matrix Spike	Dissolved	Water	3005A	
400-226578-B-23-F MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-7	MCM-12	Total Recoverable	Water	3005A	
680-221590-8	MCM-14	Total Recoverable	Water	3005A	
680-221590-9	MCM-15	Total Recoverable	Water	3005A	
680-221590-10	MCM-16	Total Recoverable	Water	3005A	
680-221590-11	MCM-17	Total Recoverable	Water	3005A	
680-221590-12	DUP-2	Total Recoverable	Water	3005A	
680-221590-13	FB-2	Total Recoverable	Water	3005A	
680-221590-14	EB-2	Total Recoverable	Water	3005A	
680-221590-15	PT-04D	Total Recoverable	Water	3005A	
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-8 MS	MCM-14	Total Recoverable	Water	3005A	
680-221590-8 MSD	MCM-14	Total Recoverable	Water	3005A	

### Analysis Batch: 594928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	6020B	594690
680-221590-2	MCM-02	Total Recoverable	Water	6020B	594690
680-221590-3	MCM-04	Total Recoverable	Water	6020B	594690
680-221590-4	MCM-05	Total Recoverable	Water	6020B	594690
680-221590-5	MCM-07	Total Recoverable	Water	6020B	594690
680-221590-6	MCM-11	Total Recoverable	Water	6020B	594690
680-221590-7	MCM-12	Total Recoverable	Water	6020B	594691

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals (Continued)

### Analysis Batch: 594928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-8	MCM-14	Total Recoverable	Water	6020B	594691
680-221590-9	MCM-15	Total Recoverable	Water	6020B	594691
680-221590-10	MCM-16	Total Recoverable	Water	6020B	594691
680-221590-11	MCM-17	Total Recoverable	Water	6020B	594691
680-221590-12	DUP-2	Total Recoverable	Water	6020B	594691
680-221590-13	FB-2	Total Recoverable	Water	6020B	594691
680-221590-14	EB-2	Total Recoverable	Water	6020B	594691
680-221590-15	PT-04D	Total Recoverable	Water	6020B	594691
MB 400-594690/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594690
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594690/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594690
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
400-226578-B-23-E MS	Matrix Spike	Dissolved	Water	6020B	594690
400-226578-B-23-F MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	594690
680-221590-8 MS	MCM-14	Total Recoverable	Water	6020B	594691
680-221590-8 MSD	MCM-14	Total Recoverable	Water	6020B	594691

### Analysis Batch: 595577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-2	MCM-19	Total Recoverable	Water	6020B	594662
680-221504-3	DUP-1	Total Recoverable	Water	6020B	594662
680-221504-4	FB-1	Total Recoverable	Water	6020B	594662
680-221504-5	EB-1	Total Recoverable	Water	6020B	594662
680-221504-6	MCM-06	Total Recoverable	Water	6020B	594662
680-221504-7	MCM-20	Total Recoverable	Water	6020B	594662
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	594662
680-221504-9	PT-01	Total Recoverable	Water	6020B	594662
680-221504-10	PT-02	Total Recoverable	Water	6020B	594662
680-221504-11	PT-03	Total Recoverable	Water	6020B	594662
680-221504-12	DR-01	Total Recoverable	Water	6020B	594662
680-221504-13	DR-02	Total Recoverable	Water	6020B	594662
680-221590-12	DUP-2	Total Recoverable	Water	6020B	594691
680-221590-13	FB-2	Total Recoverable	Water	6020B	594691
680-221590-14	EB-2	Total Recoverable	Water	6020B	594691
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594662
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594662
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	594662

### Analysis Batch: 596288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	594662
680-221504-2	MCM-19	Total Recoverable	Water	6020B	594662
680-221504-3	DUP-1	Total Recoverable	Water	6020B	594662
680-221504-4	FB-1	Total Recoverable	Water	6020B	594662
680-221504-5	EB-1	Total Recoverable	Water	6020B	594662
680-221504-6	MCM-06	Total Recoverable	Water	6020B	594662
680-221504-7	MCM-20	Total Recoverable	Water	6020B	594662

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals (Continued)

### Analysis Batch: 596288 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594662/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594662
LCS 400-594662/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594662

### Prep Batch: 741743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-5	EB-1	Total Recoverable	Water	3005A	
680-221504-6	MCM-06	Total Recoverable	Water	3005A	
680-221504-7	MCM-20	Total Recoverable	Water	3005A	
MB 680-741743/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741743/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221513-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221513-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 741757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	3005A	
680-221504-2	MCM-19	Total Recoverable	Water	3005A	
680-221504-3	DUP-1	Total Recoverable	Water	3005A	
680-221504-8	DPZ-2	Total Recoverable	Water	3005A	
MB 680-741757/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741757/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-1 MS	MCM-18	Total Recoverable	Water	3005A	
680-221504-1 MSD	MCM-18	Total Recoverable	Water	3005A	

### Filtration Batch: 741800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Dissolved	Water	FILTRATION	
680-221504-8	DPZ-2	Dissolved	Water	FILTRATION	
680-221504-9	PT-01	Dissolved	Water	FILTRATION	
680-221504-10	PT-02	Dissolved	Water	FILTRATION	
680-221504-11	PT-03	Dissolved	Water	FILTRATION	
680-221504-12	DR-01	Dissolved	Water	FILTRATION	
680-221504-13	DR-02	Dissolved	Water	FILTRATION	
680-221504-6 MS	MCM-06	Dissolved	Water	FILTRATION	
680-221504-6 MSD	MCM-06	Dissolved	Water	FILTRATION	

### Prep Batch: 741803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Dissolved	Water	3005A	741800
680-221504-8	DPZ-2	Dissolved	Water	3005A	741800
680-221504-9	PT-01	Dissolved	Water	3005A	741800
680-221504-10	PT-02	Dissolved	Water	3005A	741800
680-221504-11	PT-03	Dissolved	Water	3005A	741800
680-221504-12	DR-01	Dissolved	Water	3005A	741800
680-221504-13	DR-02	Dissolved	Water	3005A	741800
MB 680-741803/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741803/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221504-6 MS	MCM-06	Dissolved	Water	3005A	741800
680-221504-6 MSD	MCM-06	Dissolved	Water	3005A	741800

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals

### Prep Batch: 741808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-4	FB-1	Total Recoverable	Water	3005A	
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 741983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-2	MCM-19	Total Recoverable	Water	6020B	741757
680-221504-3	DUP-1	Total Recoverable	Water	6020B	741757
680-221504-4	FB-1	Total Recoverable	Water	6020B	741808
680-221504-5	EB-1	Total Recoverable	Water	6020B	741743
680-221504-6	MCM-06	Dissolved	Water	6020B	741803
680-221504-6	MCM-06	Total Recoverable	Water	6020B	741743
680-221504-7	MCM-20	Total Recoverable	Water	6020B	741743
680-221504-8	DPZ-2	Dissolved	Water	6020B	741803
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	741757
680-221504-9	PT-01	Dissolved	Water	6020B	741803
680-221504-10	PT-02	Dissolved	Water	6020B	741803
680-221504-11	PT-03	Dissolved	Water	6020B	741803
680-221504-12	DR-01	Dissolved	Water	6020B	741803
680-221504-13	DR-02	Dissolved	Water	6020B	741803
MB 680-741743/1-A	Method Blank	Total Recoverable	Water	6020B	741743
MB 680-741757/1-A	Method Blank	Total Recoverable	Water	6020B	741757
MB 680-741803/1-A	Method Blank	Total Recoverable	Water	6020B	741803
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	6020B	741808
LCS 680-741743/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741743
LCS 680-741757/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741757
LCS 680-741803/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741803
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741808
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-6 MS	MCM-06	Dissolved	Water	6020B	741803
680-221504-6 MSD	MCM-06	Dissolved	Water	6020B	741803
680-221513-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741743
680-221513-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741743
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741808
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741808

### Prep Batch: 742309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	3005A	
680-221590-2	MCM-02	Total Recoverable	Water	3005A	
680-221590-4	MCM-05	Total Recoverable	Water	3005A	
680-221590-5	MCM-07	Total Recoverable	Water	3005A	
680-221590-6	MCM-11	Total Recoverable	Water	3005A	
680-221590-7	MCM-12	Total Recoverable	Water	3005A	
680-221590-8	MCM-14	Total Recoverable	Water	3005A	
680-221590-9	MCM-15	Total Recoverable	Water	3005A	
680-221590-10	MCM-16	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals (Continued)

### Prep Batch: 742309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-11	MCM-17	Total Recoverable	Water	3005A	
680-221590-12	DUP-2	Total Recoverable	Water	3005A	
680-221590-13	FB-2	Total Recoverable	Water	3005A	
680-221590-14	EB-2	Total Recoverable	Water	3005A	
MB 680-742309/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-742309/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-4 MS	MCM-05	Total Recoverable	Water	3005A	
680-221590-4 MSD	MCM-05	Total Recoverable	Water	3005A	

### Prep Batch: 742335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	7470A	
680-221504-2	MCM-19	Total/NA	Water	7470A	
680-221504-3	DUP-1	Total/NA	Water	7470A	
680-221504-4	FB-1	Total/NA	Water	7470A	
680-221504-5	EB-1	Total/NA	Water	7470A	
680-221504-6	MCM-06	Total/NA	Water	7470A	
680-221504-7	MCM-20	Total/NA	Water	7470A	
680-221504-8	DPZ-2	Total/NA	Water	7470A	
MB 680-742335/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-742335/2-A	Lab Control Sample	Total/NA	Water	7470A	
660-123999-H-1-D MS	Matrix Spike	Total/NA	Water	7470A	
660-123999-H-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 742343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-2	MCM-19	Total Recoverable	Water	6020B	741757
680-221504-3	DUP-1	Total Recoverable	Water	6020B	741757
680-221504-4	FB-1	Total Recoverable	Water	6020B	741808
680-221504-6	MCM-06	Total Recoverable	Water	6020B	741743
680-221504-7	MCM-20	Total Recoverable	Water	6020B	741743
680-221504-8	DPZ-2	Total Recoverable	Water	6020B	741757
MB 680-741808/1-A	Method Blank	Total Recoverable	Water	6020B	741808
LCS 680-741808/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741808
680-221504-1 MS	MCM-18	Total Recoverable	Water	6020B	741757
680-221504-1 MSD	MCM-18	Total Recoverable	Water	6020B	741757
680-221525-C-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	741808
680-221525-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	741808

### Filtration Batch: 742387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	FILTRATION	
680-221590-15	PT-04D	Dissolved	Water	FILTRATION	
MB 680-742387/9-B	Method Blank	Dissolved	Water	FILTRATION	
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	FILTRATION	
680-221590-15 MS	PT-04D	Dissolved	Water	FILTRATION	
680-221590-15 MSD	PT-04D	Dissolved	Water	FILTRATION	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals

### Prep Batch: 742388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	3005A	742387
680-221590-15	PT-04D	Dissolved	Water	3005A	742387
MB 680-742387/9-B	Method Blank	Dissolved	Water	3005A	742387
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	3005A	742387
680-221590-15 MS	PT-04D	Dissolved	Water	3005A	742387
680-221590-15 MSD	PT-04D	Dissolved	Water	3005A	742387

### Analysis Batch: 742459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	7470A	742335
680-221504-2	MCM-19	Total/NA	Water	7470A	742335
680-221504-3	DUP-1	Total/NA	Water	7470A	742335
680-221504-4	FB-1	Total/NA	Water	7470A	742335
680-221504-5	EB-1	Total/NA	Water	7470A	742335
680-221504-6	MCM-06	Total/NA	Water	7470A	742335
680-221504-7	MCM-20	Total/NA	Water	7470A	742335
680-221504-8	DPZ-2	Total/NA	Water	7470A	742335
MB 680-742335/1-A	Method Blank	Total/NA	Water	7470A	742335
LCS 680-742335/2-A	Lab Control Sample	Total/NA	Water	7470A	742335
660-123999-H-1-D MS	Matrix Spike	Total/NA	Water	7470A	742335
660-123999-H-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	742335

### Analysis Batch: 742503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total Recoverable	Water	6020B	742309
680-221590-2	MCM-02	Total Recoverable	Water	6020B	742309
680-221590-4	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-5	MCM-07	Total Recoverable	Water	6020B	742309
680-221590-6	MCM-11	Total Recoverable	Water	6020B	742309
680-221590-7	MCM-12	Total Recoverable	Water	6020B	742309
680-221590-8	MCM-14	Total Recoverable	Water	6020B	742309
680-221590-9	MCM-15	Total Recoverable	Water	6020B	742309
680-221590-10	MCM-16	Total Recoverable	Water	6020B	742309
680-221590-11	MCM-17	Total Recoverable	Water	6020B	742309
680-221590-12	DUP-2	Total Recoverable	Water	6020B	742309
680-221590-13	FB-2	Total Recoverable	Water	6020B	742309
680-221590-14	EB-2	Total Recoverable	Water	6020B	742309
MB 680-742309/1-A	Method Blank	Total Recoverable	Water	6020B	742309
LCS 680-742309/2-A	Lab Control Sample	Total Recoverable	Water	6020B	742309
680-221590-4 MS	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-4 MSD	MCM-05	Total Recoverable	Water	6020B	742309

### Analysis Batch: 742780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-5	MCM-07	Total Recoverable	Water	6020B	742309
680-221590-8	MCM-14	Total Recoverable	Water	6020B	742309
680-221590-11	MCM-17	Total Recoverable	Water	6020B	742309
680-221590-4 MS	MCM-05	Total Recoverable	Water	6020B	742309
680-221590-4 MSD	MCM-05	Total Recoverable	Water	6020B	742309

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals

### Prep Batch: 742784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total Recoverable	Water	3005A	
MB 680-742784/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-742784/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-221820-C-3-E MS	Matrix Spike	Total Recoverable	Water	3005A	
680-221820-C-3-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 742786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	7470A	
680-221590-2	MCM-02	Total/NA	Water	7470A	
680-221590-3	MCM-04	Total/NA	Water	7470A	
680-221590-4	MCM-05	Total/NA	Water	7470A	
680-221590-5	MCM-07	Total/NA	Water	7470A	
680-221590-6	MCM-11	Total/NA	Water	7470A	
680-221590-7	MCM-12	Total/NA	Water	7470A	
680-221590-8	MCM-14	Total/NA	Water	7470A	
680-221590-9	MCM-15	Total/NA	Water	7470A	
680-221590-10	MCM-16	Total/NA	Water	7470A	
680-221590-11	MCM-17	Total/NA	Water	7470A	
680-221590-12	DUP-2	Total/NA	Water	7470A	
680-221590-13	FB-2	Total/NA	Water	7470A	
680-221590-14	EB-2	Total/NA	Water	7470A	
MB 680-742786/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-742786/2-A	Lab Control Sample	Total/NA	Water	7470A	
680-221747-A-11-D MS	Matrix Spike	Total/NA	Water	7470A	
680-221747-A-11-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 742906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-7	MCM-20	Dissolved	Water	6020B	742388
680-221590-15	PT-04D	Dissolved	Water	6020B	742388
MB 680-742387/9-B	Method Blank	Dissolved	Water	6020B	742388
LCS 680-742387/10-B	Lab Control Sample	Dissolved	Water	6020B	742388
680-221590-15 MS	PT-04D	Dissolved	Water	6020B	742388
680-221590-15 MSD	PT-04D	Dissolved	Water	6020B	742388

### Analysis Batch: 743020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	7470A	742786
680-221590-2	MCM-02	Total/NA	Water	7470A	742786
680-221590-3	MCM-04	Total/NA	Water	7470A	742786
680-221590-4	MCM-05	Total/NA	Water	7470A	742786
680-221590-5	MCM-07	Total/NA	Water	7470A	742786
680-221590-6	MCM-11	Total/NA	Water	7470A	742786
680-221590-7	MCM-12	Total/NA	Water	7470A	742786
680-221590-8	MCM-14	Total/NA	Water	7470A	742786
680-221590-9	MCM-15	Total/NA	Water	7470A	742786
680-221590-10	MCM-16	Total/NA	Water	7470A	742786
680-221590-11	MCM-17	Total/NA	Water	7470A	742786
680-221590-12	DUP-2	Total/NA	Water	7470A	742786
680-221590-13	FB-2	Total/NA	Water	7470A	742786

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Metals (Continued)

### Analysis Batch: 743020 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-14	EB-2	Total/NA	Water	7470A	742786
MB 680-742786/1-A	Method Blank	Total/NA	Water	7470A	742786
LCS 680-742786/2-A	Lab Control Sample	Total/NA	Water	7470A	742786
680-221747-A-11-D MS	Matrix Spike	Total/NA	Water	7470A	742786
680-221747-A-11-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	742786

### Analysis Batch: 743044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total Recoverable	Water	6020B	742784
MB 680-742784/1-A	Method Blank	Total Recoverable	Water	6020B	742784
LCS 680-742784/2-A	Lab Control Sample	Total Recoverable	Water	6020B	742784
680-221820-C-3-E MS	Matrix Spike	Total Recoverable	Water	6020B	742784
680-221820-C-3-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	742784

## General Chemistry

### Analysis Batch: 741871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	2540C-2011	
680-221504-2	MCM-19	Total/NA	Water	2540C-2011	
680-221504-3	DUP-1	Total/NA	Water	2540C-2011	
680-221504-4	FB-1	Total/NA	Water	2540C-2011	
680-221504-5	EB-1	Total/NA	Water	2540C-2011	
680-221504-6	MCM-06	Total/NA	Water	2540C-2011	
680-221504-7	MCM-20	Total/NA	Water	2540C-2011	
680-221504-8	DPZ-2	Total/NA	Water	2540C-2011	
680-221504-9	PT-01	Total/NA	Water	2540C-2011	
680-221504-10	PT-02	Total/NA	Water	2540C-2011	
MB 680-741871/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-741871/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-741871/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221381-H-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221395-B-1 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 742189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-6	MCM-06	Total/NA	Water	4500 S2 F-2011	
680-221504-7	MCM-20	Total/NA	Water	4500 S2 F-2011	
680-221504-8	DPZ-2	Total/NA	Water	4500 S2 F-2011	
680-221504-9	PT-01	Total/NA	Water	4500 S2 F-2011	
680-221504-10	PT-02	Total/NA	Water	4500 S2 F-2011	
680-221504-11	PT-03	Total/NA	Water	4500 S2 F-2011	
680-221504-12	DR-01	Total/NA	Water	4500 S2 F-2011	
680-221504-13	DR-02	Total/NA	Water	4500 S2 F-2011	
680-221590-15	PT-04D	Total/NA	Water	4500 S2 F-2011	
MB 680-742189/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-742189/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-742189/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-221504-6 MS	MCM-06	Total/NA	Water	4500 S2 F-2011	
680-221504-6 MSD	MCM-06	Total/NA	Water	4500 S2 F-2011	
400-226324-D-4 DU	Duplicate	Total/NA	Water	4500 S2 F-2011	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## General Chemistry

### Analysis Batch: 742241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-11	PT-03	Total/NA	Water	2540C-2011	
680-221504-12	DR-01	Total/NA	Water	2540C-2011	
680-221504-13	DR-02	Total/NA	Water	2540C-2011	
680-221590-1	MCM-01	Total/NA	Water	2540C-2011	
680-221590-2	MCM-02	Total/NA	Water	2540C-2011	
680-221590-3	MCM-04	Total/NA	Water	2540C-2011	
MB 680-742241/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742241/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCS 680-742241/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221557-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221564-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 742373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	2320B-2011	
680-221504-2	MCM-19	Total/NA	Water	2320B-2011	
680-221504-3	DUP-1	Total/NA	Water	2320B-2011	
680-221504-4	FB-1	Total/NA	Water	2320B-2011	
MB 680-742373/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742373/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 680-742373/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221504-2 DU	MCM-19	Total/NA	Water	2320B-2011	

### Analysis Batch: 742396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-4	MCM-05	Total/NA	Water	2540C-2011	
680-221590-5	MCM-07	Total/NA	Water	2540C-2011	
680-221590-6	MCM-11	Total/NA	Water	2540C-2011	
680-221590-7	MCM-12	Total/NA	Water	2540C-2011	
680-221590-8	MCM-14	Total/NA	Water	2540C-2011	
680-221590-9	MCM-15	Total/NA	Water	2540C-2011	
680-221590-10	MCM-16	Total/NA	Water	2540C-2011	
680-221590-11	MCM-17	Total/NA	Water	2540C-2011	
680-221590-12	DUP-2	Total/NA	Water	2540C-2011	
680-221590-13	FB-2	Total/NA	Water	2540C-2011	
680-221590-14	EB-2	Total/NA	Water	2540C-2011	
680-221590-15	PT-04D	Total/NA	Water	2540C-2011	
MB 680-742396/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742396/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCS 680-742396/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221590-4 DU	MCM-05	Total/NA	Water	2540C-2011	
680-221590-7 DU	MCM-12	Total/NA	Water	2540C-2011	

### Analysis Batch: 742597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-5	EB-1	Total/NA	Water	2320B-2011	
680-221504-6	MCM-06	Total/NA	Water	2320B-2011	
680-221504-7	MCM-20	Total/NA	Water	2320B-2011	
680-221504-8	DPZ-2	Total/NA	Water	2320B-2011	
680-221590-1	MCM-01	Total/NA	Water	2320B-2011	
680-221590-2	MCM-02	Total/NA	Water	2320B-2011	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## General Chemistry (Continued)

### Analysis Batch: 742597 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-3	MCM-04	Total/NA	Water	2320B-2011	
680-221590-4	MCM-05	Total/NA	Water	2320B-2011	
680-221590-5	MCM-07	Total/NA	Water	2320B-2011	
680-221590-6	MCM-11	Total/NA	Water	2320B-2011	
680-221590-7	MCM-12	Total/NA	Water	2320B-2011	
680-221590-8	MCM-14	Total/NA	Water	2320B-2011	
680-221590-9	MCM-15	Total/NA	Water	2320B-2011	
680-221590-10	MCM-16	Total/NA	Water	2320B-2011	
680-221590-11	MCM-17	Total/NA	Water	2320B-2011	
680-221590-12	DUP-2	Total/NA	Water	2320B-2011	
680-221590-13	FB-2	Total/NA	Water	2320B-2011	
680-221590-14	EB-2	Total/NA	Water	2320B-2011	
MB 680-742597/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742597/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742597/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221504-5 DU	EB-1	Total/NA	Water	2320B-2011	
680-221590-5 DU	MCM-07	Total/NA	Water	2320B-2011	

## Field Service / Mobile Lab

### Analysis Batch: 741795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221504-1	MCM-18	Total/NA	Water	Field Sampling	
680-221504-2	MCM-19	Total/NA	Water	Field Sampling	
680-221504-6	MCM-06	Total/NA	Water	Field Sampling	
680-221504-7	MCM-20	Total/NA	Water	Field Sampling	
680-221504-8	DPZ-2	Total/NA	Water	Field Sampling	
680-221504-9	PT-01	Total/NA	Water	Field Sampling	
680-221504-10	PT-02	Total/NA	Water	Field Sampling	
680-221504-11	PT-03	Total/NA	Water	Field Sampling	
680-221504-12	DR-01	Total/NA	Water	Field Sampling	
680-221504-13	DR-02	Total/NA	Water	Field Sampling	

### Analysis Batch: 742126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-1	MCM-01	Total/NA	Water	Field Sampling	
680-221590-2	MCM-02	Total/NA	Water	Field Sampling	
680-221590-3	MCM-04	Total/NA	Water	Field Sampling	
680-221590-4	MCM-05	Total/NA	Water	Field Sampling	
680-221590-5	MCM-07	Total/NA	Water	Field Sampling	
680-221590-6	MCM-11	Total/NA	Water	Field Sampling	
680-221590-7	MCM-12	Total/NA	Water	Field Sampling	
680-221590-8	MCM-14	Total/NA	Water	Field Sampling	
680-221590-9	MCM-15	Total/NA	Water	Field Sampling	
680-221590-10	MCM-16	Total/NA	Water	Field Sampling	
680-221590-11	MCM-17	Total/NA	Water	Field Sampling	
680-221590-15	PT-04D	Total/NA	Water	Field Sampling	

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-18**  
**Date Collected: 09/20/22 14:30**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		10	5 mL	5 mL	743228	10/03/22 16:32	UI	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 22:57	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 21:48	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:41	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:26	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		0			742459	09/27/22 15:58	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:15	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	25 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 14:30	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-19**  
**Date Collected: 09/20/22 15:58**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	743228	10/03/22 16:44	UI	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:12	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		10			596288	10/13/22 21:54	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:53	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:38	BWR	EET SAV
Instrument ID: ICPMSC										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-19**  
**Date Collected: 09/20/22 15:58**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:00	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:01	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:58	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: DUP-1**  
**Date Collected: 09/20/22 00:00**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743228	10/03/22 16:57	UI	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:15	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:00	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 19:56	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:42	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:03	JKL	EET SAV
Instrument ID: QuickTrace2										
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 12:51	RSK	EET PIT
Instrument ID: DORY										
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:26	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										



# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: FB-1**

**Lab Sample ID: 680-221504-4**

**Date Collected: 09/20/22 17:50**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	743228	10/03/22 17:09	UI	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:37	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 22:07	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741808	09/23/22 07:50	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/24/22 04:06	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741808	09/23/22 07:50	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742343	09/26/22 17:24	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:11	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742373	09/26/22 14:32	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: EB-1**

**Lab Sample ID: 680-221504-5**

**Date Collected: 09/20/22 17:40**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	743228	10/03/22 17:21	UI	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:40	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			596288	10/13/22 22:13	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 22:10	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:13	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 18:51	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-06**  
**Date Collected: 09/20/22 10:14**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743228	10/03/22 17:34	UI	EET SAV
Instrument ID: CICL										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:31	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:43	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:34	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 22:14	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:06	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:16	JKL	EET SAV
Instrument ID: QuickTrace2										
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 13:01	RSK	EET PIT
Instrument ID: DORY										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:18	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 10:14	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-20**  
**Date Collected: 09/20/22 11:22**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		50	5 mL	5 mL	743228	10/03/22 17:46	UI	EET SAV
Instrument ID: CICL										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	742387	09/27/22 11:29	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	742388	09/27/22 11:35	RR	EET SAV
Dissolved	Analysis	6020B		1			742906	09/29/22 18:06	BWR	EET SAV
Instrument ID: ICPMSC										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-20**

**Lab Sample ID: 680-221504-7**

**Date Collected: 09/20/22 11:22**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:46	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		50			596288	10/13/22 22:41	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 21:51	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	741743	09/22/22 14:18	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 15:51	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:18	JKL	EET SAV
Instrument ID: QuickTrace2										
Total Recoverable	Prep	3005A			25 mL	25 mL	420635	12/13/22 14:00	HCY	EET PIT
Total Recoverable	Analysis	EPA 6020B		1			420993	12/15/22 13:17	RSK	EET PIT
Instrument ID: DORY										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:06	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 11:22	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: DPZ-2**

**Lab Sample ID: 680-221504-8**

**Date Collected: 09/20/22 12:20**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	743856	10/06/22 16:18	AF	EET SAV
Instrument ID: CICK										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:42	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:49	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		1			741983	09/23/22 20:00	BWR	EET SAV
Instrument ID: ICPMSC										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DPZ-2**  
**Date Collected: 09/20/22 12:20**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	250 mL	741757	09/22/22 14:42	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742343	09/26/22 16:45	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742335	09/27/22 08:00	JKL	EET SAV
Total/NA	Analysis	7470A		1			742459	09/27/22 16:21	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:24	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 12:20	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: PT-01**  
**Date Collected: 09/20/22 10:15**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:30	AF	EET SAV
Instrument ID: CICK										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:53	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:52	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 10:15	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: PT-02**  
**Date Collected: 09/20/22 16:45**  
**Date Received: 09/21/22 17:30**

**Lab Sample ID: 680-221504-10**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:43	AF	EET SAV
Instrument ID: CICK										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: PT-02**

**Lab Sample ID: 680-221504-10**

**Date Collected: 09/20/22 16:45**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:46	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:55	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	741871	09/23/22 10:39	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 16:45	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: PT-03**

**Lab Sample ID: 680-221504-11**

**Date Collected: 09/20/22 16:28**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743856	10/06/22 16:56	AF	EET SAV
Instrument ID: CICK										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:50	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 23:58	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2540C-2011		1	10 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 16:28	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: DR-01**

**Lab Sample ID: 680-221504-12**

**Date Collected: 09/20/22 15:15**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	743937	10/06/22 21:37	T1C	EET SAV
Instrument ID: CICL										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 02:57	BWR	EET SAV
Instrument ID: ICPMSC										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DR-01**

**Lab Sample ID: 680-221504-12**

**Date Collected: 09/20/22 15:15**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/08/22 00:01	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:15	T1C	EET SAV
	Instrument ID: NOEQUIP									

**Client Sample ID: DR-02**

**Lab Sample ID: 680-221504-13**

**Date Collected: 09/20/22 15:05**

**Matrix: Water**

**Date Received: 09/21/22 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		50	5 mL	5 mL	743856	10/06/22 19:52	AF	EET SAV
	Instrument ID: CICK									
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	741800	09/23/22 05:58	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	741803	09/23/22 05:58	RR	EET SAV
Dissolved	Analysis	6020B		1			741983	09/24/22 03:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			50 mL	50 mL	594662	10/01/22 11:45	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/08/22 00:05	NTH	EET PEN
	Instrument ID: Athena									
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	742189	09/26/22 10:22	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	Field Sampling		1			741795	09/20/22 15:05	T1C	EET SAV
	Instrument ID: NOEQUIP									

**Client Sample ID: MCM-01**

**Lab Sample ID: 680-221590-1**

**Date Collected: 09/21/22 18:08**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/07/22 23:36	UI	EET SAV
	Instrument ID: CICK									
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:31	NTH	EET PEN
	Instrument ID: Athena									
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:55	BWR	EET SAV
	Instrument ID: ICPMSC									

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-01**  
**Date Collected: 09/21/22 18:08**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:52	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:38	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 18:08	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-02**  
**Date Collected: 09/21/22 13:56**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/07/22 23:49	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:35	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:36	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:54	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:37	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 13:56	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-04**  
**Date Collected: 09/21/22 15:20**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:02	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:38	NTH	EET PEN
Instrument ID: Athena										



# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-04**

**Lab Sample ID: 680-221590-3**

**Date Collected: 09/21/22 15:20**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	250 mL	742784	09/29/22 10:24	RR	EET SAV
Total Recoverable	Analysis	6020B		1			743044	09/30/22 17:27	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:57	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:49	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	50 mL	200 mL	742241	09/26/22 13:05	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 15:20	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-05**

**Lab Sample ID: 680-221590-4**

**Date Collected: 09/21/22 15:20**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:14	UI	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1		10	5 mL	5 mL	744301	10/09/22 10:33	KMB	EET SAV
Instrument ID: CICL										
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:41	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:09	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 17:46	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 10:59	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:08	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	25 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 15:20	T1C	EET SAV
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-07**

**Lab Sample ID: 680-221590-5**

**Date Collected: 09/21/22 10:50**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:27	UI	EET SAV
		Instrument ID: CICK								
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 10:46	KMB	EET SAV
		Instrument ID: CICL								
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:44	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:21	BWR	EET SAV
		Instrument ID: ICPMSC								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 17:58	BWR	EET SAV
		Instrument ID: ICPMSC								
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:02	JKL	EET SAV
		Instrument ID: QuickTrace2								
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 20:45	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 10:50	T1C	EET SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: MCM-11**

**Lab Sample ID: 680-221590-6**

**Date Collected: 09/21/22 11:26**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 00:40	UI	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	594690	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 23:47	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:07	BWR	EET SAV
		Instrument ID: ICPMSC								
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:04	JKL	EET SAV
		Instrument ID: QuickTrace2								
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:23	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 11:26	T1C	EET SAV
		Instrument ID: NOEQUIP								

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-12**

**Lab Sample ID: 680-221590-7**

**Date Collected: 09/21/22 11:10**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		5	5 mL	5 mL	744183	10/08/22 01:56	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:01	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/28/22 00:03	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:07	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:17	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	50 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 11:10	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: MCM-14**

**Lab Sample ID: 680-221590-8**

**Date Collected: 09/21/22 14:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 02:08	UI	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 10:58	KMB	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 19:46	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:25	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 18:01	BWR	EET SAV
Instrument ID: ICPMSC										
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:10	JKL	EET SAV
Instrument ID: QuickTrace2										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 19:56	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 14:00	T1C	EET SAV
Instrument ID: NOEQUIP										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-15**

**Lab Sample ID: 680-221590-9**

**Date Collected: 09/21/22 16:45**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1 Instrument ID: CICK		1	5 mL	5 mL	744183	10/08/22 02:21	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			594928	10/03/22 20:04	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B Instrument ID: ICPMSC		1			742503	09/28/22 00:15	BWR	EET SAV
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A Instrument ID: QuickTrace2		1			743020	09/30/22 11:17	JKL	EET SAV
Total/NA	Analysis	2320B-2011 Instrument ID: MANTECH 2		1			742597	09/27/22 20:02	PG	EET SAV
Total/NA	Analysis	2540C-2011 Instrument ID: NOEQUIP		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			742126	09/21/22 16:45	T1C	EET SAV

**Client Sample ID: MCM-16**

**Lab Sample ID: 680-221590-10**

**Date Collected: 09/21/22 17:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1 Instrument ID: CICK		1	5 mL	5 mL	744183	10/08/22 01:18	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			594928	10/03/22 20:08	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B Instrument ID: ICPMSC		1			742503	09/27/22 23:48	BWR	EET SAV
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A Instrument ID: QuickTrace2		1			743020	09/30/22 11:20	JKL	EET SAV
Total/NA	Analysis	2320B-2011 Instrument ID: MANTECH 2		1			742597	09/27/22 20:23	PG	EET SAV
Total/NA	Analysis	2540C-2011 Instrument ID: NOEQUIP		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			742126	09/21/22 17:00	T1C	EET SAV

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: MCM-17**

**Lab Sample ID: 680-221590-11**

**Date Collected: 09/21/22 18:45**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		2	5 mL	5 mL	744183	10/08/22 02:34	UI	EET SAV
		Instrument ID: CICK								
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 11:10	KMB	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:11	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:52	BWR	EET SAV
		Instrument ID: ICPMSC								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		10			742780	09/28/22 18:05	BWR	EET SAV
		Instrument ID: ICPMSC								
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:22	JKL	EET SAV
		Instrument ID: QuickTrace2								
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:44	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	5 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 18:45	T1C	EET SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: DUP-2**

**Lab Sample ID: 680-221590-12**

**Date Collected: 09/21/22 00:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744183	10/08/22 03:12	UI	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:38	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			595577	10/07/22 21:30	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B		1			742503	09/27/22 23:59	BWR	EET SAV
		Instrument ID: ICPMSC								
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A		1			743020	09/30/22 11:25	JKL	EET SAV
		Instrument ID: QuickTrace2								
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 21:50	PG	EET SAV
		Instrument ID: MANTECH 2								

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: DUP-2**  
**Date Collected: 09/21/22 00:00**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-12**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV

**Client Sample ID: FB-2**  
**Date Collected: 09/21/22 17:25**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-13**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1 Instrument ID: CICK		1	5 mL	5 mL	744183	10/08/22 03:24	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			594928	10/03/22 20:41	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			595577	10/07/22 21:33	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B Instrument ID: ICPMSC		1			742503	09/28/22 00:11	BWR	EET SAV
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A Instrument ID: QuickTrace2		1			743020	09/30/22 11:27	JKL	EET SAV
Total/NA	Analysis	2320B-2011 Instrument ID: MANTECH 2		1			742597	09/27/22 21:55	PG	EET SAV
Total/NA	Analysis	2540C-2011 Instrument ID: NOEQUIP		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV

**Client Sample ID: EB-2**  
**Date Collected: 09/21/22 17:35**  
**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221590-14**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1 Instrument ID: CICK		1	5 mL	5 mL	744183	10/08/22 03:37	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			594928	10/03/22 20:45	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B Instrument ID: Athena		5			595577	10/07/22 21:36	NTH	EET PEN
Total Recoverable	Prep	3005A			50 mL	250 mL	742309	09/27/22 06:03	RR	EET SAV
Total Recoverable	Analysis	6020B Instrument ID: ICPMSC		1			742503	09/27/22 23:32	BWR	EET SAV
Total/NA	Prep	7470A			50 mL	50 mL	742786	09/29/22 10:35	JKL	EET SAV
Total/NA	Analysis	7470A Instrument ID: QuickTrace2		1			743020	09/30/22 11:30	JKL	EET SAV

Eurofins Savannah

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221590-14**

**Date Collected: 09/21/22 17:35**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 22:05	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: PT-04D**

**Lab Sample ID: 680-221590-15**

**Date Collected: 09/21/22 14:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		25	5 mL	5 mL	744183	10/08/22 02:46	UI	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1		100	5 mL	5 mL	744301	10/09/22 11:23	KMB	EET SAV
Instrument ID: CICL										
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	742387	09/27/22 11:29	RR	EET SAV
Dissolved	Prep	3005A			50 mL	250 mL	742388	09/27/22 11:35	RR	EET SAV
Dissolved	Analysis	6020B		1			742906	09/29/22 17:47	BWR	EET SAV
Instrument ID: ICPMSC										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:48	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	742189	09/26/22 10:22	JAS	EET SAV
Instrument ID: NoEquip										
Total/NA	Analysis	Field Sampling		1			742126	09/21/22 14:00	T1C	EET SAV
Instrument ID: NOEQUIP										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

**Laboratory References:**

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

## Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22 *
California	State	2891	04-30-23
Connecticut	State	PH-0688	09-30-22 *
Florida	NELAP	E871008	06-30-23
Georgia	State	PA 02-00416	04-30-23
Illinois	NELAP	004375	06-30-23
Kansas	NELAP	E-10350	03-31-23
Kentucky (UST)	State	162013	04-30-23
Kentucky (WW)	State	KY98043	12-31-22
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-23
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-22
New Hampshire	NELAP	2030	04-04-23
New Jersey	NELAP	PA005	06-30-23
New York	NELAP	11182	04-01-23

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

## Laboratory: Eurofins Pittsburgh (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
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-23
Oregon	NELAP	PA-2151	02-07-23
Pennsylvania	NELAP	02-00416	04-30-23
Rhode Island	State	LAO00362	12-31-22
South Carolina	State	89014	04-20-23
Texas	NELAP	T104704528	03-31-23
US Fish & Wildlife	US Federal Programs	058448	03-31-23
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-23
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-23
Wisconsin	State	998027800	08-31-23

# Method Summary

Client: Southern Company  
Project/Site: Plant McManus AP1

Job ID: 680-221504-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
EPA 6020B	Metals (ICP/MS)	SW846	EET PIT
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV
FILTRATION	Sample Filtration	None	EET SAV

### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

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:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

**Chain of Custody Record**

**WINN-DIXIE STORE**

<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNJURINK@SOUTHERNCO.COM Project Name: Plant McManus Semi-Annual CCR Site: McManus AP-1		Lab P/N: Fuller, David E-Mail: David.Fuller@et.eurofins.com State of Origin: GA Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #: SOW#:		Analysis Requested 6020B - Metals - Custom List - SAV 9315 Ra226 - Radium-226 9320 Ra228 - Radium-228 6020B - Metals - Custom List - PIT 300_ORGM_28D - Chloride Fluoride Sulfate 6020B - Metals - Custom List - PIT 2540C - Solids, Total Dissolved (TDS) 2320B - Alkalinity, Total, Carb/Bicarb 5M4500_S2_F - Sulfide, Total 6020B - Dissolved Iron 6020B - Arsenic & Iron	
Sample Identification MCM-01 MCM-02 MCM-04 MCM-05 MCM-07 MCM-11 MCM-12 MCM-14 MCM-15 MCM-16 MCM-17		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Total Number of Containers: <input checked="" type="checkbox"/> Special Instructions/Note: 680-221504 Chain of Custody	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by Relinquished by: William Lacker Relinquished by: Relinquished by:		Method of Shipment Date/Time: 9/21/22 16:20 Date/Time: 9/21 17:30 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 3.1   3.1   2.3   2.5   3.1 3.0   3.0   3.0   2.4   3.0	

Received by: BARBARA DILOLA  
 Received by: ay  
 Received by:  
 Company: Resolute  
 Company:  
 Company:

Ver-01/16/2019



**Chain of Custody Record**



<b>Client Information</b>		Sampler: <b>William Lacker</b>		Lab PM: <b>Fuller, David</b>		Carrier Tracking No(s):		GOC No: <b>680-138976-50655.2</b>								
Client Contact: <b>Kristen Jurnko</b>		Phone: <b>470-3915-0650</b>		E-Mail: <b>David Fuller@eurofins.com</b>		State of Origin: <b>GA</b>		Page: <b>Page 2 of 4</b>								
Company: <b>Southern Company</b>		PWSID:				Job #:										
Address: <b>241 Ralph McGill Blvd SE B10185</b>		Due Date Requested:				Analysis Requested:		Preservation Codes:								
City: <b>Atlanta</b>		TAT Requested (days):						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:								
State Zip: <b>GA, 30308</b>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)								
Phone: <b>404-506-7116(Tel)</b>		Lab Project #:						Total Number of containers								
Email: <b>KNJURINK@SOUTHERNCO.COM</b>		Lab PO #:		<b>GPC82130-0001</b>				PH Special Instructions/Note:								
Project Name: <b>Plant McManus Semi-Annual CCR</b>		Project #:														
Site: <b>McManus AP-1</b>		SSOW#:														
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226 - Radium-226	9320 Ra228 - Radium-228	6020B - Metals - Custom List SAV	300_ORGM_2BD - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Calc	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron
MCM-18	9/20/22	1430	G	Water	X	X	X	X	X	X	X	X	X	X	X	X
MCM-19	9/20/22	1558	G	Water	X	X	X	X	X	X	X	X	X	X	X	X
DUP-1	9/20/22	-	G	Water	X	X	X	X	X	X	X	X	X	X	X	X
DUP-2				Water												
FB-1	9/20/22	1750	G	Water	X	X	X	X	X	X	X	X	X	X	X	X
FB-2				Water												
FB-3				Water												
EB-1	9/20/22	1740	G	Water	X	X	X	X	X	X	X	X	X	X	X	X
EB-2				Water												
EB-3				Water												
Extra 1				Water												
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
<b>Empty Kit Relinquished by</b> Relinquished by: <b>William Lacker</b> Date/Time: <b>9/21/22 1620</b> Company: <b>Resolute</b> Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____										Method of Shipment: _____ Date/Time: <b>9-21-22 1620</b> Company: <b>Resolute</b> Date/Time: <b>9/21 17:30</b> Company: <b>PS</b> Date/Time: _____ Company: _____						
Cooler Temperature(s) °C and Other Remarks: <b>2.1 / 3.1 / 2.7 / 2.5 / 3.1</b> <b>2.0 / 3.0 / 2.6 / 2.4 / 3.0</b> Ver 01/16/2019										Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No.						



# Chain of Custody Record

<b>Client Information</b>		Sampler: <b>William Lawker</b>		Lab PM: <b>Fuller, David</b>		Carrier Tracking No(s): <b>680-138976-50655.3</b>	
Client Contact: <b>Kristen Jurinko</b>		Phone: <b>410-3915-0650</b>		E-Mail: <b>David Fuller@et.eurofins.com</b>		State of Origin: <b>GA</b>	
Company: <b>Southern Company</b>		Address: <b>241 Ralph McGill Blvd SE B10185</b>		City: <b>Atlanta</b>		Page: <b>Page 3 of 4</b>	
State: <b>GA</b>		City: <b>Atlanta</b>		State: <b>GA</b>		Job #: <b></b>	
Phone: <b>404-506-7116(Tel)</b>		Lab Project #: <b>68027841</b>		Compliance Project: <b>Δ Yes Δ No</b>		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: <b></b>	
Email: <b>KNJURINK@SOUTHERNCO.COM</b>		Lab PO #: <b>GPC82130-0001</b>		Project #: <b></b>		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) <b></b>	
Plant Name: <b>Plant McManus Semi-Annual CCR</b>		Site: <b>McManus AP-1</b>		SSOW#: <b></b>		Total Number of Containers: <b>10</b>	
<b>Sample Identification</b>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Extra 2						Matrix (W=Water, S=solid, O=organic, BT=Tissue, AA=Air)	
Extra 3						Preservation Code:	
Extra 4						Water	
Extra 5						Water	
MCM-06		9/20/22		1014		G	
MCM-20		9/20/22		1122		G	
DPZ-2		9/20/22		1220		G	
PT-01		9/20/22		1015		G	
PT-02		9/20/22		1645		G	
PT-03		9/20/22		1628		G	
PT-04D						Water	
<b>Possible Hazard Identification</b>		<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant	
Deliverable Requested: I, II, III, IV, Other (specify) <b></b>		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological	
Empty Kit Relinquished by: <b>William Lawker</b>		Date/Time: <b>9/21/22 1620</b>		Company: <b>Resolute</b>		Method of Shipment: <b></b>	
Relinquished by: <b>William Lawker</b>		Date/Time: <b>9/21/22 1620</b>		Company: <b>Resolute</b>		Received by: <b>Barbara D. Oda</b>	
Relinquished by: <b></b>		Date/Time: <b></b>		Company: <b></b>		Received by: <b>ap</b>	
Custody Seals Intact: <b>Δ Yes Δ No</b>		Custody Seal No. <b></b>		Cooler Temperature(s) °C and Other Remarks: <b></b>		Received by: <b></b>	
Special Instructions/Note: <b>pH</b>		Return To Client: <input type="checkbox"/>		Disposal By Lab: <input type="checkbox"/>		Archive For: <b>Months</b>	
Special Instructions/Note: <b></b>		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/>		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/>		Special Instructions/Note: <b></b>	
9316_Ra226 - Radium-226		D		D		920_Ra228 - Radium-228	
6020B - Metals - Custom List - SAV		D		D		6020B - Metals - Custom List - SAV	
300_ORGFM_28D - Chloride Fluoride Sulfate		N		D		6020B - Metals - Custom List - PT	
2540C - Solids, Total Dissolved (TDS)		N		N		2540C - Solids, Total Dissolved (TDS)	
2220B - Alkalinity, Total, Carb/Bicarb		N		N		2220B - Alkalinity, Total, Carb/Bicarb	
SM4500_S2_F - Sulfide, Total		N		CB		SM4500_S2_F - Sulfide, Total	
6020B - Dissolved Iron		N		D		6020B - Dissolved Iron	
6020B - Arsenic & Iron		N		D		6020B - Arsenic & Iron	





# Chain of Custody Record

<b>Client Information</b> Client Contact: Kristen Jurniko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNJURINK@SOUTHERNCO.COM Project Name: Plant McManus Semi-Annual CCR Site: McManus AP-1		Lab PM: Fuller, David E-Mail: David.Fuller@eurofins.com PWSID:	
Sampler: William Lacker Phone: 410-345-0650		Carrier Tracking No(s): State of Origin: GA Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #:		Analysis Requested 915_Ra226 - Radium-226 920_Ra228 - Radium-228 6020B - Metals - Custom List - SAV 300_ORGM_28D - Chloride Fluoride Sulfate 6020B - Metals - Custom List - PIT 2540C - Solids, Total Dissolved (TDS) 2320B - Alkalinity, Total, Carb/Bicarb SM4500_S2_F - Sulfide, Total 6020B - Dissolved Iron 6020B - Arsenic & Iron Total Number of Containers:	
Sample Identification DR-01 DR-02		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma L - EDTA Z - other (specify) Other:	
Sample Date 9/20/22 9/20/22		Matrix (W=Water, S=Soil, O=Organic, I=Inorganic, A=Air) Preservation Code: Water Water	
Sample Type (C=Comp, G=grab) G G		Special Instructions/Note: pH 7.36 7.32	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: William Lacker Date/Time: 9/21/22 1620		Method of Shipment:	
Relinquished by:		Received by: Barbara D'Cola Date/Time: 9/21/22 1620 Company: Eurofins	
Relinquished by:		Received by: DP Date/Time: 9/21 17:30 Company:	
Relinquished by:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



# Chain of Custody Record



**Client Information**  
 Client Contact: **Kristen Jurniko**  
 Company: **Southern Company**  
 Address: **241 Ralph McGill Blvd SE B10185**  
 City: **Atlanta**  
 State, Zip: **GA, 30308**  
 Phone: **404-506-7116(Tel)**  
 Email: **KNJURINK@SOUTHERNCO.COM**  
 Project Name: **Plant McManus Semi-Annual CCR**  
 Site: **McManus AP-1**

**Sampler**  
 Name: **Will Lacker, Meredith Deaton, Stephen**  
 Lab PM: **Kevin Fuller, David**  
 Phone: **410-895-0650**  
 State of Origin: **GA**

**Analysis Requested**  
 Due Date Requested:  
 TAT Requested (days):  
 Compliance Project:  Yes  No  
 Lab Project #: **68027841**  
 Lab PO #: **GPC82130-0001**  
 Project #:  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Matrix (Water, Swab, Soil, Oil, Other)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	Special Instructions/Note:
						9315_Ra226 - Radium-226	9320_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGFM_28D - Chloride Fluoride Sulfate		
MCM-01	9/21/22	1808	G		Water	X	X	X	X	X	PH 4.95
MCM-02	9/21/22	1356	G		Water	X	X	X	X	X	PH 5.14
MCM-04	9/21/22	1520	G		Water	X	X	X	X	X	PH 5.34
MCM-05	9/21/22	1520	G		Water	X	X	X	X	X	PH 6.93
MCM-07	9/21/22	1050	G		Water	X	X	X	X	X	PH 6.21
MCM-11	9/21/22	1126	G		Water	X	X	X	X	X	PH 4.97
MCM-12	9/21/22	1110	G		Water	X	X	X	X	X	PH 6.30
MCM-14	9/21/22	1400	G		Water	X	X	X	X	X	PH 6.61
MCM-15	9/21/22	1645	G		Water	X	X	X	X	X	PH 5.23
MCM-16	9/21/22	1700	G		Water	X	X	X	X	X	PH 4.91
MCM-17	9/21/22	1845	G		Water	X	X	X	X	X	PH 6.72

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested I, II, III, IV Other (specify)

**Empty Kit Relinquished by**  
 Relinquished by: **Will Lacker** Date: **9/23/22 0910** Company: **Resolute**  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Custody Seal No: **2.1/2.0 1.9/1.8 2.5/2.4**



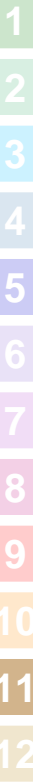
# Chain of Custody Record

<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNJURINK@SOUTHERNCO.COM Project Name: Plant McManus Semi-Annual CCR Site: <b>McManus AP-1</b>		Lab PM: Kevin Fuller, David Fuller, David E-Mail: David Fuller@et.eurofins.com Phone: 470-845-0650 PWSID: State of Origin: GA Job #:		QOC Method: 887128976-50655.2 Page 2 of 4																																																																																																																																																																																																																																					
<b>Analysis Requested</b> Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #: SSOW#:		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (Water, Sample, Oil, Other)</th> <th>Preservation Code:</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>9316_Ra228 - Radium-228</th> <th>6020B - Metals - Custom List - SAV</th> <th>300_ORGM_28D - Chloride Fluoride Sulfate</th> <th>6020B - Metals - Custom List - PIT</th> <th>2540C - Solids, Total Dissolved (TDS)</th> <th>2320B - Alkalinity, Total, Carb/Bicarb</th> <th>SM4500_S2_F - Sulfide, Total</th> <th>6020B - Dissolved Iron</th> <th>6020B - Arsenic &amp; Iron</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>MCM-18</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>PH</td> </tr> <tr> <td>MCM-19</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DUP-1</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DUP-2</td> <td>9/21/22</td> <td></td> <td>G</td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td>7</td> <td></td> </tr> <tr> <td>FB-1</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FB-2</td> <td>9/21/22</td> <td>1725</td> <td>G</td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td>7</td> <td></td> </tr> <tr> <td>FB-3</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>EB-1</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>EB-2</td> <td>9/21/22</td> <td>1735</td> <td>G</td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td>7</td> <td></td> </tr> <tr> <td>EB-3</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Extra 1</td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sample, Oil, Other)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9316_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron	Total Number of Containers	Special Instructions/Note:	MCM-18				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											PH	MCM-19				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												DUP-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												DUP-2	9/21/22		G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7		FB-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												FB-2	9/21/22	1725	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7		FB-3				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												EB-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												EB-2	9/21/22	1735	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7		EB-3				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												Extra 1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sample, Oil, Other)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9316_Ra228 - Radium-228	6020B - Metals - Custom List - SAV	300_ORGM_28D - Chloride Fluoride Sulfate	6020B - Metals - Custom List - PIT	2540C - Solids, Total Dissolved (TDS)	2320B - Alkalinity, Total, Carb/Bicarb	SM4500_S2_F - Sulfide, Total	6020B - Dissolved Iron	6020B - Arsenic & Iron	Total Number of Containers	Special Instructions/Note:																																																																																																																																																																																																																							
MCM-18				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											PH																																																																																																																																																																																																																							
MCM-19				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
DUP-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
DUP-2	9/21/22		G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7																																																																																																																																																																																																																								
FB-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
FB-2	9/21/22	1725	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7																																																																																																																																																																																																																								
FB-3				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
EB-1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
EB-2	9/21/22	1735	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	X				7																																																																																																																																																																																																																								
EB-3				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
Extra 1				Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																																																																																																																																																																		
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																																																																																																																																																																																							
<b>Empty Kit Relinquished by</b> Relinquished by: <b>William Locker</b> Relinquished by: _____ Relinquished by: _____		<b>Special Instructions/QC Requirements</b> Method of Shipment: _____ Date/Time: 9/23/22 0910 Date/Time: 9/23/22 0910 Date/Time: _____																																																																																																																																																																																																																																							
Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Received by: _____ Received by: _____ Received by: _____ Cooler Temperature(s) °C and Other Remarks: 2.6/2.5																																																																																																																																																																																																																																							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.		Company: Resolute Company: Resolute Company: Resolute																																																																																																																																																																																																																																							

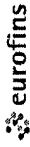


# Chain of Custody Record

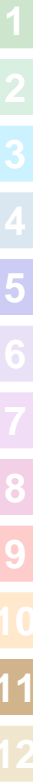
<b>Client Information</b>		Sampler: <b>Kevin Fuller, David</b>		Lab P/N: <b>Fuller, David</b>		COG No: <b>680-138976-50655.3</b>	
Client Contact: <b>Kristen Jurnko</b>		Phone: <b>470-395-0650</b>		E-Mail: <b>David.Fuller@et.eurofins.com</b>		Carrier Tracking No(s):	
Company: <b>Southern Company</b>		Address: <b>241 Ralph McGill Blvd SE B10185</b>		City: <b>Atlanta</b>		State of Origin: <b>GA</b>	
Address: <b>241 Ralph McGill Blvd SE B10185</b>		City: <b>Atlanta</b>		State of Origin: <b>GA</b>		Page: <b>Page 3 of 4</b>	
State Zip: <b>GA, 30308</b>		Phone: <b>404-506-7116(Tel)</b>		Lab Project #: <b>68027841</b>		Job #:	
Email: <b>KNJURINK@SOUTHERNCO.COM</b>		Lab PO #: <b>GPC82130-0001</b>		Project #: <b>Plant McManus Semi-Annual CGR</b>		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Project Name: <b>McManus AP-1</b>		SSOW#: <b>AP-1</b>		Due Date Requested:		Total Number of Containers	
Site: <b>McManus AP-1</b>		Sample Date		Sample Time		Total Number of Containers	
Sample Identification		Sample Type (C=Comp, G=grab)		Sample Time		Total Number of Containers	
Extra 2		Water				Total Number of Containers	
Extra 3		Water				Total Number of Containers	
Extra 4		Water				Total Number of Containers	
Extra 5		Water				Total Number of Containers	
MCM-06		Water				Total Number of Containers	
MCM-20		Water				Total Number of Containers	
DPZ-2		Water				Total Number of Containers	
PT-01		Water				Total Number of Containers	
PT-02		Water				Total Number of Containers	
PT-03		Water				Total Number of Containers	
PT-04D		Water		9/21/22 1400 G		Total Number of Containers	
Possible Hazard Identification		Flammable		Skin Irritant		Toxic	
Non-Hazard		Poison B		Unknown		Radiological	
Deliverable Requested I, II, III, IV, Other (specify)		Date		Time		Method of Shipment	
Empty Kit Relinquished by:		Date		Time		Method of Shipment	
Relinquished by: <b>William Locker</b>		Date/Time: <b>9/23/22 0910</b>		Company: <b>Resolute</b>		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>	
Custody Seals Intact: <b>Yes</b>		Custody Seal No. <b>Δ</b>		Cooler Temperature(s) °C and Other Remarks:		Special Instructions/Note: <b>pH</b>	



# Chain of Custody Record



<b>Client Information</b> Client Contact: Kristen Jurnko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNJURINK@SOUTHERNCO.COM Project Name: Plant: McManus Semi-Annual CCR Site: <b>McManus AP-1</b>		Sampler: <b>Kevin Fuller, David</b> Lab PM: <b>Kevin Fuller, David</b> Phone: <b>470-395-0650</b> E-Mail: <b>David Fuller@et.eurofins.com</b> PWSID:		Carrier Tracking No(s): State of Origin: <b>GA</b> Job #:		COC No: 680-138976-50655.4 Page: Page 4 of 4	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: <b>68027841</b> Lab PO #: <b>GPC82130-0001</b> Project #:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Number of Containers <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
<b>Sample Identification</b> DR-01 DR-02		Sample Date Sample Time Sample Type (C=Comp, G=grab) <input type="checkbox"/> C <input type="checkbox"/> G Matrix (W=Water, S=Solid, O=Oil, A=Asphalt, U=Urine)		Preservation Code: Water Water		Special Instructions/Note: <b>pH</b>	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Empty Kit Relinquished by Relinquished by: <b>William Locker</b> Relinquished by: Relinquished by:	
Date/Time: 9/23/22 09:10 Date/Time: 9/23/22 09:10 Date/Time:		Date/Time: 9/23/22 9:10 Date/Time: 9/23/22 10:40 Date/Time:		Company: <b>Resolute</b> Company: Company:		Method of Shipment: Cooler Temperature(s) °C and Other Remarks:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Ver 01/16/2019			





# Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM	Carrier Tracking No(s)	COC No							
Client Contact		Fuller, David		680-709179-1							
Shipping/Receiving		E-Mail	State of Origin	Page							
Company		David Fuller@et.eurofins.com	Georgia	Page 1 of 2							
TestAmerica Laboratories, Inc.		Accreditations Required (See note)	Job #	680-221504-1							
Address		State - Georgia	Preservation Codes:								
13715 Rider Trail North,			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:								
City		Analysis Requested									
Earth City											
State Zip											
MO, 63045											
Phone											
314-298-8566(Tel) 314-298-8757(Fax)											
Email											
Project Name											
Plant McManus AP1											
Site											
Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Newwater, Seawater, On-water/soil, BT=TISSUE, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	920_Ra228/PrecSep_0 Radium-228	915_Ra226/PrecSep_21 Radium-226	Ra226Ra228 GFC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
MCM-18 (680-221504-1)	9/20/22	14:30 Eastern	Water	Water	X	X	X	X	X	2	
MCM-19 (680-221504-2)	9/20/22	15:58 Eastern	Water	Water	X	X	X	X	X	2	
DUP-1 (680-221504-3)	9/20/22	Eastern	Water	Water	X	X	X	X	X	2	
FB-1 (680-221504-4)	9/20/22	17:50 Eastern	Water	Water	X	X	X	X	X	2	
EB-1 (680-221504-5)	9/20/22	17:40 Eastern	Water	Water	X	X	X	X	X	2	
MCM-06 (680-221504-6)	9/20/22	10:14 Eastern	Water	Water	X	X	X	X	X	2	
MCM-20 (680-221504-7)	9/20/22	11:22 Eastern	Water	Water	X	X	X	X	X	2	
DPZ-2 (680-221504-8)	9/20/22	12:20 Eastern	Water	Water	X	X	X	X	X	2	
PT-01 (680-221504-9)	9/20/22	10:15 Eastern	Water	Water	X	X	X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody to Eurofins Environment Testing Southeast, LLC

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Relinquished by: *cy* 9/22/22 17:00 Date/Time  
 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time  
 Company: \_\_\_\_\_  
 Received by: *Sara Worthington* 9/23/2022 08:40 Date/Time  
 Company: *ETASR*  
 Received by: \_\_\_\_\_ Date/Time  
 Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_  
 Custody Seal No. \_\_\_\_\_  
 Δ Yes Δ No



# Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fuller, David		Carrier Tracking No(s): 680-709179 2	
Shipping/Receiving Company: TestAmerica Laboratories, Inc.		E-Mail: David Fuller@et.eurofins.com		Page: Page 2 of 2	
Address: 13715 Rider Trail North, Earth City, MO, 63045		State of Origin: Georgia		Job #: 680-221504-1	
Phone: 314-298-8566 (Tel) 314-298-8757 (Fax)		Accreditations Required (See note): State - Georgia		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - PH 4-5 Y - Trizma Z - other (specify)	
Due Date Requested: 10/5/2022		Analysis Requested		Total Number of containers	
TAT Requested (days):		Field Filtered Sample (Yes or No)		Radium-228	
PO #		Perform MS/MSD (Yes or No)		9315 Ra226/PreSep_21 Radium-226	
WO #		920 Ra228/PreSep_0 Radium-228		Radium-228 GFC/ Combined Radium-226 and	
Project #		Matrix (W=Water, S=Solid, O=Waste/Woil, BT=Tissue, A=Air)		Special Instructions/Note:	
Plant McManus AP1		Sample Type (C=Comp, G=grab)		PT-02 (680-221504-10)	
Site		Sample Time		PT-03 (680-221504-11)	
Sample Date		Sample Time		PT-04 (680-221504-12)	
Sample Date		Sample Time		PT-05 (680-221504-13)	
Sample Date		Sample Time		PT-06 (680-221504-14)	
Sample Date		Sample Time		PT-07 (680-221504-15)	
Sample Date		Sample Time		PT-08 (680-221504-16)	
Sample Date		Sample Time		PT-09 (680-221504-17)	
Sample Date		Sample Time		PT-10 (680-221504-18)	
Sample Date		Sample Time		PT-11 (680-221504-19)	
Sample Date		Sample Time		PT-12 (680-221504-20)	
Sample Date		Sample Time		PT-13 (680-221504-21)	
Sample Date		Sample Time		PT-14 (680-221504-22)	
Sample Date		Sample Time		PT-15 (680-221504-23)	
Sample Date		Sample Time		PT-16 (680-221504-24)	
Sample Date		Sample Time		PT-17 (680-221504-25)	
Sample Date		Sample Time		PT-18 (680-221504-26)	
Sample Date		Sample Time		PT-19 (680-221504-27)	
Sample Date		Sample Time		PT-20 (680-221504-28)	
Sample Date		Sample Time		PT-21 (680-221504-29)	
Sample Date		Sample Time		PT-22 (680-221504-30)	
Sample Date		Sample Time		PT-23 (680-221504-31)	
Sample Date		Sample Time		PT-24 (680-221504-32)	
Sample Date		Sample Time		PT-25 (680-221504-33)	
Sample Date		Sample Time		PT-26 (680-221504-34)	
Sample Date		Sample Time		PT-27 (680-221504-35)	
Sample Date		Sample Time		PT-28 (680-221504-36)	
Sample Date		Sample Time		PT-29 (680-221504-37)	
Sample Date		Sample Time		PT-30 (680-221504-38)	
Sample Date		Sample Time		PT-31 (680-221504-39)	
Sample Date		Sample Time		PT-32 (680-221504-40)	
Sample Date		Sample Time		PT-33 (680-221504-41)	
Sample Date		Sample Time		PT-34 (680-221504-42)	
Sample Date		Sample Time		PT-35 (680-221504-43)	
Sample Date		Sample Time		PT-36 (680-221504-44)	
Sample Date		Sample Time		PT-37 (680-221504-45)	
Sample Date		Sample Time		PT-38 (680-221504-46)	
Sample Date		Sample Time		PT-39 (680-221504-47)	
Sample Date		Sample Time		PT-40 (680-221504-48)	
Sample Date		Sample Time		PT-41 (680-221504-49)	
Sample Date		Sample Time		PT-42 (680-221504-50)	
Sample Date		Sample Time		PT-43 (680-221504-51)	
Sample Date		Sample Time		PT-44 (680-221504-52)	
Sample Date		Sample Time		PT-45 (680-221504-53)	
Sample Date		Sample Time		PT-46 (680-221504-54)	
Sample Date		Sample Time		PT-47 (680-221504-55)	
Sample Date		Sample Time		PT-48 (680-221504-56)	
Sample Date		Sample Time		PT-49 (680-221504-57)	
Sample Date		Sample Time		PT-50 (680-221504-58)	
Sample Date		Sample Time		PT-51 (680-221504-59)	
Sample Date		Sample Time		PT-52 (680-221504-60)	
Sample Date		Sample Time		PT-53 (680-221504-61)	
Sample Date		Sample Time		PT-54 (680-221504-62)	
Sample Date		Sample Time		PT-55 (680-221504-63)	
Sample Date		Sample Time		PT-56 (680-221504-64)	
Sample Date		Sample Time		PT-57 (680-221504-65)	
Sample Date		Sample Time		PT-58 (680-221504-66)	
Sample Date		Sample Time		PT-59 (680-221504-67)	
Sample Date		Sample Time		PT-60 (680-221504-68)	
Sample Date		Sample Time		PT-61 (680-221504-69)	
Sample Date		Sample Time		PT-62 (680-221504-70)	
Sample Date		Sample Time		PT-63 (680-221504-71)	
Sample Date		Sample Time		PT-64 (680-221504-72)	
Sample Date		Sample Time		PT-65 (680-221504-73)	
Sample Date		Sample Time		PT-66 (680-221504-74)	
Sample Date		Sample Time		PT-67 (680-221504-75)	
Sample Date		Sample Time		PT-68 (680-221504-76)	
Sample Date		Sample Time		PT-69 (680-221504-77)	
Sample Date		Sample Time		PT-70 (680-221504-78)	
Sample Date		Sample Time		PT-71 (680-221504-79)	
Sample Date		Sample Time		PT-72 (680-221504-80)	
Sample Date		Sample Time		PT-73 (680-221504-81)	
Sample Date		Sample Time		PT-74 (680-221504-82)	
Sample Date		Sample Time		PT-75 (680-221504-83)	
Sample Date		Sample Time		PT-76 (680-221504-84)	
Sample Date		Sample Time		PT-77 (680-221504-85)	
Sample Date		Sample Time		PT-78 (680-221504-86)	
Sample Date		Sample Time		PT-79 (680-221504-87)	
Sample Date		Sample Time		PT-80 (680-221504-88)	
Sample Date		Sample Time		PT-81 (680-221504-89)	
Sample Date		Sample Time		PT-82 (680-221504-90)	
Sample Date		Sample Time		PT-83 (680-221504-91)	
Sample Date		Sample Time		PT-84 (680-221504-92)	
Sample Date		Sample Time		PT-85 (680-221504-93)	
Sample Date		Sample Time		PT-86 (680-221504-94)	
Sample Date		Sample Time		PT-87 (680-221504-95)	
Sample Date		Sample Time		PT-88 (680-221504-96)	
Sample Date		Sample Time		PT-89 (680-221504-97)	
Sample Date		Sample Time		PT-90 (680-221504-98)	
Sample Date		Sample Time		PT-91 (680-221504-99)	
Sample Date		Sample Time		PT-92 (680-221504-100)	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

**Possible Hazard Identification**  
 Unconfirmed  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Special Instructions/QC Requirements:

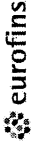
Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_



**Eurofins Pensacola**

3355 McLemore Drive  
Pensacola, FL 32514  
Phone: 850-474-1001 Fax: 850-478-2671

**Chain of Custody Record**



Environment Testing

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	QC No:				
Client Contact: Shipping/Receiving		Phone:	Fuller, David	State of Origin: Georgia	400-309285-1				
Company: Eurofins Environment Testing Northeast,		E-Mail: David.Fuller@et.eurofins.com		Page 1 of 1	Page #:				
Address: 301 Alpha Drive, RIDC Park, Pittsburgh State, Zip PA, 15238		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:				
Due Date Requested: 10/6/2022		TAT Requested (days):		Analysis Requested					
PO #:	WO #:	Project #: 68027841	SSOW#:	Total Number of Containers					
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Lithium	Special Instructions/Note:
DUP-1 (680-221504-3)		9/20/22	Eastern	Water	Water	X		1	
MCM-06 (680-221504-6)		9/20/22	10:14 Eastern	Water	Water	X		1	
MCM-20 (680-221504-7)		9/20/22	11:22 Eastern	Water	Water	X		1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC</p>									
<p><b>Possible Hazard Identification</b></p> <p>Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Special Instructions/QC Requirements:</p>									
Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:				
Relinquished by:		Date/Time:	Company:		Received by:				
Relinquished by:		Date/Time:	Company:		Received by:				
Relinquished by:		Date/Time:	Company:		Received by:				
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					







Environment Testing  
TestAmerica

Part # 159468-434-MTW EXP 09/23

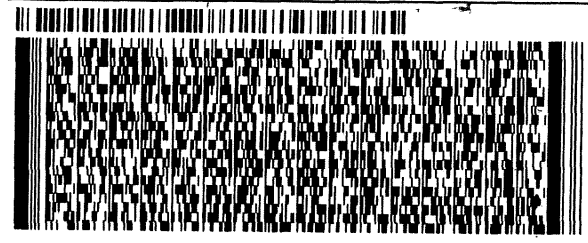
ORIGIN ID: PNSA (850) 474-1001  
SAMPLE RECEIVING  
EUROFINS PENSACOLA  
3355 MCLEMORE DR  
PENSACOLA, FL 32514  
UNITED STATES US

SHIP DATE: 09DEC22  
ACTWGT: 19.65 LB  
CAD: 0823943/CAFE3616  
BILL SENDER

TO SHIPPING/RECEIVING  
EUROFINS ENVIRONMENT TESTING NORTHE  
301 ALPHA DRIVE  
RIDC PARK  
PITTSBURGH PA 15238

(412) 963-7068 REF: 8400-115995  
PO: YES

577CS/9687/432A



TRK# 0201 5564 3935 6785

SATURDAY 12:00P  
PRIORITY OVERNIGHT

XO AGCA

15238  
PA-US PIT

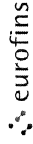
Uncorrected temp 24 °C  
Thermometer ID 19

CF DJ Initials KR

PT-WI-SR-001 effective 11/8/18



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fuller, David		Carrier Tracking No(s): 680-709181-1	
Client Contact: Shipping/Receiving		E-Mail: David.Fuller@st.eurofins.com		Page: Page 1 of 2	
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia		Job #: 680-221504-1	
Address: 3355 McLemore Drive, Pensacola, FL, 32514		Due Date Requested: 10/5/2022		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
City: Pensacola, State: FL, Zip: 32514		TAT Requested (days):		Analysis Requested	
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		PO #:		Total Number of containers	
Email: 68027841		WO #:		602B/3005A Arsenic & Iron	
Project Name: Plant McManus AP1		Project #: 68027841		602B/3005A Custom - 6	
Site:		SSOV#:		Field Filtered Sample (Yes or No)	
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>	
<del>Sample Identification - Client ID (Lab ID)</del>		<del>Sample Date</del>		<del>Sample Time</del>	
MCM-18 (680-221504-1)	9/20/22	14:30 Eastern	Water	X	1
MCM-19 (680-221504-2)	9/20/22	15:58 Eastern	Water	X	1
DUP-1 (680-221504-3)	9/20/22	Eastern	Water	X	1
FB-1 (680-221504-4)	9/20/22	17:50 Eastern	Water	X	1
EB-1 (680-221504-5)	9/20/22	17:40 Eastern	Water	X	1
MCM-06 (680-221504-6)	9/20/22	10:14 Eastern	Water	X	1
MCM-20 (680-221504-7)	9/20/22	11:22 Eastern	Water	X	1
DPZ-2 (680-221504-8)	9/20/22	12:20 Eastern	Water	X	1
PT-01 (680-221504-9)	9/20/22	10:15 Eastern	Water	X	1
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte &amp; accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.</p>					
<b>Possible Hazard Identification</b>					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by: Date:					
Relinquished by: <i>gj</i> 9/22/22 1700 Date/Time: Company					
Relinquished by: Date/Time: Company					
Relinquished by: Date/Time: Company					
Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: <i>0.0, 2.5, 18.7</i>					
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For    Months					



# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

**Login Number: 221504**

**List Source: Eurofins Savannah**

**List Number: 1**

**Creator: Padayao, Abigail**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

**Login Number: 221504**

**List Number: 3**

**Creator: Roberts, Alexis J**

**List Source: Eurofins Pensacola**

**List Creation: 09/23/22 01:27 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 2.5°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

**Login Number: 221504**

**List Number: 4**

**Creator: Kovitch, Christina M**

**List Source: Eurofins Pittsburgh**

**List Creation: 12/10/22 02:43 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

**Login Number: 221590**

**List Number: 1**

**Creator: Sims, Robert D**

**List Source: Eurofins Savannah**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221504-1

**Login Number: 221590**

**List Number: 2**

**Creator: Whitley, Adrian**

**List Source: Eurofins Pensacola**

**List Creation: 09/24/22 11:16 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 1.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



March 17, 2023

Kristen Jurinko  
Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance GW  
Work Order: 613002

Dear Kristen Jurinko:

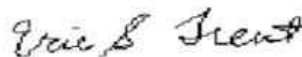
GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 03, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,



Erin Trent  
Project Manager

Purchase Order: GPC82177-0007  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 613002 GEL Work Order: 613002

**The Qualifiers in this report are defined as follows:**

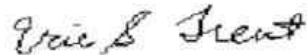
- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-01	Project: GPCC00105
Sample ID: 613002001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-MAR-23 12:46	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.91			SU			MG5	03/01/23	1246	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14.9	0.335	1.00	mg/L		5	HXC1	03/07/23	1236	2393496	2
Sulfate		45.3	0.665	2.00	mg/L		5					
Fluoride	U	ND	0.0330	4.00	mg/L		1	HXC1	03/06/23	1250	2393496	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1150	2393588	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.0910	0.00520	0.0150	mg/L	1.00	1	PRB	03/13/23	2149	2393355	5
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2232	2393355	6
Arsenic	J	0.00493	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0970	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		7.87	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		2.39	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium		1.58	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000258	0.000200	0.100	mg/L	1.00	1					
Potassium		2.08	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		18.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		78.0	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-01	Project: GPCC00105
Sample ID: 613002001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		8.00	2.42	6.67	mg/L			MS3	03/09/23	1513	2393626	8
Bicarbonate alkalinity (CaCO3)		8.00	2.42	6.67	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	2.42	6.67	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-02 Project: GPCC00105  
Sample ID: 613002002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-MAR-23 14:18  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.10			SU			MG5	03/01/23	1418	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	4.00	mg/L	1	HXC1	03/06/23	1321	2393496		2
Chloride		21.8	0.335	1.00	mg/L	5	HXC1	03/07/23	1307	2393496		3
Sulfate		27.4	0.665	2.00	mg/L	5						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1151	2393588	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.115	0.00520	0.0150	mg/L	1.00	1	PRB	03/13/23	2207	2393355	5
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2257	2393355	6
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0806	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		5.26	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	J	0.000372	0.000300	0.0360	mg/L	1.00	1					
Iron		1.16	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium		2.23	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium		0.990	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		20.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		73.0	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-02 Project: GPCC00105  
Sample ID: 613002002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		10.2	1.45	4.00	mg/L			MS3	03/09/23	1523	2393626	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		10.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-04	Project: GPCC00105
Sample ID: 613002003	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-MAR-23 17:02	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.93			SU			MG5	03/01/23	1702	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	4.00	mg/L		1	HXC1	03/06/23	1352	2393496	2
Chloride		45.6	0.670	2.00	mg/L		10	HXC1	03/07/23	1338	2393496	3
Sulfate		44.2	1.33	4.00	mg/L		10					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1153	2393588	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.108	0.00520	0.0150	mg/L	1.00	1	PRB	03/13/23	2211	2393355	5
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2301	2393355	6
Arsenic	J	0.00247	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0310	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		7.75	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	J	0.00256	0.000300	0.0360	mg/L	1.00	1					
Iron		1.52	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium		2.58	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium		7.06	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		37.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		142	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
<b>Titration and Ion Analysis</b>												



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-04 Project: GPCC00105  
Sample ID: 613002003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		6.20	1.45	4.00	mg/L			MS3	03/09/23	1526	2393626	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		6.20	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-11	Project: GPCC00105
Sample ID: 613002004	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-MAR-23 11:14	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.78			SU			MG5	03/01/23	1114	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		17.7	0.335	1.00	mg/L		5	HXC1	03/07/23	1409	2393496	2
Sulfate		21.4	0.665	2.00	mg/L		5					
Fluoride	J	0.101	0.0330	4.00	mg/L		1	HXC1	03/06/23	1423	2393496	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1205	2393588	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.0461	0.00520	0.0150	mg/L	1.00	1	PRB	03/13/23	2214	2393355	5
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2304	2393355	6
Arsenic	J	0.00868	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0405	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		6.53	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		5.44	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium		1.74	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium		0.604	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		17.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		67.0	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-11	Project: GPCC00105
Sample ID: 613002004	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		12.4	1.45	4.00	mg/L			MS3	03/09/23	1527	2393626	8
Bicarbonate alkalinity (CaCO3)		12.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-12 Project: GPCC00105  
Sample ID: 613002005 Client ID: GPCC001  
Matrix: WG  
Collect Date: 28-FEB-23 14:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.28			SU			MG5	02/28/23	1400	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	1.21	0.0330	4.00	mg/L		1	HXC1	03/06/23	1454	2393496	2
Sulfate		1.33	0.133	0.400	mg/L		1					
Chloride		518	134	400	mg/L		2000	HXC1	03/04/23	1815	2393496	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1206	2393588	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2308	2393355	5
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0710	0.000670	2.00	mg/L	1.00	1					
Beryllium	J	0.00135	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		5.17	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00663	0.00300	0.100	mg/L	1.00	1					
Cobalt	J	0.000520	0.000300	0.0360	mg/L	1.00	1					
Iron		0.307	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0104	0.00300	0.0400	mg/L	1.00	1					
Magnesium		8.84	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000362	0.000200	0.100	mg/L	1.00	1					
Potassium		18.8	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00157	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.23	0.104	0.300	mg/L	1.00	20	PRB	03/13/23	2225	2393355	6
Sodium		433	1.60	5.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1290	7.93	33.3	mg/L			CH6	03/07/23	1036	2394285	7
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-12 Project: GPCC00105  
Sample ID: 613002005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		449	1.45	4.00	mg/L			MS3	03/09/23	1528	2393626	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		449	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-05	Project: GPCC00105
Sample ID: 613002006	Client ID: GPCC001
Matrix: WG	
Collect Date: 02-MAR-23 12:24	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.55			SU			MG5	03/02/23	1224	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.388	0.0660	4.00	mg/L		2	HXC1	03/06/23	1524	2393496	2
Sulfate		84.2	0.665	2.00	mg/L		5	HXC1	03/07/23	1439	2393496	3
Chloride		853	134	400	mg/L		2000	HXC1	03/04/23	1947	2393496	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1208	2393588	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2311	2393355	6
Arsenic	J	0.00578	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0133	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		25.9	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0237	0.00300	0.0400	mg/L	1.00	1					
Magnesium		49.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000852	0.000200	0.100	mg/L	1.00	1					
Potassium		33.4	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.511	0.104	0.300	mg/L	1.00	20	PRB	03/13/23	2229	2393355	7
Sodium		563	1.60	5.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1710	23.8	100	mg/L			CH6	03/07/23	1036	2394285	8
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-05 Project: GPCC00105  
Sample ID: 613002006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		181	1.45	4.00	mg/L			MS3	03/09/23	1531	2393626	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		181	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06 Project: GPCC00105  
Sample ID: 613002007 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 16:14  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.38			SU			MG5	03/02/23	1614	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1470	134	400	mg/L		2000	HXC1	03/04/23	2018	2393496	2
Sulfate		157	1.33	4.00	mg/L		10	HXC1	03/07/23	1510	2393496	3
Fluoride	J	0.419	0.165	4.00	mg/L		5	HXC1	03/06/23	1555	2393496	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1209	2393588	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.961	0.0520	0.150	mg/L	1.00	10	PRB	03/13/23	2232	2393355	6
Magnesium		72.2	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2315	2393355	7
Arsenic		0.0764	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0195	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		36.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	J	0.0659	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0361	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	J	0.00131	0.000200	0.100	mg/L	1.00	1					
Potassium		49.5	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		1050	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2236	2393355	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3120	23.8	100	mg/L			CH6	03/07/23	1036	2394285	9
Spectrometric Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-06	Project: GPCC00105
Sample ID: 613002007	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	03/07/23	1516	2394295	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		288	1.45	4.00	mg/L			MS3	03/09/23	1532	2393626	11
Bicarbonate alkalinity (CaCO3)		288	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-07 Project: GPCC00105  
Sample ID: 613002008 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 14:50  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.28			SU			MG5	03/02/23	1450	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		640	13.3	40.0	mg/L		100	JLD1	03/04/23	1526	2393500	2
Chloride		5450	134	400	mg/L		2000	JLD1	03/04/23	0414	2393500	3
Fluoride	J	0.440	0.330	4.00	mg/L		10	JLD1	03/04/23	1454	2393500	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1211	2393588	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2319	2393355	6
Arsenic		0.0140	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0982	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		0.176	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0217	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	J	0.000963	0.000200	0.100	mg/L	1.00	1					
Selenium	J	0.00238	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		3000	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2243	2393355	7
Boron		1.25	0.0520	0.150	mg/L	1.00	10	PRB	03/13/23	2240	2393355	8
Calcium		194	0.800	2.00	mg/L	1.00	10					
Magnesium		406	0.100	0.300	mg/L	1.00	10					
Potassium		103	0.800	3.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		10500	23.8	100	mg/L			CH6	03/07/23	1036	2394285	9
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-07	Project: GPCC00105
Sample ID: 613002008	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		291	1.45	4.00	mg/L			MS3	03/09/23	1533	2393626	10
Bicarbonate alkalinity (CaCO3)		291	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-14 Project: GPCC00105  
Sample ID: 613002009 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 11:10  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.53			SU		MG5		03/02/23	1110	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		2520	66.5	200	mg/L		50	JLD1	03/04/23	1630	2393500	2
Chloride		1810	134	400	mg/L		2000	JLD1	03/04/23	0549	2393500	3
Fluoride	J	0.188	0.132	4.00	mg/L		4	JLD1	03/04/23	1558	2393500	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1213	2393588	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		1130	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2250	2393355	6
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2322	2393355	7
Arsenic	J	0.00201	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0356	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		48.0	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	J	0.0332	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0218	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.738	0.0520	0.150	mg/L	1.00	10	PRB	03/13/23	2247	2393355	8
Magnesium		100	0.100	0.300	mg/L	1.00	10					
Potassium		52.4	0.800	3.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3280	23.8	100	mg/L			CH6	03/07/23	1036	2394285	9
Titration and Ion Analysis												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-14	Project: GPCC00105
Sample ID: 613002009	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		176	1.45	4.00	mg/L			MS3	03/09/23	1535	2393626	10
Bicarbonate alkalinity (CaCO3)		176	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-15 Project: GPCC00105  
Sample ID: 613002010 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 09:42  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.45			SU			MG5	03/02/23	0942	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.88	0.335	1.00	mg/L		5	JLD1	03/04/23	1215	2393500	2
Sulfate		8.12	0.665	2.00	mg/L		5					
Fluoride	J	0.0397	0.0330	4.00	mg/L		1	JLD1	03/04/23	2324	2393500	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1218	2393588	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/13/23	2301	2393355	5
Arsenic	J	0.00756	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0282	0.000670	2.00	mg/L	1.00	1					
Boron		0.0416	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		1.41	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		0.912	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Magnesium		0.502	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.00133	0.000200	0.100	mg/L	1.00	1					
Potassium		7.34	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		4.12	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000201	0.000200	0.00400	mg/L	1.00	1	PRB	03/14/23	1037	2393355	6
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		35.0	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
Titration and Ion Analysis												



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-15	Project: GPCC00105
Sample ID: 613002010	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		8.00	1.45	4.00	mg/L			MS3	03/09/23	1536	2393626	8
Bicarbonate alkalinity (CaCO3)		8.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-16 Project: GPCC00105  
Sample ID: 613002011 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-MAR-23 10:17  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.76			SU			MG5	03/01/23	1017	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0397	0.0330	4.00	mg/L	1		JLD1	03/05/23	0100	2393500	2
Chloride		14.2	0.335	1.00	mg/L	5		JLD1	03/04/23	1247	2393500	3
Sulfate		25.8	0.665	2.00	mg/L	5						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1219	2393588	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/13/23	2305	2393355	5
Arsenic	J	0.00223	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.109	0.000670	2.00	mg/L	1.00	1					
Boron		0.0669	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		4.74	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		2.99	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Magnesium		2.58	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000517	0.000200	0.100	mg/L	1.00	1					
Potassium		1.25	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		13.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000223	0.000200	0.00400	mg/L	1.00	1	PRB	03/14/23	1038	2393355	6
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		56.0	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	7
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
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 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-16	Project: GPCC00105
Sample ID: 613002011	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	5.33	2.42	6.67	mg/L			MS3	03/09/23	1538	2393626	8
Bicarbonate alkalinity (CaCO3)	J	5.33	2.42	6.67	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	2.42	6.67	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01 Project: GPCC00105  
Sample ID: 613002012 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-MAR-23 11:45  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.11			SU		MG5	03/01/23	1145	2393869		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1680	134	400	mg/L	2000	JLD1	03/04/23	0725	2393500		2
Fluoride	J	0.320	0.165	4.00	mg/L	5	JLD1	03/04/23	1702	2393500		3
Sulfate		204	6.65	20.0	mg/L	50	JLD1	03/04/23	1837	2393500		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0279	0.00200	0.0100	mg/L	1.00	1 PRB	03/12/23	2340	2393355		5
Iron	J	0.0695	0.0330	0.100	mg/L	1.00	1					
Magnesium		91.2	0.100	0.300	mg/L	1.00	10 PRB	03/13/23	2309	2393355		6
Potassium		55.0	0.800	3.00	mg/L	1.00	10					
Sodium		1140	8.00	25.0	mg/L	1.00	100 PRB	03/13/23	2312	2393355		7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3660	23.8	100	mg/L		CH6	03/07/23	1036	2394285		8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0428	0.0330	0.100	mg/L	1	HH2	03/07/23	1517	2394295		9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		279	1.45	4.00	mg/L		MS3	03/09/23	1542	2393626		10
Bicarbonate alkalinity (CaCO3)		279	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-01 Project: GPCC00105  
Sample ID: 613002012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	EPA 300.0										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										
9	SM 4500-S (2-) D										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02 Project: GPCC00105  
Sample ID: 613002013 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-MAR-23 14:20  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.17			SU		MG5	03/01/23	1420	2393869		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1720	134	400	mg/L	2000	JLD1	03/04/23	0757	2393500		2
Sulfate		183	6.65	20.0	mg/L	50	JLD1	03/04/23	1941	2393500		3
Fluoride	J	0.385	0.165	4.00	mg/L	5	JLD1	03/04/23	1909	2393500		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0356	0.00200	0.0100	mg/L	1.00	1 PRB	03/12/23	2344	2393355		5
Iron	J	0.0561	0.0330	0.100	mg/L	1.00	1					
Magnesium		110	0.100	0.300	mg/L	1.00	10 PRB	03/13/23	2316	2393355		6
Potassium		60.7	0.800	3.00	mg/L	1.00	10					
Sodium		1070	8.00	25.0	mg/L	1.00	100 PRB	03/13/23	2319	2393355		7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3510	23.8	100	mg/L		CH6	03/07/23	1119	2394286		8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 HH2	03/07/23	1518	2394295		9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		263	1.45	4.00	mg/L		MS3	03/09/23	1544	2393626		10
Bicarbonate alkalinity (CaCO3)		263	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-02      Project: GPCC00105  
Sample ID: 613002013      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D Project: GPCC00105  
Sample ID: 613002014 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-MAR-23 10:10  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.02			SU		MG5		03/01/23	1010	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		703	6.65	20.0	mg/L	50	JLD1		03/04/23	2045	2393500	2
Chloride		4540	134	400	mg/L	2000	JLD1		03/04/23	0829	2393500	3
Fluoride	J	0.367	0.330	4.00	mg/L	10	JLD1		03/04/23	2013	2393500	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		2900	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2327	2393355	5
Magnesium		315	0.200	0.600	mg/L	1.00	20	PRB	03/13/23	2323	2393355	6
Potassium		115	1.60	6.00	mg/L	1.00	20					
Arsenic		0.0152	0.00200	0.0100	mg/L	1.00	1	PRB	03/12/23	2348	2393355	7
Iron	J	0.0816	0.0330	0.100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		9890	23.8	100	mg/L		CH6		03/07/23	1119	2394286	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	03/07/23	1518	2394295	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		498	1.45	4.00	mg/L		MS3		03/09/23	1545	2393626	10
Bicarbonate alkalinity (CaCO3)		498	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-04D Project: GPCC00105  
Sample ID: 613002014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	EPA 300.0										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										
9	SM 4500-S (2-) D										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-17 Project: GPCC00105  
Sample ID: 613002015 Client ID: GPCC001  
Matrix: WG  
Collect Date: 28-FEB-23 13:55  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.62			SU			MG5	02/28/23	1355	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		2770	134	400	mg/L		2000	JLD1	03/04/23	0901	2393500	2
Sulfate		334	6.65	20.0	mg/L		50	JLD1	03/04/23	2149	2393500	3
Fluoride	J	0.815	0.165	4.00	mg/L		5	JLD1	03/04/23	2117	2393500	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1221	2393588	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2351	2393355	6
Arsenic	J	0.00226	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0828	0.000670	2.00	mg/L	1.00	1					
Beryllium	J	0.000279	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Chromium	J	0.00623	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		0.390	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0257	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	J	0.000313	0.000200	0.100	mg/L	1.00	1					
Selenium	J	0.00184	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.78	0.104	0.300	mg/L	1.00	20	PRB	03/13/23	2330	2393355	7
Calcium		94.2	1.60	4.00	mg/L	1.00	20					
Magnesium		173	0.200	0.600	mg/L	1.00	20					
Potassium		88.1	1.60	6.00	mg/L	1.00	20					
Sodium		1960	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2334	2393355	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		6810	23.8	100	mg/L			CH6	03/07/23	1119	2394286	9
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-17	Project: GPCC00105
Sample ID: 613002015	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		473	1.45	4.00	mg/L			MS3	03/09/23	1547	2393626	10
Bicarbonate alkalinity (CaCO3)		473	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-18	Project: GPCC00105
Sample ID: 613002016	Client ID: GPCC001
Matrix: WG	
Collect Date: 28-FEB-23 17:06	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.42			SU			MG5	02/28/23	1706	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.407	0.165	4.00	mg/L		5	JLD1	03/04/23	2220	2393500	2
Sulfate		186	3.33	10.0	mg/L		25	JLD1	03/04/23	2252	2393500	3
Chloride		1250	134	400	mg/L		2000	JLD1	03/04/23	0932	2393500	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1222	2393588	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.185	0.0260	0.0750	mg/L	1.00	5	PRB	03/13/23	2345	2393355	6
Magnesium		73.5	0.0500	0.150	mg/L	1.00	5					
Sodium		697	0.400	1.25	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2355	2393355	7
Arsenic	J	0.00273	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.105	0.000670	2.00	mg/L	1.00	1					
Beryllium	J	0.00290	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		22.5	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		31.7	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.00327	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium		9.22	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00583	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2090	23.8	100	mg/L			CH6	03/07/23	1119	2394286	8
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-18	Project: GPCC00105
Sample ID: 613002016	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	1.60	1.45	4.00	mg/L			MS3	03/09/23	1548	2393626	9
Bicarbonate alkalinity (CaCO3)	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-19	Project: GPCC00105
Sample ID: 613002017	Client ID: GPCC001
Matrix: WG	
Collect Date: 28-FEB-23 15:04	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.08			SU			MG5	02/28/23	1504	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.380	0.330	4.00	mg/L		10	JLD1	03/06/23	1339	2393618	2
Sulfate		820	66.5	200	mg/L		500	JLD1	03/04/23	1516	2393618	3
Chloride		5760	67.0	200	mg/L		1000	JLD1	03/07/23	1015	2393618	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1224	2393588	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.707	0.0520	0.150	mg/L	1.00	10	PRB	03/13/23	2348	2393355	6
Calcium		150	0.800	2.00	mg/L	1.00	10					
Iron		117	0.330	1.00	mg/L	1.00	10					
Magnesium		421	0.100	0.300	mg/L	1.00	10					
Potassium		67.8	0.800	3.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/12/23	2358	2393355	7
Arsenic		0.0173	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0869	0.000670	2.00	mg/L	1.00	1					
Beryllium		0.0144	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Chromium	J	0.00575	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0190	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Selenium	J	0.0340	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		3000	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2352	2393355	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		10400	23.8	100	mg/L			CH6	03/07/23	1119	2394286	9
<b>Titration and Ion Analysis</b>												



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-19 Project: GPCC00105  
Sample ID: 613002017 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		28.0	1.45	4.00	mg/L			MS3	03/09/23	1550	2393626	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		28.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20 Project: GPCC00105  
Sample ID: 613002018 Client ID: GPCC001  
Matrix: WG  
Collect Date: 28-FEB-23 13:50  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		3.70			SU			MG5	02/28/23	1350	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	3.32	0.330	4.00	mg/L		10	JLD1	03/06/23	1443	2393618	2
Chloride		7930	67.0	200	mg/L		1000	JLD1	03/06/23	1411	2393618	3
Sulfate		950	66.5	200	mg/L		500	JLD1	03/04/23	1547	2393618	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1226	2393588	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.723	0.0520	0.150	mg/L	1.00	10	PRB	03/13/23	2355	2393355	6
Calcium		104	0.800	2.00	mg/L	1.00	10					
Iron		118	0.330	1.00	mg/L	1.00	10					
Magnesium		294	0.100	0.300	mg/L	1.00	10					
Potassium		62.2	0.800	3.00	mg/L	1.00	10					
Sodium		2810	8.00	25.0	mg/L	1.00	100	PRB	03/13/23	2359	2393355	7
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/13/23	0002	2393355	8
Arsenic		0.0166	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0928	0.000670	2.00	mg/L	1.00	1					
Beryllium		0.0155	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Chromium	J	0.00573	0.00300	0.100	mg/L	1.00	1					
Cobalt	J	0.0252	0.000300	0.0360	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.0221	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Selenium	J	0.0225	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		8720	23.8	100	mg/L			CH6	03/07/23	1119	2394286	9
Spectrometric Analysis												

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

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Client Sample ID: MCM-MCM-20	Project: GPCC00105
Sample ID: 613002018	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	03/07/23	1518	2394295	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			MS3	03/09/23	1552	2393626	11
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02	Project: GPCC00105
Sample ID: 613002019	Client ID: GPCC001
Matrix: WG	
Collect Date: 02-MAR-23 16:20	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.12			SU			MG5	03/02/23	1620	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.330	4.00	mg/L		10	JLD1	03/06/23	1650	2393618	2
Sulfate		859	66.5	200	mg/L		500	JLD1	03/04/23	1619	2393618	3
Chloride		6860	67.0	200	mg/L		1000	JLD1	03/06/23	1514	2393618	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1227	2393588	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Sodium		3900	8.00	25.0	mg/L	1.00	100	PRB	03/14/23	0006	2393355	6
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	PRB	03/13/23	0006	2393355	7
Arsenic		0.0202	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0601	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		0.121	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium		0.0919	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	J	0.000245	0.000200	0.100	mg/L	1.00	1					
Selenium	J	0.00205	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.82	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	0003	2393355	8
Calcium		234	1.60	4.00	mg/L	1.00	20					
Magnesium		431	0.200	0.600	mg/L	1.00	20					
Potassium		136	1.60	6.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		12300	23.8	100	mg/L			CH6	03/07/23	1119	2394286	9
<b>Spectrometric Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02 Project: GPCC00105  
Sample ID: 613002019 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0379	0.0330	0.100	mg/L		1	HH2	03/07/23	1519	2394295	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		440	1.45	4.00	mg/L			MS3	03/09/23	1552	2393626	11
Bicarbonate alkalinity (CaCO3)		440	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03 Project: GPCC00105  
Sample ID: 613002020 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 10:35  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.11			SU		MG5		03/02/23	1035	2393869	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.364	0.0660	4.00	mg/L	2	JLD1		03/06/23	1203	2393618	2
Chloride		1560	33.5	100	mg/L	500	JLD1		03/04/23	1651	2393618	3
Sulfate		207	66.5	200	mg/L	500						
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		100	0.0200	0.0600	mg/L	1.00	2	PRB	03/14/23	0010	2393355	4
Potassium		59.6	0.160	0.600	mg/L	1.00	2					
Arsenic		0.0405	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0009	2393355	5
Sodium		951	8.00	25.0	mg/L	1.00	100	PRB	03/14/23	0017	2393355	6
Iron	J	0.0415	0.0330	0.100	mg/L	1.00	1	PRB	03/15/23	1331	2393355	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2640	23.8	100	mg/L		CH6		03/07/23	1119	2394286	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0895	0.0330	0.100	mg/L	1	HH2		03/07/23	1519	2394295	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		223	1.45	4.00	mg/L		MS3		03/14/23	1733	2393627	10
Bicarbonate alkalinity (CaCO3)		223	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393354

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-PT-03 Project: GPCC00105  
Sample ID: 613002020 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										
9	SM 4500-S (2-) D										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-02 Project: GPCC00105  
Sample ID: 613002021 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 01-MAR-23 17:40  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.156	0.0670	0.200	mg/L		1	JLD1	03/04/23	1723	2393618	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1229	2393588	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0049	2393357	3
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	4
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		5.60	1.45	4.00	mg/L			MS3	03/14/23	1737	2393627	5
Bicarbonate alkalinity (CaCO3)		5.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-02 Project: GPCC00105  
Sample ID: 613002021 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-02	Project: GPCC00105
Sample ID: 613002022	Client ID: GPCC001
Matrix: WQ	
Collect Date: 01-MAR-23 17:50	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	03/04/23	1755	2393618	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1231	2393588	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0053	2393357	3
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	4
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	1.80	1.45	4.00	mg/L			MS3	03/14/23	1739	2393627	5
Bicarbonate alkalinity (CaCO3)	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-02 Project: GPCC00105  
Sample ID: 613002022 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01 Project: GPCC00105  
Sample ID: 613002023 Client ID: GPCC001  
Matrix: WG  
Collect Date: 28-FEB-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1240	33.5	100	mg/L		500	JLD1	03/04/23	1827	2393618	1
Sulfate		232	66.5	200	mg/L		500					
Fluoride	J	0.437	0.0660	4.00	mg/L		2	JLD1	03/07/23	0944	2393618	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1232	2393588	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		70.2	0.0500	0.150	mg/L	1.00	5	SKJ	03/10/23	1658	2393357	4
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0057	2393357	5
Arsenic	J	0.00269	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0956	0.000670	2.00	mg/L	1.00	1					
Beryllium	J	0.00270	0.000200	0.00400	mg/L	1.00	1					
Boron		0.197	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		21.4	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		30.3	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	J	0.00316	0.00300	0.0400	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium		8.99	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00398	0.00150	0.0500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		698	1.60	5.00	mg/L	1.00	20	SKJ	03/10/23	1656	2393357	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2270	23.8	100	mg/L			CH6	03/07/23	1119	2394286	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	1.60	1.45	4.00	mg/L			MS3	03/14/23	1740	2393627	8
Bicarbonate alkalinity (CaCO3)	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-01 Project: GPCC00105  
Sample ID: 613002023 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1219	2393587

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-01	Project: GPCC00105
Sample ID: 613002024	Client ID: GPCC001
Matrix: WQ	
Collect Date: 28-FEB-23 16:12	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	J	0.144	0.0670	0.200	mg/L		1	JLD1	03/04/23	1858	2393618	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1250	2393590	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0100	2393357	3
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	4
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	1.60	1.45	4.00	mg/L			MS3	03/14/23	1743	2393627	5
Bicarbonate alkalinity (CaCO3)	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-01 Project: GPCC00105  
Sample ID: 613002024 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1220	2393589

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-01 Project: GPCC00105  
Sample ID: 613002025 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 28-FEB-23 16:20  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	03/04/23	1630	2393619	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1252	2393590	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0104	2393357	3
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	4
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			MS3	03/14/23	1746	2393627	5
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-01 Project: GPCC00105  
Sample ID: 613002025 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1220	2393589

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01	Project: GPCC00105
Sample ID: 613002026	Client ID: GPCC001
Matrix: WG	
Collect Date: 02-MAR-23 15:00	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.97			SU			MG5	03/02/23	1500	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.165	4.00	mg/L		5	JLD1	03/05/23	0228	2393619	2
Sulfate		130	3.33	10.0	mg/L		25	JLD1	03/05/23	0258	2393619	3
Chloride		1170	33.5	100	mg/L		500	JLD1	03/04/23	1401	2393619	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		80.5	0.0500	0.150	mg/L	1.00	5	SKJ	03/10/23	1712	2393357	5
Sodium		893	4.00	12.5	mg/L	1.00	50	SKJ	03/10/23	1704	2393357	6
Arsenic		0.0543	0.00200	0.0100	mg/L	1.00	1	SKJ	03/10/23	0115	2393357	7
Iron	J	0.0570	0.0330	0.100	mg/L	1.00	1					
Potassium		49.0	0.0800	0.300	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2700	23.8	100	mg/L			CH6	03/07/23	1119	2394286	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	03/07/23	1521	2394296	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		219	1.45	4.00	mg/L			MS3	03/14/23	1749	2393627	10
Bicarbonate alkalinity (CaCO3)		219	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-01      Project: GPCC00105  
Sample ID: 613002026      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	EPA 300.0										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										
9	SM 4500-S (2-) D										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02	Project: GPCC00105
Sample ID: 613002027	Client ID: GPCC001
Matrix: WG	
Collect Date: 02-MAR-23 12:10	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.31			SU		MG5		03/02/23	1210	2393869	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.242	0.165	4.00	mg/L		5	JLD1	03/05/23	0328	2393619	2
Chloride		2630	33.5	100	mg/L		500	JLD1	03/04/23	1431	2393619	3
Sulfate		372	66.5	200	mg/L		500					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		155	0.100	0.300	mg/L	1.00	10	SKJ	03/10/23	1727	2393357	4
Potassium		76.4	0.800	3.00	mg/L	1.00	10					
Arsenic		0.0340	0.00200	0.0100	mg/L	1.00	1	SKJ	03/10/23	0133	2393357	5
Iron	J	0.0408	0.0330	0.100	mg/L	1.00	1					
Sodium		1850	4.00	12.5	mg/L	1.00	50	SKJ	03/10/23	1725	2393357	6
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		6010	23.8	100	mg/L			CH6	03/07/23	1119	2394286	7
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0355	0.0330	0.100	mg/L		1	HH2	03/07/23	1522	2394296	8
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		338	1.45	4.00	mg/L			MS3	03/14/23	1752	2393627	9
Bicarbonate alkalinity (CaCO3)		338	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DR-02      Project: GPCC00105  
Sample ID: 613002027      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		
8	SM 4500-S (2-) D		
9	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-02 Project: GPCC00105  
Sample ID: 613002028 Client ID: GPCC001  
Matrix: WG  
Collect Date: 02-MAR-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.79	0.0670	0.200	mg/L		1	JLD1	03/06/23	1014	2393619	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate		8.72	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1303	2393590	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.0428	0.00520	0.0150	mg/L	1.00	1	SKJ	03/10/23	1733	2393357	3
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0136	2393357	4
Arsenic		0.0125	0.00200	0.0100	mg/L	1.00	1					
Barium	J	0.0276	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium		1.41	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron		0.882	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium		0.467	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.00131	0.000200	0.100	mg/L	1.00	1					
Potassium		6.85	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium		3.94	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		40.0	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		9.00	1.45	4.00	mg/L			MS3	03/14/23	1758	2393627	6
Bicarbonate alkalinity (CaCO3)		9.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

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Company : Georgia Power Company  
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Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-02 Project: GPCC00105  
Sample ID: 613002028 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1220	2393589

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-03 Project: GPCC00105  
Sample ID: 613002029 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 02-MAR-23 16:45  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	03/04/23	1531	2393619	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1305	2393590	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	03/10/23	1735	2393357	3
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0140	2393357	4
Arsenic	J	0.00593	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	1.60	1.45	4.00	mg/L			MS3	03/14/23	1800	2393627	6
Bicarbonate alkalinity (CaCO3)	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-03      Project: GPCC00105  
Sample ID: 613002029      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Prep Methods were performed:												
Method	Description			Analyst	Date		Time	Prep Batch				
SW846 3005A	ICP-MS 3005A PREP			JD2	03/06/23		0900	2393356				
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid			RM4	03/06/23		1220	2393589				

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-03  
Sample ID: 613002030  
Matrix: WQ  
Collect Date: 02-MAR-23 16:50  
Receive Date: 03-MAR-23  
Collector: Client

Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.226	0.0670	0.200	mg/L		1	JLD1	03/04/23	1600	2393619	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/07/23	1306	2393590	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00600	mg/L	1.00	1	SKJ	03/10/23	0143	2393357	3
Arsenic	J	0.00447	0.00200	0.0100	mg/L	1.00	1					
Barium	U	ND	0.000670	2.00	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00500	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.0360	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.0150	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.0500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	SKJ	03/10/23	1737	2393357	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1119	2394286	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	2.00	1.45	4.00	mg/L			MS3	03/14/23	1802	2393627	6
Bicarbonate alkalinity (CaCO3)	J	2.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: March 17, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-03      Project: GPCC00105  
Sample ID: 613002030      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/06/23	1220	2393589

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## QC Summary

Report Date: March 17, 2023

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Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 613002

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393496										
QC1205336656	613002007	DUP									
Chloride		1470		1490	mg/L	1.45	^	(+/-400)	HXC1	03/04/23	20:49
Fluoride	J	0.419	J	0.295	mg/L	34.6	^	(+/-4.00)		03/06/23	16:26
Sulfate		157		157	mg/L	0.0617		(0%-20%)		03/07/23	15:41
QC1205336655	LCS										
Chloride	5.00			4.80	mg/L			95.9 (90%-110%)		03/04/23	14:08
Fluoride	2.50			2.45	mg/L			98.1 (90%-110%)			
Sulfate	10.0			9.72	mg/L			97.2 (90%-110%)			
QC1205336654	MB										
Chloride			U	ND	mg/L					03/04/23	13:37
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336657	613002007	PS									
Chloride	5.00	0.733		5.50	mg/L			95.3 (90%-110%)		03/04/23	21:20
Fluoride	2.50	J 0.0837		2.42	mg/L			93.5 (90%-110%)		03/06/23	16:57
Sulfate	10.0	15.7		26.7	mg/L			110 (90%-110%)		03/07/23	16:12



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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393500										
QC1205336664	612892001	DUP									
Chloride		4.89		4.85	mg/L	0.953		(0%-20%)	JLD1	03/04/23	03:10
Fluoride	J	0.0669	J	0.0659	mg/L	1.51	^	(+/-0.100)			
Sulfate		46.0		45.6	mg/L	1		(0%-20%)		03/04/23	13:50
QC1205336663	LCS										
Chloride	5.00			5.06	mg/L			101 (90%-110%)		03/04/23	02:06
Fluoride	2.50			2.49	mg/L			99.7 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205336662	MB										
Chloride			U	ND	mg/L					03/04/23	01:34
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336665	612892001	PS									
Chloride	5.00	4.89		10.2	mg/L			106 (90%-110%)		03/04/23	03:42
Fluoride	2.50	J 0.0669		2.38	mg/L			92.5 (90%-110%)			
Sulfate	10.0	9.21		19.5	mg/L			103 (90%-110%)		03/04/23	14:22
Batch	2393618										
QC1205336824	612952012	DUP									
Chloride		49.6		49.6	mg/L	0	^	(+/-20.0)	JLD1	03/06/23	11:00
Fluoride	U	ND	U	ND	mg/L	N/A					

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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393618										
Sulfate		34.0		33.8	mg/L	0.51		(0%-20%)	JLD1	03/04/23	20:02
QC1205336823	LCS										
Chloride	5.00			4.98	mg/L		99.6	(90%-110%)		03/04/23	23:13
Fluoride	2.50			2.53	mg/L		101	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205336822	MB										
Chloride			U	ND	mg/L					03/04/23	22:41
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336825	612952012 PS										
Chloride	5.00	0.496		5.55	mg/L		101	(90%-110%)		03/06/23	11:32
Fluoride	2.50	U	ND	1.77	mg/L		70.9*	(90%-110%)			
Sulfate	10.0	6.80		16.9	mg/L		101	(90%-110%)		03/04/23	21:38
Batch	2393619										
QC1205336830	613060003 DUP										
Chloride		0.372		0.378	mg/L	1.63 ^		(+/-0.200)	JLD1	03/04/23	23:29
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate	U	ND	U	ND	mg/L	N/A					

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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393619										
QC1205336827	LCS										
Chloride	5.00			4.58	mg/L		91.6	(90%-110%)	JLD1	03/05/23	01:58
Fluoride	2.50			2.56	mg/L		102	(90%-110%)			
Sulfate	10.0			9.45	mg/L		94.5	(90%-110%)			
QC1205336826	MB										
Chloride			U	ND	mg/L					03/05/23	00:28
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336831	613060003 PS										
Chloride	5.00	0.372		4.80	mg/L		88.5*	(90%-110%)		03/04/23	23:58
Fluoride	2.50	U	ND	2.49	mg/L		99.4	(90%-110%)			
Sulfate	10.0	U	ND	9.26	mg/L		92.6	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
QC1205336494	LCS										
Antimony	0.0500			0.0471	mg/L		94.2	(80%-120%)	PRB	03/12/23	22:28
Arsenic	0.0500			0.0476	mg/L		95.3	(80%-120%)			
Barium	0.0500			0.0501	mg/L		100	(80%-120%)			
Beryllium	0.0500			0.0498	mg/L		99.7	(80%-120%)			

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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
Boron	0.100			0.117	mg/L		117	(80%-120%)	PRB	03/13/23	21:46
Cadmium	0.0500			0.0495	mg/L		99.1	(80%-120%)		03/12/23	22:28
Calcium	2.00			2.10	mg/L		105	(80%-120%)			
Chromium	0.0500			0.0473	mg/L		94.6	(80%-120%)			
Cobalt	0.0500			0.0482	mg/L		96.4	(80%-120%)			
Iron	2.00			1.96	mg/L		98	(80%-120%)			
Lead	0.0500			0.0491	mg/L		98.2	(80%-120%)			
Lithium	0.0500			0.0478	mg/L		95.6	(80%-120%)			
Magnesium	2.00			1.92	mg/L		95.8	(80%-120%)			
Molybdenum	0.0500			0.0509	mg/L		102	(80%-120%)			
Potassium	2.00			1.91	mg/L		95.5	(80%-120%)			
Selenium	0.0500			0.0482	mg/L		96.4	(80%-120%)			
Sodium	2.00			1.89	mg/L		94.3	(80%-120%)			
Thallium	0.0500			0.0488	mg/L		97.6	(80%-120%)			
QC1205336493	MB										
Antimony			U	ND	mg/L					03/12/23	22:25

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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
Arsenic			U	ND	mg/L				PRB	03/12/23	22:25
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					03/13/23	21:42
Cadmium			U	ND	mg/L					03/12/23	22:25
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Molybdenum			J	0.000323	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						

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## *QC Summary*

Workorder: 613002

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
Sodium			U	ND	mg/L				PRB	03/12/23	22:25
Thallium			U	ND	mg/L						
QC1205336495	613002001	MS									
Antimony	0.0500	U	ND	0.0495	mg/L		98.5	(75%-125%)		03/12/23	22:35
Arsenic	0.0500	J	0.00493	0.0541	mg/L		98.4	(75%-125%)			
Barium	0.0500	J	0.0970	0.148	mg/L		102	(75%-125%)			
Beryllium	0.0500	U	ND	0.0529	mg/L		105	(75%-125%)			
Boron	0.100		0.0910	0.208	mg/L		117	(75%-125%)		03/13/23	21:53
Cadmium	0.0500	U	ND	0.0512	mg/L		102	(75%-125%)		03/12/23	22:35
Calcium	2.00		7.87	10.1	mg/L		111	(75%-125%)			
Chromium	0.0500	U	ND	0.0498	mg/L		98.8	(75%-125%)			
Cobalt	0.0500	U	ND	0.0487	mg/L		97.2	(75%-125%)			
Iron	2.00		2.39	4.31	mg/L		95.7	(75%-125%)			
Lead	0.0500	U	ND	0.0504	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND	0.0504	mg/L		99	(75%-125%)			
Magnesium	2.00		1.58	3.62	mg/L		102	(75%-125%)			

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## QC Summary

Workorder: 613002

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>												
Batch	2393355											
Molybdenum	0.0500	J	0.000258		0.0529	mg/L		105	(75%-125%)	PRB	03/12/23	22:35
Potassium	2.00		2.08		4.07	mg/L		99.3	(75%-125%)			
Selenium	0.0500	U	ND		0.0497	mg/L		98.4	(75%-125%)			
Sodium	2.00		18.4		20.5	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND		0.0502	mg/L		100	(75%-125%)			
QC1205336496 613002001 MSD												
Antimony	0.0500	U	ND		0.0483	mg/L	2.41	96.1	(0%-20%)		03/12/23	22:39
Arsenic	0.0500	J	0.00493		0.0524	mg/L	3.13	95	(0%-20%)			
Barium	0.0500	J	0.0970		0.144	mg/L	3.01	93.3	(0%-20%)			
Beryllium	0.0500	U	ND		0.0509	mg/L	3.78	101	(0%-20%)			
Boron	0.100		0.0910		0.204	mg/L	1.78	113	(0%-20%)		03/13/23	21:56
Cadmium	0.0500	U	ND		0.0507	mg/L	0.951	101	(0%-20%)		03/12/23	22:39
Calcium	2.00		7.87		9.96	mg/L	1.3	104	(0%-20%)			
Chromium	0.0500	U	ND		0.0480	mg/L	3.64	95.3	(0%-20%)			
Cobalt	0.0500	U	ND		0.0475	mg/L	2.52	94.8	(0%-20%)			
Iron	2.00		2.39		4.22	mg/L	2.11	91.2	(0%-20%)			



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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
Lead	0.0500	U	ND	0.0492	mg/L	2.46	98.4	(0%-20%)	PRB	03/12/23	22:39
Lithium	0.0500	U	ND	0.0498	mg/L	1.06	97.9	(0%-20%)			
Magnesium	2.00		1.58	3.46	mg/L	4.38	93.8	(0%-20%)			
Molybdenum	0.0500	J	0.000258	0.0521	mg/L	1.53	104	(0%-20%)			
Potassium	2.00		2.08	3.99	mg/L	2.01	95.3	(0%-20%)			
Selenium	0.0500	U	ND	0.0469	mg/L	5.87	92.7	(0%-20%)			
Sodium	2.00		18.4	20.0	mg/L	2.61	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0489	mg/L	2.59	97.7	(0%-20%)			
QC1205336497 613002001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/12/23	22:46
Arsenic		J	4.93	U	ND	ug/L	N/A	(0%-20%)			
Barium		J	97.0	J	18.0	ug/L	7.07	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			91.0		19.3	ug/L	6.33	(0%-20%)		03/13/23	22:04
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/12/23	22:46
Calcium			7870		1490	ug/L	5.4	(0%-20%)			

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## QC Summary

Workorder: 613002

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393355										
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	03/12/23	22:46
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Iron		2390		465	ug/L	2.87		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		1580		308	ug/L	2.79		(0%-20%)			
Molybdenum	J	0.258	U	ND	ug/L	N/A		(0%-20%)			
Potassium		2080		403	ug/L	3.22		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		18400		3540	ug/L	3.81		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<hr/>											
Batch	2393357										
QC1205336499	LCS										
Antimony	0.0500			0.0502	mg/L		100	(80%-120%)	SKJ	03/10/23	00:42
Arsenic	0.0500			0.0501	mg/L		100	(80%-120%)			
Barium	0.0500			0.0497	mg/L		99.5	(80%-120%)			
Beryllium	0.0500			0.0572	mg/L		114	(80%-120%)			

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## *QC Summary*

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Boron	0.100			0.114	mg/L		114	(80%-120%)	SKJ	03/10/23	00:42
Cadmium	0.0500			0.0527	mg/L		105	(80%-120%)			
Calcium	2.00			2.12	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0495	mg/L		99	(80%-120%)			
Cobalt	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Iron	2.00			1.99	mg/L		99.7	(80%-120%)			
Lead	0.0500			0.0501	mg/L		100	(80%-120%)			
Lithium	0.0500			0.0549	mg/L		110	(80%-120%)			
Magnesium	2.00			2.14	mg/L		107	(80%-120%)			
Molybdenum	0.0500			0.0507	mg/L		101	(80%-120%)			
Potassium	2.00			1.99	mg/L		99.7	(80%-120%)			
Selenium	0.0500			0.0502	mg/L		100	(80%-120%)			
Sodium	2.00			2.09	mg/L		105	(80%-120%)			
Thallium	0.0500			0.0495	mg/L		99	(80%-120%)			
QC1205336498	MB										
Antimony			U	ND	mg/L					03/10/23	00:39

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Arsenic			U	ND	mg/L				SKJ	03/10/23	00:39
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Sodium			U	ND	mg/L				SKJ	03/10/23	00:39
Thallium			U	ND	mg/L						
QC1205336500	613002026	MS									
Antimony	0.0500	U	ND	0.0480	mg/L		95.7	(75%-125%)		03/10/23	01:18
Arsenic	0.0500		0.0543	0.102	mg/L		94.9	(75%-125%)			
Barium	0.0500		0.0812	0.129	mg/L		95.4	(75%-125%)			
Beryllium	0.0500	U	ND	0.0519	mg/L		104	(75%-125%)			
Boron	0.100		0.743	0.842	mg/L		N/A	(75%-125%)		03/10/23	17:18
Cadmium	0.0500	U	ND	0.0431	mg/L		86.2	(75%-125%)		03/10/23	01:18
Calcium	2.00		41.5	43.4	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND	0.0471	mg/L		91.9	(75%-125%)			
Cobalt	0.0500	U	ND	0.0434	mg/L		86.7	(75%-125%)			
Iron	2.00	J	0.0570	1.80	mg/L		87	(75%-125%)			
Lead	0.0500	U	ND	0.0420	mg/L		84.1	(75%-125%)			
Lithium	0.0500		0.0195	0.0737	mg/L		109	(75%-125%)			
Magnesium	2.00		80.5	82.1	mg/L		N/A	(75%-125%)		03/10/23	17:18

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Molybdenum	0.0500	J	0.000688	0.0553	mg/L		109	(75%-125%)	SKJ	03/10/23	01:18
Potassium	2.00		49.0	50.5	mg/L		N/A	(75%-125%)			
Selenium	0.0500	U	ND	0.0322	mg/L		63.5*	(75%-125%)			
Sodium	2.00		893	911	mg/L		N/A	(75%-125%)		03/10/23	17:06
Thallium	0.0500	U	ND	0.0439	mg/L		87.8	(75%-125%)		03/10/23	01:18
QC1205336501	613002026 MSD										
Antimony	0.0500	U	ND	0.0489	mg/L	1.87	97.5	(0%-20%)		03/10/23	01:22
Arsenic	0.0500		0.0543	0.105	mg/L	3.56	102	(0%-20%)			
Barium	0.0500		0.0812	0.130	mg/L	1.05	98.1	(0%-20%)			
Beryllium	0.0500	U	ND	0.0526	mg/L	1.28	105	(0%-20%)			
Boron	0.100		0.743	0.846	mg/L	0.517	N/A	(0%-20%)		03/10/23	17:21
Cadmium	0.0500	U	ND	0.0441	mg/L	2.22	88.1	(0%-20%)		03/10/23	01:22
Calcium	2.00		41.5	43.7	mg/L	0.87	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0485	mg/L	2.87	94.6	(0%-20%)			
Cobalt	0.0500	U	ND	0.0439	mg/L	1.15	87.7	(0%-20%)			
Iron	2.00	J	0.0570	1.84	mg/L	2.19	89	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Lead	0.0500	U	ND	0.0431	mg/L	2.52	86.2	(0%-20%)	SKJ	03/10/23	01:22
Lithium	0.0500		0.0195	0.0749	mg/L	1.57	111	(0%-20%)			
Magnesium	2.00		80.5	82.3	mg/L	0.302	N/A	(0%-20%)		03/10/23	17:21
Molybdenum	0.0500	J	0.000688	0.0561	mg/L	1.47	111	(0%-20%)		03/10/23	01:22
Potassium	2.00		49.0	51.4	mg/L	1.8	N/A	(0%-20%)			
Selenium	0.0500	U	ND	0.0361	mg/L	11.4	71.4*	(0%-20%)			
Sodium	2.00		893	906	mg/L	0.505	N/A	(0%-20%)		03/10/23	17:08
Thallium	0.0500	U	ND	0.0447	mg/L	1.69	89.3	(0%-20%)		03/10/23	01:22
QC1205339763 613002026 PS											
Selenium	50.0	U	ND	46.9	ug/L		93	(75%-125%)		03/10/23	01:25
QC1205336502 613002026 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/10/23	01:29
Arsenic			54.3	14.7	ug/L	35		(0%-20%)			
Barium			81.2	17.5	ug/L	7.81		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			149	36.1	ug/L	21.5		(0%-20%)		03/10/23	17:23
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/10/23	01:29

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
Calcium		41500		8440	ug/L	1.59		(0%-20%)	SKJ	03/10/23	01:29
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Iron	J	57.0	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium		19.5	J	3.66	ug/L	5.92		(0%-20%)			
Magnesium		16100		3270	ug/L	1.69		(0%-20%)		03/10/23	17:23
Molybdenum	J	0.688	U	ND	ug/L	N/A		(0%-20%)		03/10/23	01:29
Potassium		49000		9670	ug/L	1.23		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		17900		3550	ug/L	.646		(0%-20%)		03/10/23	17:10
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		03/10/23	01:29
<b>Metals Analysis-Mercury</b>											
Batch	2393588										
QC1205336756	613002003 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	03/07/23	11:58
QC1205336755	LCS										
Mercury		0.00200		0.00194	mg/L		96.9	(80%-120%)		03/07/23	11:47



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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2393588											
QC1205336754		MB									
Mercury			U	ND	mg/L				JP2	03/07/23	11:45
QC1205336757	613002003	MS									
Mercury	0.00200	U	ND	0.00191	mg/L		95.7	(75%-125%)		03/07/23	12:00
QC1205336758	613002003	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		03/07/23	12:01
Batch 2393590											
QC1205336762	612942003	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	03/07/23	12:42
QC1205336761	LCS										
Mercury	0.00200			0.00193	mg/L		96.5	(80%-120%)		03/07/23	12:39
QC1205336760	MB										
Mercury			U	ND	mg/L					03/07/23	12:37
QC1205336763	612942003	MS									
Mercury	0.00200	U	ND	0.00188	mg/L		94.1	(75%-125%)		03/07/23	12:44
QC1205336764	612942003	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		03/07/23	12:45
<b>Solids Analysis</b>											
Batch 2394285											
QC1205338069	612966034	DUP									
Total Dissolved Solids			21700	19700	mg/L	9.95*		(0%-5%)	CH6	03/07/23	10:36
QC1205338070	613002009	DUP									
Total Dissolved Solids			3280	3660	mg/L	11*		(0%-5%)		03/07/23	10:36

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2394285										
QC1205338068	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)	CH6	03/07/23	10:36
QC1205338067	MB										
Total Dissolved Solids			U	ND	mg/L					03/07/23	10:36
Batch	2394286										
QC1205338073	613002013	DUP									
Total Dissolved Solids			3510	2950	mg/L	17.3*		(0%-5%)	CH6	03/07/23	11:19
QC1205338074	613002027	DUP									
Total Dissolved Solids			6010	4580	mg/L	27*		(0%-5%)		03/07/23	11:19
QC1205338072	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		03/07/23	11:19
QC1205338071	MB										
Total Dissolved Solids			U	ND	mg/L					03/07/23	11:19
<b>Spectrometric Analysis</b>											
Batch	2394295										
QC1205338101	LCS										
Total Sulfide	0.400			0.403	mg/L		101	(85%-115%)	HH2	03/07/23	15:09
QC1205338100	MB										
Total Sulfide			U	ND	mg/L					03/07/23	15:09
QC1205338102	612853002	PS									
Total Sulfide	0.400	U	ND	0.390	mg/L		95.1	(75%-125%)		03/07/23	15:09
QC1205338103	612853002	PSD									
Total Sulfide	0.400	U	ND	0.391	mg/L	0.314	95.4	(0%-15%)		03/07/23	15:10

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2394296										
QC1205338107		LCS									
Total Sulfide	0.400			0.401	mg/L		100	(85%-115%)	HH2	03/07/23	15:21
QC1205338106		MB									
Total Sulfide			U	ND	mg/L					03/07/23	15:21
QC1205338108		613002026	PS								
Total Sulfide	0.400	U	ND	0.848	mg/L		205*	(75%-125%)		03/07/23	15:21
QC1205338109		613002026	PSD								
Total Sulfide	0.400	U	ND	0.852	mg/L	0.433	206*	(0%-15%)		03/07/23	15:22
<b>Titration and Ion Analysis</b>											
Batch	2393626										
QC1205336868		613002001	DUP								
Alkalinity, Total as CaCO3			8.00	8.33	mg/L	4.08	^	(+/-6.67)	MS3	03/09/23	15:17
Bicarbonate alkalinity (CaCO3)			8.00	8.33	mg/L	4.08	^	(+/-6.67)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205336867		LCS									
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		03/09/23	14:16
QC1205336869		613002001	MS								
Alkalinity, Total as CaCO3	167		8.00	176	mg/L		101	(80%-120%)		03/09/23	15:20
Batch	2393627										
QC1205336875		613002027	DUP								
Alkalinity, Total as CaCO3			338	341	mg/L	0.884		(0%-20%)	MS3	03/14/23	17:54
Bicarbonate alkalinity (CaCO3)			338	341	mg/L	0.884		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2393627										
QC1205336872	LCS										
Alkalinity, Total as CaCO3	100			105	mg/L		105	(90%-110%)	MS3	03/14/23	17:14
QC1205336876	613002027 MS										
Alkalinity, Total as CaCO3	100	338		439	mg/L		102	(80%-120%)		03/14/23	17:56

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 613002**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2393355

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2393354

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002001	MCM-MCM-01
613002002	MCM-MCM-02
613002003	MCM-MCM-04
613002004	MCM-MCM-11
613002005	MCM-MCM-12
613002006	MCM-MCM-05
613002007	MCM-MCM-06
613002008	MCM-MCM-07
613002009	MCM-MCM-14
613002010	MCM-MCM-15
613002011	MCM-MCM-16
613002012	MCM-PT-01
613002013	MCM-PT-02
613002014	MCM-PT-04D
613002015	MCM-MCM-17
613002016	MCM-MCM-18
613002017	MCM-MCM-19
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
613002020	MCM-PT-03
1205336493	Method Blank (MB) <b>ICP-MS</b>
1205336494	Laboratory Control Sample (LCS)
1205336497	613002001(MCM-MCM-01L) Serial Dilution (SD)
1205336495	613002001(MCM-MCM-01S) Matrix Spike (MS)
1205336496	613002001(MCM-MCM-01SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020A/6020B met the advisory control limits with the exception of cadmium. Client sample concentrations were less than the MDL; therefore the data were not adversely affected. 613002001 (MCM-MCM-01), 613002002 (MCM-MCM-02), 613002003 (MCM-MCM-04), 613002004 (MCM-MCM-11), 613002005 (MCM-MCM-12), 613002006 (MCM-MCM-05), 613002007 (MCM-MCM-06), 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14), 613002015 (MCM-MCM-17), 613002016 (MCM-MCM-18), 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20) and 613002019 (MCM-DPZ-02).

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 613002005 (MCM-MCM-12), 613002006 (MCM-MCM-05), 613002007 (MCM-MCM-06), 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14), 613002012 (MCM-PT-01), 613002013 (MCM-PT-02), 613002014 (MCM-PT-04D), 613002015 (MCM-MCM-17), 613002016 (MCM-MCM-18), 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20), 613002019 (MCM-DPZ-02) and 613002020 (MCM-PT-03) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	613002									
	005	006	007	008	009	012	013	014	015	016
Boron	20X	20X	10X	10X	10X				20X	5X
Calcium	1X	1X	1X	10X	1X				20X	1X
Magnesium	1X	1X	10X	10X	10X	10X	10X	20X	20X	5X
Potassium	1X	1X	1X	10X	10X	10X	10X	20X	20X	1X
Sodium	20X	20X	100X	100X	100X	100X	100X	100X	100X	5X

Analyte	613002			
	017	018	019	020
Boron	10X	10X	20X	
Calcium	10X	10X	20X	
Iron	10X	10X	1X	1X
Magnesium	10X	10X	20X	2X
Potassium	10X	10X	20X	2X
Sodium	100X	100X	100X	100X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2393357

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2393356

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002021	MCM-AP1-FB-02
613002022	MCM-AP1-EB-02
613002023	MCM-AP1-FD-01
613002024	MCM-AP1-FB-01
613002025	MCM-AP1-EB-01
613002026	MCM-DR-01
613002027	MCM-DR-02
613002028	MCM-AP1-FD-02
613002029	MCM-AP1-FB-03
613002030	MCM-AP1-EB-03
1205336498	Method Blank (MB) <b>ICP-MS</b>
1205336499	Laboratory Control Sample (LCS)
1205336502	613002026(MCM-DR-01L) Serial Dilution (SD)
1205336500	613002026(MCM-DR-01S) Matrix Spike (MS)
1205336501	613002026(MCM-DR-01SD) Matrix Spike Duplicate (MSD)
1205339763	613002026(MCM-DR-01PS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Quality Control (QC) Information**

**Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205336500 (MCM-DR-01MS)	Selenium	63.5* (75%-125%)
1205336501 (MCM-DR-01MSD)	Selenium	71.4* (75%-125%)



## **Technical Information**

### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 613002023 (MCM-AP1-FD-01), 613002026 (MCM-DR-01) and 613002027 (MCM-DR-02) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	613002		
	023	026	027
Magnesium	5X	5X	10X
Potassium	1X	1X	10X
Sodium	20X	50X	50X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2393588

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2393587

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002001	MCM-MCM-01
613002002	MCM-MCM-02
613002003	MCM-MCM-04
613002004	MCM-MCM-11
613002005	MCM-MCM-12
613002006	MCM-MCM-05
613002007	MCM-MCM-06
613002008	MCM-MCM-07
613002009	MCM-MCM-14
613002010	MCM-MCM-15
613002011	MCM-MCM-16
613002015	MCM-MCM-17
613002016	MCM-MCM-18
613002017	MCM-MCM-19
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
613002021	MCM-AP1-FB-02
613002022	MCM-AP1-EB-02
613002023	MCM-AP1-FD-01
1205336754	Method Blank (MB)CVAA
1205336755	Laboratory Control Sample (LCS)
1205336758	613002003(MCM-MCM-04L) Serial Dilution (SD)
1205336756	613002003(MCM-MCM-04D) Sample Duplicate (DUP)

1205336757

613002003(MCM-MCM-04S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2393590

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2393589

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002024	MCM-AP1-FB-01
613002025	MCM-AP1-EB-01
613002028	MCM-AP1-FD-02
613002029	MCM-AP1-FB-03
613002030	MCM-AP1-EB-03
1205336760	Method Blank (MB)CVAA
1205336761	Laboratory Control Sample (LCS)
1205336764	612942003(NonSDGL) Serial Dilution (SD)
1205336762	612942003(NonSDGD) Sample Duplicate (DUP)
1205336763	612942003(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393496

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
613002001	MCM-MCM-01
613002002	MCM-MCM-02
613002003	MCM-MCM-04
613002004	MCM-MCM-11
613002005	MCM-MCM-12
613002006	MCM-MCM-05
613002007	MCM-MCM-06
1205336654	Method Blank (MB)
1205336655	Laboratory Control Sample (LCS)
1205336656	613002007(MCM-MCM-06) Sample Duplicate (DUP)
1205336657	613002007(MCM-MCM-06) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS), 613002001 (MCM-MCM-01), 613002002 (MCM-MCM-02), 613002003 (MCM-MCM-04), 613002004 (MCM-MCM-11), 613002005 (MCM-MCM-12), 613002006 (MCM-MCM-05) and 613002007 (MCM-MCM-06) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS), 613002006 (MCM-MCM-05) and 613002007 (MCM-MCM-06) were diluted to minimize matrix effects on instrument performance. Samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS), 613002001 (MCM-MCM-01), 613002002 (MCM-MCM-02), 613002003 (MCM-MCM-04), 613002004 (MCM-MCM-11), 613002005 (MCM-MCM-12), 613002006 (MCM-MCM-05) and 613002007 (MCM-MCM-06) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	613002						
	001	002	003	004	005	006	007
Chloride	5X	5X	10X	5X	2000X	2000X	2000X
Fluoride	1X	1X	1X	1X	1X	2X	5X
Sulfate	5X	5X	10X	5X	1X	5X	10X

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393500

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
613002008	MCM-MCM-07
613002009	MCM-MCM-14
613002010	MCM-MCM-15
613002011	MCM-MCM-16
613002012	MCM-PT-01
613002013	MCM-PT-02
613002014	MCM-PT-04D
613002015	MCM-MCM-17
613002016	MCM-MCM-18
1205336662	Method Blank (MB)
1205336663	Laboratory Control Sample (LCS)
1205336664	612892001(NonSDG) Sample Duplicate (DUP)
1205336665	612892001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205336664 (Non SDG 612892001DUP), 1205336665 (Non SDG 612892001PS), 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14), 613002011 (MCM-MCM-16), 613002012 (MCM-PT-01), 613002013 (MCM-PT-02), 613002014 (MCM-PT-04D), 613002015 (MCM-MCM-17) and 613002016 (MCM-MCM-18) were diluted because target analyte concentrations exceeded the calibration range. Samples 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14), 613002012 (MCM-PT-01), 613002013 (MCM-PT-02), 613002014 (MCM-PT-04D), 613002015 (MCM-MCM-17) and 613002016 (MCM-MCM-18) were diluted to minimize matrix effects on instrument performance. Samples 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14), 613002010 (MCM-MCM-15), 613002011 (MCM-MCM-16), 613002012 (MCM-PT-01), 613002013 (MCM-PT-02), 613002014 (MCM-PT-04D), 613002015 (MCM-MCM-17) and 613002016 (MCM-MCM-18) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	613002								
	008	009	010	011	012	013	014	015	016
Chloride	2000X	2000X	5X	5X	2000X	2000X	2000X	2000X	2000X
Fluoride	10X	4X	1X	1X	5X	5X	10X	5X	5X
Sulfate	100X	50X	5X	5X	50X	50X	50X	50X	25X

**Product: Ion Chromatography**

**Analytical Method: EPA 300.0**

**Analytical Procedure: GL-GC-E-086 REV# 30**

**Analytical Batch: 2393618**

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
613002017	MCM-MCM-19
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
613002020	MCM-PT-03
613002021	MCM-AP1-FB-02
613002022	MCM-AP1-EB-02
613002023	MCM-AP1-FD-01
613002024	MCM-AP1-FB-01
1205336822	Method Blank (MB)
1205336823	Laboratory Control Sample (LCS)
1205336824	612952012(NonSDG) Sample Duplicate (DUP)
1205336825	612952012(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1205336825 (Non SDG 612952012PS)	70.9* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205336824 (Non SDG 612952012DUP), 1205336825 (Non SDG 612952012PS), 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20), 613002019 (MCM-DPZ-02), 613002020 (MCM-PT-03) and 613002023 (MCM-AP1-FD-01) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205336824 (Non SDG 612952012DUP) and 1205336825 (Non SDG 612952012PS) in this sample group were diluted due to matrix interference. Samples 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20), 613002019 (MCM-DPZ-02), 613002020 (MCM-PT-03) and 613002023 (MCM-AP1-FD-01) were diluted to minimize matrix effects on instrument performance. Samples 1205336824 (Non SDG 612952012DUP), 1205336825 (Non SDG 612952012PS), 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20), 613002019 (MCM-DPZ-02), 613002020 (MCM-PT-03) and 613002023 (MCM-AP1-FD-01) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	613002				
	017	018	019	020	023
Chloride	1000X	1000X	1000X	500X	500X

Fluoride	10X	10X	10X	2X	2X
Sulfate	500X	500X	500X	500X	500X

**Sample Re-analysis**

Samples 613002017 (MCM-MCM-19) and 613002023 (MCM-AP1-FD-01) were re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205336824 (Non SDG 612952012DUP), 1205336825 (Non SDG 612952012PS) and 613002020 (MCM-PT-03) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393619

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002025	MCM-AP1-EB-01
613002026	MCM-DR-01
613002027	MCM-DR-02
613002028	MCM-AP1-FD-02
613002029	MCM-AP1-FB-03
613002030	MCM-AP1-EB-03
1205336826	Method Blank (MB)
1205336827	Laboratory Control Sample (LCS)
1205336830	613060003(NonSDG) Sample Duplicate (DUP)
1205336831	613060003(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205336831 (Non SDG 613060003PS)	88.5* (90%-110%)

## Technical Information

### **Sample Dilutions**

The following samples 613002026 (MCM-DR-01) and 613002027 (MCM-DR-02) were diluted because target analyte concentrations exceeded the calibration range. Samples 613002026 (MCM-DR-01) and 613002027 (MCM-DR-02) were diluted to minimize matrix effects on instrument performance. Samples 613002026 (MCM-DR-01), 613002027 (MCM-DR-02) and 613002028 (MCM-AP1-FD-02) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	613002	
	026	027
Chloride	500X	500X
Fluoride	5X	5X
Sulfate	25X	500X

### **Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2394285

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002001	MCM-MCM-01
613002002	MCM-MCM-02
613002003	MCM-MCM-04
613002004	MCM-MCM-11
613002005	MCM-MCM-12
613002006	MCM-MCM-05
613002007	MCM-MCM-06
613002008	MCM-MCM-07
613002009	MCM-MCM-14
613002010	MCM-MCM-15
613002011	MCM-MCM-16
613002012	MCM-PT-01
1205338067	Method Blank (MB)
1205338068	Laboratory Control Sample (LCS)
1205338069	612966034(MCM-BG-1LT) Sample Duplicate (DUP)
1205338070	613002009(MCM-MCM-14) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205338069 (MCM-BG-1LTDUP)	9.95* (0%-5%)
	1205338070 (MCM-MCM-14DUP)	11* (0%-5%)

**Miscellaneous Information****Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205338069 (MCM-BG-1LTDUP), 1205338070 (MCM-MCM-14DUP), 613002005 (MCM-MCM-12), 613002006 (MCM-MCM-05), 613002007 (MCM-MCM-06), 613002008 (MCM-MCM-07), 613002009 (MCM-MCM-14) and 613002012 (MCM-PT-01).

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2394286

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002013	MCM-PT-02
613002014	MCM-PT-04D
613002015	MCM-MCM-17
613002016	MCM-MCM-18
613002017	MCM-MCM-19
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
613002020	MCM-PT-03
613002021	MCM-AP1-FB-02
613002022	MCM-AP1-EB-02
613002023	MCM-AP1-FD-01
613002024	MCM-AP1-FB-01
613002025	MCM-AP1-EB-01
613002026	MCM-DR-01
613002027	MCM-DR-02
613002028	MCM-AP1-FD-02
613002029	MCM-AP1-FB-03
613002030	MCM-AP1-EB-03
1205338071	Method Blank (MB)
1205338072	Laboratory Control Sample (LCS)
1205338073	613002013(MCM-PT-02) Sample Duplicate (DUP)
1205338074	613002027(MCM-DR-02) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.



**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205338073 (MCM-PT-02DUP)	17.3* (0%-5%)
	1205338074 (MCM-DR-02DUP)	27* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205338073 (MCM-PT-02DUP), 1205338074 (MCM-DR-02DUP), 613002013 (MCM-PT-02), 613002014 (MCM-PT-04D), 613002015 (MCM-MCM-17), 613002016 (MCM-MCM-18), 613002017 (MCM-MCM-19), 613002018 (MCM-MCM-20), 613002019 (MCM-DPZ-02), 613002020 (MCM-PT-03), 613002023 (MCM-AP1-FD-01), 613002026 (MCM-DR-01) and 613002027 (MCM-DR-02).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2394295

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002007	MCM-MCM-06
613002012	MCM-PT-01
613002013	MCM-PT-02
613002014	MCM-PT-04D
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
613002020	MCM-PT-03
1205338100	Method Blank (MB)
1205338101	Laboratory Control Sample (LCS)
1205338102	612853002(NonSDG) Post Spike (PS)
1205338103	612853002(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2394296

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002026	MCM-DR-01
613002027	MCM-DR-02
1205338106	Method Blank (MB)
1205338107	Laboratory Control Sample (LCS)
1205338108	613002026(MCM-DR-01) Post Spike (PS)
1205338109	613002026(MCM-DR-01) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Sulfide	1205338108 (MCM-DR-01PS)	205* (75%-125%)
	1205338109 (MCM-DR-01PSD)	206* (75%-125%)

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2393626

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002001	MCM-MCM-01
613002002	MCM-MCM-02
613002003	MCM-MCM-04
613002004	MCM-MCM-11
613002005	MCM-MCM-12
613002006	MCM-MCM-05

613002007	MCM-MCM-06
613002008	MCM-MCM-07
613002009	MCM-MCM-14
613002010	MCM-MCM-15
613002011	MCM-MCM-16
613002012	MCM-PT-01
613002013	MCM-PT-02
613002014	MCM-PT-04D
613002015	MCM-MCM-17
613002016	MCM-MCM-18
613002017	MCM-MCM-19
613002018	MCM-MCM-20
613002019	MCM-DPZ-02
1205336867	Laboratory Control Sample (LCS)
1205336868	613002001(MCM-MCM-01) Sample Duplicate (DUP)
1205336869	613002001(MCM-MCM-01) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2393627

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613002020	MCM-PT-03
613002021	MCM-AP1-FB-02
613002022	MCM-AP1-EB-02
613002023	MCM-AP1-FD-01
613002024	MCM-AP1-FB-01
613002025	MCM-AP1-EB-01
613002026	MCM-DR-01
613002027	MCM-DR-02
613002028	MCM-AP1-FD-02
613002029	MCM-AP1-FB-03
613002030	MCM-AP1-EB-03
1205336872	Laboratory Control Sample (LCS)
1205336875	613002027(MCM-DR-02) Sample Duplicate (DUP)
1205336876	613002027(MCM-DR-02) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration,

continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.









Page 3 of 3  
 Project #: GPCC00105  
 GEL Quote #: GELP22-0819  
 Contract Number: MCM-CR-ASSMT-202351  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: GEL Project Manager: Erin Trent  
 Client Name: Kristen Jurinko  
 Phone #: N/A  
 Project/Site Name: Plant McManus Semi-Annual CCR Sampling  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308  
 Collected By: William Laaker, Meredith Duncan, Kevin Stephenson  
 Send Results To: knjurnk@southemco.com; kev.m.stephenson@resoluteenv.com; erin.trent.godwin@resoluteenv.com  
 Sample ID: 13002

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)							Preservative Type (6)		
						Yes, please supply isotopic info)	(7) Known or possible hazards		Metals	Mg, K, Na	As, Fe Only	Dissolved Fe	Sulfide	Cl, F, SO4	Alkalinity		TDS	Radium
MCM-DR-01	3/2/23	1500	G	Y	WG			4	X	X	X	X	X	X	X	X	X	pH: 6.97
MCM-DR-02	3/2/23	1210	G	Y	WG			4	X	X	X	X	X	X	X	X	X	pH: 7.31
MCM-API-FD-01			G		WQ				X									
MCM-API-FD-02	3/2/23		G	N	WG			5	X	X	X	X	X	X	X	X	X	
MCM-API-FB-01			G		WQ				X									
MCM-API-FB-02			G		WQ				X									
MCM-API-FB-03	3/2/23	1645	G	N	WQ			5	X	X	X	X	X	X	X	X	X	
MCM-API-EB-01			G		WQ				X									
MCM-API-EB-02			G		WQ				X									
MCM-API-EB-03	3/2/23	1650	G	N	WQ			5	X	X	X	X	X	X	X	X	X	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>Kevin Stephenson</i>	3/2/23	<i>Erin Trent</i>	3/2/23	948

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urne, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)  
 Dissolved Fe are only field filtered bottle



Page 1 of 3  
 Project #: GPCC00105  
 GEL Quote #: GELP22-0819  
 CCR Number (1): MCM-CCR-ASSMT-2023S1  
 PO Number: GEL Work Order Number: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: Kristen Jurinko  
 Phone #: N/A  
 Project/Site Name: Plant McManus Semi-Annual CCR Sampling  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308  
 Fax #

Contacted By: William Laaker, Meredith Duncan, Kevin Stephenson  
 Email: kjurinko@southernco.com; kevin.stephenson@esoluteenv.com; trent.godwin@resoluteenv.com  
 Send Results To: trent.godwin@resoluteenv.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	Metals	Mg, K, Na	As, Fe Only	Dissolved Fe	Sulfide	Cl, F, SO <sub>4</sub>	Alkalinity	TDS	Radium	NI	SH	NI	Preservative Type (6)	Comments	
MCM-MCM-01			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-02			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-04			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-05			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-06			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-07			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-11			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-12	2/25/23	1400	G	N	WG			5	X	X				X	X	X	X					pH:	6.28
MCM-MCM-14			G		WG				X	X				X	X	X	X					pH:	
MCM-MCM-15			G		WG				X	X				X	X	X	X					pH:	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
1 <i>Kevin Stephenson</i>	2/25/23	1/4/23	5/3/23	948
2				
3				

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)  
 Waste code(s):  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals: AS = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals  
 Pb = Lead  
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:  
 Dissolved Fe safe only filtered samples  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other.























**List of current GEL Certifications as of 17 March 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



April 03, 2023

Kristen Jurinko  
Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance GW  
Work Order: 613016

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 03, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0007  
Enclosures





# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 613016 GEL Work Order: 613016

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-01  
 Sample ID: 613016001  
 Matrix: WG  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.604	+/-1.23	2.19	+/-1.24	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.18	+/-1.27	2.19	+/-1.28		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.576	+/-0.307	0.354	+/-0.334	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	65.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-02  
 Sample ID: 613016002  
 Matrix: WG  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.441	+/-0.923	1.88	+/-0.923	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.439	+/-1.01	1.88	+/-1.02		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.439	+/-0.417	0.654	+/-0.422	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	73.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-04  
 Sample ID: 613016003  
 Matrix: WG  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.47	+/-1.39	1.79	+/-1.64	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.05	+/-1.46	1.79	+/-1.74		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.58	+/-0.469	0.357	+/-0.562	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	72.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-11  
 Sample ID: 613016004  
 Matrix: WG  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.02	+/-1.41	2.20	+/-1.50	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.35	+/-1.43	2.20	+/-1.52		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.325	+/-0.270	0.400	+/-0.277	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	69.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-12  
 Sample ID: 613016005  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.967	+/-0.987	1.63	+/-1.02	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.29	+/-1.09	1.63	+/-1.15		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.32	+/-0.472	0.465	+/-0.533	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	90.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-05  
 Sample ID: 613016006  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.71	+/-1.05	1.58	+/-1.14	3.00	pCi/L			JE1	03/29/23	1552	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.22	+/-1.09	1.58	+/-1.18		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.509	+/-0.292	0.352	+/-0.310	1.00	pCi/L			LXP1	04/02/23	0857	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	85.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-06  
 Sample ID: 613016007  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.01	+/-0.918	1.49	+/-0.952	3.00	pCi/L			JE1	03/29/23	1553	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.79	+/-0.979	1.49	+/-1.02		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.781	+/-0.341	0.272	+/-0.364	1.00	pCi/L			LXP1	04/02/23	0930	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	84.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-07  
 Sample ID: 613016008  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.67	+/-1.37	2.12	+/-1.53	3.00	pCi/L			JE1	03/29/23	1553	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.50	+/-1.45	2.12	+/-1.64		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.83	+/-0.497	0.260	+/-0.597	1.00	pCi/L			LXP1	04/02/23	0930	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	90.6	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-14  
 Sample ID: 613016009  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.74	+/-1.36	2.12	+/-1.53	3.00	pCi/L			JE1	03/29/23	1553	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		8.08	+/-1.62	2.12	+/-1.95		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.34	+/-0.871	0.543	+/-1.21	1.00	pCi/L			LXP1	04/02/23	0930	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	89	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-15  
 Sample ID: 613016010  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.59	+/-1.41	2.30	+/-1.47	3.00	pCi/L			JE1	03/29/23	1553	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		10.1	+/-1.84	2.30	+/-2.45		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		8.50	+/-1.17	0.320	+/-1.95	1.00	pCi/L			LXP1	04/02/23	0930	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	67	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-16  
 Sample ID: 613016011  
 Matrix: WG  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.65	+/-1.32	2.10	+/-1.38	3.00	pCi/L			JE1	03/29/23	1605	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.30	+/-1.36	2.10	+/-1.43		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.649	+/-0.337	0.432	+/-0.355	1.00	pCi/L			LXP1	04/02/23	0930	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	68.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-17  
 Sample ID: 613016012  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.90	+/-1.48	2.21	+/-1.65	3.00	pCi/L			JE1	03/29/23	1605	2397791	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.48	+/-1.60	2.21	+/-1.83		pCi/L			NXL1	04/03/23	1700	2397789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.58	+/-0.612	0.343	+/-0.792	1.00	pCi/L			LXP1	04/02/23	0931	2397386	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397791	85.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-18  
 Sample ID: 613016013  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.72	+/-1.17	1.24	+/-1.51	3.00	pCi/L			JE1	03/30/23	1047	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.34	+/-1.56	1.24	+/-1.90		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.62	+/-1.03	0.437	+/-1.16	1.00	pCi/L			LXP1	04/03/23	0948	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	84.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

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 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-19  
 Sample ID: 613016014  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		9.01	+/-1.84	1.65	+/-2.94	3.00	pCi/L			JE1	04/03/23	0907	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		12.4	+/-2.08	1.65	+/-3.19		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.44	+/-0.977	0.493	+/-1.25	1.00	pCi/L			LXP1	04/03/23	1005	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	73.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-MCM-20  
 Sample ID: 613016015  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		19.8	+/-2.50	1.73	+/-5.62	3.00	pCi/L			JE1	04/03/23	0907	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		22.6	+/-2.64	1.73	+/-5.72		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.82	+/-0.849	0.451	+/-1.06	1.00	pCi/L			LXP1	04/03/23	1006	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	73	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-DPZ-02  
 Sample ID: 613016016  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.53	+/-0.926	1.37	+/-1.00	3.00	pCi/L			JE1	03/30/23	1047	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		9.42	+/-1.97	1.37	+/-2.35		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		7.89	+/-1.73	0.684	+/-2.13	1.00	pCi/L			LXP1	04/03/23	1006	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	92.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-02  
 Sample ID: 613016017  
 Matrix: WQ  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.74	+/-1.18	1.56	+/-1.37	3.00	pCi/L			JE1	03/30/23	1048	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.94	+/-1.21	1.56	+/-1.40		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.198	+/-0.299	0.531	+/-0.301	1.00	pCi/L			LXP1	04/03/23	1006	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	84.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-02  
 Sample ID: 613016018  
 Matrix: WQ  
 Collect Date: 01-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.80	+/-1.13	1.70	+/-1.22	3.00	pCi/L			JE1	03/30/23	1046	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.21	+/-1.20	1.70	+/-1.28		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.413	+/-0.404	0.598	+/-0.416	1.00	pCi/L			LXP1	04/03/23	1006	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	80.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-API-FD-01  
 Sample ID: 613016019  
 Matrix: WG  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		4.17	+/-1.50	1.91	+/-1.84	3.00	pCi/L			JE1	03/30/23	1048	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.57	+/-1.73	1.91	+/-2.10		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.39	+/-0.870	0.690	+/-1.03	1.00	pCi/L			LXP1	04/03/23	1006	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	71.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-01  
 Sample ID: 613016020  
 Matrix: WQ  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.255	+/-0.878	1.73	+/-0.879	3.00	pCi/L			JE1	03/30/23	1048	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.304	+/-0.945	1.73	+/-0.946		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.304	+/-0.349	0.534	+/-0.352	1.00	pCi/L			LXP1	04/03/23	1005	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	81.9	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-01  
 Sample ID: 613016021  
 Matrix: WQ  
 Collect Date: 28-FEB-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.883	+/-1.03	1.74	+/-1.06	3.00	pCi/L			JE1	03/30/23	1047	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.42	+/-1.11	1.74	+/-1.13		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.539	+/-0.407	0.503	+/-0.417	1.00	pCi/L			LXP1	04/03/23	1023	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	83.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FD-02  
 Sample ID: 613016022  
 Matrix: WG  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.88	+/-1.26	1.94	+/-1.35	3.00	pCi/L			JE1	03/30/23	1047	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.72	+/-1.35	1.94	+/-1.44		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.842	+/-0.502	0.428	+/-0.522	1.00	pCi/L			LXP1	04/03/23	1023	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	73.6	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-FB-03  
Sample ID: 613016023  
Matrix: WQ  
Collect Date: 02-MAR-23  
Receive Date: 03-MAR-23  
Collector: Client

Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b> <i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.252	+/-1.19	2.18	+/-1.19	3.00	pCi/L			JE1	03/30/23	1048	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.372	+/-1.23	2.18	+/-1.23		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b> <i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.120	+/-0.305	0.637	+/-0.306	1.00	pCi/L			LXP1	04/03/23	1023	2397387	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	69.2	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

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## Certificate of Analysis

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 Atlanta, Georgia 30308

Report Date: April 3, 2023

Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceGW

Client Sample ID: MCM-AP1-EB-03  
 Sample ID: 613016024  
 Matrix: WQ  
 Collect Date: 02-MAR-23  
 Receive Date: 03-MAR-23  
 Collector: Client

Project: GPCC00105  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.38	+/-1.34	2.20	+/-1.38	3.00	pCi/L			JE1	03/30/23	1047	2397794	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.23	+/-1.69	2.20	+/-1.85		pCi/L			NXL1	04/03/23	1658	2397790	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.85	+/-1.04	0.705	+/-1.23	1.00	pCi/L			LXP1	04/03/23	1023	2397387	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2397794	69.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 613016**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2397789

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613016001	MCM-MCM-01
613016002	MCM-MCM-02
613016003	MCM-MCM-04
613016004	MCM-MCM-11
613016005	MCM-MCM-12
613016006	MCM-MCM-05
613016007	MCM-MCM-06
613016008	MCM-MCM-07
613016009	MCM-MCM-14
613016010	MCM-MCM-15
613016011	MCM-MCM-16
613016012	MCM-MCM-17

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2397790

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613016013	MCM-MCM-18
613016014	MCM-MCM-19
613016015	MCM-MCM-20
613016016	MCM-DPZ-02
613016017	MCM-AP1-FB-02
613016018	MCM-AP1-EB-02
613016019	MCM-AP1-FD-01

613016020	MCM-AP1-FB-01
613016021	MCM-AP1-EB-01
613016022	MCM-AP1-FD-02
613016023	MCM-AP1-FB-03
613016024	MCM-AP1-EB-03

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2397791

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613016001	MCM-MCM-01
613016002	MCM-MCM-02
613016003	MCM-MCM-04
613016004	MCM-MCM-11
613016005	MCM-MCM-12
613016006	MCM-MCM-05
613016007	MCM-MCM-06
613016008	MCM-MCM-07
613016009	MCM-MCM-14
613016010	MCM-MCM-15
613016011	MCM-MCM-16
613016012	MCM-MCM-17
1205344395	Method Blank (MB)
1205344396	613016001(MCM-MCM-01) Sample Duplicate (DUP)
1205344397	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples 613016005 (MCM-MCM-12), 613016006 (MCM-MCM-05), 613016007 (MCM-MCM-06), 613016008 (MCM-MCM-07) and 613016012 (MCM-MCM-17) were non-homogenous matrix. Samples were tinted yellow 613016005 (MCM-MCM-12), 613016006 (MCM-MCM-05), 613016007 (MCM-MCM-06),

613016008 (MCM-MCM-07) and 613016012 (MCM-MCM-17).

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2397794

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613016013	MCM-MCM-18
613016014	MCM-MCM-19
613016015	MCM-MCM-20
613016016	MCM-DPZ-02
613016017	MCM-AP1-FB-02
613016018	MCM-AP1-EB-02
613016019	MCM-AP1-FD-01
613016020	MCM-AP1-FB-01
613016021	MCM-AP1-EB-01
613016022	MCM-AP1-FD-02
613016023	MCM-AP1-FB-03
613016024	MCM-AP1-EB-03
1205344398	Method Blank (MB)
1205344399	613016013(MCM-MCM-18) Sample Duplicate (DUP)
1205344400	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Recounts**

Samples 613016014 (MCM-MCM-19) and 613016015 (MCM-MCM-20) were re-eluted and recounted to verify sample results. The recounts are reported.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2397386

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
------------------------------	--

613016001	MCM-MCM-01
613016002	MCM-MCM-02
613016003	MCM-MCM-04
613016004	MCM-MCM-11
613016005	MCM-MCM-12
613016006	MCM-MCM-05
613016007	MCM-MCM-06
613016008	MCM-MCM-07
613016009	MCM-MCM-14
613016010	MCM-MCM-15
613016011	MCM-MCM-16
613016012	MCM-MCM-17
1205343444	Method Blank (MB)
1205343445	613016001(MCM-MCM-01) Sample Duplicate (DUP)
1205343446	613016001(MCM-MCM-01) Matrix Spike (MS)
1205343447	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples 613016005 (MCM-MCM-12), 613016006 (MCM-MCM-05), 613016007 (MCM-MCM-06), 613016008 (MCM-MCM-07) and 613016012 (MCM-MCM-17) were non-homogenous matrix. Samples 613016005 (MCM-MCM-12), 613016006 (MCM-MCM-05), 613016007 (MCM-MCM-06), 613016008 (MCM-MCM-07) and 613016012 (MCM-MCM-17) were tinted yellow.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205343446 (MCM-MCM-01MS), aliquot was reduced to conserve sample volume.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2397387

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
613016013	MCM-MCM-18
613016014	MCM-MCM-19
613016015	MCM-MCM-20
613016016	MCM-DPZ-02
613016017	MCM-AP1-FB-02
613016018	MCM-AP1-EB-02



613016019	MCM-AP1-FD-01
613016020	MCM-AP1-FB-01
613016021	MCM-AP1-EB-01
613016022	MCM-AP1-FD-02
613016023	MCM-AP1-FB-03
613016024	MCM-AP1-EB-03
1205343448	Method Blank (MB)
1205343449	613016013(MCM-MCM-18) Sample Duplicate (DUP)
1205343450	613016013(MCM-MCM-18) Matrix Spike (MS)
1205343451	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205343449 (MCM-MCM-18DUP)	Radium-226	RPD 31.4* (0.00%-20.00%) RER 1.26 (0-3)

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205343450 (MCM-MCM-18MS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: April 3, 2023  
Page 1 of 3

**Client :** Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia

**Contact:** Kristen Jurinko

**Workorder:** 613016

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2397791										
QC1205344396	613016001 DUP										
Radium-228	U	0.604	U	-1.12	pCi/L	0		N/A	JE1	03/29/23	16:05
	Uncert:	+/-1.23		+/-1.08							
	TPU:	+/-1.24		+/-1.09							
QC1205344397	LCS										
Radium-228	62.8			73.8	pCi/L		118	(75%-125%)	JE1	03/29/23	16:05
	Uncert:			+/-5.28							
	TPU:			+/-19.6							
QC1205344395	MB										
Radium-228			U	0.856	pCi/L				JE1	03/29/23	16:05
	Uncert:			+/-1.07							
	TPU:			+/-1.09							
Batch	2397794										
QC1205344399	613016013 DUP										
Radium-228		3.72		4.34	pCi/L	15.5		(0% - 100%)	JE1	03/30/23	10:46
	Uncert:	+/-1.17		+/-1.44							
	TPU:	+/-1.51		+/-1.82							
QC1205344400	LCS										
Radium-228	62.3			71.5	pCi/L		115	(75%-125%)	JE1	03/30/23	10:46
	Uncert:			+/-4.34							
	TPU:			+/-18.7							
QC1205344398	MB										
Radium-228			U	1.77	pCi/L				JE1	03/30/23	10:47
	Uncert:			+/-1.39							
	TPU:			+/-1.46							
<b>Rad Ra-226</b>											
Batch	2397386										
QC1205343445	613016001 DUP										
Radium-226		0.576		0.809	pCi/L	33.7		(0% - 100%)	LXP1	04/02/23	09:31
	Uncert:	+/-0.307		+/-0.320							
	TPU:	+/-0.334		+/-0.364							
QC1205343447	LCS										
Radium-226	53.1			41.5	pCi/L		78.1	(75%-125%)	LXP1	04/02/23	10:02
	Uncert:			+/-2.29							
	TPU:			+/-7.63							
QC1205343444	MB										
Radium-226			U	0.265	pCi/L				LXP1	04/02/23	09:31
	Uncert:			+/-0.287							
	TPU:			+/-0.291							
QC1205343446	613016001 MS										
Radium-226	130	0.576		125	pCi/L		95.6	(75%-125%)	LXP1	04/02/23	10:02

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## QC Summary

Workorder: 613016

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Ra-226</b>										
Batch	2397386									
		Uncert:	+/-0.307							
		TPU:	+/-0.334							
Batch	2397387									
QC1205343449	613016013 DUP									
Radium-226		3.62	2.64	pCi/L	31.4*		(0%-20%)	LXP1	04/03/23	10:23
		Uncert:	+/-1.03							
		TPU:	+/-1.16							
QC1205343451	LCS									
Radium-226		26.5	25.4	pCi/L		95.8	(75%-125%)	LXP1	04/03/23	10:23
		Uncert:	+/-2.72							
		TPU:	+/-4.60							
QC1205343448	MB									
Radium-226			U	0.225	pCi/L			LXP1	04/03/23	10:23
		Uncert:		+/-0.339						
		TPU:		+/-0.341						
QC1205343450	613016013 MS									
Radium-226		133	3.62	112	pCi/L		81.9	(75%-125%)	LXP1	04/03/23
		Uncert:	+/-1.03	+/-11.7						
		TPU:	+/-1.16	+/-25.8						

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

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## QC Summary

Workorder: 613016

Page 3 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
L										
N1										
**										
M										
J										

L Analyte present. Reported value may be biased low. Actual value is expected to be higher.

N1 See case narrative

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

\*\* Analyte is a Tracer compound

M REMP Result > MDC/CL and < RDL

J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.









GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

### Chain of Custody and Analytical Request

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)							Comments			
						(f) Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards		Metals	Mg, K, Na	As, Fe Only	Dissolved Fe	Sulfide	Cl, F, SO4	Alkalinity		TDS	Radium	Preservative Type (6)
MCM-DR-01	3/2/23	1500	G	Y	WG			4	X	X	X	X	X	X	X	X	X	X	pH: 6.97
MCM-DR-02	3/2/23	1210	G	Y	WG			4	X	X	X	X	X	X	X	X	X	X	pH: 7.31
MCM-API-FD-01	3/2/23	---	G	N	WG			5	X	X	X	X	X	X	X	X	X	X	
MCM-API-FD-02	3/2/23	1645	G	N	WQ			5	X	X	X	X	X	X	X	X	X	X	
MCM-API-FB-01			G		WQ				X	X	X	X	X	X	X	X	X	X	
MCM-API-FB-02			G		WQ				X	X	X	X	X	X	X	X	X	X	
MCM-API-FB-03	3/2/23	1650	G	N	WQ			5	X	X	X	X	X	X	X	X	X	X	
MCM-API-EB-01			G		WQ				X	X	X	X	X	X	X	X	X	X	
MCM-API-EB-02			G		WQ				X	X	X	X	X	X	X	X	X	X	
MCM-API-EB-03	3/2/23	1650	G	N	WQ			5	X	X	X	X	X	X	X	X	X	X	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	3/2/23	<i>[Signature]</i>	3/2/23	948

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS**
  - RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
  - TSCA Regulated: PCB = Polychlorinated biphenyls
  - Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive
  - Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)
  - Waste code(s): \_\_\_\_\_
  - Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
  - Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)  
 Dissolved Fe are only Field filtered bottle

























**SAMPLE RECEIPT & REVIEW FORM**

Client: GPRC SDG/AR/COC/Work Order: 613002 / 613016

Received By: MUS Date Received: 3-3-23

Carrier and Tracking Number .  
 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other  
Client drop off

**Suspected Hazard Information** Yes No \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?  Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples to be received as radioactive?  COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?  Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): CPM mR/Hr Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous?  COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?  If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice <u>None</u> Other: TEMP: <u>4° + 20°</u> *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials mbn Date 3/6/23 Page 1 of 1

**List of current GEL Certifications as of 03 April 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 22, 2023

Kristen Jurinko  
Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance  
Work Order: 626209

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 15, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Received four samples per ID and the chain of custody states that there should be five per ID. Client was notified via email and clarified that we did receive the correct number of containers. 626209004(MCM-API-FB-01), 626209005(MCM-API-EB-01), 626209013(MCM-API-FB-02), 626209014(MCM-API-EB-02).

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,



Erin Trent  
Project Manager

Purchase Order: GPC82177-0007  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 626209 GEL Work Order: 626209

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- H Analytical holding time was exceeded
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-20 Project: GPCC00105  
Sample ID: 626209001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 13-JUN-23 15:20  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		3.64			SU			EOS1	06/13/23	1520	2444573	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1030	13.3	40.0	mg/L		100	JLD1	06/15/23	1412	2444576	2
Nitrate-N	UH	ND	0.165	0.500	mg/L		5	JLD1	06/16/23	0553	2444576	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0168	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0205	2445209	4
Iron		105	0.330	1.00	mg/L	1.00	10	PRB	06/18/23	0839	2445209	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		11300	23.8	100	mg/L			CH6	06/16/23	1520	2445124	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1449	2444792	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 4500-S (2-) D	

Notes:



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DPZ-02	Project: GPCC00105
Sample ID: 626209002	Client ID: GPCC001
Matrix: WG	
Collect Date: 13-JUN-23 15:14	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.12			SU			EOS1	06/13/23	1514	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1110	13.3	40.0	mg/L		100	JLD1	06/15/23	1443	2444576	2
Nitrate-N	UH	ND	0.165	0.500	mg/L		5	JLD1	06/16/23	0625	2444576	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0213	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0208	2445209	4
Iron	J	0.0915	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		9920	23.8	100	mg/L			CH6	06/16/23	1520	2445124	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1450	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-04D	Project: GPCC00105
Sample ID: 626209003	Client ID: GPCC001
Matrix: WG	
Collect Date: 13-JUN-23 15:15	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.07			SU			EOS1	06/13/23	1515	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		724	13.3	40.0	mg/L		100	JLD1	06/15/23	1515	2444576	2
Nitrate-N	UH	ND	0.165	0.500	mg/L		5	JLD1	06/16/23	0656	2444576	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0170	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0212	2445209	4
Iron	J	0.0794	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		9300	23.8	100	mg/L			CH6	06/16/23	1520	2445124	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1450	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

---

Client Sample ID: MCM-PT-04D      Project: GPCC00105  
Sample ID: 626209003      Client ID: GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-01  
Sample ID: 626209004  
Matrix: WQ  
Collect Date: 13-JUN-23 16:20  
Receive Date: 15-JUN-23  
Collector: Client  
Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	UH	ND	0.0330	0.100	mg/L		1	JLD1	06/15/23	1720	2444576	1
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0215	2445209	2
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	06/16/23	1520	2445124	3
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1451	2444792	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SM 2540C	
4	SM 4500-S (2-) D	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-EB-01  
Sample ID: 626209005  
Matrix: WQ  
Collect Date: 13-JUN-23 16:28  
Receive Date: 15-JUN-23  
Collector: Client

Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	UH	ND	0.0330	0.100	mg/L		1	JLD1	06/15/23	1751	2444576	1
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0219	2445209	2
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	06/16/23	1520	2445124	3
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1451	2444792	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SM 2540C	
4	SM 4500-S (2-) D	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-06 Project: GPCC00105  
Sample ID: 626209006 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 11:56  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.17			SU			EOS1	06/14/23	1156	2444573	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		1770	134	400	mg/L		2000	LXA2	06/15/23	1341	2444570	2
Fluoride	U	ND	0.165	4.00	mg/L		5	LXA2	06/16/23	0334	2444570	3
Nitrate-N	U	ND	0.165	0.500	mg/L		5					
Sulfate		187	13.3	40.0	mg/L		100	LXA2	06/16/23	0405	2444570	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0607	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0230	2445209	5
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Magnesium		93.6	0.250	0.750	mg/L	1.00	25	PRB	06/18/23	0924	2445209	6
Potassium		50.0	2.00	7.50	mg/L	1.00	25					
Sodium		1010	2.00	6.25	mg/L	1.00	25					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3370	23.8	100	mg/L			CH6	06/16/23	1520	2445124	7
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	J	0.0638	0.0330	0.100	mg/L		1	JW2	06/16/23	1452	2444792	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		252	0.725	2.00	mg/L			HH2	06/16/23	1340	2445567	9
Bicarbonate alkalinity (CaCO3)		252	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-06      Project: GPCC00105  
Sample ID: 626209006      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		
8	SM 4500-S (2-) D		
9	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-01	Project: GPCC00105
Sample ID: 626209007	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-JUN-23 10:20	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.97			SU			EOS1	06/14/23	1020	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		210	13.3	40.0	mg/L		100	LXA2	06/16/23	0506	2444570	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	06/16/23	0436	2444570	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0153	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0255	2445209	4
Iron		0.155	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3390	23.8	100	mg/L			CH6	06/16/23	1520	2445124	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/20/23	1619	2446339	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## *Certificate of Analysis*

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

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Client Sample ID:	MCM-PT-01	Project:	GPCC00105
Sample ID:	626209007	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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*Column headers are defined as follows:*

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-02	Project: GPCC00105
Sample ID: 626209008	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-JUN-23 10:10	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.96			SU			EOS1	06/14/23	1010	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		217	13.3	40.0	mg/L		100	LXA2	06/16/23	0608	2444570	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	06/16/23	0537	2444570	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0298	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0259	2445209	4
Iron	J	0.0911	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3870	23.8	100	mg/L			CH6	06/16/23	1547	2445125	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1452	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

---

Client Sample ID:	MCM-PT-02	Project:	GPCC00105
Sample ID:	626209008	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-03	Project: GPCC00105
Sample ID: 626209009	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-JUN-23 11:51	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.91			SU			EOS1	06/14/23	1151	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		253	66.5	200	mg/L		500	LXA2	06/15/23	1513	2444570	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	06/16/23	0741	2444570	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0821	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0302	2445209	4
Iron		0.205	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3670	23.8	100	mg/L			CH6	06/16/23	1547	2445125	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1453	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**



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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DR-01	Project: GPCC00105
Sample ID: 626209010	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-JUN-23 12:00	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.88			SU			EOS1	06/14/23	1200	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		258	66.5	200	mg/L		500	LXA2	06/15/23	1544	2444570	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	06/16/23	0812	2444570	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0343	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0306	2445209	4
Iron		0.105	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3640	23.8	100	mg/L			CH6	06/16/23	1547	2445125	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1454	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

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Client Sample ID:	MCM-DR-01	Project:	GPCC00105
Sample ID:	626209010	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DR-02	Project: GPCC00105
Sample ID: 626209011	Client ID: GPCC001
Matrix: WG	
Collect Date: 14-JUN-23 10:16	
Receive Date: 15-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.30			SU			EOS1	06/14/23	1016	2444573	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		353	66.5	200	mg/L		500	LXA2	06/15/23	1615	2444570	2
Nitrate-N	U	ND	0.165	0.500	mg/L		5	LXA2	06/16/23	0842	2444570	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic		0.0312	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0310	2445209	4
Iron	J	0.0811	0.0330	0.100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		5750	23.8	100	mg/L			CH6	06/16/23	1547	2445125	5
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1454	2444792	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	

**Notes:**





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Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-01  
Sample ID: 626209012  
Matrix: WG  
Collect Date: 14-JUN-23 12:00  
Receive Date: 15-JUN-23  
Collector: Client  
Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.165	4.00	mg/L		5	LXA2	06/16/23	0913	2444570	1
Nitrate-N	U	ND	0.165	0.500	mg/L		5					
Chloride		1690	33.5	100	mg/L		500	LXA2	06/15/23	1646	2444570	2
Sulfate		216	66.5	200	mg/L		500					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.0636	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0313	2445209	3
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Potassium		50.0	0.0800	0.300	mg/L	1.00	1					
Magnesium		91.4	0.250	0.750	mg/L	1.00	25	PRB	06/18/23	0931	2445209	4
Sodium		999	2.00	6.25	mg/L	1.00	25					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3260	23.8	100	mg/L			CH6	06/16/23	1547	2445125	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1455	2444792	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		257	0.725	2.00	mg/L			HH2	06/16/23	1345	2445567	7
Bicarbonate alkalinity (CaCO3)		257	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445206

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## Certificate of Analysis

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Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-01      Project: GPCC00105  
Sample ID: 626209012      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description		Analyst Comments								
1	EPA 300.0										
2	EPA 300.0										
3	SW846 3005A/6020B										
4	SW846 3005A/6020B										
5	SM 2540C										
6	SM 4500-S (2-) D										
7	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-02 Project: GPCC00105  
Sample ID: 626209013 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 14-JUN-23 13:45  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	LXA2	06/15/23	1717	2444570	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0331	2445211	2
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0820	2445211	3
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	06/16/23	1547	2445125	4
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1456	2444792	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			HH2	06/16/23	1347	2445567	6
Bicarbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

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## Certificate of Analysis

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Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FB-02      Project: GPCC00105  
Sample ID: 626209013      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	SW846 3005A/6020B											
3	SW846 3005A/6020B											
4	SM 2540C											
5	SM 4500-S (2-) D											
6	SM 2320B											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-EB-02 Project: GPCC00105  
Sample ID: 626209014 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 14-JUN-23 13:55  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	LXA2	06/15/23	1747	2444570	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0822	2445211	2
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	06/18/23	0335	2445211	3
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	06/16/23	1547	2445125	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/16/23	1456	2444792	5
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	0.725	2.00	mg/L			HH2	06/16/23	1350	2445567	6
Bicarbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-EB-02      Project: GPCC00105  
Sample ID: 626209014      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	SW846 3005A/6020B											
3	SW846 3005A/6020B											
4	SM 2540C											
5	SM 4500-S (2-) D											
6	SM 2320B											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



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Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-20 Project: GPCC00105  
Sample ID: 626209015 Client ID: GPCC001  
Matrix: WG  
Collect Date: 13-JUN-23 15:20  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		113	1.65	5.00	mg/L	1.00	50	PRB	06/18/23	0824	2445211	1
Manganese		0.0613	0.00100	0.00500	mg/L	1.00	1	PRB	06/18/23	0338	2445211	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DPZ-02 Project: GPCC00105  
Sample ID: 626209016 Client ID: GPCC001  
Matrix: WG  
Collect Date: 13-JUN-23 15:14  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.103	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0404	2445211	1
Manganese		0.213	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-04D Project: GPCC00105  
Sample ID: 626209017 Client ID: GPCC001  
Matrix: WG  
Collect Date: 13-JUN-23 15:15  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0766	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0407	2445211	1
Manganese		0.146	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-MCM-06 Project: GPCC00105  
Sample ID: 626209018 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 11:56  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0411	2445211	1
Manganese		0.0569	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-01 Project: GPCC00105  
Sample ID: 626209019 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 10:20  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0414	2445211	1
Manganese		0.0792	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-02 Project: GPCC00105  
Sample ID: 626209020 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 10:10  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	J	0.0691	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0418	2445211	1
Manganese		0.0732	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-PT-03 Project: GPCC00105  
Sample ID: 626209021 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 11:51  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.171	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0422	2445211	1
Manganese		0.0662	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DR-01 Project: GPCC00105  
Sample ID: 626209022 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 12:00  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0425	2445211	1
Manganese		0.0681	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-DR-02 Project: GPCC00105  
Sample ID: 626209023 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 10:16  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron		0.114	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0429	2445211	1
Manganese		0.0759	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 22, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater Compliance

Client Sample ID: MCM-AP1-FD-01 Project: GPCC00105  
Sample ID: 626209024 Client ID: GPCC001  
Matrix: WG  
Collect Date: 14-JUN-23 12:00  
Receive Date: 15-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe/Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	PRB	06/18/23	0432	2445211	1
Manganese		0.0605	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	06/16/23	1340	2445210

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: June 22, 2023

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Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 626209

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2444570										
QC1205434133	626136001	DUP									
Chloride		2.53		2.53	mg/L	0.0395		(0%-20%)	LXA2	06/15/23	19:20
Fluoride	J	0.0470	U	ND	mg/L	200	^				
Nitrate-N		6.75		6.74	mg/L	0.122		(0%-20%)		06/16/23	02:32
Sulfate		1.30		1.22	mg/L	6.02	^	(+/-0.400)		06/15/23	19:20
QC1205434132	LCS										
Chloride	5.00			4.91	mg/L			98.3 (90%-110%)		06/15/23	20:53
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Nitrate-N	2.50			2.42	mg/L			96.7 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205434131	MB										
Chloride			U	ND	mg/L					06/15/23	20:22
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2444570										
QC1205434134	626136001	PS									
Chloride	5.00		2.53	7.60	mg/L		101	(90%-110%)	LXA2	06/15/23	19:51
Fluoride	2.50	J	0.0470	2.64	mg/L		104	(90%-110%)			
Nitrate-N	2.50		3.37	6.17	mg/L		112*	(90%-110%)		06/16/23	03:03
Sulfate	10.0		1.30	9.93	mg/L		86.3*	(90%-110%)		06/15/23	19:51
Batch	2444576										
QC1205434161	626034002	DUP									
Nitrate-N		U	ND	U	ND	mg/L	N/A		JLD1	06/15/23	23:37
Sulfate			34.7	34.7	mg/L	0.0432		(0%-20%)		06/16/23	03:48
QC1205434148	LCS										
Nitrate-N	2.50			2.42	mg/L		96.6	(90%-110%)		06/16/23	01:11
Sulfate	10.0			10.0	mg/L		100	(90%-110%)			
QC1205434147	MB										
Nitrate-N			U	ND	mg/L					06/16/23	00:39
Sulfate			U	ND	mg/L						
QC1205434162	626034002	PS									
Nitrate-N	2.50	U	ND	2.37	mg/L		94.6	(90%-110%)		06/16/23	00:08
Sulfate	10.0		17.3	28.5	mg/L		112*	(90%-110%)		06/16/23	05:22

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2445209										
QC1205435283	LCS										
Arsenic	0.0500			0.0498	mg/L		99.5	(80%-120%)	PRB	06/18/23	02:01
Iron	2.00			1.91	mg/L		95.7	(80%-120%)			
Magnesium	2.00			1.96	mg/L		98.2	(80%-120%)			
Potassium	2.00			2.04	mg/L		102	(80%-120%)			
Sodium	2.00			1.97	mg/L		98.6	(80%-120%)			
QC1205435282	MB										
Arsenic			U	ND	mg/L					06/18/23	01:57
Iron			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205435284	626209006 MS										
Arsenic	0.0500	0.0607		0.110	mg/L		98.4	(75%-125%)		06/18/23	02:33
Iron	2.00	U	ND	1.92	mg/L		94.5	(75%-125%)			
Magnesium	2.00		93.6	95.9	mg/L		N/A	(75%-125%)		06/18/23	09:26
Potassium	2.00		50.0	52.7	mg/L		N/A	(75%-125%)			
Sodium	2.00		1010	1030	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2445209										
QC1205435285	626209006	MSD									
Arsenic	0.0500	0.0607		0.109	mg/L	0.441	97.4	(0%-20%)	PRB	06/18/23	02:37
Iron	2.00	U	ND	1.93	mg/L	0.855	95.3	(0%-20%)			
Magnesium	2.00		93.6	93.8	mg/L	2.22	N/A	(0%-20%)		06/18/23	09:27
Potassium	2.00		50.0	51.9	mg/L	1.5	N/A	(0%-20%)			
Sodium	2.00		1010	999	mg/L	2.9	N/A	(0%-20%)			
QC1205435286	626209006	SDILT									
Arsenic		60.7		11.5	ug/L	5.19		(0%-20%)		06/18/23	02:44
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Magnesium			3740	708	ug/L	5.52		(0%-20%)		06/18/23	09:29
Potassium			2000	383	ug/L	4.18		(0%-20%)			
Sodium			40400	7760	ug/L	3.96		(0%-20%)			
<hr/>											
Batch	2445211										
QC1205435290	LCS										
Arsenic	0.0500			0.0499	mg/L		99.7	(80%-120%)	PRB	06/18/23	03:28
Iron	2.00			1.88	mg/L		94.1	(80%-120%)		06/18/23	08:18
Magnesium	2.00			2.04	mg/L		102	(80%-120%)		06/18/23	03:28
Manganese	0.0500			0.0481	mg/L		96.3	(80%-120%)			



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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2445211										
Potassium	2.00			2.07	mg/L		103	(80%-120%)	PRB	06/18/23	03:28
Sodium	2.00			2.22	mg/L		111	(80%-120%)		06/18/23	08:18
QC1205435289	MB										
Arsenic			U	ND	mg/L					06/18/23	03:24
Iron			U	ND	mg/L					06/18/23	08:47
Magnesium			U	ND	mg/L					06/18/23	03:24
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L					06/18/23	08:47
QC1205435291	626209015 MS										
Arsenic	0.0500	0.0170		0.0632	mg/L		92.4	(75%-125%)		06/18/23	03:42
Iron	2.00	113		108	mg/L		N/A	(75%-125%)		06/18/23	08:26
Magnesium	2.00	322		319	mg/L		N/A	(75%-125%)		06/18/23	03:42
Manganese	0.0500	0.0613		0.109	mg/L		96.3	(75%-125%)			
Potassium	2.00	67.5		68.4	mg/L		N/A	(75%-125%)			
Sodium	2.00	2850		2690	mg/L		N/A	(75%-125%)		06/18/23	08:26

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch 2445211											
QC1205435292 626209015 MSD											
Arsenic	0.0500	0.0170		0.0662	mg/L	4.66	98.4	(0%-20%)	PRB	06/18/23	03:46
Iron	2.00	113		109	mg/L	0.52	N/A	(0%-20%)		06/18/23	08:28
Magnesium	2.00	322		338	mg/L	5.61	N/A	(0%-20%)		06/18/23	03:46
Manganese	0.0500	0.0613		0.114	mg/L	3.86	105	(0%-20%)			
Potassium	2.00	67.5		72.1	mg/L	5.24	N/A	(0%-20%)			
Sodium	2.00	2850		2720	mg/L	1.32	N/A	(0%-20%)		06/18/23	08:28
QC1205435293 626209015 SDILT											
Arsenic		17.0	J	3.48	ug/L	2.42		(0%-20%)		06/18/23	03:53
Iron		2260		440	ug/L	2.5		(0%-20%)		06/18/23	08:30
Magnesium		322000		56100	ug/L	12.8		(0%-20%)		06/18/23	03:53
Manganese		61.3		13.1	ug/L	6.71		(0%-20%)			
Potassium		67500		12800	ug/L	5.38		(0%-20%)			
Sodium		57000		11100	ug/L	2.3		(0%-20%)		06/18/23	08:30
<b>Solids Analysis</b>											
Batch 2445124											
QC1205435100 626060001 DUP											
Total Dissolved Solids		13.0		14.0	mg/L	7.41	^	(+/-10.0)	CH6	06/16/23	15:20

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2445124										
QC1205435099	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	CH6	06/16/23	15:20
QC1205435098	MB										
Total Dissolved Solids			U	ND	mg/L					06/16/23	15:20
Batch	2445125										
QC1205435106	626116002	DUP									
Total Dissolved Solids			111	120	mg/L	7.79*		(0%-5%)	CH6	06/16/23	15:47
QC1205435104	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		06/16/23	15:47
QC1205435103	MB										
Total Dissolved Solids			U	ND	mg/L					06/16/23	15:47
<b>Spectrometric Analysis</b>											
Batch	2444792										
QC1205434591	LCS										
Total Sulfide	0.400			0.409	mg/L		102	(85%-115%)	JW2	06/16/23	14:49
QC1205434590	MB										
Total Sulfide			U	ND	mg/L					06/16/23	14:49
QC1205434592	626211004	PS									
Total Sulfide	0.400	U	ND	0.423	mg/L		106	(75%-125%)		06/16/23	14:58
QC1205434593	626211004	PSD									
Total Sulfide	0.400	U	ND	0.416	mg/L	1.64	104	(0%-15%)		06/16/23	14:58
Batch	2446339										
QC1205437471	LCS										
Total Sulfide	0.400			0.396	mg/L		99.1	(85%-115%)	JW2	06/20/23	16:19

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 626209

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2446339										
QC1205437470	MB										
Total Sulfide			U	ND	mg/L				JW2	06/20/23	16:19
QC1205437472	626530007	PS									
Total Sulfide	0.400	U	ND	0.409	mg/L		102	(75%-125%)		06/20/23	16:20
QC1205437473	626530007	PSD									
Total Sulfide	0.400	U	ND	0.413	mg/L	0.867	103	(0%-15%)		06/20/23	16:21
<b>Titration and Ion Analysis</b>											
Batch	2445567										
QC1205435934	626209006	DUP									
Alkalinity, Total as CaCO3			252	252	mg/L	0.0795		(0%-20%)	HH2	06/16/23	13:41
Bicarbonate alkalinity (CaCO3)			252	252	mg/L	0.0795		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205435933	LCS										
Alkalinity, Total as CaCO3	50.0			51.3	mg/L		103	(90%-110%)		06/16/23	13:38
QC1205435935	626209006	MS									
Alkalinity, Total as CaCO3	50.0		252	304	mg/L		N/A	(80%-120%)		06/16/23	13:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded

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## QC Summary

Workorder: 626209

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 626209**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2445209

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2445206

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209001	MCM-MCM-20
626209002	MCM-DPZ-02
626209003	MCM-PT-04D
626209004	MCM-AP1-FB-01
626209005	MCM-AP1-EB-01
626209006	MCM-MCM-06
626209007	MCM-PT-01
626209008	MCM-PT-02
626209009	MCM-PT-03
626209010	MCM-DR-01
626209011	MCM-DR-02
626209012	MCM-AP1-FD-01
1205435282	Method Blank (MB)ICP-MS
1205435283	Laboratory Control Sample (LCS)
1205435286	626209006(MCM-MCM-06L) Serial Dilution (SD)
1205435284	626209006(MCM-MCM-06S) Matrix Spike (MS)
1205435285	626209006(MCM-MCM-06SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

### Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 626209001 (MCM-MCM-20), 626209006 (MCM-MCM-06) and 626209012 (MCM-AP1-FD-01) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	626209		
	001	006	012
Iron	10X	1X	1X
Magnesium		25X	25X
Potassium		25X	1X
Sodium		25X	25X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2445211

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2445210

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
626209013	MCM-AP1-FB-02
626209014	MCM-AP1-EB-02
626209015	MCM-MCM-20
626209016	MCM-DPZ-02
626209017	MCM-PT-04D
626209018	MCM-MCM-06
626209019	MCM-PT-01
626209020	MCM-PT-02
626209021	MCM-PT-03
626209022	MCM-DR-01
626209023	MCM-DR-02
626209024	MCM-AP1-FD-01
1205435289	Method Blank (MB)ICP-MS
1205435290	Laboratory Control Sample (LCS)
1205435293	626209015(MCM-MCM-20L) Serial Dilution (SD)
1205435291	626209015(MCM-MCM-20S) Matrix Spike (MS)
1205435292	626209015(MCM-MCM-20SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where

applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 626209015 (MCM-MCM-20) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>626209</b>
	<b>015</b>
Iron	50X

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2444570

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209006	MCM-MCM-06
626209007	MCM-PT-01
626209008	MCM-PT-02
626209009	MCM-PT-03
626209010	MCM-DR-01
626209011	MCM-DR-02
626209012	MCM-AP1-FD-01
626209013	MCM-AP1-FB-02
626209014	MCM-AP1-EB-02
1205434131	Method Blank (MB)
1205434132	Laboratory Control Sample (LCS)
1205434133	626136001(NonSDG) Sample Duplicate (DUP)
1205434134	626136001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**



**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Nitrate-N	1205434134 (Non SDG 626136001PS)	112* (90%-110%)
Sulfate	1205434134 (Non SDG 626136001PS)	86.3* (90%-110%)

**Technical Information****Sample Dilutions**

The following samples 1205434133 (Non SDG 626136001DUP), 1205434134 (Non SDG 626136001PS), 626209006 (MCM-MCM-06), 626209007 (MCM-PT-01), 626209008 (MCM-PT-02), 626209009 (MCM-PT-03), 626209010 (MCM-DR-01), 626209011 (MCM-DR-02) and 626209012 (MCM-AP1-FD-01) were diluted because target analyte concentrations exceeded the calibration range. Samples 626209006 (MCM-MCM-06), 626209007 (MCM-PT-01), 626209008 (MCM-PT-02), 626209009 (MCM-PT-03), 626209010 (MCM-DR-01), 626209011 (MCM-DR-02) and 626209012 (MCM-AP1-FD-01) were diluted to minimize matrix effects on instrument performance. Samples 626209006 (MCM-MCM-06), 626209007 (MCM-PT-01), 626209008 (MCM-PT-02), 626209009 (MCM-PT-03), 626209010 (MCM-DR-01), 626209011 (MCM-DR-02) and 626209012 (MCM-AP1-FD-01) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	626209						
	006	007	008	009	010	011	012
Chloride	2000X						500X
Fluoride	5X						5X
Nitrate-N	5X	5X	5X	5X	5X	5X	5X
Sulfate	100X	100X	100X	500X	500X	500X	500X

**Product: Ion Chromatography****Analytical Method:** EPA 300.0**Analytical Procedure:** GL-GC-E-086 REV# 31**Analytical Batch:** 2444576

The following samples were analyzed using the above methods and analytical procedure(s).

**GEL Sample ID#****Client Sample Identification**

626209001	MCM-MCM-20
626209002	MCM-DPZ-02
626209003	MCM-PT-04D
626209004	MCM-AP1-FB-01
626209005	MCM-AP1-EB-01
1205434147	Method Blank (MB)
1205434148	Laboratory Control Sample (LCS)
1205434161	626034002(NonSDG) Sample Duplicate (DUP)
1205434162	626034002(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Sulfate	1205434162 (Non SDG 626034002PS)	112* (90%-110%)

**Technical Information**

**Holding Times**

Samples (See Below) were received with insufficient time to prep and/or analyze within the recommended method-specified holding time. The analysis was performed as soon as possible by the analyst. The data is qualified.

Sample	Analyte	Value
626209004 (MCM-AP1-FB-01)	Nitrate-N	Received 15-JUN-23, within holding, analyzed 15-JUN-23, out of holding 15-JUN-23
626209005 (MCM-AP1-EB-01)	Nitrate-N	Received 15-JUN-23, within holding, analyzed 15-JUN-23, out of holding 15-JUN-23

Samples (See Below) were initially analyzed within holding; however, the holding times had expired prior to reanalysis of diluted samples. The data is qualified.

Sample	Analyte	Value
626209001 (MCM-MCM-20)	Nitrate-N	Received 15-JUN-23, within holding, analyzed 16-JUN-23, out of holding 15-JUN-23
626209002 (MCM-DPZ-02)	Nitrate-N	Received 15-JUN-23, within holding, analyzed 16-JUN-23, out of holding 15-JUN-23
626209003 (MCM-PT-04D)	Nitrate-N	Received 15-JUN-23, within holding, analyzed 16-JUN-23, out of holding 15-JUN-23

**Sample Dilutions**

The following samples 1205434161 (Non SDG 626034002DUP), 1205434162 (Non SDG 626034002PS), 626209001 (MCM-MCM-20), 626209002 (MCM-DPZ-02) and 626209003 (MCM-PT-04D) were diluted because target analyte concentrations exceeded the calibration range. Samples 626209001 (MCM-MCM-20), 626209002 (MCM-DPZ-02) and 626209003 (MCM-PT-04D) were diluted to minimize matrix effects on instrument performance. Samples 626209001 (MCM-MCM-20), 626209002 (MCM-DPZ-02) and 626209003

(MCM-PT-04D) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	626209		
	001	002	003
Nitrate-N	5X	5X	5X
Sulfate	100X	100X	100X

**Miscellaneous Information**

**Manual Integrations**

Samples 626209001 (MCM-MCM-20), 626209002 (MCM-DPZ-02) and 626209003 (MCM-PT-04D) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2445124

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209001	MCM-MCM-20
626209002	MCM-DPZ-02
626209003	MCM-PT-04D
626209004	MCM-AP1-FB-01
626209005	MCM-AP1-EB-01
626209006	MCM-MCM-06
626209007	MCM-PT-01
1205435098	Method Blank (MB)
1205435099	Laboratory Control Sample (LCS)
1205435100	626060001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 626209001 (MCM-MCM-20), 626209002 (MCM-DPZ-02), 626209003 (MCM-PT-04D), 626209006 (MCM-MCM-06) and 626209007 (MCM-PT-01).

**Product: Solids, Total Dissolved**  
**Analytical Method: SM 2540C**  
**Analytical Procedure: GL-GC-E-001 REV# 20**  
**Analytical Batch: 2445125**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209008	MCM-PT-02
626209009	MCM-PT-03
626209010	MCM-DR-01
626209011	MCM-DR-02
626209012	MCM-AP1-FD-01
626209013	MCM-AP1-FB-02
626209014	MCM-AP1-EB-02
1205435103	Method Blank (MB)
1205435104	Laboratory Control Sample (LCS)
1205435106	626116002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Dissolved Solids	1205435106 (Non SDG 626116002DUP)	7.79* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used.  
626209008 (MCM-PT-02), 626209009 (MCM-PT-03), 626209010 (MCM-DR-01), 626209011 (MCM-DR-02)  
and 626209012 (MCM-AP1-FD-01).

**Product: Sulfide, Total**  
**Analytical Method: SM 4500-S (2-) D**  
**Analytical Procedure: GL-GC-E-052 REV# 12**  
**Analytical Batch: 2444792**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209001	MCM-MCM-20

626209002	MCM-DPZ-02
626209003	MCM-PT-04D
626209004	MCM-AP1-FB-01
626209005	MCM-AP1-EB-01
626209006	MCM-MCM-06
626209008	MCM-PT-02
626209009	MCM-PT-03
626209010	MCM-DR-01
626209011	MCM-DR-02
626209012	MCM-AP1-FD-01
626209013	MCM-AP1-FB-02
626209014	MCM-AP1-EB-02
1205434590	Method Blank (MB)
1205434591	Laboratory Control Sample (LCS)
1205434592	626211004(NonSDG) Post Spike (PS)
1205434593	626211004(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2446339

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209007	MCM-PT-01
1205437470	Method Blank (MB)
1205437471	Laboratory Control Sample (LCS)
1205437472	626530007(NonSDG) Post Spike (PS)
1205437473	626530007(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2445567

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
626209006	MCM-MCM-06
626209012	MCM-AP1-FD-01
626209013	MCM-AP1-FB-02
626209014	MCM-AP1-EB-02
1205435933	Laboratory Control Sample (LCS)
1205435934	626209006(MCM-MCM-06) Sample Duplicate (DUP)
1205435935	626209006(MCM-MCM-06) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Chain of Custody and Analytical Request**  
*GEL Project Manager: Erin Trent*

Sample ID	Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2) Filtered (3)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: (7) Known or possible hazards	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)										Comments	
						Radioactive (if Yes, please supply isotopic info.)		Zn	Mg, K, Na	*Dissolved Fe, Mn	Sulfide	Cl, F	SO <sub>4</sub>	Alkalinity	NO <sub>3</sub>	TDS		<- Preservative Type (6)	
MCM-MCM-06			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-MCM-20	6/13/23	1520	G	Y*	WG		5	X	X	X	X	X	X	X	X	X			pH: 3.64
MCM-DPZ-02	6/13/23	1514	G	Y*	WG		5	X	X	X	X	X	X	X	X	X			pH: 7.12
MCM-PT-04D	6/13/23	1515	G	Y*	WG		5	X	X	X	X	X	X	X	X	X			pH: 7.07
MCM-DR-01			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-DR-02			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-DR-03			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-DR-04			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-DR-05			G	Y*	WG		5	X	X	X	X	X	X	X	X	X			
MCM-DR-06			FD	Y*	WG		5	X	X	X	X	X	X	X	X	X			

**Chain of Custody Signatures**  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date 6/13/23 Time 1058  
 1. Kristen Jurinko  
 2. Erin Trent  
 3. \_\_\_\_\_  
 TAT Requested: Normal:  Yes  No  No Rush:  Yes  No  No  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: Task Code: MCM-CCR-CA-20230612  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 5 °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

- 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)  
 \*Dissolved Fe, Mn are the only Field Filtered Samples\*













Plant McManus Supplemental Sampling 2023-06

Task Code: MCM-CCR-CA-20230612

Location Code/Label	Sample Code	Matrix Code	Metals (As, Fe)	Dissolved Fe, Mn**	Sulfide*	Metals (Mg, K, Na, )	Cl, F (EPA 300)	SO4 (EPA 300)	NO3 (EPA 352)	Total Alk/Carb/Bi carb (SM2320B)	TDS (SM2540)
MCM-MCM-06	MCM-MCM-06-WG-20230612	WG	X	X	X	X	X	X	X	X	X
MCM-DPZ-2	MCM-DPZ-2-WG-20230612	WG	X	X	X			X	X		X
MCM-PT-01	MCM-PT-01-WG-20230612	WG	X	X	X			X	X		X
MCM-PT-02	MCM-PT-02-WG-20230612	WG	X	X	X			X	X		X
MCM-PT-03	MCM-PT-03-WG-20230612	WG	X	X	X			X	X		X
MCM-PT-04D	MCM-PT-04D-WG-20230612	WG	X	X	X			X	X		X
MCM-DR-01	MCM-DR-01-WG-20230612	WG	X	X	X			X	X		X
MCM-DR-02	MCM-DR-02-WG-20230612	WG	X	X	X			X	X		X
MCM-MCM-20	MCM-MCM-20-WG-20230612	WG	X	X	X			X	X		X
MCM-API-FD-01	MCM-API-FD-01-WG-20230612	WG	X	X	X			X	X		X
MCM-API-FB-1	MCM-API-FB-01-WQ-20230612	WQ	X	X	X			X	X		X
MCM-API-FB-2	MCM-API-FB-02-WQ-20230612	WQ	X	X	X			X	X		X
MCM-API-EB-1	MCM-API-EB-01-WQ-20230612	WQ	X	X	X			X	X		X
MCM-API-EB-2	MCM-API-EB-02-WQ-20230612	WQ	X	X	X			X	X		X
Extra 1			X	X	X			X	X		X
Extra 2			X	X	X			X	X		X

\*Sulfide samples to be split for lab comparison

\*\* Dissolved samples to be field filtered



SAMPLE RECEIPT & REVIEW FORM

626209

Client: GPC SDG/AR/COC/Work Order: \_\_\_\_\_  
 Received By: SNS Date Received: 6/15/23

Carrier and Tracking Number: \_\_\_\_\_  
 FedEx Express FedEx Ground UPS Field Services Courier Other  
cooler 1-2'c cooler 2-2'c

Suspected Hazard Information:  Yes  No  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Yes  No Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  Yes  No COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive?  Yes  No Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): \_\_\_\_\_ CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous?  Yes  No COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards?  Yes  No If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):  
mcm-API-FB-01 and mcm-API-FB-02  
mcm-API-EB-01 and mcm-API-EB-02 only had (4) samples.  
COC says (5) samples for each ID

PM (or PMA) review: Initials (Signature) Date 6/16/23 Page 1 of 1

## Erin Trent

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**From:** Trent Godwin <trent.godwin@resoluteenv.com>  
**Sent:** Thursday, June 15, 2023 4:28 PM  
**To:** Erin Trent; Kevin Stephenson  
**Cc:** Team Trent; Jurinko, Kristen Nichole  
**Subject:** RE: Questions Re: McManus Samples Received Today, 6/15

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Erin, I suggest that you may proceed with the analysis for that sample, but please note that the preservative was not active in the report notes.

Thank you,

Trent Godwin, P.G.

**Resolute**  
Environmental & Water Resources Consulting  
[www.ResoluteEnv.com](http://www.ResoluteEnv.com)  
Direct: 470.895.0647

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**From:** Erin Trent <Erin.Trent@gel.com>  
**Sent:** Thursday, June 15, 2023 3:12 PM  
**To:** Kevin Stephenson <kevin.stephenson@resoluteenv.com>; Trent Godwin <trent.godwin@resoluteenv.com>  
**Cc:** Team Trent <Team.Trent@gel.com>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>  
**Subject:** RE: Questions Re: McManus Samples Received Today, 6/15

The pH was not >9. The correct chemical preservatives appear to be present, but did not keep the pH above 9.

**Erin Trent**  
Project Manager



2040 Savage Road, Charleston, SC 29407  
Office Direct: 843.769.7374 | Office Main: 843.556.8171 | Fax: 843.766.1178  
E-Mail: [erin.trent@gel.com](mailto:erin.trent@gel.com) | Website: [www.gel.com](http://www.gel.com)

**Analytical Testing**



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**From:** Kevin Stephenson <[kevin.stephenson@resoluteenv.com](mailto:kevin.stephenson@resoluteenv.com)>  
**Sent:** Thursday, June 15, 2023 4:07 PM  
**To:** Erin Trent <[Erin.Trent@gel.com](mailto:Erin.Trent@gel.com)>; Trent Godwin <[trent.godwin@resoluteenv.com](mailto:trent.godwin@resoluteenv.com)>  
**Cc:** Team Trent <[Team.Trent@gel.com](mailto:Team.Trent@gel.com)>; Jurinko, Kristen Nichole <[KNJURINK@SOUTHERNCO.COM](mailto:KNJURINK@SOUTHERNCO.COM)>  
**Subject:** Re: Questions Re: McManus Samples Received Today, 6/15

Erin,

Can you tell me why the sample PT-01 was not preserved correctly?

The field blank and equipment blank samples did indeed have four bottles. Those samples did not receive Dissolved analysis for metals as noted on the COC's. Thanks for the clarification.

Kevin Stephenson, P.G.  
Project Geologist

Resolute Environmental and  
Water Resources Consulting  
1003 Weatherstone Parkway  
Woodstock, GA 30188  
(678) 398-9942 - Office  
(470) 895-0653 - Mobile

Sent via iOS Mobile

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**From:** Erin Trent <[Erin.Trent@gel.com](mailto:Erin.Trent@gel.com)>  
**Sent:** Thursday, June 15, 2023 3:37:26 PM  
**To:** Kevin Stephenson <[kevin.stephenson@resoluteenv.com](mailto:kevin.stephenson@resoluteenv.com)>; Trent Godwin <[trent.godwin@resoluteenv.com](mailto:trent.godwin@resoluteenv.com)>  
**Cc:** Team Trent <[Team.Trent@gel.com](mailto:Team.Trent@gel.com)>; Jurinko, Kristen Nichole <[KNJURINK@SOUTHERNCO.COM](mailto:KNJURINK@SOUTHERNCO.COM)>  
**Subject:** FW: Questions Re: McManus Samples Received Today, 6/15

Good Afternoon Kevin,  
The Sulfide bottle for MCM-PT-01 was not preserved correctly upon receipt. How did you want us to proceed?

Also, the 2 field blanks and 2 equipment blanks were received with 4 containers each, but the COC listed that we should have received 5 containers each. Please advise.

Thanks,

Erin Trent  
Project Manager

2040 Savage Road, Charleston, SC 29407  
Office Direct: 843.769.7374 | Office Main: 843.556.8171 | Fax: 843.766.1178  
E-Mail: [erin.trent@gel.com](mailto:erin.trent@gel.com) | Website: [www.gel.com](http://www.gel.com)  
Analytical Testing

-----Original Message-----

**From:** [scanner@gel.com](mailto:scanner@gel.com) <[scanner@cipsupport.com](mailto:scanner@cipsupport.com)>  
**Sent:** Thursday, June 15, 2023 11:05 AM  
**To:** Team Trent <[Team.Trent@gel.com](mailto:Team.Trent@gel.com)>  
**Subject:** Scanned image from GEL Laboratories

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Reply to: [scanner@gel.com](mailto:scanner@gel.com) <[scanner@gel.com](mailto:scanner@gel.com)> Device Name: GEL Laboratories Device Model: BP-50M45  
Location: Not Set

File Format: PDF MMR(G4)  
Resolution: 400dpi x 400dpi

Attached file is scanned image in PDF format.

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**List of current GEL Certifications as of 22 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



**Stage 2A Data Verification Report  
Georgia Power  
McManus Fossil Plant  
Coal Combustion Residuals Project  
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the eight groundwater samples collected as part of the June 2022 dike well supplemental sampling event at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Pace Analytical Services, LLC in Minneapolis, Minnesota (Pace Minneapolis) and Asheville, North Carolina (Pace Asheville) for total and dissolved metals by SW-846 Method 6010D; for total and dissolved metals by SW-846 Method 6020B; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for sulfate by US EPA Method 300.0; for chloride by SM 4500-Cl-E; for sulfide by SM 4500-S2D; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

## **Summary**

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 6/28/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: PT-01, PT-02, PT-03, PT-04D, DR-01, DR-02, MCM-06 and DPZ-02

The following Pace inorganic SDG was evaluated as part of this QA review: 92612546.

All data are considered usable as reported, or usable after integration of data validation qualifications.

## **Inorganic Data Review**

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Total and dissolved result precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

## **Comments and Exceptions**

1. The laboratory did not provide a Case Narrative associated with the inorganic analyses. As this item was not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.
2. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was  $\leq 20\%$  when both results were  $\geq 5\times$  the

reporting limit [RL] or the difference between results was  $\leq$  the RL when at least one result was  $< 5 \times$  the RL).

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
92612546	PT-03	DUP-1

### **Overall Assessment of Data**

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
92612546	all samples	sulfate	J	M- – Low MS/MSD recoveries
92612546	PT-03, DR-2, and MCM-06	total sodium and dissolved sodium	J	FG – Total versus dissolved imprecision
92612546	DPZ-02	total arsenic and dissolved arsenic	J	FG – Total versus dissolved imprecision

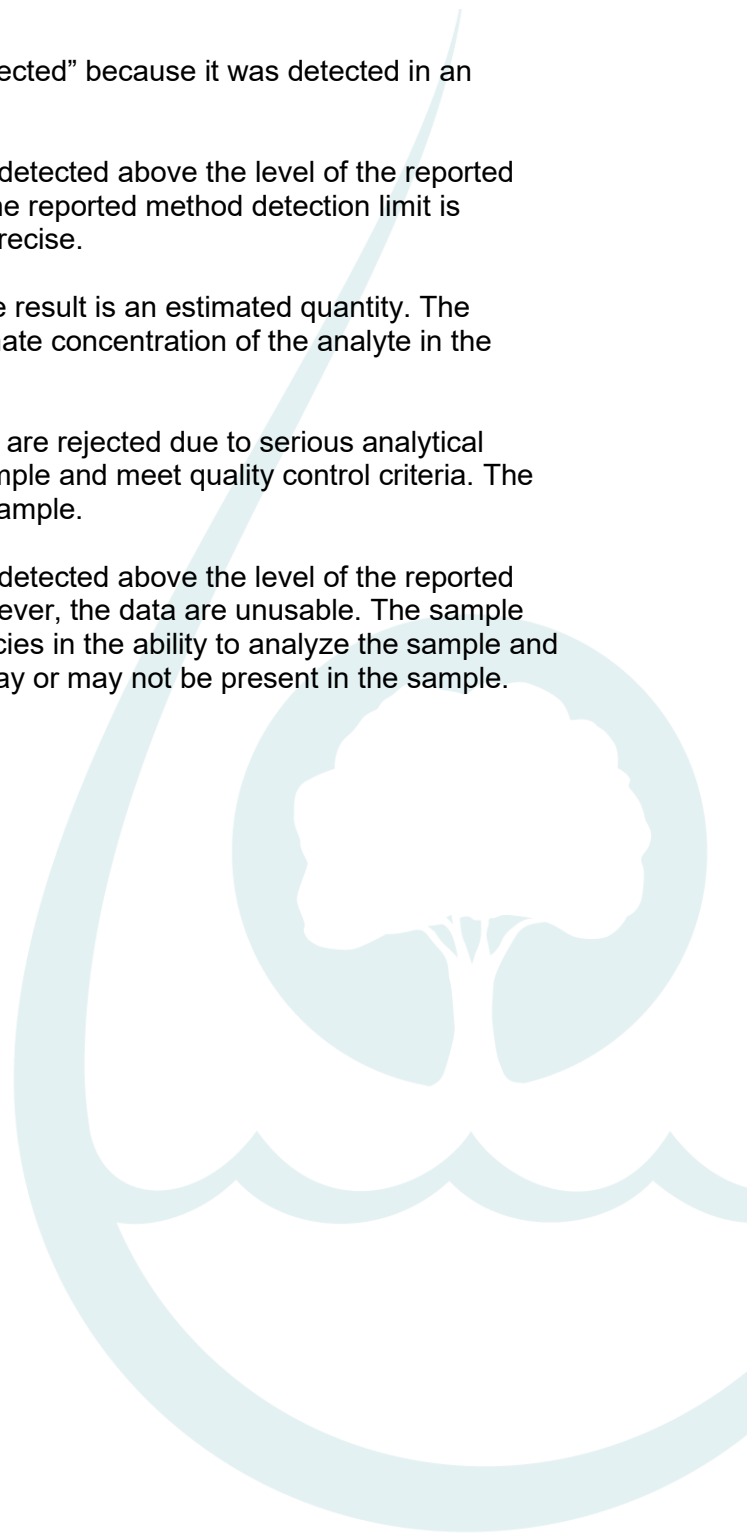
- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged "J".

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Report prepared by: Wendy Zhou, Quality Assurance Chemist  
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager  
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist  
 Date: 11/22/2022

## **INORGANIC DATA QUALIFIERS**

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U\* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



### Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

**Stage 2A Revised Data Verification Report  
Georgia Power  
McManus Fossil Plant  
Coal Combustion Residuals Project  
Groundwater Samples**

This revised quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 22 groundwater samples collected as part of the September 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Eurofins Environment Testing Southeast, LLC in Savannah, Georgia (Eurofins Savannah), and Pensacola, Florida (Eurofins Pensacola), and Eurofins Environment Testing Northeast, LLC in Pittsburgh, Pennsylvania (Eurofins Pittsburgh), for total and dissolved metals by SW-846 Method 6020B; for mercury by SW-846 Method 7470A; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, and sulfate) by US EPA Method 300.0; for total sulfide by SM 4500S2-F; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

## **Summary**

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 9/20/2022 and 9/21/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-18, MCM-19, MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, DR-01, DR-02, MCM-01, MCM-02, MCM-04, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, and PT-04D.

The following Eurofins inorganic SDG was evaluated as part of this QA review: 680-221504-1.

All data are considered usable as reported, or usable after integration of data validation qualifications.

## **Inorganic Data Review**

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

## **Comments and Exceptions**

1. During review, it was noted that all results for samples analyzed by SW-846 Method 6020B at Pace Pensacola (specifically, antimony, arsenic, iron, boron, chromium, and lead) were reported at a 5-fold dilution. Upon Environmental Standards' inquiry, the laboratory noted that Pace Pensacola uses a standard 5× dilution for all aqueous samples, including QC samples. Qualification of data due to this issue was not warranted.
2. During review, it was noted that several lithium results had been reported as "not-detected" from an analysis at a dilution. Upon Environmental Standards' inquiry, the laboratory indicated they observed interferences in the analysis of the samples as evidenced by failing internal standards or negative instrument readings greater than the



absolute value of the reporting limit. Due to these issues, which are not part of a standard Stage 2A review, the laboratory reanalyzed the samples at a dilution to mitigate the interferences. Qualification of data due to this issue was not warranted.

3. The laboratory issued a revised laboratory report on November 18, 2022, in order to correct several metals results that had been reported at a 50×, 100×, and 500× dilution. The laboratory had implemented updated control limits for internal standards; therefore, the 5× dilution analysis was able to be reported for these analytes. The data reviewer evaluated the updated metals results and applied qualification as required as addressed in the Overall Assessment of Data section.
4. The laboratory issued a second revised laboratory report on December 16, 2022, to correct the lithium results for samples MCM-06, MCM-20 and DUP-1. The lithium detection limits reported by Pace Pensacola did not meet the data quality objectives for the site, so the samples were subcontracted to Pace Pittsburgh for reanalysis. The laboratory reported both the Pace Pensacola initial analysis and Pace Pittsburgh reanalysis in the data package and electronic data deliverable (EDD) for these samples. The data reviewer evaluated the updated lithium results and applied qualification as required as addressed in the Overall Assessment of Data section.
5. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was ≤ 20% when both results were ≥ 5× the reporting limit [RL] or the difference between results was ≤ the RL when at least one results was < 5x the RL), with any exceptions noted below.

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
680-221504-1	MCM-06	DUP-1
680-221504-1	MCM-15	DUP-2

### **Overall Assessment of Data**

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
680-221504-1	MCM-01, MCM-16, MCM-04, MCM-05, MCM-07, MCM-11, MCM-14, and MCM-15	chromium	U*	BF – field blank contamination
680-221504-1	MCM-16	boron	U*	BF – field blank contamination
680-221504-1	MCM-01, MCM-02, MCM-04, MCM-05, and MCM-11	boron	U*	BL – laboratory blank contamination

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
680-221504-1	MCM-01, MCM-02, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, and MCM-17	selenium	UJ	M- – Low MS/MSD recoveries
680-221504-1	MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, DR-01, DR-02 and PT-04D	sulfide	J	M- – Low MS/MSD recoveries
680-221504-1	MCM-06	chloride	J	FD – Field duplicate imprecision

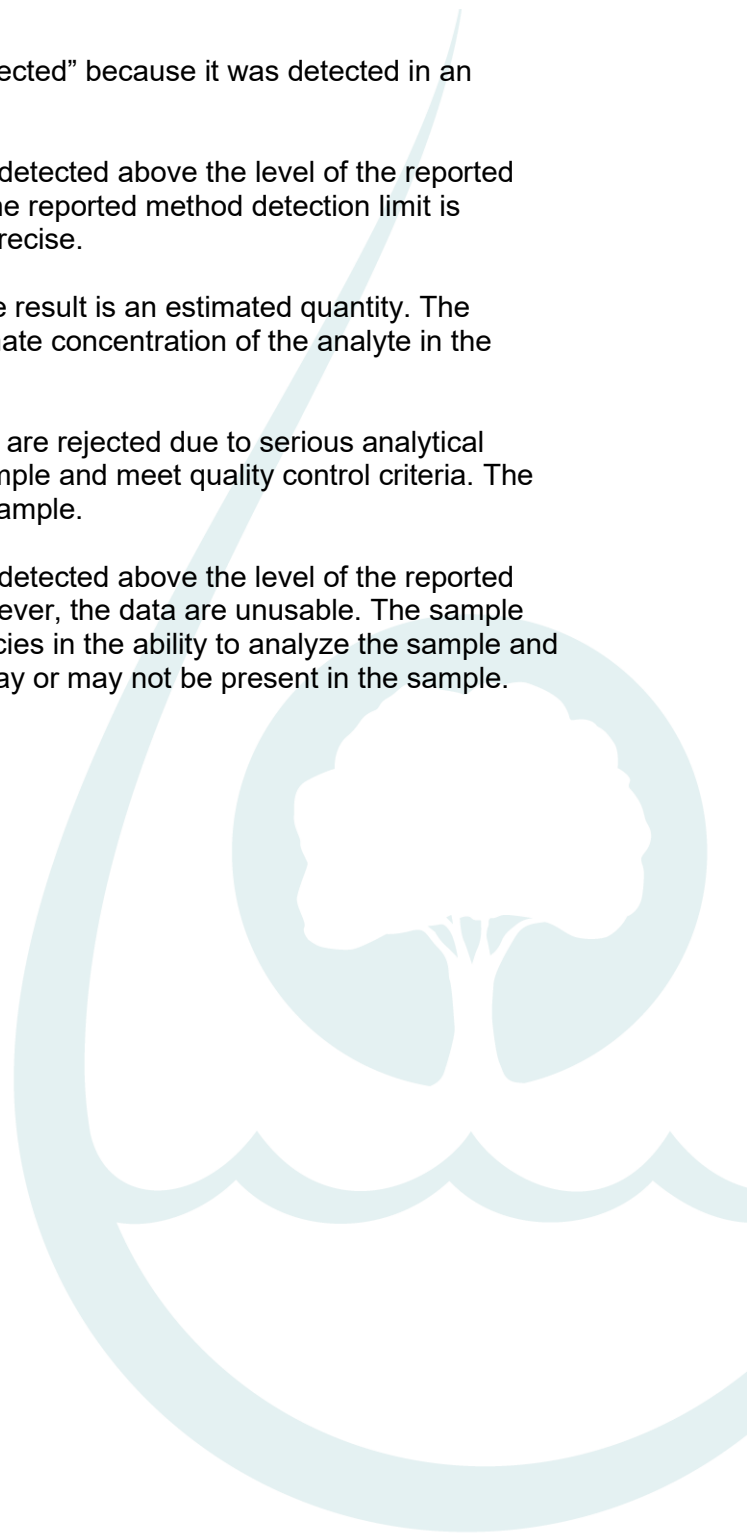
- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

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Report prepared by: Wendy Zhou, Senior Quality Assurance Chemist  
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager  
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist  
 Date: 12/28/2022

## **INORGANIC DATA QUALIFIERS**

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U\* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



**Stage 2A Data Verification Report  
Georgia Power  
McManus Fossil Plant  
Coal Combustion Residuals Project  
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 20 groundwater samples collected as part of the September 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by TestAmerica Laboratories, Inc. of Earth City, Missouri (Eurofins St. Louis), for radium-226 by SW-846 Method 9315, for radium-228 by SW-846 Method 9320, and for combined radium-226+228 by calculation.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SW-846 methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SW-846 methods utilized by the laboratory.

## **Summary**

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 9/20/2022 and 9/21/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-18, MCM-19, MCM-06, MCM-20, DPZ-2, PT-01, PT-02, PT-03, MCM-01, MCM-02, MCM-04, MCM-05, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, and PT-04D.

The following Eurofins radiological SDGs were evaluated as part of this QA review: 680-221504-2.

All data are considered usable as reported, or usable after integration of data validation qualifications.

## **Radiological Data Review**

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the radiological analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Chemical Yield

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

## **Comments and Exceptions**

1. The data validator applied qualification to combined radium-226+228 based upon the QC samples associated with the analyses of the individual isotopes, radium-226 and radium-228. The database only includes the laboratory results for the combined radium-226+228; therefore, qualification of the individual isotopes is not addressed in this QA review.

2. Combined radium-226+228 was reported as the summation of the calculated activities for radium-226 and radium-228. As consistent with routine radiological reporting conventions, negative activities were reported for the radium-226 and radium-228 analyses. These negative activities were used in the calculation of combined radium-226+228 activity; therefore, it is possible for the combined radium-226+228 to be less than one of the individual isotopes.
3. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the higher of the MDCs for radium-226 and radium-228. Consequently, there may be instances where a detection was observed in one of the individual isotopes, but the combined radium-226+228 result was reported as “not-detected” due to the laboratory’s reporting convention for combined radium-226+228.
4. The combined radium-226+228 result uncertainty was reported using the routine statistical uncertainty reporting conventions as the root sum square (RSS; the square root of the sum of the squared individual uncertainties).
5. The following field duplicate pairs (see table) were submitted and analyzed for radiological parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the replicate error ratio [RER] < 3), with any exceptions noted below.

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
680-221504-2	MCM-06	DUP-1
680-221504-2	MCM-15	DUP-2

### Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
680-221504-2	MCM-02	combined radium-226+228	U*	BE – equipment blank contamination BF – field blank contamination
680-221504-2	MCM-11	combined radium-226+228	U*	BE – equipment blank contamination
680-221504-2	MCM-06 and PT-03	combined radium-226+228	J	BF – field blank contamination
680-221504-2	MCM-04, MCM-12, MCM-16, and PT-04D	combined radium-226+228	J	BL – lab blank contamination

- All radiological results reported below the MDC have been flagged “U.”

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Report prepared by: Wendy Zhou, Quality Assurance Chemist  
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager  
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist  
 Date: 11/23/2022



## **INORGANIC DATA QUALIFIERS**

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U\* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

### Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

### Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

**Stage 2A Data Verification Report  
Georgia Power  
McManus Fossil Plant  
Coal Combustion Residuals Project  
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 22 groundwater samples collected as part of the March 2023 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by GEL Laboratories, LLC (GEL) in Charleston, South Carolina, for total metals by SW-846 6020B; for mercury by SW-846 Method 7470A; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, and sulfate) by US EPA Method 300.0; for alkalinity by SM 2320B; for total radium-226 by SW-846 Method 9315, for total radium-228 by SW-846 Method 9320, and for combined radium-226+228 by calculation.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

## **Summary**

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 2/28/23 through 3/2/23 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-DPZ-02, MCM-DR-01, MCM-DR-02, MCM-MCM-01, MCM-MCM-02, MCM-MCM-04, MCM-MCM-05, MCM-MCM-06, MCM-MCM-07, MCM-MCM-11, MCM-MCM-12, MCM-MCM-14, MCM-MCM-15, MCM-MCM-16, MCM-MCM-17, MCM-MCM-18, MCM-MCM-19, MCM-MCM-20, MCM-PT-01, MCM-PT-02, MCM-PT-03, and MCM-PT-04D.

The following GEL inorganic SDG was evaluated as part of this QA review: 613002.

The following GEL radiological SDG was evaluated as part of this QA review: 613016.

All data are considered usable as reported, or usable after integration of data validation qualifications.



### **Inorganic and Radiological Data Review**

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic and radiological analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Chemical yield
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

### **Comments and Exceptions**

1. The data validator applied qualification to combined radium-226+228 based upon the QC samples associated with the analyses of the individual isotopes, radium-226 and radium-228. The database only includes the laboratory results for the combined radium-226+228; therefore, qualification of the individual isotopes is not addressed in this QA review.
2. Combined radium-226+228 was reported as the summation of the calculated activities for radium-226 and radium-228. As consistent with routine radiological reporting conventions, negative activities were reported for the radium-226 and radium-228 analyses; however, all negative activities were entered as zero in the calculation of combined radium-226+228 activity.
3. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the summation of the MDCs for radium-226 and radium-228. Consequently, there may be instances where a detection was observed in one of the individual isotopes but the combined radium-226+228 result was reported as “not-detected” due to the laboratory’s reporting convention for combined radium-226+228.
4. The combined radium-226+228 result uncertainty was reported using the routine statistical uncertainty reporting conventions as the root sum square (RSS; the square root of the sum of the squared individual uncertainties).
5. The following field duplicate pairs (see table) were submitted and analyzed for inorganic and radiological parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was  $\leq 20\%$  when both

results were  $\geq 5\times$  the reporting limit [RL], the difference between results was  $\leq$  the RL when at least one result was  $< 5\times$  the RL, or replicate error ratio [RER] was  $< 3$ ).

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
613002 613016	MCM-MCM-18	MCM-AP1-FD-01
613002 613016	MCM-MCM-15	MCM-AP1-FD-02

### Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG(s)</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason(s) for Qualification</u>
613002	MCM-DPZ-02, MCM-MCM-01, MCM-MCM-05, MCM-MCM-06, MCM-MCM-07, MCM-MCM-12, MCM-MCM-15, MCM-MCM-16, and MCM-MCM-17	molybdenum	U*	BL – Method blank contamination
613002	MCM-DPZ-02, MCM-MCM-05, MCM-MCM-07, MCM-MCM-14, and MCM-MCM-15	arsenic	U*	BE – Equipment blank contamination BF – Field blank contamination
613016	MCM-MCM-06 and MCM-MCM-12	combined radium-226+228	U*	BE – Equipment blank contamination
613002	MCM-MCM-18, MCM-MCM-02, MCM-MCM-11	total alkalinity and bicarbonate alkalinity	J	BF – Field blank contamination
613002	MCM-MCM-01, MCM-MCM-15, MCM-MCM-04, MCM-MCM-16	total alkalinity and bicarbonate alkalinity	J	BE – Equipment blank contamination BF – Field blank contamination
613016	MCM-MCM-05, MCM-MCM-07, and MCM-MCM-14	combined radium-226+228	J	BE – Equipment blank contamination
613016	MCM-MCM-04	combined radium-226+228	J	BE – Equipment blank contamination BF – Field blank contamination



<u>Laboratory SDG(s)</u>	<u>Sample(s)</u>	<u>Analyte(s)</u>	<u>Qualifier</u>	<u>Reason(s) for Qualification</u>
613002	MCM-DPZ-02, MCM-DR-01, MCM-DR-02, MCM-MCM-17, MCM-MCM-18, MCM-MCM-19, MCM-MCM-20, MCM-PT-03 and MCM-PT-04D	total dissolved solids	J	LD – Laboratory duplicate imprecision
613016	MCM-MCM-01, MCM-MCM-02, MCM-MCM-04, MCM-MCM-05, MCM-MCM-06, MCM-MCM-07, MCM-MCM-11, MCM-MCM-12, MCM-MCM-14, MCM-MCM-15, MCM-MCM-16, and MCM-MCM-17	combined radium-226+228	J/UJ (unless previously flagged (“U*))	L- – Low LCS Recovery
613002	MCM-DR-02	total sulfide	J	M+ – High MS/MSD recoveries
613016	MCM-MCM-15	combined radium-226+228	J	FD – Field duplicate imprecision

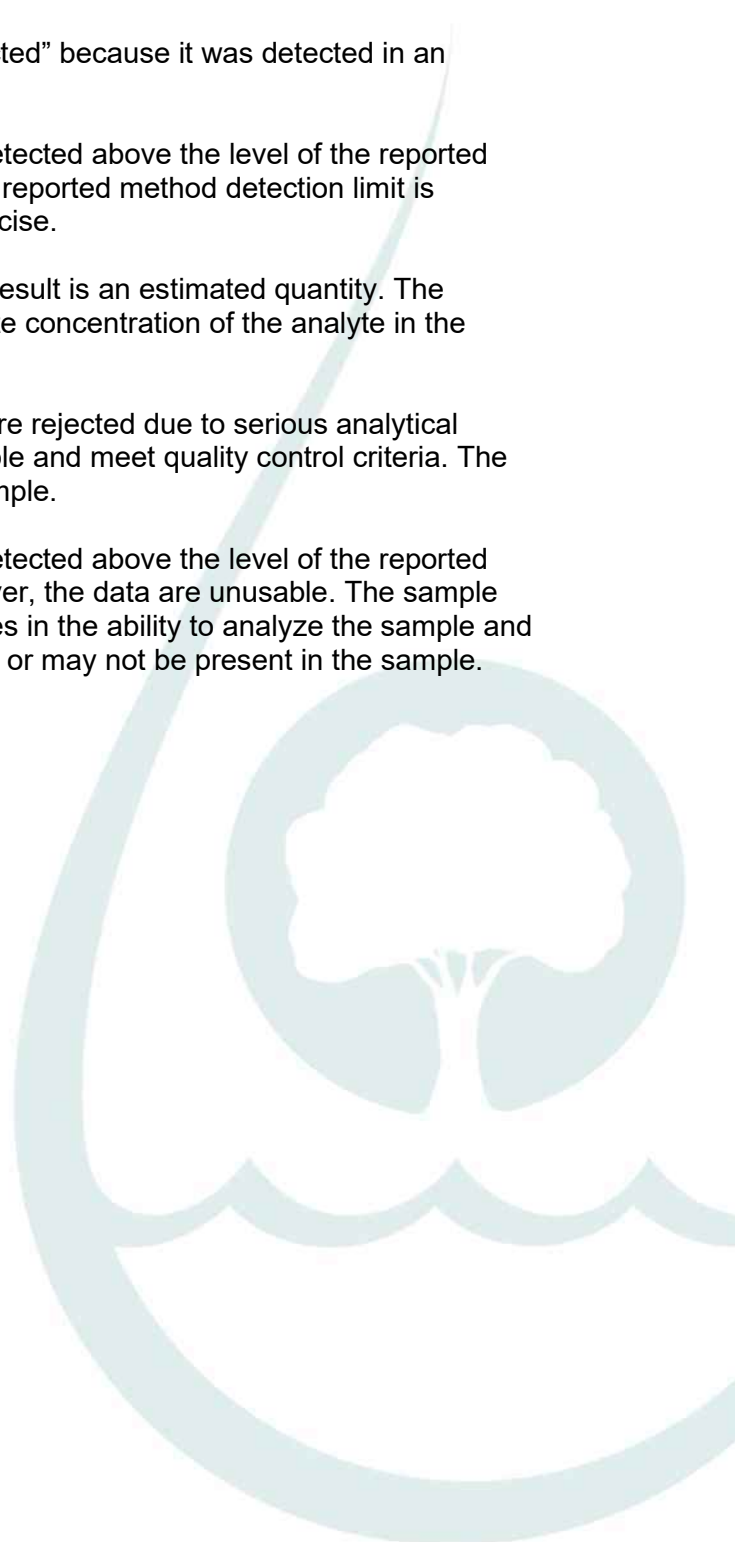
- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J” (unless previously qualified “U\*”).
- All radiological results reported below the MDC have been flagged “U.”

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Report prepared by: Wendy Zhou, Quality Assurance Chemist  
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager  
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist  
 Date: 4/20/2023

## **INORGANIC DATA QUALIFIERS**

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U\* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



### Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

**Stage 2A Data Verification Report  
Georgia Power  
McManus Fossil Plant  
Coal Combustion Residuals Project  
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the nine groundwater samples collected as part of the June 2023 supplemental sampling event at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by GEL Laboratories, LLC in Charleston, South Carolina, for total and dissolved metals by SW-846 Method 6020B; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, sulfate, and/or nitrate) by US EPA Method 300.0; for total sulfide by SM 4500-S<sup>2</sup>-D; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

## **Summary**

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected on 6/13/2023 and 6/14/2023 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-MCM-20, MCM-DPZ-02, MCM-PT-04D, MCM-MCM-06, MCM-PT-01, MCM-PT-02, MCM-PT-03, MCM-DR-01, and MCM-DR-02

The following GEL inorganic SDG was evaluated as part of this QA review: 626209.

All data are considered usable as reported, or usable after integration of data validation qualifications.



## Inorganic Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Total and dissolved result precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

## Comments and Exceptions

1. According to the project correspondence included in the analytical report, sample MCM-PT-01 was received at the laboratory with insufficient preservation to maintain a pH > 9. The laboratory was instructed to analyze the sample on an as-received basis by Resolute Environmental. Qualification of data due to this issue is addressed in the Overall Assessment of Data section below.
2. In the anion fraction, samples MCM-MCM-20, MCM-DPZ-02, and MCM-PT-04D required reanalysis at a dilution for nitrate. Although the initial analysis was performed within holding time, this reanalysis was performed 14-15 hours outside of the method-required 48-hour holding time from collection to analysis. Qualification of data due to this issue is addressed in the Overall Assessment of Data section below.
3. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was  $\leq 20\%$  when both results were  $\geq 5\times$  the reporting limit [RL] or the difference between results was  $\leq$  the RL when at least one result was  $< 5\times$  the RL).

<u>Laboratory SDG(s)</u>	<u>Sample</u>	<u>Field Duplicate</u>
626209	MCM-MCM-06	MCM-AP1-FD-01

**Overall Assessment of Data**

Based on a review of the data, qualification of data was warranted as noted below.

<u>Laboratory SDG</u>	<u>Sample(s)</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>Reason for Qualification</u>
626209	MCM-PT-01	total sulfide	UJ	Q – Chemical preservation issue
626209	MCM-MCM-20, MCM-DPZ-02, and MCM-PT-04D	nitrate	UJ	H – Holding time exceeded

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

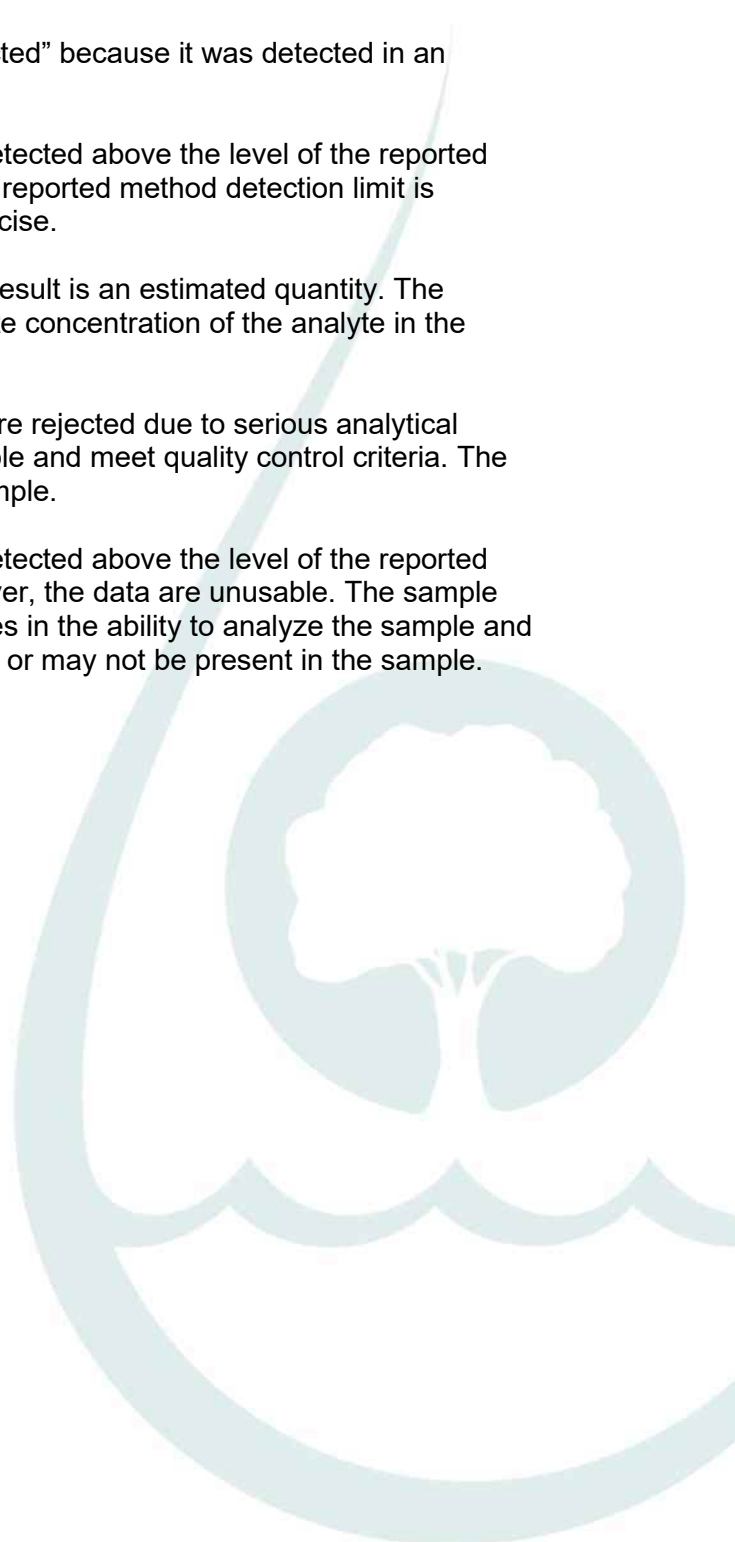
---

Report prepared by: Wendy Zhou, Quality Assurance Chemist  
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager  
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist  
 Date: 7/7/2023



## **INORGANIC DATA QUALIFIERS**

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U\* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



### Reason Codes and Explanations

Reason Code	Explanation
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
C	Initial and/or continuing calibration issue, indeterminate bias.
C+	Initial and/or continuing calibration issue. The result may be biased high.
C-	Initial and/or continuing calibration issue. The result may be biased low.
FD	Field duplicate imprecision.
FG	Total versus dissolved imprecision.
H	Holding time exceeded.
I	Internal standard recovery outside of acceptance limits.
L	LCS and LCSD recoveries outside of acceptance limits, indeterminate bias.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits, indeterminate bias.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
MP	MS/MSD imprecision.
P	Post-digestion spike recoveries outside of acceptance limits, indeterminate bias.
P+	Post-digestion spike recovery outside of acceptance limits. The result may be biased high.
P-	Post-digestion spike recovery outside of acceptance limits. The result may be biased low.
Q	Chemical preservation issue.
R	RL standards outside of acceptance limits, indeterminate bias.
R+	RL standard(s) outside of acceptance limits. The result may be biased high.
R-	RL standard(s) outside of acceptance limits. The result may be biased low.
T	Temperature preservation issue.
SD	Serial dilution imprecision.
Y	Chemical yields outside of acceptance limits, indeterminate bias.
Y+	Chemical yield(s) outside of acceptance limits. The result may be biased high.
Y-	Chemical yield(s) outside of acceptance limits. The result may be biased low.
ZZ	Other

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>Meredith Duncan</b>	Date: <b>6/28/22</b>	Time (Calibration): <b>0915</b>	Time (Mid-day Check):
AquaTroll SN: <b>893479</b>	Turbidity Meter Type: <b>7042-3818</b>	SN:	
Flowrate:	Weather Conditions: <b>Hot 90°</b>		

**Calibration Log**

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt. 100% water saturated air sat)				<b>103.16</b>	
Specific Conductance (µS/cm)	<b>21470032 04/23</b>	<b>31.13</b>	<b>4490</b>	<b>4362.3</b>	
pH (4)	<b>21470032 04/24</b>	<b>31.15</b>	<b>4</b>	<b>3.91</b>	
pH (7)	<b>21380102 04/23</b>	<b>30.32</b>	<b>7</b>	<b>6.80</b>	
pH (10)	<b>20080056 04/23</b>	<b>29.93</b>	<b>10</b>	<b>9.73</b>	
ORP (mV)	<b>21140143 04/23</b>	<b>29.87</b>	<b>228</b>	<b>221.3</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	<b>0</b>	<b>0.01</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 1 NTU	<b>1</b>	<b>1.02</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 10 NTU	<b>10</b>	<b>9.63</b>	<b>±0.5 NTU</b>	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<b>31.15</b>	<b>4</b>	<b>4.23</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (7) check	<b>31.03</b>	<b>7</b>	<b>7.28</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (10) check	<b>31.15</b>	<b>10</b>	<b>10.26</b>	<b>±0.1 SU</b>	Yes	No	

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>Meredith Duncan</b>	Date: <b>6/29/22</b>	Time (Calibration): <b>0825</b>	Time (Mid-day Check): <b>1050</b>
AquaTroll SN: <b>893479</b>	Turbidity Meter Type: <b>la motte</b>	SN: <b>7042-3818</b>	
Project:	Weather Conditions:		

**Calibration Log**

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt. 100% water saturated air sat)				99.97	
Specific Conductance (µS/cm)	21470032 04/23	28.39	4490	4432.9	
pH (4)	21470032 04/24	28.95	4	3.82	
pH (7)	21380102 04/23	28.72	7	6.72	
pH (10)	20080056 04/23	21.63	10	9.67	
ORP (mV)	21140143 04/23	27.67	228	226.5	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.12	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	10.38	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	30.73	4	4.18	±0.1 SU	Yes	No	
Mid-Day pH (7) check	30.70	7	7.25	±0.1 SU	Yes	No	
Mid-Day pH (10) check	31.64	10	10.17	±0.1 SU	Yes	No	

## EQUIPMENT CALIBRATION LOG

Field Technician: <b>Robert Mull</b>	Date: <b>6/28/22</b>	Time (calibration): <b>1330</b>	<b>1624</b>
ApnaTroll SN: <b>789310</b>	Turbidity Meter Type: <b>LaMotte 2000c</b> SN:		
Project: <b>M/Menus</b>	Weather Conditions: <b>Sunny, 95°F</b>		

### Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (Typ. 100% water saturated air sat)				<b>105.19%</b>	
Specific Conductance (µS/cm)	21070193 8/22	<b>33.59</b>	4490	<b>4813.7</b>	
pH (4)	21070193 8/22	<b>33.91</b>	4	<b>4.03</b>	
pH (7)	21010066 8/22	<b>35.21</b>	7	<b>7.05</b>	
pH (10)	21080189 6/22	<b>36.91</b>	10	<b>10.01</b>	
ORP (mV)	21140141 8/22	<b>36.02</b>	228	<b>28.7</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity @ NTU	0	<b>0.14</b>	±0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Turbidity 1 NTU	1	<b>1.10</b>	±0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Turbidity 10 NTU	10	<b>9.66</b>	±0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<b>33.61</b>	4	<b>4.25</b>	±0.1 BU	Yes	No	
Mid-Day pH (7) check	<b>33.34</b>	7	<b>7.25</b>	±0.1 BU	Yes	No	
Mid-Day pH (10) check	<b>36.73</b>	10	<b>10.24</b>	±0.1 BU	Yes	No	

EQUIPMENT CALIBRATION LOG

Technician: <b>William Laaker</b>	Date: <b>6/28/22</b>	Time: <b>13:42</b>
Roll SN: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>4429-4417</b>
Project: <b>June 2022 Sampling</b>	Weather Conditions: <b>89°/76° sunny</b>	

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) Epi. 100% water saturated air sat.				114.16	
Specific Conductance (µS/cm)	21070193 8/22	34.78	4490	4440.8	
pH (4)	21070193 8/22	34.54	4	4.04	
pH (7)	21010066 8/22	33.24	7	6.98	
pH (10)	21080189 6/22	33.06	10	10.25	
ORP (mV)	21140141 8/22	32.74	228	218.1	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	0	0.00	±0.1 NTU	Yes / No	
Turbidity 1 NTU	1	0.91	±0.1 NTU	Yes / No	
Turbidity 10 NTU	10	9.67	±0.5 NTU	Yes / No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	31.87	4	4.10	±0.1 SU	Yes / No	
Mid-Day pH (7) check	31.96	7	7.15	±0.1 SU	Yes / No	
Mid-Day pH (10) check	32.11	10	10.12	±0.1 SU	Yes / No	

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 11:16:08 AM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> DPZ-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 5 ft <b>Top of Screen:</b> 30.5 ft <b>Total Depth:</b> 40.5 ft <b>Initial Depth to Water:</b> 6.86 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 35.5 ft <b>Estimated Total Volume Pumped:</b> 2880 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> 0.09 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 5L  
Sulfur smell

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 11:16 AM	00:00	7.16 pH	24.83 °C	22,039 µS/cm	0.16 mg/L	3.33 NTU	-206.4 mV	6.86 ft	180.00 ml/min
6/28/2022 11:20 AM	04:00	7.10 pH	24.88 °C	22,363 µS/cm	0.13 mg/L	1.09 NTU	-198.6 mV	6.89 ft	180.00 ml/min
6/28/2022 11:24 AM	08:00	7.09 pH	24.79 °C	22,419 µS/cm	0.12 mg/L	0.81 NTU	-196.8 mV	6.90 ft	180.00 ml/min
6/28/2022 11:28 AM	12:00	7.08 pH	24.75 °C	22,775 µS/cm	0.12 mg/L	1.15 NTU	-195.0 mV	6.93 ft	180.00 ml/min
6/28/2022 11:32 AM	16:00	7.09 pH	24.98 °C	23,014 µS/cm	0.11 mg/L	1.02 NTU	-193.8 mV	6.95 ft	180.00 ml/min

## Samples

Sample ID:	Description:
DPZ-02	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide



# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 1:50:38 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-04D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.85 ft <b>Total Depth:</b> 40.85 ft <b>Initial Depth to Water:</b> 5.75 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 35.85 ft <b>Estimated Total Volume Pumped:</b> 3200 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 200 ml/min <b>Final Draw Down:</b> 0.08 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 3L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 1:50 PM	00:00	7.28 pH	25.21 °C	20,456 µS/cm	0.18 mg/L	1.39 NTU	-195.1 mV	5.75 ft	200.00 ml/min
6/28/2022 1:54 PM	04:00	7.25 pH	24.82 °C	20,602 µS/cm	0.14 mg/L	1.08 NTU	-189.1 mV	5.79 ft	200.00 ml/min
6/28/2022 1:58 PM	08:00	7.24 pH	24.76 °C	20,565 µS/cm	0.12 mg/L	0.78 NTU	-189.3 mV	5.80 ft	200.00 ml/min
6/28/2022 2:02 PM	12:00	7.24 pH	24.61 °C	20,506 µS/cm	0.11 mg/L	0.92 NTU	-188.8 mV	5.81 ft	200.00 ml/min
6/28/2022 2:06 PM	16:00	7.23 pH	24.53 °C	20,551 µS/cm	0.10 mg/L	0.88 NTU	-188.4 mV	5.83 ft	200.00 ml/min

## Samples

Sample ID:	Description:
PT-04D	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 2:26:22 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Robert Mull

<b>Location Name:</b> PT-03 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 15.36 ft <b>Total Depth:</b> 25.36 ft <b>Initial Depth to Water:</b> 5.45 ft	<b>Pump Type:</b> Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 20.36 ft <b>Estimated Total Volume Pumped:</b> 3133.333 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 200 ml/min <b>Final Draw Down:</b> 0.14 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789310
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**Test Notes:**  
Prepurged 1L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	
6/28/2022 2:26 PM	00:00	6.77 pH	27.39 °C	5,377.8 µS/cm	0.51 mg/L	9.17 NTU	11.8 mV	5.53 ft	200.00 ml/min
6/28/2022 2:26 PM	00:26	6.78 pH	27.00 °C	5,462.4 µS/cm	0.49 mg/L	9.17 NTU	5.1 mV	5.53 ft	200.00 ml/min
6/28/2022 2:30 PM	03:40	6.81 pH	26.13 °C	5,502.2 µS/cm	0.25 mg/L	3.42 NTU	-32.2 mV	5.56 ft	200.00 ml/min
6/28/2022 2:34 PM	07:40	6.83 pH	25.81 °C	5,513.9 µS/cm	0.16 mg/L	2.48 NTU	-54.6 mV	5.57 ft	200.00 ml/min
6/28/2022 2:38 PM	11:40	6.84 pH	25.54 °C	5,529.5 µS/cm	0.11 mg/L	2.34 NTU	-65.1 mV	5.58 ft	200.00 ml/min
6/28/2022 2:42 PM	15:40	6.85 pH	25.45 °C	5,531.9 µS/cm	0.09 mg/L	1.94 NTU	-70.6 mV	5.59 ft	200.00 ml/min

## Samples

Sample ID:	Description:
PT-03	Total metals, diss metals, tds, inorganics, Alkalinity, sulfide
DUP-1	Total metals, diss metals, tds, inorganics, Alkalinity, sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 2:31:49 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** William Laaker

<b>Location Name:</b> DR-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 15.58 ft <b>Total Depth:</b> 30.58 ft <b>Initial Depth to Water:</b> 5.6 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 23.08 ft <b>Estimated Total Volume Pumped:</b> 2400 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 0.08 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789301
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**Test Notes:**  
Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/28/2022 2:31 PM	00:00	7.00 pH	27.10 °C	10,413 µS/cm	0.16 mg/L	3.28 NTU	-102.8 mV	5.63 ft	5.97 PSU	150.00 ml/min
6/28/2022 2:35 PM	04:00	7.02 pH	26.88 °C	10,477 µS/cm	0.12 mg/L	3.22 NTU	-105.7 mV	5.64 ft	6.01 PSU	150.00 ml/min
6/28/2022 2:39 PM	08:00	7.06 pH	26.69 °C	10,550 µS/cm	0.10 mg/L	3.29 NTU	-109.2 mV	5.66 ft	6.05 PSU	150.00 ml/min
6/28/2022 2:43 PM	12:00	7.07 pH	26.60 °C	10,643 µS/cm	0.09 mg/L	2.10 NTU	-111.7 mV	5.67 ft	6.11 PSU	150.00 ml/min
6/28/2022 2:47 PM	16:00	7.08 pH	26.41 °C	10,637 µS/cm	0.08 mg/L	1.82 NTU	-112.8 mV	5.68 ft	6.11 PSU	150.00 ml/min

## Samples

Sample ID:	Description:
DR-01	Total metals, Diss. Metals, Inorganics, TDS, Alkalinity, Sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 3:12:59 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Meredith Duncan

<b>Location Name: PT-01</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14.38 ft</b> <b>Total Depth: 24.38 ft</b> <b>Initial Depth to Water: 5.86 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 19.38 ft</b> <b>Estimated Total Volume Pumped: 7040 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 220 ml/min</b> <b>Final Draw Down: 0.07 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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**Test Notes:**  
 Prepurge 3L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/28/2022 3:12 PM	00:00	7.27 pH	25.15 °C	8,760.8 µS/cm	0.07 mg/L	2.65 NTU	-208.9 mV	5.86 ft	220.00 ml/min
6/28/2022 3:16 PM	04:00	7.25 pH	24.99 °C	8,906.1 µS/cm	0.05 mg/L	2.50 NTU	-198.2 mV	5.87 ft	220.00 ml/min
6/28/2022 3:20 PM	08:00	7.23 pH	24.98 °C	8,998.2 µS/cm	0.04 mg/L	3.15 NTU	-196.7 mV	5.88 ft	220.00 ml/min
6/28/2022 3:24 PM	12:00	7.23 pH	24.93 °C	9,728.6 µS/cm	0.03 mg/L	3.38 NTU	-195.5 mV	5.89 ft	220.00 ml/min
6/28/2022 3:28 PM	16:00	7.24 pH	24.89 °C	10,609 µS/cm	0.03 mg/L	3.05 NTU	-199.4 mV	5.90 ft	220.00 ml/min
6/28/2022 3:32 PM	20:00	7.25 pH	24.90 °C	10,737 µS/cm	0.03 mg/L	2.77 NTU	-200.2 mV	5.91 ft	220.00 ml/min
6/28/2022 3:36 PM	24:00	7.25 pH	24.88 °C	10,798 µS/cm	0.03 mg/L	2.76 NTU	-199.9 mV	5.91 ft	220.00 ml/min
6/28/2022 3:40 PM	28:00	7.24 pH	24.95 °C	10,793 µS/cm	0.02 mg/L	2.64 NTU	-200.3 mV	5.92 ft	220.00 ml/min
6/28/2022 3:44 PM	32:00	7.24 pH	24.93 °C	10,851 µS/cm	0.02 mg/L	2.58 NTU	-200.6 mV	5.93 ft	220.00 ml/min

## Samples

Sample ID:	Description: T
PT-01	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 3:29:12 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** William Laaker

<b>Location Name: MCM-06</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.2 ft</b> <b>Total Depth: 27.2 ft</b> <b>Initial Depth to Water: 8.27 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.2 ft</b> <b>Estimated Total Volume Pumped: 4680 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 0.13 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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**Test Notes:**  
Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/28/2022 3:29 PM	00:00	7.12 pH	27.28 °C	8,564.8 µS/cm	0.09 mg/L	9.73 NTU	-115.2 mV	8.38 ft	4.84 PSU	190.00 ml/min
6/28/2022 3:33 PM	04:00	7.16 pH	26.94 °C	8,219.1 µS/cm	0.06 mg/L	10.13 NTU	-111.4 mV	8.38 ft	4.63 PSU	190.00 ml/min
6/28/2022 3:37 PM	08:00	7.16 pH	27.24 °C	8,615.8 µS/cm	0.05 mg/L	10.39 NTU	-114.6 mV	8.38 ft	4.87 PSU	190.00 ml/min
6/28/2022 3:41 PM	12:00	7.23 pH	27.58 °C	9,573.9 µS/cm	0.04 mg/L	5.39 NTU	-120.0 mV	8.38 ft	5.45 PSU	150.00 ml/min
6/28/2022 3:45 PM	16:00	7.26 pH	27.51 °C	9,859.4 µS/cm	0.05 mg/L	3.19 NTU	-125.1 mV	8.38 ft	5.63 PSU	150.00 ml/min
6/28/2022 3:49 PM	20:00	7.28 pH	27.52 °C	9,897.3 µS/cm	0.04 mg/L	3.23 NTU	-127.9 mV	8.39 ft	5.65 PSU	150.00 ml/min
6/28/2022 3:53 PM	24:00	7.28 pH	27.42 °C	9,911.5 µS/cm	0.04 mg/L	2.00 NTU	-129.6 mV	8.39 ft	5.66 PSU	150.00 ml/min
6/28/2022 3:57 PM	28:00	7.28 pH	27.42 °C	9,973.0 µS/cm	0.04 mg/L	1.70 NTU	-129.8 mV	8.40 ft	5.70 PSU	150.00 ml/min

## Samples

Sample ID:	Description:
MCM-06	Total metals, Diss. Metals, Inorganics, TDS, Alkalinity, Sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/28/2022 3:36:58 PM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Robert Mull

<b>Location Name:</b> DR-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 15.03 ft <b>Total Depth:</b> 30.03 ft <b>Initial Depth to Water:</b> 5.68 ft	<b>Pump Type:</b> Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 22.53 ft <b>Estimated Total Volume Pumped:</b> 4500 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 225 ml/min <b>Final Draw Down:</b> 0.07 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789310
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**Test Notes:**  
Prepurged 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	
6/28/2022 3:36 PM	00:00	7.58 pH	25.56 °C	9,700.7 µS/cm	0.11 mg/L	2.05 NTU	-151.7 mV	5.71 ft	225.00 ml/min
6/28/2022 3:40 PM	04:00	7.64 pH	25.04 °C	10,002 µS/cm	0.08 mg/L	1.72 NTU	-156.2 mV	5.73 ft	225.00 ml/min
6/28/2022 3:44 PM	08:00	7.64 pH	24.68 °C	9,988.0 µS/cm	0.06 mg/L	1.82 NTU	-158.5 mV	5.73 ft	225.00 ml/min
6/28/2022 3:48 PM	12:00	7.61 pH	24.54 °C	9,962.2 µS/cm	0.05 mg/L	1.84 NTU	-163.4 mV	5.74 ft	225.00 ml/min
6/28/2022 3:52 PM	16:00	7.62 pH	24.39 °C	10,169 µS/cm	0.05 mg/L	1.82 NTU	-164.5 mV	5.75 ft	225.00 ml/min
6/28/2022 3:56 PM	20:00	7.68 pH	24.34 °C	10,475 µS/cm	0.04 mg/L	1.66 NTU	-167.9 mV	5.75 ft	225.00 ml/min

## Samples

Sample ID:	Description:
DR-02	Total metals, diss metals, TDS, Inorganics, alkalinity, sulfide

# Low-Flow Test Report:

**Test Date / Time:** 6/29/2022 9:20:19 AM  
**Project:** June 2022 Remedy Well Sampling  
**Operator Name:** Meredith Duncan

<b>Location Name: PT-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14.38 ft</b> <b>Total Depth: 24.38 ft</b> <b>Initial Depth to Water: 4.6 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 19.38 ft</b> <b>Estimated Total Volume Pumped: 6400 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.13 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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**Test Notes:**  
 Prepurge 1L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/29/2022 9:20 AM	00:00	7.22 pH	25.95 °C	6,632.8 µS/cm	0.21 mg/L	6.29 NTU	-164.1 mV	4.60 ft	200.00 ml/min
6/29/2022 9:24 AM	04:00	7.23 pH	25.37 °C	6,697.2 µS/cm	0.14 mg/L	5.28 NTU	-159.0 mV	4.57 ft	200.00 ml/min
6/29/2022 9:28 AM	08:00	7.24 pH	25.20 °C	6,733.8 µS/cm	0.11 mg/L	3.37 NTU	-157.9 mV	4.55 ft	200.00 ml/min
6/29/2022 9:32 AM	12:00	7.31 pH	25.06 °C	8,400.8 µS/cm	0.09 mg/L	2.97 NTU	-171.3 mV	4.54 ft	200.00 ml/min
6/29/2022 9:36 AM	16:00	7.33 pH	25.06 °C	8,927.2 µS/cm	0.08 mg/L	2.48 NTU	-177.9 mV	4.52 ft	200.00 ml/min
6/29/2022 9:40 AM	20:00	7.34 pH	24.82 °C	8,930.2 µS/cm	0.08 mg/L	2.15 NTU	-178.1 mV	4.51 ft	200.00 ml/min
6/29/2022 9:44 AM	24:00	7.34 pH	24.98 °C	8,917.7 µS/cm	0.07 mg/L	1.93 NTU	-179.1 mV	4.50 ft	200.00 ml/min
6/29/2022 9:48 AM	28:00	7.34 pH	25.05 °C	8,892.2 µS/cm	0.07 mg/L	1.55 NTU	-179.8 mV	4.48 ft	200.00 ml/min
6/29/2022 9:52 AM	32:00	7.34 pH	24.96 °C	8,848.0 µS/cm	0.07 mg/L	2.05 NTU	-179.8 mV	4.47 ft	200.00 ml/min

## Samples

Sample ID:	Description: T
PT-02	Total Metals, Diss. Metals, TDS, Inorganics, Alkalinity, Sulfide

EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 9/20/22	Time (Calibration): 0745	Time (Mid-day Check): 1730
AquaTroll SN: 893479	Turbidity Meter Type: la Motte		SN: 9429-4417
Project: McManus GW	Weather Conditions: 75° Foggy		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				100.85	
Specific Conductance (µS/cm)	21470032 04/23	23.82	4490	4494.3	
pH (4)	21470032 04/23	23.92	4	4.04	
pH (7)	21380102 04/23	24.07	7	7.03	
pH (10)	20080056 04/23	24.12	10	10.10	
ORP (mV)	21140143 04/23	24.10	228	225.6	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	0	0.00	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU	1	1.06	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU	10	9.64	+/- 0.5 NTU	Yes No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	30.64	4	4.22	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	30.89	7	7.25	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check	31.73	10	10.19	+/- 0.1 SU	Yes No	



## EQUIPMENT CALIBRATION LOG

Field Technician: <b>Kevin Stephenson</b>	Date: <b>9/20/22</b>	Time Calibration: <b>10:14</b>	Time (Mid-day Check): <b>16:48</b>
Aqua Troll SN: <b>789317</b>	Turbidity Meter Type: <b>1-11-11 2020</b>	SN: <b>2000-0310</b>	
Project: <b>2022 Sept. Semi-annual Sample</b>	Weather Conditions: <b>90% 68° 30%</b>		

### Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrumental Reading at Calibration	Comments
DO (%) (Tpt. 100% water saturated air cd)				<b>86.43%</b>	
Specific Conductance (µS/cm)	<b>21470032 04/23</b>	<b>25.72</b>	<b>4490</b>	<b>4,604.3</b>	
pH (4)	<b>21470032 04/20</b>	<b>26.14</b>	<b>4</b>	<b>4.13</b>	
pH (7)	<b>21380102 04/23</b>	<b>26.37</b>	<b>7</b>	<b>7.01</b>	
pH (10)	<b>20080056 04/23</b>	<b>26.36</b>	<b>10</b>	<b>9.94</b>	
ORP (mV)	<b>21140143 04/23</b>	<b>26.41</b>	<b>228</b>	<b>223.8</b>	

	Value of Standard	Instrumental Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	<b>0</b>	<b>0.03</b>	<b>-0.5 NTU</b>	<b>Yes</b>	
Turbidity 1 NTU	<b>1</b>	<b>1.14</b>	<b>+ 0.5 NTU</b>	<b>Yes</b>	
Turbidity 10 NTU	<b>10</b>	<b>9.81</b>	<b>- 0.5 NTU</b>	<b>Yes</b>	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	<b>25.81</b>	<b>4</b>	<b>4.23</b>	<b>-0.1 SU</b>	<b>Yes</b>	
Mid-Day pH (7) check	<b>26.91</b>	<b>7</b>	<b>7.11</b>	<b>-0.1 SU</b>	<b>Yes</b>	
Mid-Day pH (10) check	<b>26.02</b>	<b>10</b>	<b>10.08</b>	<b>+0.1 SU</b>	<b>No</b>	

EQUIPMENT CALIBRATION LOG

Field Technician <b>William Laaker</b>	Date <b>9/20/22</b>	Time (Calibration) <b>8:00</b>	Time (Mid-day Check) <b>17:30</b>
AquaTroll SN <b>789301</b>	Turbidity Meter Type <b>LaMotte 2020</b>	SN <b>9453-4417</b>	
Project <b>Sept. 2022 CCR Sampling</b>	Weather Conditions <b>89°/70° fog, sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1 pt, 100% water saturated air sat)				99.42	
Specific Conductance (µS/cm)	21470032 04/23	24.20	4490	4452.4	
pH (4)	21470032 04/23	24.51	4	4.05	
pH (7)	21380102 04/23	24.47	7	7.05	
pH (10)	20080056 04/23	25.30	10	10.03	
ORP (mV)	21140143 04/23	24.83	228	218.9	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.97	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.88	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	38.17	4	4.09	±0.1 SU	Yes	No	
Mid-Day pH (7) check	38.12	7	7.11	±0.1 SU	Yes	No	
Mid-Day pH (10) check	38.34	10	10.08	±0.1 SU	Yes	No	

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>Meredith Duncan</b>	Date: <b>9/21/22</b>	Time (Calibration): <b>0905</b>	Time (Mid-day Check): <b>1900</b>
Asset/Tool ID: <b>893478</b>	Turbidity Meter Type: <b>La motte</b>	<b>9429-4417</b>	
Project: <b>McManus</b>	*enter Conditions: <b>80°</b>		

**Calibration Log**

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (Tpt, 100% water saturated air eqd)				99.41	
Specific Conductance (µS/cm)	21470032 04/23	24.97	4490	4510.1	
pH (4)	21470032 04/23	25.10	4	3.80	
pH (7)	21380102 04/23	24.72	7	6.70	
pH (10)	20080056 04/23	24.79	10	9.72	
ORP (mV)	21140143 04/23	24.95	228	229.8	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.03	-/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.89	-/-0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.62	-/-0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	29.46	4	4.21	-/-0.1 SU	Yes	No	
Mid-Day pH (7) check	29.11	7	7.27	-/-0.1 SU	Yes	No	
Mid-Day pH (10) check	28.65	10	10.28	-/-0.1 SU	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician: <u>Kevin Stephenson</u>	Date: <u>9/21/22</u>	Time (Calibration): <u>1010</u>	Time (Mid-day Check):
AquaTroll SN: <u>789317</u>	Turbidity Meter Type: <u>Lamotte 2020</u> <u>200P-0320</u>		
Project: <u>2022 Sept Semi-annual Sample</u>	Weather Conditions: <u>90°/70° 30%</u>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air sat)				<u>111.74%</u>	
Specific Conductance (µS/cm)	21470032 04/23	<u>24.80</u>	4490	<u>4402.7</u>	
pH (4)	21470032 04/24	<u>24.82</u>	4	<u>3.95</u>	
pH (7)	21380102 04/23	<u>24.95</u>	7	<u>7.02</u>	
pH (10)	20080056 04/23	<u>27.38</u>	10	<u>10.14</u>	
ORP (mV)	21140143 04/23	<u>26.44</u>	228	<u>223.4</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	0	<u>0.00</u>	-/-0.5 NTU	Yes No	
Turbidity 1 NTU	1	<u>1.05</u>	-/-0.5 NTU	Yes No	
Turbidity 10 NTU	10	<u>9.91</u>	- 0.5 NTU	Yes No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	<u>28.74</u>	4	<u>4.22</u>	- - 0.1 SU	Yes No	
Mid-Day pH (7) check	<u>29.21</u>	7	<u>7.22</u>	- - 0.1 SU	Yes No	
Mid-Day pH (10) check	<u>29.17</u>	10	<u>9.99</u>	- - 0.1 SU	Yes No	

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>William Laaker</b>	Date: <b>9/21/22</b>	Time (Calibration): <b>6:45</b>	Time (Mid-day Check): <b>17:15</b>
AquaTROLL SN: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>9453-4417</b>	
Project: <b>Sept 2022 CCR Sampling Surface Water</b>	Weather Conditions: <b>89°/66° sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				101.03	
Specific Conductance (µS/cm)	21470032 04/23	23.46	4490	4468.7	
pH (4)	21470032 04/23	23.16	4	4.07	
pH (7)	21380102 04/23	23.17	7	7.10	
pH (10)	20080056 04/23	23.25	10	10.10	
ORP (mV)	21140143 04/23	23.31	228	222.8	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.82	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.65	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	28.93	4	4.14	±0.1 SU	Yes	No	
Mid-Day pH (7) check	29.14	7	7.15	±0.1 SU	Yes	No	
Mid-Day pH (10) check	29.67	10	10.17	±0.1 SU	Yes	No	

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 5:40:20 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-01</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.32 ft</b> <b>Total Depth: 27.32 ft</b> <b>Initial Depth to Water: 2.78 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.32 ft</b> <b>Estimated Total Volume Pumped: 6240 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 260 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 5:40 PM	00:00	4.97 pH	25.91 °C	176.71 µS/cm	1.01 mg/L	11.07 NTU	119.9 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:44 PM	04:00	4.92 pH	25.09 °C	178.86 µS/cm	0.57 mg/L	10.14 NTU	114.3 mV	2.78 ft	0.09 PSU	260.00 ml/min
9/21/2022 5:48 PM	08:00	4.91 pH	25.01 °C	178.61 µS/cm	0.53 mg/L	8.24 NTU	111.3 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:52 PM	12:00	4.91 pH	25.04 °C	177.14 µS/cm	0.44 mg/L	7.07 NTU	109.6 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 5:56 PM	16:00	4.93 pH	24.95 °C	176.81 µS/cm	0.29 mg/L	4.91 NTU	107.8 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 6:00 PM	20:00	4.94 pH	24.95 °C	173.98 µS/cm	0.21 mg/L	4.41 NTU	106.1 mV	2.78 ft	0.08 PSU	260.00 ml/min
9/21/2022 6:04 PM	24:00	4.95 pH	24.89 °C	173.61 µS/cm	0.18 mg/L	3.30 NTU	104.9 mV	2.78 ft	0.08 PSU	260.00 ml/min

## Samples

Sample ID:	Description:
MCM-01	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 1:26:12 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.35 ft</b> <b>Total Depth: 27.35 ft</b> <b>Initial Depth to Water: 2.93 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.35 ft</b> <b>Estimated Total Volume Pumped: 6720 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.12 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 1:26 PM	00:00	4.93 pH	25.10 °C	195.77 µS/cm	0.24 mg/L	0.47 NTU	88.1 mV	3.05 ft	0.09 PSU	280.00 ml/min
9/21/2022 1:30 PM	04:00	5.18 pH	24.23 °C	179.79 µS/cm	0.17 mg/L	0.07 NTU	76.9 mV	3.05 ft	0.09 PSU	280.00 ml/min
9/21/2022 1:34 PM	08:00	5.18 pH	24.14 °C	170.81 µS/cm	0.15 mg/L	0.90 NTU	73.4 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:38 PM	12:00	5.16 pH	24.09 °C	166.84 µS/cm	0.14 mg/L	3.91 NTU	72.7 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:42 PM	16:00	5.14 pH	24.09 °C	166.00 µS/cm	0.13 mg/L	1.22 NTU	73.3 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:46 PM	20:00	5.14 pH	24.01 °C	168.92 µS/cm	0.12 mg/L	0.74 NTU	73.2 mV	3.05 ft	0.08 PSU	280.00 ml/min
9/21/2022 1:50 PM	24:00	5.14 pH	23.78 °C	169.51 µS/cm	0.11 mg/L	0.93 NTU	73.3 mV	3.05 ft	0.08 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-02	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 2:57:14 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-04</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.57 ft</b> <b>Total Depth: 28.57 ft</b> <b>Initial Depth to Water: 7.98 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.57 ft</b> <b>Estimated Total Volume Pumped: 5200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 260 ml/min</b> <b>Final Draw Down: 0.2 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 2:57 PM	00:00	5.43 pH	28.58 °C	300.03 µS/cm	3.58 mg/L	2.74 NTU	118.6 mV	8.19 ft	0.14 PSU	260.00 ml/min
9/21/2022 3:01 PM	04:00	5.37 pH	24.66 °C	316.77 µS/cm	0.19 mg/L	1.02 NTU	117.0 mV	8.19 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:05 PM	08:00	5.35 pH	24.33 °C	318.58 µS/cm	0.16 mg/L	1.25 NTU	110.7 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:09 PM	12:00	5.35 pH	24.36 °C	316.09 µS/cm	0.14 mg/L	1.13 NTU	106.8 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:13 PM	16:00	5.35 pH	24.23 °C	316.12 µS/cm	0.13 mg/L	0.69 NTU	104.0 mV	8.18 ft	0.15 PSU	260.00 ml/min
9/21/2022 3:17 PM	20:00	5.34 pH	24.14 °C	316.49 µS/cm	0.12 mg/L	0.92 NTU	101.7 mV	8.18 ft	0.15 PSU	260.00 ml/min

## Samples

Sample ID:	Description:
MCM-04	Metals, Inorganics, TDS, Alkalinity, Radium



# Low-Flow Test Report:

Test Date / Time: 9/21/2022 2:46:58 PM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: MCM-05</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.05 ft</b> <b>Total Depth: 28.05 ft</b> <b>Initial Depth to Water: 7.04 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 23.05 ft</b> <b>Estimated Total Volume Pumped: 3200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 160 ml/min</b> <b>Final Draw Down: -0.4 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 1L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 2:46 PM	00:00	6.79 pH	29.93 °C	5,327.0 µS/cm	1.89 mg/L	1.11 NTU	-156.0 mV	6.74 ft	160.00 ml/min
9/21/2022 2:50 PM	04:00	6.92 pH	28.27 °C	4,340.8 µS/cm	0.64 mg/L	0.52 NTU	-178.8 mV	6.72 ft	160.00 ml/min
9/21/2022 2:54 PM	08:00	6.94 pH	27.76 °C	4,216.4 µS/cm	0.32 mg/L	0.68 NTU	-181.8 mV	6.71 ft	160.00 ml/min
9/21/2022 2:58 PM	12:00	6.94 pH	27.87 °C	4,149.6 µS/cm	0.18 mg/L	0.75 NTU	-181.3 mV	6.69 ft	160.00 ml/min
9/21/2022 3:02 PM	16:00	6.94 pH	27.74 °C	4,101.1 µS/cm	0.13 mg/L	0.55 NTU	-180.7 mV	6.66 ft	160.00 ml/min
9/21/2022 3:06 PM	20:00	6.93 pH	27.78 °C	4,031.5 µS/cm	0.10 mg/L	0.52 NTU	-181.7 mV	6.64 ft	160.00 ml/min

## Samples

Sample ID:	Description:
MCM-05	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 9:46:10 AM

Project: September 2022 McManus CCR Event

Operator Name: William Laaker

<b>Location Name: MCM-06</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.2 ft</b> <b>Total Depth: 27.2 ft</b> <b>Initial Depth to Water: 7.34 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.2 ft</b> <b>Estimated Total Volume Pumped: 4800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.3 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 2 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 9:46 AM	00:00	7.30 pH	25.60 °C	6,946.6 µS/cm	0.02 mg/L	5.24 NTU	-80.1 mV	7.53 ft	3.87 PSU	200.00 ml/min
9/20/2022 9:50 AM	04:00	7.33 pH	25.51 °C	6,999.2 µS/cm	0.01 mg/L	4.50 NTU	-62.1 mV	7.56 ft	3.90 PSU	200.00 ml/min
9/20/2022 9:54 AM	08:00	7.28 pH	25.46 °C	7,055.6 µS/cm	0.00 mg/L	3.72 NTU	-60.7 mV	7.58 ft	3.93 PSU	200.00 ml/min
9/20/2022 9:58 AM	12:00	7.29 pH	25.42 °C	7,101.4 µS/cm	0.00 mg/L	2.80 NTU	-60.4 mV	7.60 ft	3.96 PSU	200.00 ml/min
9/20/2022 10:02 AM	16:00	7.30 pH	25.42 °C	7,134.9 µS/cm	0.00 mg/L	1.97 NTU	-59.8 mV	7.62 ft	3.98 PSU	200.00 ml/min
9/20/2022 10:06 AM	20:00	7.30 pH	25.43 °C	7,157.4 µS/cm	0.00 mg/L	1.91 NTU	-58.4 mV	7.63 ft	3.99 PSU	200.00 ml/min
9/20/2022 10:10 AM	24:00	7.29 pH	25.37 °C	7,166.0 µS/cm	0.00 mg/L	1.82 NTU	-58.8 mV	7.64 ft	4.00 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-06	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As Spec
DUP-1	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 10:08:25 AM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: MCM-07</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.75 ft</b> <b>Total Depth: 23.75 ft</b> <b>Initial Depth to Water: 7.08 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 18.75 ft</b> <b>Estimated Total Volume Pumped: 4480 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 160 ml/min</b> <b>Final Draw Down: 0.33 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 1L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 10:08 AM	00:00	6.47 pH	27.17 °C	9,485.6 µS/cm	0.34 mg/L	13.30 NTU	-153.6 mV	7.08 ft	160.00 ml/min
9/21/2022 10:12 AM	04:00	6.37 pH	26.70 °C	12,996 µS/cm	0.23 mg/L	6.86 NTU	-145.8 mV	7.21 ft	160.00 ml/min
9/21/2022 10:16 AM	08:00	6.30 pH	26.57 °C	16,231 µS/cm	0.18 mg/L	3.42 NTU	-141.6 mV	7.27 ft	160.00 ml/min
9/21/2022 10:20 AM	12:00	6.26 pH	26.59 °C	18,553 µS/cm	0.15 mg/L	1.10 NTU	-137.5 mV	7.32 ft	160.00 ml/min
9/21/2022 10:24 AM	16:00	6.28 pH	26.66 °C	18,127 µS/cm	0.11 mg/L	2.27 NTU	-137.8 mV	7.35 ft	160.00 ml/min
9/21/2022 10:28 AM	20:00	6.27 pH	26.63 °C	18,451 µS/cm	0.09 mg/L	1.64 NTU	-137.1 mV	7.37 ft	160.00 ml/min
9/21/2022 10:32 AM	24:00	6.27 pH	26.73 °C	18,682 µS/cm	0.08 mg/L	1.16 NTU	-136.5 mV	7.40 ft	160.00 ml/min
9/21/2022 10:36 AM	28:00	6.27 pH	26.78 °C	18,853 µS/cm	0.07 mg/L	1.03 NTU	-136.2 mV	7.41 ft	160.00 ml/min

## Samples

Sample ID:	Description:
MCM-07	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 9/21/2022 10:42:32 AM

**Project:** September 2022 McManus CCR Event

**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14 ft</b> <b>Total Depth: 24 ft</b> <b>Initial Depth to Water: 4.2 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 19 ft</b> <b>Estimated Total Volume Pumped: 9600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 240 ml/min</b> <b>Final Draw Down: 1.32 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1.5 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 10:42 AM	00:00	4.91 pH	27.90 °C	172.42 µS/cm	0.22 mg/L	3.46 NTU	135.5 mV	5.31 ft	0.08 PSU	240.00 ml/min
9/21/2022 10:46 AM	04:00	4.92 pH	27.75 °C	174.62 µS/cm	0.17 mg/L	3.33 NTU	126.0 mV	5.44 ft	0.08 PSU	240.00 ml/min
9/21/2022 10:50 AM	08:00	4.93 pH	27.79 °C	181.79 µS/cm	0.16 mg/L	2.89 NTU	122.1 mV	5.47 ft	0.09 PSU	240.00 ml/min
9/21/2022 10:54 AM	12:00	4.94 pH	27.75 °C	185.81 µS/cm	0.14 mg/L	1.49 NTU	120.4 mV	5.48 ft	0.09 PSU	240.00 ml/min
9/21/2022 10:58 AM	16:00	4.95 pH	27.79 °C	191.69 µS/cm	0.13 mg/L	1.01 NTU	119.9 mV	5.50 ft	0.09 PSU	240.00 ml/min
9/21/2022 11:02 AM	20:00	4.96 pH	27.87 °C	198.67 µS/cm	0.12 mg/L	1.12 NTU	119.6 mV	5.53 ft	0.09 PSU	240.00 ml/min
9/21/2022 11:06 AM	24:00	4.96 pH	27.96 °C	204.15 µS/cm	0.12 mg/L	0.55 NTU	118.8 mV	5.53 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:10 AM	28:00	4.97 pH	27.98 °C	204.01 µS/cm	0.13 mg/L	0.77 NTU	119.9 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:14 AM	32:00	4.97 pH	28.00 °C	209.68 µS/cm	0.14 mg/L	0.70 NTU	120.0 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:18 AM	36:00	4.97 pH	27.89 °C	215.10 µS/cm	0.15 mg/L	0.78 NTU	121.3 mV	5.52 ft	0.10 PSU	240.00 ml/min
9/21/2022 11:22 AM	40:00	4.97 pH	28.00 °C	216.67 µS/cm	0.15 mg/L	0.72 NTU	122.2 mV	5.52 ft	0.10 PSU	240.00 ml/min

## Samples

Sample ID:	Description:
MCM-11	Metals, Inorganics, TDS, Alkalinity, Radium



# Low-Flow Test Report:

Test Date / Time: 9/21/2022 10:02:08 AM

Project: September 2022 McManus CCR Event

Operator Name: William Laaker

<b>Location Name: MCM-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 19 ft</b> <b>Total Depth: 29 ft</b> <b>Initial Depth to Water: 7.78 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 12441.833 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 190 ml/min</b> <b>Final Draw Down: 1.9 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 10:02 AM	00:00	6.39 pH	25.71 °C	2,149.2 µS/cm	0.12 mg/L	1.51 NTU	39.0 mV	8.98 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:06 AM	04:00	6.37 pH	25.55 °C	2,139.7 µS/cm	0.07 mg/L	1.59 NTU	53.1 mV	9.20 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:10 AM	08:00	6.36 pH	25.55 °C	2,140.6 µS/cm	0.04 mg/L	3.12 NTU	54.6 mV	9.36 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:11 AM	09:29	6.35 pH	25.55 °C	2,134.6 µS/cm	0.03 mg/L		53.2 mV	9.36 ft	1.10 PSU	190.00 ml/min
9/21/2022 10:15 AM	13:29	6.35 pH	25.51 °C	2,136.6 µS/cm	0.01 mg/L	7.23 NTU	54.4 mV	9.48 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:19 AM	17:29	6.34 pH	25.43 °C	2,140.4 µS/cm	0.00 mg/L	8.96 NTU	55.9 mV	9.54 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:23 AM	21:29	6.34 pH	25.50 °C	2,147.8 µS/cm	0.00 mg/L	9.48 NTU	56.3 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:27 AM	25:29	6.34 pH	25.51 °C	2,148.5 µS/cm	0.00 mg/L	9.41 NTU	56.5 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:31 AM	29:29	6.33 pH	25.52 °C	2,149.8 µS/cm	0.00 mg/L	8.59 NTU	58.1 mV	9.60 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:35 AM	33:29	6.33 pH	25.51 °C	2,146.6 µS/cm	0.00 mg/L	7.56 NTU	58.6 mV	9.64 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:39 AM	37:29	6.33 pH	25.51 °C	2,152.0 µS/cm	0.00 mg/L	7.00 NTU	59.0 mV	9.64 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:43 AM	41:29	6.32 pH	25.51 °C	2,154.4 µS/cm	0.00 mg/L	6.43 NTU	59.8 mV	9.65 ft	1.12 PSU	190.00 ml/min
9/21/2022 10:47 AM	45:29	6.32 pH	25.55 °C	2,151.3 µS/cm	0.00 mg/L	5.69 NTU	60.1 mV	9.65 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:51 AM	49:29	6.32 pH	25.44 °C	2,152.8 µS/cm	0.00 mg/L	5.30 NTU	60.8 mV	9.68 ft	1.11 PSU	190.00 ml/min
9/21/2022 10:55 AM	53:29	6.31 pH	25.44 °C	2,155.6 µS/cm	0.00 mg/L	5.02 NTU	60.7 mV	9.68 ft	1.12 PSU	190.00 ml/min

9/21/2022 10:59 AM	57:29	6.31 pH	25.43 °C	2,159.1 µS/cm	0.00 mg/L	4.90 NTU	60.8 mV	9.68 ft	1.12 PSU	190.00 ml/min
9/21/2022 11:03 AM	01:01:29	6.31 pH	25.45 °C	2,158.0 µS/cm	0.00 mg/L	4.63 NTU	61.5 mV	9.68 ft	1.12 PSU	190.00 ml/min
9/21/2022 11:07 AM	01:05:29	6.30 pH	25.33 °C	2,160.3 µS/cm	0.00 mg/L	4.40 NTU	61.4 mV	9.68 ft	1.12 PSU	190.00 ml/min

## Samples

Sample ID:	Description:
MCM-12	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 9/21/2022 1:22:15 PM

**Project:** September 2022 McManus CCR Event

**Operator Name:** William Laaker

<b>Location Name: MCM-14</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.11 ft</b> <b>Total Depth: 28.11 ft</b> <b>Initial Depth to Water: 9.43 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.11 ft</b> <b>Estimated Total Volume Pumped: 5400 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 1:22 PM	00:00	6.76 pH	27.30 °C	8,398.8 µS/cm	0.61 mg/L	0.41 NTU	-83.9 mV	9.48 ft	4.74 PSU	150.00 ml/min
9/21/2022 1:26 PM	04:00	6.78 pH	26.97 °C	7,480.1 µS/cm	0.28 mg/L	0.33 NTU	-70.8 mV	9.48 ft	4.18 PSU	150.00 ml/min
9/21/2022 1:30 PM	08:00	6.74 pH	26.88 °C	7,756.1 µS/cm	0.16 mg/L	0.45 NTU	-65.1 mV	9.48 ft	4.35 PSU	150.00 ml/min
9/21/2022 1:34 PM	12:00	6.69 pH	26.84 °C	8,497.8 µS/cm	0.13 mg/L	0.30 NTU	-62.8 mV	9.48 ft	4.80 PSU	150.00 ml/min
9/21/2022 1:38 PM	16:00	6.65 pH	26.79 °C	9,175.2 µS/cm	0.12 mg/L	0.28 NTU	-58.3 mV	9.48 ft	5.21 PSU	150.00 ml/min
9/21/2022 1:42 PM	20:00	6.64 pH	26.70 °C	9,604.6 µS/cm	0.13 mg/L	0.25 NTU	-57.3 mV	9.48 ft	5.47 PSU	150.00 ml/min
9/21/2022 1:46 PM	24:00	6.62 pH	26.72 °C	9,956.6 µS/cm	0.12 mg/L	0.23 NTU	-55.0 mV	9.48 ft	5.69 PSU	150.00 ml/min
9/21/2022 1:50 PM	28:00	6.61 pH	26.49 °C	10,062 µS/cm	0.12 mg/L	0.21 NTU	-54.4 mV	9.46 ft	5.75 PSU	150.00 ml/min
9/21/2022 1:54 PM	32:00	6.61 pH	26.15 °C	10,277 µS/cm	0.11 mg/L	0.19 NTU	-53.8 mV	9.44 ft	5.89 PSU	150.00 ml/min
9/21/2022 1:58 PM	36:00	6.61 pH	26.03 °C	10,327 µS/cm	0.13 mg/L	0.19 NTU	-52.0 mV	9.43 ft	5.92 PSU	150.00 ml/min

## Samples

Sample ID:	Description:
MCM-14	Metals, Inorganics, TDS, Alkalinity, Radium





# Low-Flow Test Report:

Test Date / Time: 9/21/2022 4:01:31 PM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: MCM-15</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 16.6 ft</b> <b>Total Depth: 26.6 ft</b> <b>Initial Depth to Water: 7.6 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 21.6 ft</b> <b>Estimated Total Volume Pumped: 4800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.02 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 4:01 PM	00:00	5.55 pH	28.30 °C	73.27 µS/cm	1.68 mg/L	0.54 NTU	39.5 mV	7.60 ft	200.00 ml/min
9/21/2022 4:05 PM	04:00	5.33 pH	26.89 °C	54.08 µS/cm	0.47 mg/L	1.44 NTU	68.3 mV	7.60 ft	200.00 ml/min
9/21/2022 4:09 PM	08:00	5.28 pH	26.43 °C	51.66 µS/cm	0.27 mg/L	1.16 NTU	76.8 mV	7.60 ft	200.00 ml/min
9/21/2022 4:13 PM	12:00	5.27 pH	26.34 °C	50.99 µS/cm	0.20 mg/L	1.04 NTU	81.1 mV	7.60 ft	200.00 ml/min
9/21/2022 4:17 PM	16:00	5.25 pH	26.17 °C	50.59 µS/cm	0.17 mg/L	1.14 NTU	84.2 mV	7.59 ft	200.00 ml/min
9/21/2022 4:21 PM	20:00	5.23 pH	26.09 °C	50.53 µS/cm	0.15 mg/L	0.82 NTU	86.5 mV	7.59 ft	200.00 ml/min
9/21/2022 4:25 PM	24:00	5.23 pH	25.91 °C	50.32 µS/cm	0.14 mg/L	0.71 NTU	87.8 mV	7.58 ft	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-15	Metals, Inorganics, TDS, Alkalinity, Radium
DUP-2	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 4:38:28 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-16</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.39 ft</b> <b>Total Depth: 28.39 ft</b> <b>Initial Depth to Water: 7.56 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.39 ft</b> <b>Estimated Total Volume Pumped: 4800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 240 ml/min</b> <b>Final Draw Down: 0.01 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1.5 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/21/2022 4:38 PM	00:00	5.04 pH	23.64 °C	134.68 µS/cm	0.59 mg/L	3.54 NTU	106.0 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:42 PM	04:00	4.96 pH	23.10 °C	133.55 µS/cm	0.42 mg/L	3.68 NTU	102.5 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:46 PM	08:00	4.94 pH	22.95 °C	133.59 µS/cm	0.32 mg/L	2.94 NTU	100.5 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:50 PM	12:00	4.93 pH	22.93 °C	133.17 µS/cm	0.24 mg/L	2.97 NTU	99.4 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:54 PM	16:00	4.92 pH	22.91 °C	132.88 µS/cm	0.22 mg/L	2.56 NTU	98.8 mV	7.57 ft	0.06 PSU	240.00 ml/min
9/21/2022 4:58 PM	20:00	4.91 pH	22.84 °C	134.01 µS/cm	0.20 mg/L	2.57 NTU	98.7 mV	7.57 ft	0.06 PSU	240.00 ml/min

## Samples

Sample ID:	Description:
MCM-16	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 9/21/2022 5:39:50 PM

**Project:** September 2022 McManus CCR Event

**Operator Name:** Meredith Duncan

<b>Location Name: MCM-17</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.44 ft</b> <b>Total Depth: 27.44 ft</b> <b>Initial Depth to Water: 7.93 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 22.44 ft</b> <b>Estimated Total Volume Pumped: 9600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.21 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 1L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 5:39 PM	00:00	6.29 pH	32.09 °C	11,679 µS/cm	1.55 mg/L	1.57 NTU	-94.4 mV	7.93 ft	200.00 ml/min
9/21/2022 5:43 PM	04:00	6.21 pH	27.12 °C	10,817 µS/cm	0.26 mg/L	1.53 NTU	-113.5 mV	7.91 ft	200.00 ml/min
9/21/2022 5:47 PM	08:00	6.23 pH	26.38 °C	10,752 µS/cm	0.13 mg/L	1.85 NTU	-115.6 mV	7.90 ft	200.00 ml/min
9/21/2022 5:51 PM	12:00	6.24 pH	26.09 °C	10,716 µS/cm	0.10 mg/L	2.62 NTU	-115.1 mV	7.90 ft	200.00 ml/min
9/21/2022 5:55 PM	16:00	6.29 pH	25.87 °C	10,748 µS/cm	0.08 mg/L	8.71 NTU	-114.2 mV	7.87 ft	200.00 ml/min
9/21/2022 5:59 PM	20:00	6.38 pH	25.85 °C	10,793 µS/cm	0.07 mg/L	4.23 NTU	-116.1 mV	7.85 ft	200.00 ml/min
9/21/2022 6:03 PM	24:00	6.47 pH	25.58 °C	10,804 µS/cm	0.07 mg/L	1.59 NTU	-116.3 mV	7.84 ft	200.00 ml/min
9/21/2022 6:07 PM	28:00	6.52 pH	25.54 °C	10,841 µS/cm	0.06 mg/L	1.66 NTU	-114.8 mV	7.82 ft	200.00 ml/min
9/21/2022 6:11 PM	32:00	6.59 pH	25.38 °C	10,842 µS/cm	0.06 mg/L	1.29 NTU	-113.7 mV	7.81 ft	200.00 ml/min
9/21/2022 6:15 PM	36:00	6.64 pH	25.37 °C	10,831 µS/cm	0.05 mg/L	1.15 NTU	-113.9 mV	7.78 ft	200.00 ml/min
9/21/2022 6:19 PM	40:00	6.67 pH	25.29 °C	10,836 µS/cm	0.05 mg/L	1.17 NTU	-112.3 mV	7.76 ft	200.00 ml/min
9/21/2022 6:23 PM	44:00	6.70 pH	25.21 °C	10,827 µS/cm	0.05 mg/L	0.92 NTU	-112.4 mV	7.73 ft	200.00 ml/min
9/21/2022 6:27 PM	48:00	6.72 pH	25.15 °C	10,837 µS/cm	0.05 mg/L	0.88 NTU	-110.5 mV	7.72 ft	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-17	Metals, Inorganics, TDS, Alkalinity, Radium

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:04:20 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-18</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.86 ft</b> <b>Total Depth: 27.86 ft</b> <b>Initial Depth to Water: 5.34 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.86 ft</b> <b>Estimated Total Volume Pumped: 3200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.23 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 2:04 PM	00:00	4.56 pH	27.93 °C	4,045.8 µS/cm	0.23 mg/L	0.03 NTU	147.6 mV	5.57 ft	2.17 PSU	200.00 ml/min
9/20/2022 2:08 PM	04:00	4.50 pH	26.87 °C	3,959.6 µS/cm	0.16 mg/L	0.23 NTU	139.9 mV	5.57 ft	2.12 PSU	200.00 ml/min
9/20/2022 2:12 PM	08:00	4.51 pH	25.86 °C	3,919.7 µS/cm	0.14 mg/L	0.24 NTU	132.8 mV	5.57 ft	2.10 PSU	200.00 ml/min
9/20/2022 2:16 PM	12:00	4.50 pH	24.83 °C	3,939.0 µS/cm	0.13 mg/L	0.21 NTU	124.8 mV	5.57 ft	2.11 PSU	200.00 ml/min
9/20/2022 2:20 PM	16:00	4.47 pH	25.55 °C	3,924.5 µS/cm	0.11 mg/L	0.22 NTU	125.2 mV	5.57 ft	2.10 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-18	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 3:36:06 PM

Project: September 2022 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-19</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.32 ft</b> <b>Total Depth: 28.32 ft</b> <b>Initial Depth to Water: 6.07 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.32 ft</b> <b>Estimated Total Volume Pumped: 4480 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.09 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 3:36 PM	00:00	5.18 pH	25.46 °C	18,265 µS/cm	0.20 mg/L	0.21 NTU	141.7 mV	6.26 ft	10.97 PSU	280.00 ml/min
9/20/2022 3:40 PM	04:00	5.16 pH	25.37 °C	17,923 µS/cm	0.15 mg/L	0.62 NTU	132.8 mV	6.25 ft	10.74 PSU	280.00 ml/min
9/20/2022 3:44 PM	08:00	5.14 pH	25.45 °C	17,739 µS/cm	0.13 mg/L	0.63 NTU	127.5 mV	6.22 ft	10.62 PSU	280.00 ml/min
9/20/2022 3:48 PM	12:00	5.14 pH	24.86 °C	17,657 µS/cm	0.12 mg/L	0.40 NTU	123.6 mV	6.19 ft	10.57 PSU	280.00 ml/min
9/20/2022 3:52 PM	16:00	5.14 pH	24.86 °C	17,407 µS/cm	0.11 mg/L	0.42 NTU	120.9 mV	6.16 ft	10.40 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-19	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 9/20/2022 10:40:14 AM

**Project:** September 2022 McManus CCR Event

**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-20</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.05 ft</b> <b>Total Depth: 23.05 ft</b> <b>Initial Depth to Water: 7.71 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 18.05 ft</b> <b>Estimated Total Volume Pumped: 4800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 240 ml/min</b> <b>Final Draw Down: 0.63 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 10:40 AM	00:00	3.67 pH	24.98 °C	15,711 µS/cm	0.28 mg/L	1.47 NTU	155.4 mV	8.28 ft	9.31 PSU	240.00 ml/min
9/20/2022 10:44 AM	04:00	3.64 pH	24.50 °C	16,634 µS/cm	0.18 mg/L	1.41 NTU	124.9 mV	8.29 ft	9.90 PSU	240.00 ml/min
9/20/2022 10:48 AM	08:00	3.64 pH	24.41 °C	16,549 µS/cm	0.15 mg/L	1.10 NTU	115.2 mV	8.31 ft	9.85 PSU	240.00 ml/min
9/20/2022 10:52 AM	12:00	3.63 pH	24.38 °C	16,551 µS/cm	0.12 mg/L	0.21 NTU	112.6 mV	8.32 ft	9.85 PSU	240.00 ml/min
9/20/2022 10:56 AM	16:00	3.62 pH	24.43 °C	16,580 µS/cm	0.11 mg/L	0.15 NTU	113.6 mV	8.33 ft	9.87 PSU	240.00 ml/min
9/20/2022 11:00 AM	20:00	3.63 pH	24.50 °C	16,565 µS/cm	0.10 mg/L	0.13 NTU	116.4 mV	8.34 ft	9.86 PSU	240.00 ml/min

## Samples

Sample ID:	Description:
MCM-20	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As Speciation



# Low-Flow Test Report:

Test Date / Time: 9/20/2022 11:38:12 AM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: DPZ-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.46 ft</b> <b>Total Depth: 43.46 ft</b> <b>Initial Depth to Water: 7.43 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 38.46 ft</b> <b>Estimated Total Volume Pumped: 3840 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 160 ml/min</b> <b>Final Draw Down: 0.03 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 11:38 AM	00:00	7.11 pH	26.44 °C	21,351 µS/cm	0.26 mg/L	0.64 NTU	-210.8 mV	7.43 ft	160.00 ml/min
9/20/2022 11:42 AM	04:00	7.09 pH	26.11 °C	21,540 µS/cm	0.19 mg/L	0.54 NTU	-205.1 mV	7.40 ft	160.00 ml/min
9/20/2022 11:46 AM	08:00	7.08 pH	25.88 °C	21,837 µS/cm	0.16 mg/L	0.82 NTU	-202.7 mV	7.42 ft	160.00 ml/min
9/20/2022 11:50 AM	12:00	7.08 pH	25.74 °C	22,109 µS/cm	0.14 mg/L	0.31 NTU	-201.5 mV	7.43 ft	160.00 ml/min
9/20/2022 11:54 AM	16:00	7.07 pH	25.74 °C	22,338 µS/cm	0.13 mg/L	0.40 NTU	-200.7 mV	7.44 ft	160.00 ml/min
9/20/2022 11:58 AM	20:00	7.07 pH	25.74 °C	22,244 µS/cm	0.11 mg/L	0.20 NTU	-198.7 mV	7.45 ft	160.00 ml/min
9/20/2022 12:02 PM	24:00	7.07 pH	25.52 °C	22,255 µS/cm	0.11 mg/L	0.40 NTU	-197.0 mV	7.46 ft	160.00 ml/min

## Samples

Sample ID:	Description:
DPZ-02	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe, Radium, As. Spec

# Low-Flow Test Report:

**Test Date / Time:** 9/20/2022 9:40:09 AM

**Project:** September 2022 McManus CCR Event

**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.38 ft <b>Total Depth:</b> 24.38 ft <b>Initial Depth to Water:</b> 4.98 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> PVC <b>Pump Intake From TOC:</b> 19.38 ft <b>Estimated Total Volume Pumped:</b> 3360 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 140 ml/min <b>Final Draw Down:</b> 0.09 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 9:40 AM	00:00	7.03 pH	26.06 °C	6,810.7 µS/cm	0.14 mg/L	3.04 NTU	-187.0 mV	4.98 ft	140.00 ml/min
9/20/2022 9:44 AM	04:00	7.05 pH	25.54 °C	7,074.3 µS/cm	0.10 mg/L	3.77 NTU	-191.7 mV	5.01 ft	140.00 ml/min
9/20/2022 9:48 AM	08:00	7.09 pH	25.20 °C	7,894.9 µS/cm	0.07 mg/L	2.08 NTU	-193.9 mV	5.05 ft	140.00 ml/min
9/20/2022 9:52 AM	12:00	7.10 pH	25.88 °C	8,200.5 µS/cm	0.07 mg/L	1.33 NTU	-196.6 mV	5.04 ft	140.00 ml/min
9/20/2022 9:56 AM	16:00	7.11 pH	25.97 °C	8,271.2 µS/cm	0.07 mg/L	1.37 NTU	-196.7 mV	5.05 ft	140.00 ml/min
9/20/2022 10:00 AM	20:00	7.11 pH	25.98 °C	8,153.4 µS/cm	0.05 mg/L	1.19 NTU	-196.8 mV	5.05 ft	140.00 ml/min
9/20/2022 10:04 AM	24:00	7.12 pH	25.87 °C	8,272.4 µS/cm	0.04 mg/L	0.98 NTU	-196.3 mV	5.07 ft	140.00 ml/min

## Samples

Sample ID:	Description:
PT-01	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium, As. Spec

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 4:00:55 PM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: PT-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14.38 ft</b> <b>Total Depth: 24.38 ft</b> <b>Initial Depth to Water: 4.15 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 19.38 ft</b> <b>Estimated Total Volume Pumped: 5600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.22 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 4:00 PM	00:00	7.20 pH	28.58 °C	5,128.7 µS/cm	0.24 mg/L	2.17 NTU	-172.5 mV	4.15 ft	200.00 ml/min
9/20/2022 4:04 PM	04:00	7.21 pH	27.41 °C	5,187.1 µS/cm	0.14 mg/L	1.51 NTU	-163.8 mV	4.10 ft	200.00 ml/min
9/20/2022 4:08 PM	08:00	7.21 pH	26.94 °C	5,224.4 µS/cm	0.11 mg/L	0.66 NTU	-161.8 mV	4.07 ft	200.00 ml/min
9/20/2022 4:12 PM	12:00	7.40 pH	26.57 °C	6,937.5 µS/cm	0.09 mg/L	0.70 NTU	-181.9 mV	4.05 ft	200.00 ml/min
9/20/2022 4:16 PM	16:00	7.40 pH	26.41 °C	6,920.6 µS/cm	0.08 mg/L	0.58 NTU	-180.6 mV	4.02 ft	200.00 ml/min
9/20/2022 4:20 PM	20:00	7.39 pH	26.27 °C	6,890.6 µS/cm	0.07 mg/L	0.65 NTU	-179.9 mV	3.99 ft	200.00 ml/min
9/20/2022 4:24 PM	24:00	7.38 pH	26.25 °C	6,871.9 µS/cm	0.07 mg/L	0.52 NTU	-179.0 mV	3.95 ft	200.00 ml/min
9/20/2022 4:28 PM	28:00	7.38 pH	26.08 °C	6,841.4 µS/cm	0.06 mg/L	0.50 NTU	-176.8 mV	3.93 ft	200.00 ml/min

## Samples

Sample ID:	Description:
PT-02	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium, As. Spec

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 4:05:02 PM

Project: September 2022 McManus CCR Event

Operator Name: William Laaker

<b>Location Name: PT-03</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 15.36 ft</b> <b>Total Depth: 25.36 ft</b> <b>Initial Depth to Water: 3.89 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 20.36 ft</b> <b>Estimated Total Volume Pumped: 4000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.18 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 4:05 PM	00:00	7.76 pH	27.71 °C	6,923.1 µS/cm	0.10 mg/L	3.77 NTU	-111.9 mV	3.84 ft	3.85 PSU	200.00 ml/min
9/20/2022 4:09 PM	04:00	7.43 pH	27.55 °C	6,912.6 µS/cm	0.08 mg/L	2.96 NTU	-84.2 mV	3.82 ft	3.85 PSU	200.00 ml/min
9/20/2022 4:13 PM	08:00	7.38 pH	27.43 °C	6,831.1 µS/cm	0.07 mg/L	2.21 NTU	-77.1 mV	3.80 ft	3.80 PSU	200.00 ml/min
9/20/2022 4:17 PM	12:00	7.34 pH	27.61 °C	6,759.0 µS/cm	0.07 mg/L	1.81 NTU	-73.6 mV	3.78 ft	3.75 PSU	200.00 ml/min
9/20/2022 4:21 PM	16:00	7.32 pH	27.40 °C	6,722.6 µS/cm	0.06 mg/L	1.74 NTU	-70.1 mV	3.74 ft	3.73 PSU	200.00 ml/min
9/20/2022 4:25 PM	20:00	7.30 pH	27.57 °C	6,659.5 µS/cm	0.06 mg/L	1.37 NTU	-68.5 mV	3.71 ft	3.69 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
PT-03	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium

# Low-Flow Test Report:

Test Date / Time: 9/21/2022 1:23:44 PM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: PT-04D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 30.85 ft</b> <b>Total Depth: 40.85 ft</b> <b>Initial Depth to Water: 5.57 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 35.85 ft</b> <b>Estimated Total Volume Pumped: 4000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.02 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/21/2022 1:23 PM	00:00	7.16 pH	26.98 °C	18,576 µS/cm	0.63 mg/L	1.08 NTU	-188.8 mV	5.57 ft	200.00 ml/min
9/21/2022 1:27 PM	04:00	7.20 pH	25.62 °C	18,598 µS/cm	0.35 mg/L	0.50 NTU	-184.8 mV	5.60 ft	200.00 ml/min
9/21/2022 1:31 PM	08:00	7.20 pH	25.42 °C	18,686 µS/cm	0.20 mg/L	0.43 NTU	-185.3 mV	5.61 ft	200.00 ml/min
9/21/2022 1:35 PM	12:00	7.20 pH	25.24 °C	18,807 µS/cm	0.15 mg/L	0.52 NTU	-186.2 mV	5.61 ft	200.00 ml/min
9/21/2022 1:39 PM	16:00	7.20 pH	25.11 °C	18,970 µS/cm	0.13 mg/L	0.49 NTU	-186.7 mV	5.60 ft	200.00 ml/min
9/21/2022 1:43 PM	20:00	7.20 pH	25.13 °C	19,056 µS/cm	0.12 mg/L	0.46 NTU	-185.5 mV	5.59 ft	200.00 ml/min

## Samples

Sample ID:	Description:
PT-04D	Metals, Inorganics, TDS, Sulfide, Dis. Fe, Radium

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:09:25 PM

Project: September 2022 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: DR-01</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 15 ft</b> <b>Top of Screen: 15.58 ft</b> <b>Total Depth: 30.58 ft</b> <b>Initial Depth to Water: 4.94 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: PVC</b> <b>Pump Intake From TOC: 23.08 ft</b> <b>Estimated Total Volume Pumped: 11200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: -0.44 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
9/20/2022 2:09 PM	00:00	7.15 pH	26.57 °C	5,997.1 µS/cm	0.16 mg/L	1.75 NTU	-192.1 mV	4.94 ft	200.00 ml/min
9/20/2022 2:13 PM	04:00	7.21 pH	25.67 °C	6,520.7 µS/cm	0.13 mg/L	1.80 NTU	-185.4 mV	4.91 ft	200.00 ml/min
9/20/2022 2:17 PM	08:00	7.24 pH	25.77 °C	6,800.0 µS/cm	0.10 mg/L	2.88 NTU	-185.2 mV	4.89 ft	200.00 ml/min
9/20/2022 2:21 PM	12:00	7.27 pH	25.61 °C	7,022.0 µS/cm	0.08 mg/L	2.70 NTU	-184.9 mV	4.85 ft	200.00 ml/min
9/20/2022 2:25 PM	16:00	7.29 pH	25.47 °C	7,291.5 µS/cm	0.07 mg/L	2.64 NTU	-185.3 mV	4.83 ft	200.00 ml/min
9/20/2022 2:29 PM	20:00	7.33 pH	25.43 °C	7,652.0 µS/cm	0.07 mg/L	1.64 NTU	-187.2 mV	4.80 ft	200.00 ml/min
9/20/2022 2:33 PM	24:00	7.35 pH	25.37 °C	7,961.6 µS/cm	0.07 mg/L	1.38 NTU	-187.4 mV	4.77 ft	200.00 ml/min
9/20/2022 2:37 PM	28:00	7.36 pH	25.27 °C	8,319.0 µS/cm	0.07 mg/L	1.01 NTU	-187.3 mV	4.72 ft	200.00 ml/min
9/20/2022 2:41 PM	32:00	7.37 pH	25.24 °C	8,587.2 µS/cm	0.06 mg/L	0.86 NTU	-187.6 mV	4.71 ft	200.00 ml/min
9/20/2022 2:45 PM	36:00	7.37 pH	25.19 °C	8,868.9 µS/cm	0.06 mg/L	0.60 NTU	-187.0 mV	4.68 ft	200.00 ml/min
9/20/2022 2:49 PM	40:00	7.36 pH	25.15 °C	9,093.8 µS/cm	0.05 mg/L	0.93 NTU	-187.0 mV	4.64 ft	200.00 ml/min
9/20/2022 2:53 PM	44:00	7.36 pH	25.15 °C	9,380.6 µS/cm	0.05 mg/L	0.66 NTU	-187.1 mV	4.61 ft	200.00 ml/min
9/20/2022 2:57 PM	48:00	7.36 pH	25.20 °C	9,552.8 µS/cm	0.05 mg/L	1.11 NTU	-186.1 mV	4.59 ft	200.00 ml/min
9/20/2022 3:01 PM	52:00	7.36 pH	25.17 °C	9,743.6 µS/cm	0.05 mg/L	0.94 NTU	-186.8 mV	4.53 ft	200.00 ml/min
9/20/2022 3:05 PM	56:00	7.36 pH	25.14 °C	9,877.5 µS/cm	0.05 mg/L	0.87 NTU	-186.6 mV	4.50 ft	200.00 ml/min

**Samples**

Sample ID:	Description:
DR-01	Metals, Inorganics, TDS, Sulfide, Dis. Fe, As. Spec.

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 9/20/2022 2:08:25 PM

Project: September 2022 McManus CCR Event

Operator Name: William Laaker

<b>Location Name: DR-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 15 ft</b> <b>Top of Screen: 15.03 ft</b> <b>Total Depth: 30.03 ft</b> <b>Initial Depth to Water: 4.88 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.53 ft</b> <b>Estimated Total Volume Pumped: 7800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: -0.42 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 1 L

Incoming high tide potentially influencing stabilization.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
9/20/2022 2:08 PM	00:00	7.67 pH	28.67 °C	8,163.0 µS/cm	0.18 mg/L	2.40 NTU	-95.9 mV	4.85 ft	4.60 PSU	150.00 ml/min
9/20/2022 2:12 PM	04:00	7.58 pH	28.17 °C	8,173.4 µS/cm	0.15 mg/L	2.19 NTU	-74.2 mV	4.84 ft	4.60 PSU	150.00 ml/min
9/20/2022 2:16 PM	08:00	7.56 pH	28.45 °C	8,317.3 µS/cm	0.12 mg/L	2.13 NTU	-72.8 mV	4.81 ft	4.69 PSU	150.00 ml/min
9/20/2022 2:20 PM	12:00	7.53 pH	28.29 °C	8,857.0 µS/cm	0.09 mg/L	1.37 NTU	-70.1 mV	4.80 ft	5.02 PSU	150.00 ml/min
9/20/2022 2:24 PM	16:00	7.49 pH	27.96 °C	9,399.6 µS/cm	0.08 mg/L	1.21 NTU	-70.6 mV	4.78 ft	5.35 PSU	150.00 ml/min
9/20/2022 2:28 PM	20:00	7.45 pH	28.36 °C	9,658.4 µS/cm	0.08 mg/L	1.19 NTU	-73.7 mV	4.74 ft	5.51 PSU	150.00 ml/min
9/20/2022 2:32 PM	24:00	7.44 pH	28.05 °C	9,721.1 µS/cm	0.08 mg/L	1.03 NTU	-71.3 mV	4.72 ft	5.54 PSU	150.00 ml/min
9/20/2022 2:36 PM	28:00	7.42 pH	27.46 °C	10,254 µS/cm	0.08 mg/L	0.99 NTU	-72.0 mV	4.69 ft	5.87 PSU	150.00 ml/min
9/20/2022 2:40 PM	32:00	7.39 pH	27.39 °C	10,717 µS/cm	0.07 mg/L	0.84 NTU	-72.5 mV	4.65 ft	6.16 PSU	150.00 ml/min
9/20/2022 2:44 PM	36:00	7.36 pH	27.43 °C	11,096 µS/cm	0.06 mg/L	0.72 NTU	-72.7 mV	4.62 ft	6.39 PSU	150.00 ml/min
9/20/2022 2:48 PM	40:00	7.35 pH	27.55 °C	11,394 µS/cm	0.07 mg/L	0.62 NTU	-73.7 mV	4.59 ft	6.58 PSU	150.00 ml/min
9/20/2022 2:52 PM	44:00	7.34 pH	27.49 °C	11,646 µS/cm	0.08 mg/L	0.65 NTU	-74.5 mV	4.55 ft	6.74 PSU	150.00 ml/min
9/20/2022 2:56 PM	48:00	7.32 pH	27.99 °C	11,813 µS/cm	0.06 mg/L	0.70 NTU	-76.0 mV	4.50 ft	6.84 PSU	150.00 ml/min
9/20/2022 3:00 PM	52:00	7.32 pH	27.76 °C	11,848 µS/cm	0.06 mg/L	0.56 NTU	-75.6 mV	4.46 ft	6.86 PSU	150.00 ml/min



**Samples**

Sample ID:	Description:
DR-02	Metals, Inorganics, TDS, Sulfide, Dis. Fe, As Spec

EQUIPMENT CALIBRATION LOG

Field Technician: <u>Kevin Stephenson</u>	Date: <u>2/28/23</u>	Time (Calibration): <u>1042</u>	Time (Mid-day Check):
AquaTroll SN: <u>789317</u>	Turbidity Meter Type: <u>hamette</u>	SN: <u>7042-8818</u>	
Project: <u>McManus SA 2023</u>	Weather Conditions: <u>82°/63°, 109%</u>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<u>102.71</u>	
Specific Conductance (µS/cm)	22250153 11/23	<u>22.90</u>	4490	<u>5,179.8</u>	
pH (4)	22250153 11/23	<u>23.15</u>	4	<u>4.00</u>	
pH (7)	2216893 11/23	<u>22.80</u>	7	<u>7.04</u>	
pH (10)	21320202 12/23	<u>22.60</u>	10	<u>9.99</u>	
ORP (mV)	21390144 11/23	<u>22.61</u>	228	<u>195.5</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	0	<u>0.01</u>	+/-0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU	1	<u>.87</u>	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU	10	<u>9.84</u>	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	<u>22.74</u>	4	<u>4.08</u>	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (7) check	<u>22.78</u>	7	<u>7.16</u>	+/- 0.1 SU	Yes <input checked="" type="radio"/> No	
Mid-Day pH (10) check	<u>22.91</u>	10	<u>10.08</u>	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Field Technician: Meredith Duncan	Date: 2/28/23	Time (Calibration): 1039	Time (Mid-day Check): <del>                    </del>
AquaTroll SN: 893479	Turbidity Meter Type: ja Motte	SN: 2068-0320	
Project: McManus Cw	Weather Conditions: 75°		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				103.28	
Specific Conductance (µS/cm)	22250153 11/23	24.05	4490	4987.1	
pH (4)	22250153 11/23	24.12	4	3.89	
pH (7)	2216893 11/23	23.8	7	6.86	
pH (10)	21320202 12/23	23.72	10	9.89	
ORP (mV)	21390144 11/23	23.62	228	225.6	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.93	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.59	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	26.83	4	4.21	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	26.99	7	7.22	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	27.68	10	10.16	+/- 0.1 SU	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician <b>William Laaker</b>	Date <b>2/28/23</b>	Time (Calibration) <b>10:38</b>	Time (Mid-day Check) <b>18:00</b>
AquaTroll SN <b>789301</b>	Turbidity Meter Type <b>LaMotte 2020</b>	SN <b>9453-4417</b>	
Project <b>Feb. 2023 McManus Semi</b>	Weather Conditions <b>88°/69° cloudy</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<b>96.00</b>	
Specific Conductance (µS/cm)	<b>22250153 11/23</b>	<b>24.24</b>	<b>4490</b>	<b>4971.4</b>	
pH (4)	<b>22250153 11/23</b>	<b>24.60</b>	<b>4</b>	<b>3.98</b>	
pH (7)	<b>2216893 11/23</b>	<b>24.20</b>	<b>7</b>	<b>6.99</b>	
pH (10)	<b>21320202 12/23</b>	<b>24.71</b>	<b>10</b>	<b>9.96</b>	
ORP (mV)	<b>21390144 11/23</b>	<b>24.20</b>	<b>228</b>	<b>216.7</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	<b>0</b>	<b>0.00</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 1 NTU	<b>1</b>	<b>0.90</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 10 NTU	<b>10</b>	<b>10.03</b>	<b>±0.5 NTU</b>	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<b>26.25</b>	<b>4</b>	<b>4.14</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (7) check	<b>26.45</b>	<b>7</b>	<b>7.21</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (10) check	<b>26.54</b>	<b>10</b>	<b>10.25</b>	<b>±0.1 SU</b>	Yes	No	



EQUIPMENT CALIBRATION LOG

Field Technician: Kevin Johnson Date: 3/1/23 Time (Calibration): 0832 Time (Mid-day Check):  
 AquaTroll SN: 789312 Turbidity Meter Type: Lamotte SN: 7042-3818  
 Project: McMannus SA Feb 2023 Weather Conditions: 87°/63%, 100%

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				98.80	
Specific Conductance (µS/cm)	22250153 11/23	21.80	4490	4888.1	
pH (4)	22250153 11/23	21.94	4	4.00	
pH (7)	2216893 11/23	21.82	7	7.02	
pH (10)	21320202 12/23	21.72	10	10.02	
ORP (mV)	21390144 11/23	21.45	228	227.0	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	0	0.01	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU	1	1.04	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU	10	9.87	+/- 0.5 NTU	Yes No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	22.02	4	4.19	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	23.14	7	7.28	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check	22.07	10	10.29	+/- 0.1 SU	Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: Meredith Duncan	Date: 3/1/23	Time (Calibration): 0805	Time (Mid-day Check): 1737
AquaTroll SN: 893479	Turbidity Meter Type: la Motte		SN: 2068-0320
Project: McManus GW	Weather Conditions: 75°		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				88.46	
Specific Conductance (µS/cm)	22250153 11/23	23.53	4490	4968.1	
pH (4)	22250153 11/23	24.01	4	3.85	
pH (7)	2216893 11/23	23.84	7	6.81	
pH (10)	21320202 12/23	23.80	10	9.83	
ORP (mV)	21390144 11/23	23.96	228	225.1	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	+/-0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.91	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.99	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	27.73	4	4.15	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	27.73	7	7.20	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	28.4	10	10.18	+/- 0.1 SU	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician: <b>William Laker</b>	Date: <b>3/1/23</b>	Time (Calibration): <b>8:27</b>	Time (Mid-day Check): <b>17:30</b>
AquaTroll SN: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>9453-4417</b>	
Project: <b>Feb. 2023 McManus Semi</b>	Weather Conditions: <b>88°/69° partly sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1 pt, 100% water saturated air cal)				104.27	
Specific Conductance (µS/cm)	22250153 11/23	25.05	4490	4803.4	
pH (4)	22250153 11/23	25.19	4	4.03	
pH (7)	2216893 11/23	23.87	7	7.01	
pH (10)	21320202 12/23	23.48	10	10.03	
ORP (mV)	21390144 11/23	22.80	228	229.2	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.1 NTU	Yes	No	
Turbidity 1 NTU	1	0.87	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.83	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	26.45	4	4.07	±0.1 SU	Yes	No	
Mid-Day pH (7) check	26.24	7	7.14	±0.1 SU	Yes	No	
Mid-Day pH (10) check	26.41	10	10.19	±0.1 SU	Yes	No	



## EQUIPMENT CALIBRATION LOG

Field Technician: <u>Karin Stephens</u>	Date: <u>3/2/23</u>	Time (Calibration): <u>0750</u>	Time (Mid-day Check):
AquaTroll SN: <u>789317</u>	Turbidity Meter Type: <u>LaMotte</u>	SN: <u>7042-3818</u>	
Project: <u>Feb 2023 SA Manganese</u>	Weather Conditions: <u>82°/61°</u>		

### Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<u>96.27</u>	
Specific Conductance (µS/cm)	22250153 11/23	<u>18.47</u>	4490	<u>4472.1</u>	
pH (4)	22250153 11/23	<u>18.71</u>	4	<u>4.00</u>	
pH (7)	2216893 11/23	<u>18.47</u>	7	<u>7.05</u>	
pH (10)	21320202 12/23	<u>18.43</u>	10	<u>10.10</u>	
ORP (mV)	21390144 11/23	<u>18.43</u>	228	<u>234.8</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	<u>0.1</u>	+/- 0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Turbidity 1 NTU	1	<u>1.81</u>	+/- 0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Turbidity 10 NTU	10	<u>9.57</u>	+/- 0.5 NTU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<u>20.64</u>	4	<u>4.12</u>	+/- 0.1 SU	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Mid-Day pH (7) check	<u>20.71</u>	7	<u>7.14</u>	+/- 0.1 SU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Mid-Day pH (10) check	<u>20.77</u>	10	<u>10.14</u>	+/- 0.1 SU	<input checked="" type="radio"/> Yes	<input type="radio"/> No	



EQUIPMENT CALIBRATION LOG

Field Technician: <b>Meredith Duncan</b>	Date: <b>3/2/23</b>	Time (Calibration): <b>0800</b>	Time (Mid-day Check): <b>1652</b>
AquaTroll SN: <b>893479</b>	Turbidity Meter Type: <b>la motte</b>	SN: <b>2068-0320</b>	
Project: <b>McManus GW</b>	Weather Conditions: <b>75°</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				107.99	
Specific Conductance (µS/cm)	22250153 11/23	21.84	4490	4508.2	
pH (4)	22250153 11/23	22.05	4	4.00	
pH (7)	2216893 11/23	22.39	7	7.01	
pH (10)	21320202 12/23	22.44	10	10.00	
ORP (mV)	21390144 11/23	22.54	228	232.9	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	+/- 0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.98	+/- 0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.59	+/- 0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	27.9	4	4.11	+/- 0.1 SU	Yes	No	
Mid-Day pH (7) check	27.57	7	7.15	+/- 0.1 SU	Yes	No	
Mid-Day pH (10) check	27.66	10	10.24	+/- 0.1 SU	Yes	No	

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 11:07:59 AM

**Project:** February 2023 McManus CCR Event

**Operator Name:** William Laaker

<b>Location Name: MCM-01</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.32 ft</b> <b>Total Depth: 27.32 ft</b> <b>Initial Depth to Water: 3.47 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.32 ft</b> <b>Estimated Total Volume Pumped: 19200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.06 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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## Test Notes:

Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/1/2023 11:07 AM	00:00	4.84 pH	22.39 °C	182.17 µS/cm	0.59 mg/L	60.60 NTU	91.0 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:11 AM	04:00	4.83 pH	22.41 °C	182.82 µS/cm	0.55 mg/L	46.10 NTU	90.0 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:15 AM	08:00	4.83 pH	22.55 °C	183.15 µS/cm	0.42 mg/L	32.30 NTU	89.6 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:19 AM	12:00	4.86 pH	22.62 °C	182.98 µS/cm	0.25 mg/L	24.00 NTU	88.1 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:23 AM	16:00	4.86 pH	22.56 °C	183.74 µS/cm	0.18 mg/L	20.00 NTU	87.6 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:27 AM	20:00	4.86 pH	22.56 °C	183.69 µS/cm	0.16 mg/L	17.40 NTU	87.7 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:31 AM	24:00	4.86 pH	22.62 °C	183.59 µS/cm	0.15 mg/L	13.90 NTU	87.5 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:35 AM	28:00	4.88 pH	22.64 °C	183.91 µS/cm	0.14 mg/L	11.90 NTU	86.8 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:39 AM	32:00	4.88 pH	22.67 °C	183.97 µS/cm	0.15 mg/L	11.40 NTU	86.5 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:43 AM	36:00	4.88 pH	22.71 °C	183.70 µS/cm	0.15 mg/L	13.00 NTU	86.9 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:47 AM	40:00	4.88 pH	22.72 °C	184.32 µS/cm	0.13 mg/L	11.94 NTU	87.1 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:51 AM	44:00	4.89 pH	22.73 °C	183.81 µS/cm	0.14 mg/L	10.83 NTU	86.6 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:55 AM	48:00	4.90 pH	22.66 °C	183.85 µS/cm	0.15 mg/L	9.79 NTU	86.6 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 11:59 AM	52:00	4.89 pH	22.74 °C	184.34 µS/cm	0.15 mg/L	9.72 NTU	87.3 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:03 PM	56:00	4.91 pH	22.80 °C	184.04 µS/cm	0.14 mg/L	8.77 NTU	87.3 mV	3.53 ft	0.09 PSU	200.00 ml/min

3/1/2023 12:07 PM	01:00:00	4.91 pH	22.76 °C	183.53 µS/cm	0.14 mg/L	7.90 NTU	87.0 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:11 PM	01:04:00	4.90 pH	22.94 °C	184.05 µS/cm	0.14 mg/L	6.70 NTU	87.8 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:15 PM	01:08:00	4.90 pH	22.80 °C	183.55 µS/cm	0.14 mg/L	5.80 NTU	87.9 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:19 PM	01:12:00	4.89 pH	22.89 °C	183.55 µS/cm	0.14 mg/L	6.32 NTU	88.4 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:23 PM	01:16:00	4.91 pH	22.93 °C	184.03 µS/cm	0.14 mg/L	5.02 NTU	88.0 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:27 PM	01:20:00	4.91 pH	23.03 °C	183.81 µS/cm	0.14 mg/L	6.29 NTU	88.3 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:31 PM	01:24:00	4.90 pH	23.09 °C	184.78 µS/cm	0.13 mg/L	5.47 NTU	88.9 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:35 PM	01:28:00	4.90 pH	23.14 °C	185.21 µS/cm	0.13 mg/L	4.98 NTU	89.0 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:39 PM	01:32:00	4.91 pH	23.07 °C	185.73 µS/cm	0.12 mg/L	4.81 NTU	88.9 mV	3.53 ft	0.09 PSU	200.00 ml/min
3/1/2023 12:43 PM	01:36:00	4.91 pH	23.12 °C	185.04 µS/cm	0.12 mg/L	4.32 NTU	89.2 mV	3.53 ft	0.09 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-01	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 1:50:17 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.35 ft</b> <b>Total Depth: 27.35 ft</b> <b>Initial Depth to Water: 3.8 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.35 ft</b> <b>Estimated Total Volume Pumped: 6720 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.17 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 2 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/1/2023 1:50 PM	00:00	5.11 pH	27.08 °C	171.07 µS/cm	0.96 mg/L	1.00 NTU	97.9 mV	3.97 ft	0.08 PSU	280.00 ml/min
3/1/2023 1:54 PM	04:00	5.18 pH	22.57 °C	183.54 µS/cm	0.14 mg/L	0.79 NTU	86.1 mV	3.97 ft	0.09 PSU	280.00 ml/min
3/1/2023 1:58 PM	08:00	5.18 pH	22.25 °C	179.57 µS/cm	0.12 mg/L	0.82 NTU	81.1 mV	3.97 ft	0.09 PSU	280.00 ml/min
3/1/2023 2:02 PM	12:00	5.15 pH	22.21 °C	173.37 µS/cm	0.10 mg/L	0.75 NTU	79.8 mV	3.97 ft	0.08 PSU	280.00 ml/min
3/1/2023 2:06 PM	16:00	5.15 pH	22.23 °C	174.03 µS/cm	0.11 mg/L	0.82 NTU	78.5 mV	3.97 ft	0.08 PSU	280.00 ml/min
3/1/2023 2:10 PM	20:00	5.15 pH	22.39 °C	176.43 µS/cm	0.10 mg/L	0.72 NTU	77.0 mV	3.97 ft	0.08 PSU	280.00 ml/min
3/1/2023 2:14 PM	24:00	5.10 pH	22.54 °C	172.54 µS/cm	0.09 mg/L	0.68 NTU	76.3 mV	3.97 ft	0.08 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-02	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 4:42:14 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-04</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.57 ft</b> <b>Total Depth: 28.57 ft</b> <b>Initial Depth to Water: 8.35 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.57 ft</b> <b>Estimated Total Volume Pumped: 4480 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.13 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 15 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/1/2023 4:42 PM	00:00	4.94 pH	21.89 °C	309.06 µS/cm	0.06 mg/L	3.82 NTU	139.6 mV	8.48 ft	0.15 PSU	280.00 ml/min
3/1/2023 4:46 PM	04:00	4.95 pH	21.90 °C	313.31 µS/cm	0.06 mg/L	3.48 NTU	147.3 mV	8.48 ft	0.15 PSU	280.00 ml/min
3/1/2023 4:50 PM	08:00	4.94 pH	21.99 °C	309.01 µS/cm	0.05 mg/L	2.56 NTU	147.8 mV	8.48 ft	0.15 PSU	280.00 ml/min
3/1/2023 4:54 PM	12:00	4.94 pH	22.03 °C	308.19 µS/cm	0.05 mg/L	3.31 NTU	147.9 mV	8.48 ft	0.15 PSU	280.00 ml/min
3/1/2023 4:58 PM	16:00	4.93 pH	21.91 °C	303.31 µS/cm	0.05 mg/L	2.86 NTU	147.1 mV	8.48 ft	0.15 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-04	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 12:00:30 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-05</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.25 ft</b> <b>Total Depth: 28.25 ft</b> <b>Initial Depth to Water: 7.23 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.25 ft</b> <b>Estimated Total Volume Pumped: 5600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.05 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/2/2023 12:00 PM	00:00	6.72 pH	23.79 °C	3,192.1 µS/cm	0.20 mg/L	1.58 NTU	-214.7 mV	7.28 ft	1.69 PSU	280.00 ml/min
3/2/2023 12:04 PM	04:00	6.54 pH	23.24 °C	3,207.4 µS/cm	0.17 mg/L	0.90 NTU	-209.7 mV	7.28 ft	1.70 PSU	280.00 ml/min
3/2/2023 12:08 PM	08:00	6.54 pH	23.00 °C	3,217.5 µS/cm	0.15 mg/L	0.97 NTU	-207.3 mV	7.28 ft	1.70 PSU	280.00 ml/min
3/2/2023 12:12 PM	12:00	6.55 pH	22.97 °C	3,195.7 µS/cm	0.11 mg/L	0.93 NTU	-207.3 mV	7.28 ft	1.69 PSU	280.00 ml/min
3/2/2023 12:16 PM	16:00	6.55 pH	23.07 °C	3,186.1 µS/cm	0.09 mg/L	0.83 NTU	-208.4 mV	7.28 ft	1.69 PSU	280.00 ml/min
3/2/2023 12:20 PM	20:00	6.55 pH	23.15 °C	3,176.4 µS/cm	0.08 mg/L	0.82 NTU	-208.3 mV	7.28 ft	1.68 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-05	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 3:54:19 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-06</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.23 ft</b> <b>Total Depth: 27.23 ft</b> <b>Initial Depth to Water: 7.61 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.23 ft</b> <b>Estimated Total Volume Pumped: 4640 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 290 ml/min</b> <b>Final Draw Down: -0.05 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 2 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/2/2023 3:54 PM	00:00	7.39 pH	23.47 °C	5,733.6 µS/cm	0.24 mg/L	1.48 NTU	-134.1 mV	7.56 ft	3.15 PSU	290.00 ml/min
3/2/2023 3:58 PM	04:00	7.37 pH	23.25 °C	5,776.4 µS/cm	0.18 mg/L	1.32 NTU	-145.3 mV	7.56 ft	3.17 PSU	290.00 ml/min
3/2/2023 4:02 PM	08:00	7.38 pH	23.17 °C	5,772.6 µS/cm	0.15 mg/L	0.69 NTU	-144.9 mV	7.56 ft	3.17 PSU	290.00 ml/min
3/2/2023 4:06 PM	12:00	7.38 pH	23.24 °C	5,743.0 µS/cm	0.11 mg/L	0.65 NTU	-144.7 mV	7.56 ft	3.15 PSU	290.00 ml/min
3/2/2023 4:10 PM	16:00	7.38 pH	22.92 °C	5,728.3 µS/cm	0.08 mg/L	0.61 NTU	-145.4 mV	7.56 ft	3.14 PSU	290.00 ml/min

## Samples

Sample ID:	Description:
MCM-06	Metals, Inorganics, TDS, Alkalinity, Radium, Sulfide, Diss Fe

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 2:26:22 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-07</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.8 ft</b> <b>Total Depth: 23.8 ft</b> <b>Initial Depth to Water: 7.1 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 18.8 ft</b> <b>Estimated Total Volume Pumped: 5600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.77 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 1.5 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/2/2023 2:26 PM	00:00	6.30 pH	22.93 °C	14,921 µS/cm	0.43 mg/L	2.98 NTU	-79.8 mV	7.78 ft	8.79 PSU	280.00 ml/min
3/2/2023 2:30 PM	04:00	6.29 pH	22.01 °C	16,459 µS/cm	0.33 mg/L	1.99 NTU	-100.6 mV	7.83 ft	9.78 PSU	280.00 ml/min
3/2/2023 2:34 PM	08:00	6.29 pH	22.19 °C	16,654 µS/cm	0.22 mg/L	2.00 NTU	-103.6 mV	7.84 ft	9.90 PSU	280.00 ml/min
3/2/2023 2:38 PM	12:00	6.28 pH	22.38 °C	16,735 µS/cm	0.15 mg/L	2.11 NTU	-102.7 mV	7.85 ft	9.96 PSU	280.00 ml/min
3/2/2023 2:42 PM	16:00	6.28 pH	22.30 °C	16,818 µS/cm	0.11 mg/L	2.05 NTU	-104.0 mV	7.85 ft	10.01 PSU	280.00 ml/min
3/2/2023 2:46 PM	20:00	6.28 pH	22.42 °C	16,895 µS/cm	0.09 mg/L	1.79 NTU	-103.9 mV	7.87 ft	10.06 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-07	Metals, Inorganics, TDS, Alkalinity, Radium



# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 10:10:49 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14 ft</b> <b>Total Depth: 24 ft</b> <b>Initial Depth to Water: 5.29 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 19 ft</b> <b>Estimated Total Volume Pumped: 15600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 260 ml/min</b> <b>Final Draw Down: 2 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 7 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/1/2023 10:10 AM	00:00	4.77 pH	24.46 °C	150.61 µS/cm	0.08 mg/L	16.80 NTU	185.3 mV	7.12 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:14 AM	04:00	4.68 pH	22.32 °C	157.97 µS/cm	0.06 mg/L	16.90 NTU	156.3 mV	7.14 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:18 AM	08:00	4.71 pH	22.09 °C	161.27 µS/cm	0.05 mg/L	16.10 NTU	144.1 mV	7.15 ft	0.08 PSU	260.00 ml/min
3/1/2023 10:22 AM	12:00	4.72 pH	22.17 °C	157.77 µS/cm	0.04 mg/L	11.90 NTU	139.9 mV	7.16 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:26 AM	16:00	4.72 pH	22.27 °C	157.78 µS/cm	0.04 mg/L	11.20 NTU	139.9 mV	7.17 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:30 AM	20:00	4.72 pH	22.37 °C	155.10 µS/cm	0.03 mg/L	9.66 NTU	142.2 mV	7.19 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:34 AM	24:00	4.74 pH	22.44 °C	158.01 µS/cm	0.03 mg/L	12.60 NTU	142.9 mV	7.21 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:38 AM	28:00	4.73 pH	22.54 °C	157.27 µS/cm	0.03 mg/L	8.58 NTU	146.0 mV	7.22 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:42 AM	32:00	4.73 pH	22.39 °C	158.42 µS/cm	0.03 mg/L	8.69 NTU	147.8 mV	7.23 ft	0.08 PSU	260.00 ml/min
3/1/2023 10:46 AM	36:00	4.76 pH	22.52 °C	162.78 µS/cm	0.03 mg/L	7.21 NTU	148.2 mV	7.24 ft	0.08 PSU	260.00 ml/min
3/1/2023 10:50 AM	40:00	4.74 pH	22.44 °C	157.13 µS/cm	0.03 mg/L	6.74 NTU	150.3 mV	7.25 ft	0.07 PSU	260.00 ml/min
3/1/2023 10:54 AM	44:00	4.75 pH	22.52 °C	162.97 µS/cm	0.02 mg/L	5.65 NTU	151.1 mV	7.26 ft	0.08 PSU	260.00 ml/min
3/1/2023 10:58 AM	48:00	4.76 pH	22.53 °C	161.47 µS/cm	0.02 mg/L	5.35 NTU	151.7 mV	7.27 ft	0.08 PSU	260.00 ml/min
3/1/2023 11:02 AM	52:00	4.76 pH	22.45 °C	164.88 µS/cm	0.02 mg/L	4.82 NTU	152.1 mV	7.28 ft	0.08 PSU	260.00 ml/min
3/1/2023 11:06 AM	56:00	4.77 pH	22.42 °C	162.19 µS/cm	0.02 mg/L	4.70 NTU	151.9 mV	7.28 ft	0.08 PSU	260.00 ml/min

3/1/2023 11:10 AM	01:00:00	4.78 pH	22.46 °C	169.01 µS/cm	0.02 mg/L	4.56 NTU	152.1 mV	7.29 ft	0.08 PSU	260.00 ml/min
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## Samples

Sample ID:	Description:
MCM-11	Metals, Inorganics, TDS, Alkalinity,

# Low-Flow Test Report:

Test Date / Time: 2/28/2023 12:46:25 PM

Project: February 2023 McManus CCR Event

Operator Name: Meredith Duncan

<b>Location Name: MCM-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 19 ft</b> <b>Total Depth: 29 ft</b> <b>Initial Depth to Water: 8.39 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 7840 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 1.83 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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## Test Notes:

Prepurge 2L

Brown tint to water

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
2/28/2023 12:46 PM	00:00	6.30 pH	23.97 °C	2,328.8 µS/cm	0.02 mg/L	1.28 NTU	38.1 mV	9.28 ft	150.00 ml/min
2/28/2023 12:50 PM	04:00	6.31 pH	23.44 °C	2,336.8 µS/cm	0.01 mg/L	1.70 NTU	48.9 mV	9.61 ft	150.00 ml/min
2/28/2023 12:54 PM	08:00	6.31 pH	23.48 °C	2,335.7 µS/cm	0.00 mg/L	1.47 NTU	49.9 mV	9.76 ft	150.00 ml/min
2/28/2023 12:58 PM	12:00	6.31 pH	23.30 °C	2,334.8 µS/cm	0.00 mg/L	2.31 NTU	49.0 mV	9.86 ft	150.00 ml/min
2/28/2023 1:02 PM	16:00	6.31 pH	22.70 °C	2,340.7 µS/cm	0.00 mg/L	3.22 NTU	49.5 mV	9.95 ft	120.00 ml/min
2/28/2023 1:06 PM	20:00	6.31 pH	23.03 °C	2,332.7 µS/cm	0.00 mg/L	4.36 NTU	48.9 mV	9.86 ft	120.00 ml/min
2/28/2023 1:10 PM	24:00	6.30 pH	23.80 °C	2,329.3 µS/cm	-0.01 mg/L	4.85 NTU	48.0 mV	9.80 ft	120.00 ml/min
2/28/2023 1:14 PM	28:00	6.29 pH	23.98 °C	2,329.1 µS/cm	-0.01 mg/L	5.26 NTU	47.8 mV	9.76 ft	110.00 ml/min
2/28/2023 1:18 PM	32:00	6.29 pH	23.71 °C	2,331.0 µS/cm	-0.01 mg/L	5.34 NTU	48.7 mV	9.72 ft	110.00 ml/min
2/28/2023 1:22 PM	36:00	6.29 pH	23.51 °C	2,336.1 µS/cm	-0.01 mg/L	5.74 NTU	48.9 mV	9.71 ft	110.00 ml/min
2/28/2023 1:26 PM	40:00	6.28 pH	23.89 °C	2,335.0 µS/cm	-0.01 mg/L	4.73 NTU	48.4 mV	9.70 ft	110.00 ml/min
2/28/2023 1:30 PM	44:00	6.27 pH	24.27 °C	2,333.8 µS/cm	-0.01 mg/L	4.44 NTU	49.1 mV	9.69 ft	100.00 ml/min
2/28/2023 1:34 PM	48:00	6.27 pH	24.22 °C	2,329.6 µS/cm	-0.01 mg/L	5.36 NTU	49.0 mV	9.68 ft	100.00 ml/min
2/28/2023 1:38 PM	52:00	6.28 pH	23.17 °C	2,338.1 µS/cm	-0.01 mg/L	4.56 NTU	51.3 mV	9.80 ft	120.00 ml/min
2/28/2023 1:42 PM	56:00	6.29 pH	22.81 °C	2,343.0 µS/cm	-0.01 mg/L	4.63 NTU	51.8 mV	10.04 ft	120.00 ml/min

2/28/2023 1:46 PM	01:00:00	6.28 pH	23.17 °C	2,338.2 µS/cm	0.00 mg/L	4.45 NTU	51.7 mV	10.15 ft	120.00 ml/min
2/28/2023 1:50 PM	01:04:00	6.28 pH	22.94 °C	2,340.6 µS/cm	0.00 mg/L	4.44 NTU	52.9 mV	10.22 ft	120.00 ml/min

## Samples

Sample ID:	Description:
MCM-12	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 10:30:08 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-14</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.1 ft</b> <b>Total Depth: 28.1 ft</b> <b>Initial Depth to Water: 9.51 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.1 ft</b> <b>Estimated Total Volume Pumped: 10080 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.06 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/2/2023 10:30 AM	00:00	6.48 pH	26.14 °C	4,319.4 µS/cm	0.49 mg/L	0.82 NTU	-5.9 mV	9.56 ft	2.33 PSU	280.00 ml/min
3/2/2023 10:34 AM	04:00	6.72 pH	23.27 °C	4,503.7 µS/cm	0.29 mg/L	0.68 NTU	-141.8 mV	9.56 ft	2.43 PSU	280.00 ml/min
3/2/2023 10:38 AM	08:00	6.66 pH	23.33 °C	4,872.7 µS/cm	0.24 mg/L	0.71 NTU	-174.7 mV	9.56 ft	2.65 PSU	280.00 ml/min
3/2/2023 10:42 AM	12:00	6.60 pH	23.53 °C	5,412.2 µS/cm	0.19 mg/L	0.69 NTU	-185.4 mV	9.56 ft	2.96 PSU	280.00 ml/min
3/2/2023 10:46 AM	16:00	6.56 pH	23.55 °C	5,902.5 µS/cm	0.16 mg/L	0.72 NTU	-189.8 mV	9.57 ft	3.25 PSU	280.00 ml/min
3/2/2023 10:50 AM	20:00	6.55 pH	23.69 °C	6,124.7 µS/cm	0.17 mg/L	0.71 NTU	-193.7 mV	9.57 ft	3.38 PSU	280.00 ml/min
3/2/2023 10:54 AM	24:00	6.55 pH	23.69 °C	6,261.2 µS/cm	0.13 mg/L	0.69 NTU	-196.7 mV	9.57 ft	3.46 PSU	280.00 ml/min
3/2/2023 10:58 AM	28:00	6.55 pH	23.48 °C	6,361.7 µS/cm	0.12 mg/L	0.68 NTU	-198.4 mV	9.57 ft	3.52 PSU	280.00 ml/min
3/2/2023 11:02 AM	32:00	6.55 pH	23.56 °C	6,441.9 µS/cm	0.10 mg/L	0.70 NTU	-200.2 mV	9.57 ft	3.56 PSU	280.00 ml/min
3/2/2023 11:06 AM	36:00	6.55 pH	23.42 °C	6,492.7 µS/cm	0.10 mg/L	0.63 NTU	-200.1 mV	9.57 ft	3.59 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-14	Metals, Inorganics, TDS, Alkalinity, Radium



# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 9:06:48 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-15</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 16.6 ft</b> <b>Total Depth: 26.6 ft</b> <b>Initial Depth to Water: 8.04 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 21.6 ft</b> <b>Estimated Total Volume Pumped: 7280 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 260 ml/min</b> <b>Final Draw Down: 0.14 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/2/2023 9:06 AM	00:00	6.09 pH	22.19 °C	51.19 µS/cm	1.04 mg/L	4.63 NTU	165.1 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:10 AM	04:00	4.56 pH	21.54 °C	50.70 µS/cm	0.87 mg/L	4.59 NTU	151.8 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:14 AM	08:00	4.49 pH	21.65 °C	50.72 µS/cm	0.33 mg/L	4.30 NTU	147.4 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:18 AM	12:00	4.45 pH	21.81 °C	50.66 µS/cm	0.18 mg/L	4.29 NTU	145.0 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:22 AM	16:00	4.43 pH	21.88 °C	51.45 µS/cm	0.14 mg/L	4.41 NTU	143.5 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:26 AM	20:00	4.45 pH	21.90 °C	52.88 µS/cm	0.12 mg/L	4.44 NTU	141.3 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:30 AM	24:00	4.44 pH	22.11 °C	54.50 µS/cm	0.12 mg/L	4.36 NTU	141.6 mV	8.18 ft	0.02 PSU	260.00 ml/min
3/2/2023 9:34 AM	28:00	4.45 pH	22.12 °C	54.97 µS/cm	0.11 mg/L	4.02 NTU	140.4 mV	8.18 ft	0.02 PSU	260.00 ml/min

## Samples

Sample ID:	Description:
MCM-15	Metals, Inorganics, TDS, Alkalinity, Radium
DUP-2	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 9:42:38 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** William Laaker

<b>Location Name: MCM-16</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.39 ft</b> <b>Total Depth: 28.39 ft</b> <b>Initial Depth to Water: 8.51 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.39 ft</b> <b>Estimated Total Volume Pumped: 6720 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 210 ml/min</b> <b>Final Draw Down: 0.09 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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**Test Notes:**  
Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
3/1/2023 9:42 AM	00:00	4.91 pH	21.33 °C	126.73 µS/cm	1.00 mg/L	5.28 NTU	131.2 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 9:46 AM	04:00	4.71 pH	21.28 °C	127.00 µS/cm	0.57 mg/L	8.15 NTU	118.3 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 9:50 AM	08:00	4.71 pH	21.28 °C	125.04 µS/cm	0.26 mg/L	11.94 NTU	110.9 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 9:54 AM	12:00	4.72 pH	21.35 °C	126.26 µS/cm	0.19 mg/L	9.68 NTU	106.7 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 9:58 AM	16:00	4.72 pH	21.37 °C	126.47 µS/cm	0.17 mg/L	9.05 NTU	104.0 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 10:02 AM	20:00	4.71 pH	21.37 °C	126.95 µS/cm	0.16 mg/L	6.13 NTU	102.4 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 10:06 AM	24:00	4.74 pH	21.46 °C	126.55 µS/cm	0.16 mg/L	4.73 NTU	100.4 mV	8.61 ft	0.06 PSU	210.00 ml/min
3/1/2023 10:10 AM	28:00	4.75 pH	21.48 °C	127.60 µS/cm	0.15 mg/L	3.98 NTU	99.5 mV	8.60 ft	0.06 PSU	210.00 ml/min
3/1/2023 10:14 AM	32:00	4.76 pH	21.50 °C	128.05 µS/cm	0.15 mg/L	3.12 NTU	98.3 mV	8.60 ft	0.06 PSU	210.00 ml/min

## Samples

Sample ID:	Description:
MCM-16	Metals, Inorganics, TDS, Alkalinity, Radium



# Low-Flow Test Report:

**Test Date / Time:** 2/28/2023 12:40:36 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** William Laaker

<b>Location Name: MCM-17</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.44 ft</b> <b>Total Depth: 27.44 ft</b> <b>Initial Depth to Water: 8.95 ft</b>	<b>Pump Type: QED Dedicated</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.44 ft</b> <b>Estimated Total Volume Pumped: 12240 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 170 ml/min</b> <b>Final Draw Down: -0.01 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789301</b>
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**Test Notes:**  
Prepurged 1 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
2/28/2023 12:40 PM	00:00	6.36 pH	24.74 °C	11,162 µS/cm	0.13 mg/L	2.60 NTU	-24.4 mV	9.00 ft	6.43 PSU	170.00 ml/min
2/28/2023 12:44 PM	04:00	6.34 pH	24.92 °C	11,213 µS/cm	0.08 mg/L	3.06 NTU	-13.7 mV	9.00 ft	6.46 PSU	170.00 ml/min
2/28/2023 12:48 PM	08:00	6.34 pH	25.01 °C	11,239 µS/cm	0.04 mg/L	4.89 NTU	-10.0 mV	9.00 ft	6.48 PSU	170.00 ml/min
2/28/2023 12:52 PM	12:00	6.34 pH	24.86 °C	11,254 µS/cm	0.02 mg/L	6.15 NTU	-9.4 mV	9.00 ft	6.49 PSU	170.00 ml/min
2/28/2023 12:56 PM	16:00	6.33 pH	25.14 °C	11,329 µS/cm	0.02 mg/L	7.00 NTU	-9.9 mV	9.00 ft	6.54 PSU	170.00 ml/min
2/28/2023 1:00 PM	20:00	6.34 pH	24.56 °C	11,411 µS/cm	0.02 mg/L	6.85 NTU	-9.1 mV	9.00 ft	6.59 PSU	170.00 ml/min
2/28/2023 1:04 PM	24:00	6.37 pH	24.02 °C	11,521 µS/cm	0.03 mg/L	7.67 NTU	-8.1 mV	8.98 ft	6.65 PSU	170.00 ml/min
2/28/2023 1:08 PM	28:00	6.31 pH	24.78 °C	11,497 µS/cm	0.01 mg/L	7.11 NTU	-9.6 mV	8.98 ft	6.64 PSU	170.00 ml/min
2/28/2023 1:12 PM	32:00	6.32 pH	25.29 °C	11,507 µS/cm	0.01 mg/L	7.27 NTU	-11.5 mV	8.98 ft	6.65 PSU	170.00 ml/min
2/28/2023 1:16 PM	36:00	6.35 pH	25.51 °C	11,540 µS/cm	0.01 mg/L	6.37 NTU	-11.6 mV	8.98 ft	6.67 PSU	170.00 ml/min
2/28/2023 1:20 PM	40:00	6.40 pH	24.51 °C	11,565 µS/cm	0.02 mg/L	6.82 NTU	-10.1 mV	8.97 ft	6.68 PSU	170.00 ml/min
2/28/2023 1:24 PM	44:00	6.43 pH	25.01 °C	11,585 µS/cm	0.00 mg/L	6.21 NTU	-10.4 mV	8.97 ft	6.70 PSU	170.00 ml/min
2/28/2023 1:28 PM	48:00	6.44 pH	25.51 °C	11,578 µS/cm	0.00 mg/L	5.12 NTU	-11.4 mV	8.97 ft	6.69 PSU	170.00 ml/min
2/28/2023 1:32 PM	52:00	6.46 pH	25.89 °C	11,560 µS/cm	0.00 mg/L	5.27 NTU	-12.9 mV	8.96 ft	6.68 PSU	170.00 ml/min
2/28/2023 1:36 PM	56:00	6.49 pH	25.69 °C	11,605 µS/cm	0.00 mg/L	5.35 NTU	-12.7 mV	8.95 ft	6.71 PSU	170.00 ml/min

2/28/2023 1:40 PM	01:00:00	6.52 pH	24.84 °C	11,624 µS/cm	0.00 mg/L	5.29 NTU	-10.3 mV	8.94 ft	6.72 PSU	170.00 ml/min
2/28/2023 1:44 PM	01:04:00	6.56 pH	24.06 °C	11,620 µS/cm	0.00 mg/L	4.13 NTU	-7.8 mV	8.94 ft	6.72 PSU	170.00 ml/min
2/28/2023 1:48 PM	01:08:00	6.59 pH	24.22 °C	11,662 µS/cm	0.00 mg/L	4.10 NTU	-7.6 mV	8.94 ft	6.74 PSU	170.00 ml/min
2/28/2023 1:52 PM	01:12:00	6.62 pH	23.97 °C	11,709 µS/cm	0.01 mg/L	4.06 NTU	-6.6 mV	8.94 ft	6.77 PSU	170.00 ml/min

## Samples

Sample ID:	Description:
MCM-17	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 2/28/2023 4:40:50 PM

Project: February 2023 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-18</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.86 ft</b> <b>Total Depth: 27.86 ft</b> <b>Initial Depth to Water: 5.98 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.86 ft</b> <b>Estimated Total Volume Pumped: 6720 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.33 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 1 liter

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
2/28/2023 4:40 PM	00:00	4.45 pH	25.79 °C	4,801.5 µS/cm	0.48 mg/L	0.89 NTU	160.1 mV	6.28 ft	2.61 PSU	280.00 ml/min
2/28/2023 4:44 PM	04:00	4.42 pH	21.63 °C	5,100.1 µS/cm	0.12 mg/L	0.56 NTU	155.3 mV	6.30 ft	2.78 PSU	280.00 ml/min
2/28/2023 4:48 PM	08:00	4.42 pH	21.21 °C	4,942.6 µS/cm	0.09 mg/L	0.55 NTU	151.5 mV	6.31 ft	2.68 PSU	280.00 ml/min
2/28/2023 4:52 PM	12:00	4.43 pH	21.24 °C	4,855.0 µS/cm	0.07 mg/L	0.57 NTU	149.1 mV	6.31 ft	2.63 PSU	280.00 ml/min
2/28/2023 4:56 PM	16:00	4.43 pH	21.10 °C	4,774.0 µS/cm	0.06 mg/L	0.58 NTU	147.0 mV	6.31 ft	2.59 PSU	280.00 ml/min
2/28/2023 5:00 PM	20:00	4.42 pH	21.30 °C	4,712.6 µS/cm	0.06 mg/L	0.71 NTU	146.1 mV	6.31 ft	2.55 PSU	280.00 ml/min
2/28/2023 5:04 PM	24:00	4.42 pH	21.14 °C	4,692.5 µS/cm	0.05 mg/L	0.64 NTU	145.0 mV	6.31 ft	2.54 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-18	Metals, Inorganics, TDS, Alkalinity, Radium
DUP-1	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

Test Date / Time: 2/28/2023 2:44:07 PM

Project: February 2023 McManus CCR Event

Operator Name: Kevin Stephenson

<b>Location Name: MCM-19</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.32 ft</b> <b>Total Depth: 28.32 ft</b> <b>Initial Depth to Water: 6.98 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 23.32 ft</b> <b>Estimated Total Volume Pumped: 3840 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 240 ml/min</b> <b>Final Draw Down: 0.13 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 2 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
2/28/2023 2:44 PM	00:00	5.06 pH	23.09 °C	19,878 µS/cm	0.14 mg/L	5.18 NTU	142.8 mV	7.13 ft	12.01 PSU	240.00 ml/min
2/28/2023 2:48 PM	04:00	5.08 pH	22.66 °C	19,674 µS/cm	0.16 mg/L	4.69 NTU	133.5 mV	7.12 ft	11.87 PSU	240.00 ml/min
2/28/2023 2:52 PM	08:00	5.08 pH	22.64 °C	19,514 µS/cm	0.19 mg/L	4.12 NTU	127.8 mV	7.12 ft	11.77 PSU	240.00 ml/min
2/28/2023 2:56 PM	12:00	5.08 pH	22.52 °C	19,406 µS/cm	0.17 mg/L	4.06 NTU	124.0 mV	7.11 ft	11.70 PSU	240.00 ml/min
2/28/2023 3:00 PM	16:00	5.08 pH	22.59 °C	19,204 µS/cm	0.15 mg/L	3.43 NTU	121.0 mV	7.11 ft	11.56 PSU	240.00 ml/min

## Samples

Sample ID:	Description:
MCM-19	Metals, Inorganics, TDS, Alkalinity, Radium

# Low-Flow Test Report:

**Test Date / Time:** 2/28/2023 1:11:22 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-20</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.05 ft</b> <b>Total Depth: 23.05 ft</b> <b>Initial Depth to Water: 8.58 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 18.05 ft</b> <b>Estimated Total Volume Pumped: 3200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.49 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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**Test Notes:**  
Pre-purged 1.5 liters

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
2/28/2023 1:11 PM	00:00	3.70 pH	23.92 °C	18,233 µS/cm	0.29 mg/L	1.19 NTU	154.0 mV	9.04 ft	10.94 PSU	200.00 ml/min
2/28/2023 1:15 PM	04:00	3.70 pH	23.06 °C	18,188 µS/cm	0.19 mg/L	1.12 NTU	136.4 mV	9.05 ft	10.90 PSU	200.00 ml/min
2/28/2023 1:19 PM	08:00	3.71 pH	22.72 °C	18,037 µS/cm	0.15 mg/L	1.04 NTU	133.1 mV	9.07 ft	10.80 PSU	200.00 ml/min
2/28/2023 1:23 PM	12:00	3.71 pH	22.33 °C	18,084 µS/cm	0.14 mg/L	1.07 NTU	132.4 mV	9.07 ft	10.83 PSU	200.00 ml/min
2/28/2023 1:27 PM	16:00	3.70 pH	22.56 °C	18,158 µS/cm	0.14 mg/L	0.94 NTU	134.0 mV	9.07 ft	10.88 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
MCM-20	Metals, Inorganics, TDS, Alkalinity, Radium, Sulfide, Diss. Fe

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 3:53:09 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> DPZ-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.5 ft <b>Total Depth:</b> 40.5 ft <b>Initial Depth to Water:</b> 7.07 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 35.5 ft <b>Estimated Total Volume Pumped:</b> 4000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 200 ml/min <b>Final Draw Down:</b> -0.02 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/2/2023 3:53 PM	00:00	7.09 pH	24.54 °C	18,305 µS/cm	0.28 mg/L	1.15 NTU	-130.3 mV	7.21 ft	200.00 ml/min
3/2/2023 3:57 PM	04:00	7.10 pH	23.90 °C	19,205 µS/cm	0.16 mg/L	0.61 NTU	-125.9 mV	7.18 ft	200.00 ml/min
3/2/2023 4:01 PM	08:00	7.11 pH	23.69 °C	19,279 µS/cm	0.12 mg/L	0.69 NTU	-125.6 mV	7.15 ft	200.00 ml/min
3/2/2023 4:05 PM	12:00	7.11 pH	23.83 °C	19,249 µS/cm	0.11 mg/L	0.46 NTU	-126.3 mV	7.13 ft	200.00 ml/min
3/2/2023 4:09 PM	16:00	7.12 pH	23.48 °C	19,201 µS/cm	0.10 mg/L	0.30 NTU	-125.6 mV	7.08 ft	200.00 ml/min
3/2/2023 4:13 PM	20:00	7.12 pH	23.21 °C	19,330 µS/cm	0.09 mg/L	0.28 NTU	-124.7 mV	7.05 ft	200.00 ml/min

## Samples

Sample ID:	Description:
DPZ-02	Metals, Inorganics, Alkalinity, TDS, Radium, sulfide, Diss Fe

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 2:28:52 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> DR-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 15.32 ft <b>Total Depth:</b> 30.32 ft <b>Initial Depth to Water:</b> 5.49 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 20.32 ft <b>Estimated Total Volume Pumped:</b> 3600 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> -0.17 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/2/2023 2:28 PM	00:00	6.98 pH	23.48 °C	4,695.0 µS/cm	0.27 mg/L	1.29 NTU	-131.8 mV	5.45 ft	180.00 ml/min
3/2/2023 2:32 PM	04:00	6.99 pH	23.05 °C	4,683.1 µS/cm	0.16 mg/L	0.85 NTU	-116.5 mV	5.43 ft	180.00 ml/min
3/2/2023 2:36 PM	08:00	6.99 pH	23.01 °C	4,683.4 µS/cm	0.11 mg/L	0.91 NTU	-112.8 mV	5.40 ft	180.00 ml/min
3/2/2023 2:40 PM	12:00	6.98 pH	23.17 °C	4,656.3 µS/cm	0.10 mg/L	0.63 NTU	-111.4 mV	5.38 ft	180.00 ml/min
3/2/2023 2:44 PM	16:00	6.97 pH	23.38 °C	4,662.7 µS/cm	0.09 mg/L	0.55 NTU	-112.5 mV	5.35 ft	180.00 ml/min
3/2/2023 2:48 PM	20:00	6.97 pH	23.32 °C	4,669.9 µS/cm	0.08 mg/L	0.53 NTU	-110.2 mV	5.32 ft	180.00 ml/min

## Samples

Sample ID:	Description:
DR-01	Metals, Inorganics, Alkalinity, TDS, Sulfide, Dis Fe

# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 11:13:36 AM

**Project:** February 2023 McManus CCR Event

**Operator Name:** Meredith Duncan

<b>Location Name:</b> DR-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 20.03 ft <b>Total Depth:</b> 30.03 ft <b>Initial Depth to Water:</b> 5.43 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 25.03 ft <b>Estimated Total Volume Pumped:</b> 9600 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 200 ml/min <b>Final Draw Down:</b> 0.12 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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## Test Notes:

Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/2/2023 11:13 AM	00:00	7.47 pH	23.64 °C	6,926.7 µS/cm	0.44 mg/L	3.97 NTU	-149.6 mV	5.45 ft	200.00 ml/min
3/2/2023 11:17 AM	04:00	7.49 pH	23.17 °C	7,149.0 µS/cm	0.26 mg/L	3.77 NTU	-138.5 mV	5.46 ft	200.00 ml/min
3/2/2023 11:21 AM	08:00	7.49 pH	23.16 °C	7,195.5 µS/cm	0.16 mg/L	2.97 NTU	-138.8 mV	5.48 ft	200.00 ml/min
3/2/2023 11:25 AM	12:00	7.48 pH	23.08 °C	7,455.6 µS/cm	0.11 mg/L	3.34 NTU	-137.2 mV	5.50 ft	200.00 ml/min
3/2/2023 11:29 AM	16:00	7.45 pH	23.04 °C	7,915.8 µS/cm	0.08 mg/L	3.20 NTU	-135.7 mV	5.51 ft	200.00 ml/min
3/2/2023 11:33 AM	20:00	7.43 pH	23.03 °C	8,169.8 µS/cm	0.07 mg/L	3.77 NTU	-136.5 mV	5.51 ft	200.00 ml/min
3/2/2023 11:37 AM	24:00	7.40 pH	23.08 °C	8,439.9 µS/cm	0.06 mg/L	3.62 NTU	-137.3 mV	5.52 ft	200.00 ml/min
3/2/2023 11:41 AM	28:00	7.37 pH	23.40 °C	8,821.9 µS/cm	0.05 mg/L	3.14 NTU	-137.7 mV	5.53 ft	200.00 ml/min
3/2/2023 11:45 AM	32:00	7.34 pH	23.26 °C	9,226.1 µS/cm	0.05 mg/L	3.70 NTU	-138.3 mV	5.53 ft	200.00 ml/min
3/2/2023 11:49 AM	36:00	7.33 pH	23.53 °C	9,451.4 µS/cm	0.04 mg/L	3.50 NTU	-138.5 mV	5.54 ft	200.00 ml/min
3/2/2023 11:53 AM	40:00	7.32 pH	23.71 °C	9,591.2 µS/cm	0.04 mg/L	3.24 NTU	-139.3 mV	5.54 ft	200.00 ml/min
3/2/2023 11:57 AM	44:00	7.31 pH	23.75 °C	9,649.5 µS/cm	0.03 mg/L	2.93 NTU	-138.9 mV	5.55 ft	200.00 ml/min
3/2/2023 12:01 PM	48:00	7.31 pH	23.75 °C	9,728.1 µS/cm	0.04 mg/L	2.49 NTU	-139.4 mV	5.55 ft	200.00 ml/min

## Samples



Sample ID:	Description:
DR-02	Metals, Inorganics, Alkalinity, TDS, Sulfide, Dis Fe

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 10:50:15 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.2 ft <b>Total Depth:</b> 24.2 ft <b>Initial Depth to Water:</b> 5.66 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 19.2 ft <b>Estimated Total Volume Pumped:</b> 9600 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 200 ml/min <b>Final Draw Down:</b> 0.16 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/1/2023 10:50 AM	00:00	6.98 pH	23.04 °C	6,183.6 µS/cm	0.32 mg/L	1.16 NTU	-145.1 mV	5.79 ft	200.00 ml/min
3/1/2023 10:54 AM	04:00	6.98 pH	22.78 °C	5,738.8 µS/cm	0.16 mg/L	0.60 NTU	-136.0 mV	5.79 ft	200.00 ml/min
3/1/2023 10:58 AM	08:00	6.97 pH	22.81 °C	5,744.4 µS/cm	0.09 mg/L	0.57 NTU	-133.7 mV	5.79 ft	200.00 ml/min
3/1/2023 11:02 AM	12:00	6.96 pH	22.72 °C	5,765.6 µS/cm	0.06 mg/L	0.52 NTU	-134.2 mV	5.79 ft	200.00 ml/min
3/1/2023 11:06 AM	16:00	7.01 pH	22.68 °C	5,938.8 µS/cm	0.05 mg/L	0.48 NTU	-132.9 mV	5.79 ft	200.00 ml/min
3/1/2023 11:10 AM	20:00	7.08 pH	22.90 °C	6,269.3 µS/cm	0.04 mg/L	0.42 NTU	-131.7 mV	5.79 ft	200.00 ml/min
3/1/2023 11:14 AM	24:00	7.09 pH	23.09 °C	6,305.6 µS/cm	0.04 mg/L	0.41 NTU	-131.2 mV	5.79 ft	200.00 ml/min
3/1/2023 11:18 AM	28:00	7.09 pH	23.03 °C	6,297.3 µS/cm	0.04 mg/L	0.38 NTU	-130.9 mV	5.79 ft	200.00 ml/min
3/1/2023 11:22 AM	32:00	7.09 pH	23.00 °C	6,307.6 µS/cm	0.04 mg/L	0.28 NTU	-129.9 mV	5.80 ft	200.00 ml/min
3/1/2023 11:26 AM	36:00	7.10 pH	23.13 °C	6,300.0 µS/cm	0.03 mg/L	0.31 NTU	-131.0 mV	5.80 ft	200.00 ml/min
3/1/2023 11:30 AM	40:00	7.10 pH	23.18 °C	6,304.9 µS/cm	0.03 mg/L	0.34 NTU	-131.0 mV	5.81 ft	200.00 ml/min
3/1/2023 11:34 AM	44:00	7.11 pH	23.15 °C	6,293.3 µS/cm	0.03 mg/L	0.29 NTU	-130.2 mV	5.81 ft	200.00 ml/min
3/1/2023 11:38 AM	48:00	7.11 pH	23.25 °C	6,280.4 µS/cm	0.02 mg/L	0.25 NTU	-130.3 mV	5.82 ft	200.00 ml/min

**Samples**

Sample ID:	Description:
PT-01	Metals, Inorganics, Alkalinity, TDS, Sulfide, Dis Fe

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 1:36:12 PM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.38 ft <b>Total Depth:</b> 24.38 ft <b>Initial Depth to Water:</b> 5.62 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 19.38 ft <b>Estimated Total Volume Pumped:</b> 6480 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> 0.8 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/1/2023 1:36 PM	00:00	6.90 pH	22.91 °C	5,164.6 µS/cm	0.27 mg/L	0.88 NTU	-105.4 mV	6.66 ft	180.00 ml/min
3/1/2023 1:40 PM	04:00	6.90 pH	22.34 °C	5,017.7 µS/cm	0.17 mg/L	0.41 NTU	-84.5 mV	6.63 ft	180.00 ml/min
3/1/2023 1:44 PM	08:00	6.90 pH	22.23 °C	5,033.9 µS/cm	0.11 mg/L	0.32 NTU	-82.7 mV	6.60 ft	180.00 ml/min
3/1/2023 1:48 PM	12:00	6.90 pH	22.46 °C	5,011.8 µS/cm	0.08 mg/L	0.45 NTU	-80.5 mV	6.58 ft	180.00 ml/min
3/1/2023 1:52 PM	16:00	6.90 pH	22.45 °C	5,010.8 µS/cm	0.07 mg/L	0.37 NTU	-80.9 mV	6.55 ft	180.00 ml/min
3/1/2023 1:56 PM	20:00	7.18 pH	22.44 °C	6,119.6 µS/cm	0.06 mg/L	0.47 NTU	-116.9 mV	6.52 ft	180.00 ml/min
3/1/2023 2:00 PM	24:00	7.19 pH	22.36 °C	6,158.0 µS/cm	0.06 mg/L	0.26 NTU	-118.9 mV	6.51 ft	180.00 ml/min
3/1/2023 2:04 PM	28:00	7.19 pH	22.43 °C	6,163.1 µS/cm	0.05 mg/L	0.29 NTU	-118.5 mV	6.49 ft	180.00 ml/min
3/1/2023 2:08 PM	32:00	7.19 pH	22.59 °C	6,170.5 µS/cm	0.04 mg/L	0.26 NTU	-121.0 mV	6.45 ft	180.00 ml/min
3/1/2023 2:12 PM	36:00	7.17 pH	22.77 °C	6,148.2 µS/cm	0.04 mg/L	0.25 NTU	-120.2 mV	6.42 ft	180.00 ml/min

## Samples

Sample ID:	Description:
PT-02	Metals, Inorganics, Alkalinity, TDS, Sulfide, Dis Fe



# Low-Flow Test Report:

**Test Date / Time:** 3/2/2023 9:15:52 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name: PT-03</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 15.36 ft</b> <b>Total Depth: 25.36 ft</b> <b>Initial Depth to Water: 4.98 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 20.36 ft</b> <b>Estimated Total Volume Pumped: 13680 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 190 ml/min</b> <b>Final Draw Down: 0.43 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 893479</b>
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/2/2023 9:15 AM	00:00	6.74 pH	21.87 °C	5,472.7 µS/cm	0.31 mg/L	2.13 NTU	-126.1 mV	5.15 ft	190.00 ml/min
3/2/2023 9:19 AM	04:00	6.79 pH	21.78 °C	5,512.1 µS/cm	0.14 mg/L	1.66 NTU	-116.8 mV	5.15 ft	190.00 ml/min
3/2/2023 9:23 AM	08:00	6.85 pH	21.92 °C	5,514.8 µS/cm	0.12 mg/L	1.32 NTU	-118.8 mV	5.16 ft	190.00 ml/min
3/2/2023 9:27 AM	12:00	6.89 pH	22.03 °C	5,489.1 µS/cm	0.10 mg/L	0.79 NTU	-123.7 mV	5.17 ft	190.00 ml/min
3/2/2023 9:31 AM	16:00	6.89 pH	22.22 °C	5,490.0 µS/cm	0.09 mg/L	0.51 NTU	-126.3 mV	5.20 ft	190.00 ml/min
3/2/2023 9:35 AM	20:00	6.91 pH	22.23 °C	5,505.1 µS/cm	0.08 mg/L	0.62 NTU	-128.2 mV	5.22 ft	190.00 ml/min
3/2/2023 9:39 AM	24:00	7.06 pH	22.22 °C	5,520.5 µS/cm	0.07 mg/L	0.36 NTU	-136.1 mV	5.24 ft	190.00 ml/min
3/2/2023 9:43 AM	28:00	6.96 pH	22.29 °C	5,532.0 µS/cm	0.07 mg/L	0.27 NTU	-131.8 mV	5.25 ft	190.00 ml/min
3/2/2023 9:47 AM	32:00	6.98 pH	22.37 °C	5,546.3 µS/cm	0.06 mg/L	0.59 NTU	-133.6 mV	5.27 ft	190.00 ml/min
3/2/2023 9:51 AM	36:00	7.08 pH	22.49 °C	5,543.9 µS/cm	0.06 mg/L	0.28 NTU	-139.4 mV	5.28 ft	190.00 ml/min
3/2/2023 9:55 AM	40:00	7.11 pH	22.54 °C	5,558.4 µS/cm	0.05 mg/L	0.20 NTU	-141.7 mV	5.30 ft	190.00 ml/min
3/2/2023 9:59 AM	44:00	7.03 pH	22.63 °C	5,571.9 µS/cm	0.05 mg/L	0.35 NTU	-137.9 mV	5.30 ft	190.00 ml/min
3/2/2023 10:03 AM	48:00	7.15 pH	22.68 °C	5,589.8 µS/cm	0.05 mg/L	0.31 NTU	-142.9 mV	5.31 ft	190.00 ml/min
3/2/2023 10:07 AM	52:00	7.05 pH	22.63 °C	5,593.8 µS/cm	0.05 mg/L	0.19 NTU	-139.0 mV	5.32 ft	190.00 ml/min
3/2/2023 10:11 AM	56:00	7.18 pH	22.54 °C	5,613.4 µS/cm	0.05 mg/L	0.16 NTU	-144.4 mV	5.34 ft	190.00 ml/min

3/2/2023 10:15 AM	01:00:00	7.01 pH	22.45 °C	5,610.9 µS/cm	0.05 mg/L	0.25 NTU	-136.1 mV	5.36 ft	190.00 ml/min
3/2/2023 10:19 AM	01:04:00	7.13 pH	22.46 °C	5,634.4 µS/cm	0.05 mg/L	0.27 NTU	-142.2 mV	5.39 ft	190.00 ml/min
3/2/2023 10:23 AM	01:08:00	7.18 pH	22.54 °C	5,627.6 µS/cm	0.04 mg/L	0.21 NTU	-144.3 mV	5.40 ft	190.00 ml/min
3/2/2023 10:27 AM	01:12:00	7.11 pH	22.58 °C	5,637.4 µS/cm	0.04 mg/L	0.21 NTU	-141.8 mV	5.41 ft	190.00 ml/min

## Samples

Sample ID:	Description:
PT-03	Metals, Inorganics, Alkalinity, TDS, Sulfide, Dis Fe

# Low-Flow Test Report:

**Test Date / Time:** 3/1/2023 9:43:09 AM  
**Project:** February 2023 McManus CCR Event  
**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-04D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.83 ft <b>Total Depth:</b> 40.83 ft <b>Initial Depth to Water:</b> 4.56 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 35.83 ft <b>Estimated Total Volume Pumped:</b> 4400 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 220 ml/min <b>Final Draw Down:</b> 1.31 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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**Test Notes:**  
Prepurge 2L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
3/1/2023 9:43 AM	00:00	7.07 pH	22.68 °C	15,877 µS/cm	0.19 mg/L	0.90 NTU	-138.4 mV	5.80 ft	220.00 ml/min
3/1/2023 9:47 AM	04:00	7.09 pH	22.54 °C	15,857 µS/cm	0.14 mg/L	0.44 NTU	-130.1 mV	5.82 ft	220.00 ml/min
3/1/2023 9:51 AM	08:00	7.07 pH	22.63 °C	15,870 µS/cm	0.11 mg/L	0.19 NTU	-129.1 mV	5.84 ft	220.00 ml/min
3/1/2023 9:55 AM	12:00	7.05 pH	22.72 °C	15,885 µS/cm	0.10 mg/L	0.48 NTU	-130.0 mV	5.85 ft	220.00 ml/min
3/1/2023 9:59 AM	16:00	7.04 pH	22.74 °C	15,979 µS/cm	0.09 mg/L	0.04 NTU	-129.8 mV	5.86 ft	220.00 ml/min
3/1/2023 10:03 AM	20:00	7.02 pH	22.84 °C	15,978 µS/cm	0.08 mg/L	0.00 NTU	-130.7 mV	5.87 ft	220.00 ml/min

## Samples

Sample ID:	Description:
PT-04D	Metals, Inorganics, TDS, Alkalinity, Sulfide, Dis. Fe



EQUIPMENT CALIBRATION LOG

Field Technician: <u>Kristi R. [Signature]</u>	Date: <u>6/13/23</u>	Time (Calibration): <u>1336</u>	Time (Mid-day Check): <u>1658</u>
AutoTroll SN: <u>789317</u>	Turbidity Meter Type: <u>LAQUA 2020</u>		SN: <u>7042-3818</u>
Project: <u>June 2023 Supplemental</u>	Weather Conditions: <u>88°/68° 30%</u>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air sat)				<u>99.80</u>	
Specific Conductance (µS/cm)	<u>22250153 11/23</u>	<u>30.89</u>	<u>4490</u>	<u>4475.00</u>	
pH (4)	<u>22250153 11/23</u>	<u>31.13</u>	<u>4</u>	<u>4.07</u>	
pH (7)	<u>2216893 11/23</u>	<u>30.23</u>	<u>7</u>	<u>7.05</u>	
pH (10)	<u>21320202 12/23</u>	<u>28.93</u>	<u>10</u>	<u>9.00</u>	
ORP (mV)	<u>21390144 11/23</u>	<u>30.28</u>	<u>228</u>	<u>211.2</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	<u>0</u>	<u>0.02</u>	<u>±0.5 NTU</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Turbidity 1 NTU	<u>1</u>	<u>1.07</u>	<u>±0.5 NTU</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Turbidity 10 NTU	<u>10</u>	<u>8.32</u>	<u>±0.5 NTU</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	<u>30.78</u>	<u>4</u>	<u>4.05</u>	<u>±0.1 SU</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Mid-Day pH (7) check	<u>31.55</u>	<u>7</u>	<u>7.22</u>	<u>±0.1 SU</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Mid-Day pH (10) check	<u>31.85</u>	<u>10</u>	<u>9.89</u>	<u>±0.1 SU</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

**EQUIPMENT CALIBRATION LOG**

Field Technician: Kevin Stephenson Date: 6/14/23 Time (Calibration): 0830 Time (Mid-day Check): 1421  
 AquaTroll SN: 789317 Turbidity Meter Type: LAMMATE 2070 SN: 7042-3818  
 Project: June 2023 Supplemental Weather Conditions: 90% / 68° / 70%

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<u>99.21</u>	
Specific Conductance (µS/cm)	<u>22250153 11/23</u>	<u>23.45</u>	<u>4490</u>	<u>4448.2</u>	
pH (4)	<u>22150153 11/23</u>	<u>23.60</u>	<u>4</u>	<u>3.96</u>	
pH (7)	<u>2216893 11/23</u>	<u>23.72</u>	<u>7</u>	<u>6.99</u>	
pH (10)	<u>21320202 12/23</u>	<u>23.60</u>	<u>10</u>	<u>9.62</u>	
ORP (mV)	<u>21390144 11/23</u>	<u>23.78</u>	<u>228</u>	<u>238.7</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?	Comments
Turbidity 0 NTU	<u>0</u>	<u>0.19</u>	<u>±0.5 NTU</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU	<u>1</u>	<u>1.31</u>	<u>±0.5 NTU</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU	<u>10</u>	<u>8.92</u>	<u>±0.5 NTU</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?	Comments
Mid-Day pH (4) check	<u>28.02</u>	<u>4</u>	<u>4.10</u>	<u>±0.1 SU</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Mid-Day pH (7) check	<u>28.07</u>	<u>7</u>	<u>7.08</u>	<u>±0.1 SU</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (10) check	<u>28.21</u>	<u>10</u>	<u>10.01</u>	<u>±0.1 SU</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Field Technician: Meredith Duncan Date: 6/13/23 1320 1606  
 AquaTrol SN: 863479 Turbidity Meter Type: la Motte 2289-2612  
 Location: Memphis Weather Conditions: 94° Sunny

### Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading of Calibration	Comments
DO (%) <small>(Typ. 100% water saturated air sat)</small>				99.98	
Specific Conductance (µS/cm)	22250153 11/23	30.41	4490	4936.6	
pH (4)	22250153 11/23	30.48	4	4.04	
pH (7)	2216893 11/23	30.17	7	7.04	
pH (10)	21320202 12/23	29.82	10	9.96	
ORP (mV)	21390144 11/23	24.68	228	221.4	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.08	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.89	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.76	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	31.83	4	4.12	±0.1 SU	Yes	No	
Mid-Day pH (7) check	31.36	7	7.16	±0.1 SU	Yes	No	
Mid-Day pH (10) check	31.70	10	10.15	±0.1 SU	Yes	No	

## EQUIPMENT CALIBRATION LOG

Technician: <u>Meredith Duran</u>	Date: <u>6/14/23</u>	Time (Calibration): <u>0810</u>	Time (Mid-day Check): <u>1350</u>
Trial SN: <u>393479</u>	Turbidity Meter Type: <u>la Motte</u>	SN: <u>2289-2612</u>	
Project: <u>McManus Truss / June 2023</u>	Weather: <u>80° Sunny</u>		

### Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DIP (%) <small>(Typ. 100% under ambient air cell)</small>				<u>99.31</u>	
Specific Conductance (µS/cm)	<u>22250153 11/23</u>	<u>22.49</u>	<u>4490</u>	<u>4480</u>	
pH (4)	<u>22250153 11/23</u>	<u>22.63</u>	<u>4</u>	<u>3.95</u>	
pH (7)	<u>2216893 11/23</u>	<u>22.90</u>	<u>7</u>	<u>6.83</u>	
pH (10)	<u>21320202 12/23</u>	<u>23.20</u>	<u>10</u>	<u>9.84</u>	
ORP (mV)	<u>21390144 11/23</u>	<u>23.69</u>	<u>228</u>	<u>239.4</u>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	<u>0</u>	<u>0.06</u>	<u>-0.5 NTU</u>	Yes	No	
Turbidity 1 NTU	<u>1</u>	<u>1.05</u>	<u>-0.5 NTU</u>	Yes	No	
Turbidity 10 NTU	<u>10</u>	<u>9.86</u>	<u>-0.5 NTU</u>	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<u>28.39</u>	<u>4</u>	<u>4.12</u>	<u>-0.1 SU</u>	Yes	No	
Mid-Day pH (7) check	<u>27.46</u>	<u>7</u>	<u>10.19</u>	<u>-0.1 SU</u>	Yes	No	
Mid-Day pH (10) check	<u>28.03</u>	<u>10</u>	<u>10.17</u>	<u>-0.1 SU</u>	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician: <b>William Loaker</b>	Date: <b>6/13/23</b>	Type (Calibration): <b>13 20</b>	Time (Mid-day Check): <b>16 05</b>
Asset/Tool SN: <b>789310</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>2068-0320</b>	
Project: <b>June 2023 Supplemental</b>	Weather Conditions: <b>93°/75° sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (Typ. 100% water saturated air sat)				101.12	
Specific Conductance (µS/cm)	22250153 11/23	30.53	4490	49210	
pH (4)	22250153 11/23	30.44	4	3.99	
pH (7)	2216893 11/23	29.93	7	6.98	
pH (10)	21320202 12/23	29.68	10	9.94	
ORP (mV)	21390144 11/23	29.23	228	224.2	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.92	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.92	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	32.24	4	4.14	±0.1 SU	Yes	No	
Mid-Day pH (7) check	32.42	7	7.15	±0.1 SU	Yes	No	
Mid-Day pH (10) check	33.46	10	10.15	±0.1 SU	Yes	No	

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>William Laarer</b>	Date: <b>6/14/23</b>	Time (Calibration): <b>8:10</b>	Time (Mid-day Check): <b>14:15</b>
AquaTroll SN: <b>189310</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>2068-0320</b>	
Project: <b>June 2023 Supplemental</b>	Weather Conditions: <b>90°/68° sunny 70% rain</b>		

**Calibration Log**

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air sat)				101.09	
Specific Conductance (µS/cm)	22250153 11/23	23.25	4490	4448.8	
σD (4)	22250153 11/23	23.82	4	4.03	
pH (7)	2216893 11/23	23.96	7	6.99	
pH (10)	21320202 12/23	23.91	10	9.99	
ORP (mV)	21390144 11/23	23.24.00	228	231.6	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.94	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.83	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Field Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	28.06	4	4.10	±0.1 SU	Yes	No	
Mid-Day pH (7) check	27.25	7	7.17	±0.1 SU	Yes	No	
Mid-Day pH (10) check	27.60	10	10.17	±0.1 SU	Yes	No	

# Low-Flow Test Report:

**Test Date / Time:** 6/13/2023 2:44:30 PM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-04D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.83 ft <b>Total Depth:</b> 40.83 ft <b>Initial Depth to Water:</b> 5.84 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 35.83 ft <b>Estimated Total Volume Pumped:</b> 3400 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 170 ml/min <b>Final Draw Down:</b> 0.13 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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## Test Notes:

Prepurge 3L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/13/2023 2:44 PM	00:00	7.08 pH	24.01 °C	14,652 µS/cm	0.13 mg/L	3.35 NTU	-134.8 mV	6.09 ft	170.00 ml/min
6/13/2023 2:48 PM	04:00	7.08 pH	23.98 °C	14,513 µS/cm	0.11 mg/L	2.03 NTU	-125.6 mV	6.07 ft	170.00 ml/min
6/13/2023 2:52 PM	08:00	7.08 pH	23.86 °C	14,518 µS/cm	0.10 mg/L	0.88 NTU	-123.9 mV	6.05 ft	170.00 ml/min
6/13/2023 2:56 PM	12:00	7.08 pH	23.84 °C	14,546 µS/cm	0.09 mg/L	0.98 NTU	-123.5 mV	6.00 ft	170.00 ml/min
6/13/2023 3:00 PM	16:00	7.08 pH	23.82 °C	14,462 µS/cm	0.09 mg/L	0.81 NTU	-124.0 mV	5.99 ft	170.00 ml/min
6/13/2023 3:04 PM	20:00	7.07 pH	23.86 °C	14,454 µS/cm	0.08 mg/L	0.61 NTU	-123.7 mV	5.97 ft	170.00 ml/min

## Samples

Sample ID:	Description:
PT-04D	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

**Test Date / Time:** 6/13/2023 2:54:08 PM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** William Laaker

<b>Location Name:</b> DPZ-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 33.46 ft <b>Total Depth:</b> 43.46 ft <b>Initial Depth to Water:</b> 7.9 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 38.46 ft <b>Estimated Total Volume Pumped:</b> 2880 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> 0.01 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789310
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## Test Notes:

Prepurged 2 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/13/2023 2:54 PM	00:00	7.16 pH	25.67 °C	18,505 µS/cm	0.16 mg/L	0.01 NTU	-179.9 mV	8.00 ft	11.12 PSU	180.00 ml/min
6/13/2023 2:58 PM	04:00	7.13 pH	25.37 °C	18,622 µS/cm	0.12 mg/L	0.02 NTU	-188.2 mV	7.99 ft	11.20 PSU	180.00 ml/min
6/13/2023 3:02 PM	08:00	7.12 pH	25.59 °C	18,700 µS/cm	0.10 mg/L	0.03 NTU	-208.5 mV	7.97 ft	11.25 PSU	180.00 ml/min
6/13/2023 3:06 PM	12:00	7.12 pH	25.32 °C	18,617 µS/cm	0.09 mg/L	0.09 NTU	-229.2 mV	7.93 ft	11.20 PSU	180.00 ml/min
6/13/2023 3:10 PM	16:00	7.12 pH	25.18 °C	18,617 µS/cm	0.08 mg/L	0.07 NTU	-247.3 mV	7.91 ft	11.19 PSU	180.00 ml/min

## Samples

Sample ID:	Description:
DPZ-02	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS



# Low-Flow Test Report:

**Test Date / Time:** 6/13/2023 2:56:14 PM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** Kevin Stephenson

<b>Location Name: MCM-20</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.05 ft</b> <b>Total Depth: 23.05 ft</b> <b>Initial Depth to Water: 8.81 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 18.05 ft</b> <b>Estimated Total Volume Pumped: 3520 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 220 ml/min</b> <b>Final Draw Down: 0.35 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 3 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/13/2023 2:56 PM	00:00	3.66 pH	25.76 °C	16,348 µS/cm	0.15 mg/L	1.92 NTU	161.2 mV	9.10 ft	9.72 PSU	220.00 ml/min
6/13/2023 3:00 PM	04:00	3.65 pH	25.61 °C	16,314 µS/cm	0.12 mg/L	1.16 NTU	168.2 mV	9.18 ft	9.70 PSU	220.00 ml/min
6/13/2023 3:04 PM	08:00	3.64 pH	24.85 °C	16,297 µS/cm	0.11 mg/L	1.60 NTU	168.1 mV	9.17 ft	9.69 PSU	220.00 ml/min
6/13/2023 3:08 PM	12:00	3.64 pH	24.70 °C	16,276 µS/cm	0.10 mg/L	1.48 NTU	170.7 mV	9.16 ft	9.67 PSU	220.00 ml/min
6/13/2023 3:12 PM	16:00	3.64 pH	24.71 °C	16,237 µS/cm	0.09 mg/L	1.54 NTU	173.6 mV	9.16 ft	9.65 PSU	220.00 ml/min

## Samples

Sample ID:	Description:
MCM-20	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

**Test Date / Time:** 6/14/2023 9:44:13 AM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** Kevin Stephenson

<b>Location Name:</b> PT-02 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.38 ft <b>Total Depth:</b> 24.38 ft <b>Initial Depth to Water:</b> 4.83 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 19.38 ft <b>Estimated Total Volume Pumped:</b> 4000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 250 ml/min <b>Final Draw Down:</b> 0.55 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 789317
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## Test Notes:

Pre-purged 6 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/14/2023 9:44 AM	00:00	6.95 pH	23.77 °C	6,631.0 µS/cm	0.09 mg/L	0.30 NTU	-109.4 mV	5.18 ft	3.68 PSU	250.00 ml/min
6/14/2023 9:48 AM	04:00	6.96 pH	23.63 °C	6,727.1 µS/cm	0.08 mg/L	0.56 NTU	-112.3 mV	5.24 ft	3.73 PSU	250.00 ml/min
6/14/2023 9:52 AM	08:00	6.96 pH	23.76 °C	6,708.7 µS/cm	0.08 mg/L	0.70 NTU	-112.8 mV	5.29 ft	3.72 PSU	250.00 ml/min
6/14/2023 9:56 AM	12:00	6.96 pH	23.79 °C	6,715.4 µS/cm	0.08 mg/L	0.43 NTU	-115.3 mV	5.33 ft	3.73 PSU	250.00 ml/min
6/14/2023 10:00 AM	16:00	6.96 pH	23.81 °C	6,701.1 µS/cm	0.07 mg/L	0.63 NTU	-115.6 mV	5.38 ft	3.72 PSU	250.00 ml/min

## Samples

Sample ID:	Description:
PT-02	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

Test Date / Time: 6/14/2023 9:51:30 AM

Project: Plant McManus June 2023 Supplemental

Operator Name: William Laaker

<b>Location Name: DR-02</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 15 ft</b> <b>Top of Screen: 15.03 ft</b> <b>Total Depth: 30.03 ft</b> <b>Initial Depth to Water: 4.71 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.53 ft</b> <b>Estimated Total Volume Pumped: 4000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.4 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789310</b>
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## Test Notes:

Prepurged 6 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/14/2023 9:51 AM	00:00	7.51 pH	23.68 °C	9,049.3 µS/cm	0.05 mg/L	0.08 NTU	-182.1 mV	4.96 ft	5.13 PSU	200.00 ml/min
6/14/2023 9:55 AM	04:00	7.32 pH	23.64 °C	9,234.3 µS/cm	0.05 mg/L	0.04 NTU	-181.4 mV	4.99 ft	5.24 PSU	200.00 ml/min
6/14/2023 9:59 AM	08:00	7.31 pH	23.67 °C	9,357.7 µS/cm	0.05 mg/L	0.02 NTU	-186.7 mV	5.01 ft	5.32 PSU	200.00 ml/min
6/14/2023 10:03 AM	12:00	7.30 pH	23.81 °C	9,399.1 µS/cm	0.04 mg/L	0.02 NTU	-193.2 mV	5.05 ft	5.34 PSU	200.00 ml/min
6/14/2023 10:07 AM	16:00	7.30 pH	23.90 °C	9,469.7 µS/cm	0.04 mg/L	0.03 NTU	-201.2 mV	5.08 ft	5.39 PSU	200.00 ml/min
6/14/2023 10:11 AM	20:00	7.30 pH	23.78 °C	9,500.2 µS/cm	0.04 mg/L	0.02 NTU	-209.0 mV	5.11 ft	5.41 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
DR-02	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

**Test Date / Time:** 6/14/2023 9:51:50 AM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** Meredith Duncan

<b>Location Name:</b> PT-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 14.2 ft <b>Total Depth:</b> 24.2 ft <b>Initial Depth to Water:</b> 4.77 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 19.2 ft <b>Estimated Total Volume Pumped:</b> 3000 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 0.51 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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## Test Notes:

Prepurge 6L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/14/2023 9:51 AM	00:00	7.00 pH	23.22 °C	6,164.7 µS/cm	0.08 mg/L	1.30 NTU	-99.8 mV	5.19 ft	150.00 ml/min
6/14/2023 9:55 AM	04:00	6.99 pH	23.22 °C	6,149.3 µS/cm	0.07 mg/L	1.52 NTU	-101.7 mV	5.20 ft	150.00 ml/min
6/14/2023 9:59 AM	08:00	6.98 pH	23.26 °C	6,137.5 µS/cm	0.07 mg/L	1.17 NTU	-100.2 mV	5.21 ft	150.00 ml/min
6/14/2023 10:03 AM	12:00	6.97 pH	23.35 °C	6,138.5 µS/cm	0.06 mg/L	1.13 NTU	-97.8 mV	5.22 ft	150.00 ml/min
6/14/2023 10:07 AM	16:00	6.97 pH	23.48 °C	6,121.4 µS/cm	0.06 mg/L	0.98 NTU	-97.6 mV	5.25 ft	150.00 ml/min
6/14/2023 10:11 AM	20:00	6.97 pH	23.43 °C	6,094.6 µS/cm	0.06 mg/L	0.87 NTU	-95.6 mV	5.28 ft	150.00 ml/min

## Samples

Sample ID:	Description:
PT-01	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

**Test Date / Time:** 6/14/2023 11:26:06 AM

**Project:** Plant McManus June 2023 Supplemental

**Operator Name:** Meredith Duncan

<b>Location Name:</b> DR-01 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 15 ft <b>Top of Screen:</b> 15.32 ft <b>Total Depth:</b> 30.32 ft <b>Initial Depth to Water:</b> 5.35 ft	<b>Pump Type:</b> GeoTech Peristaltic <b>Tubing Type:</b> LDPE <b>Pump Intake From TOC:</b> 22.82 ft <b>Estimated Total Volume Pumped:</b> 3600 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> 0.22 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 893479
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## Test Notes:

Prepurge 7L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1000	+/- 5 %	+/- 10 %	+/- 5	+/- 1000	+/- 0.3	
6/14/2023 11:26 AM	00:00	6.77 pH	23.67 °C	6,227.5 µS/cm	0.07 mg/L	1.04 NTU	-112.0 mV	5.50 ft	180.00 ml/min
6/14/2023 11:30 AM	04:00	6.77 pH	23.58 °C	5,955.0 µS/cm	0.07 mg/L	1.26 NTU	-90.7 mV	5.52 ft	180.00 ml/min
6/14/2023 11:34 AM	08:00	6.80 pH	23.53 °C	6,073.9 µS/cm	0.07 mg/L	1.00 NTU	-90.4 mV	5.53 ft	180.00 ml/min
6/14/2023 11:38 AM	12:00	6.83 pH	23.52 °C	6,178.1 µS/cm	0.06 mg/L	0.96 NTU	-92.5 mV	5.55 ft	180.00 ml/min
6/14/2023 11:42 AM	16:00	6.85 pH	23.48 °C	6,293.2 µS/cm	0.06 mg/L	0.80 NTU	-92.9 mV	5.56 ft	180.00 ml/min
6/14/2023 11:46 AM	20:00	6.88 pH	23.45 °C	6,381.0 µS/cm	0.06 mg/L	0.81 NTU	-96.1 mV	5.57 ft	180.00 ml/min

## Samples

Sample ID:	Description:
DR-01	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

Test Date / Time: 6/14/2023 11:27:09 AM

Project: Plant McManus June 2023 Supplemental

Operator Name: William Laaker

<b>Location Name: PT-03</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 15.36 ft</b> <b>Total Depth: 25.36 ft</b> <b>Initial Depth to Water: 5.3 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 20.36 ft</b> <b>Estimated Total Volume Pumped: 4000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.25 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789310</b>
--	--	--

## Test Notes:

Prepurged 6 L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/14/2023 11:27 AM	00:00	7.12 pH	24.70 °C	6,730.2 µS/cm	0.05 mg/L	0.05 NTU	-185.4 mV	5.49 ft	3.74 PSU	200.00 ml/min
6/14/2023 11:31 AM	04:00	6.92 pH	24.34 °C	6,732.8 µS/cm	0.05 mg/L	0.11 NTU	-192.1 mV	5.51 ft	3.74 PSU	200.00 ml/min
6/14/2023 11:35 AM	08:00	6.92 pH	24.52 °C	6,751.1 µS/cm	0.05 mg/L	0.10 NTU	-206.9 mV	5.53 ft	3.75 PSU	200.00 ml/min
6/14/2023 11:39 AM	12:00	6.92 pH	24.50 °C	6,763.4 µS/cm	0.05 mg/L	0.01 NTU	-224.8 mV	5.54 ft	3.76 PSU	200.00 ml/min
6/14/2023 11:43 AM	16:00	6.93 pH	24.41 °C	6,768.7 µS/cm	0.05 mg/L	0.14 NTU	-243.9 mV	5.54 ft	3.76 PSU	200.00 ml/min
6/14/2023 11:47 AM	20:00	6.91 pH	24.71 °C	6,729.5 µS/cm	0.04 mg/L	0.10 NTU	-258.3 mV	5.55 ft	3.74 PSU	200.00 ml/min

## Samples

Sample ID:	Description:
PT-03	Metals, Diss. Metals, Sulfide, Sulfate, Nitrate, TDS

# Low-Flow Test Report:

Test Date / Time: 6/14/2023 11:30:09 AM

Project: Plant McManus June 2023 Supplemental

Operator Name: Kevin Stephenson

<b>Location Name: MCM-06</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.23 ft</b> <b>Total Depth: 27.23 ft</b> <b>Initial Depth to Water: 7.91 ft</b>	<b>Pump Type: GeoTech Peristaltic</b> <b>Tubing Type: LDPE</b> <b>Pump Intake From TOC: 22.23 ft</b> <b>Estimated Total Volume Pumped: 5600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.37 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 789317</b>
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## Test Notes:

Pre-purged 10 liters.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Salinity	Flow
		+/- 0.1	+/- 1000 %	+/- 5 %	+/- 10 %	+/- 5	+/- 1000 %	+/- 0.3	+/- 1000 %	
6/14/2023 11:30 AM	00:00	7.41 pH	25.00 °C	6,286.8 µS/cm	0.07 mg/L	0.40 NTU	-147.2 mV	8.22 ft	3.47 PSU	280.00 ml/min
6/14/2023 11:34 AM	04:00	7.19 pH	24.94 °C	6,317.9 µS/cm	0.07 mg/L	0.39 NTU	-139.9 mV	8.23 ft	3.49 PSU	280.00 ml/min
6/14/2023 11:38 AM	08:00	7.18 pH	24.89 °C	6,294.4 µS/cm	0.36 mg/L	0.33 NTU	-139.1 mV	8.25 ft	3.48 PSU	280.00 ml/min
6/14/2023 11:42 AM	12:00	7.18 pH	24.98 °C	6,302.2 µS/cm	0.29 mg/L	0.30 NTU	-139.2 mV	8.26 ft	3.48 PSU	280.00 ml/min
6/14/2023 11:46 AM	16:00	7.18 pH	24.95 °C	6,293.6 µS/cm	0.29 mg/L	0.43 NTU	-139.6 mV	8.27 ft	3.48 PSU	280.00 ml/min
6/14/2023 11:50 AM	20:00	7.17 pH	25.18 °C	6,275.7 µS/cm	0.52 mg/L	0.39 NTU	-138.5 mV	8.28 ft	3.47 PSU	280.00 ml/min

## Samples

Sample ID:	Description:
MCM-06	Metals, Diss. Metals, Inorganics, Sulfide, Nitrate, Alkalinity, TDS
DUP-1	Metals, Diss. Metals, Inorganics, Sulfide, Nitrate, Alkalinity, TDS

# APPENDIX C

## SURFACE WATER LABORATORY ANALYTICAL RESULTS AND FIELD SAMPLING REPORTS



July 22, 2022

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

RE: Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Minneapolis

This report was revised on July 21, 2022, to update reporting units to mg/L.

Revision 1: This revision was issued on 7/21/22 to report the 6020 reanalyses results of project samples.

Revision 2: This revision was issued on 7/22/22 to report all metals data in mg/L.

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

Sincerely,



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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources  
Trent Godwin, Resolute Environmental & Water Resources  
Kristen Jurinko  
Laura Midkiff, Georgia Power

Ms. Lauren Petty, Southern Company  
Kevin Stephenson, Resolute Environmental & Water  
Resources Consulting, LLC



## REPORT OF LABORATORY ANALYSIS

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July 22, 2022  
Page 2

cc: Stephen Wilson, Resolute Environmental & Water  
Resources Consulting, LLC



## **REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

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### **Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414  
A2LA Certification #: 2926.01\*  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Approval: via MN 027-053-137  
Minnesota Petrofund Registration #: 1240\*  
Mississippi Certification #: MN00064

Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification (A2LA) #: R-036  
North Dakota Certification (MN) #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification (1700) #: CL101  
Ohio VAP Certification (1800) #: CL110\*  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #:74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

### **Pace Analytical Services Charlotte**

South Carolina Laboratory ID: 99006  
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001  
South Carolina Drinking Water Cert. #: 99006003  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Louisiana DoH Drinking Water #: LA029  
Virginia/VELAP Certification #: 460221

### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712  
North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92608869001	T1-4HT	Water	06/07/22 18:06	06/09/22 11:00
92608869002	T1-4HTS	Water	06/07/22 18:10	06/09/22 11:00
92608869003	T2-1HT	Water	06/07/22 16:54	06/09/22 11:00
92608869004	T2-2HT	Water	06/07/22 17:05	06/09/22 11:00
92608869005	T2-2HTS	Water	06/07/22 17:00	06/09/22 11:00
92608869006	T2-3HT	Water	06/07/22 17:28	06/09/22 11:00
92608869007	T2-3HTS	Water	06/07/22 17:24	06/09/22 11:00
92608869008	T2-4HT	Water	06/07/22 17:45	06/09/22 11:00
92608869009	T2-4HTS	Water	06/07/22 17:40	06/09/22 11:00
92608869010	T3-4HT	Water	06/07/22 17:57	06/09/22 11:00
92608869011	T3-4HTS	Water	06/07/22 17:53	06/09/22 11:00
92608869012	T4-1HB	Water	06/07/22 14:54	06/09/22 11:00
92608869013	T4-1HS	Water	06/07/22 14:45	06/09/22 11:00
92608869014	T4-2HB	Water	06/07/22 15:16	06/09/22 11:00
92608869015	T4-2HS	Water	06/07/22 15:09	06/09/22 11:00
92608869016	T4-3HB	Water	06/07/22 15:38	06/09/22 11:00
92608869017	T4-3HS	Water	06/07/22 15:30	06/09/22 11:00
92608869018	T4-4HB	Water	06/07/22 15:57	06/09/22 11:00
92608869019	T4-4HS	Water	06/07/22 15:52	06/09/22 11:00
92608869020	BG-1LT	Water	06/08/22 10:20	06/09/22 11:00
92608869021	BG-2HT	Water	06/07/22 16:20	06/09/22 11:00
92608869022	DUP-1	Water	06/07/22 00:00	06/09/22 11:00
92608869023	DUP-2	Water	06/07/22 00:00	06/09/22 11:00
92608869024	DUP-3	Water	06/07/22 00:00	06/09/22 11:00
92608869025	FB-1	Water	06/08/22 08:55	06/09/22 11:00
92608869026	EB-1	Water	06/08/22 09:00	06/09/22 11:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608869001	T1-4HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869002	T1-4HTS	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869003	T2-1HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869004	T2-2HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	ZMC	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869005	T2-2HTS	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869006	T2-3HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869007	T2-3HTS	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869008	T2-4HT	EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A

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### SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608869009	T2-4HTS	SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
92608869010	T3-4HT	SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869011	T3-4HTS	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869012	T4-1HB	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
92608869013	T4-1HS	EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
92608869014	T4-2HB	SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
92608869015	T4-2HS	SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A

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### SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608869016	T4-3HB	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869017	T4-3HS	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869018	T4-4HB	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869019	T4-4HS	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869020	BG-1LT	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869021	BG-2HT	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869022	DUP-1	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
92608869023	DUP-2	EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M

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### SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92608869024	DUP-3	EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
92608869025	FB-1	SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
		EPA 6010C	DM	4	PASI-M
		EPA 6020B	CRW	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92608869026	EB-1	EPA 6010C	DM	4	PASI-M
		EPA 6020B	DBB1	3	PASI-A
		SM 2320B-2011	SMS	3	PASI-A
		SM 2540C-2015	MAB2	1	PASI-A
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A

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

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869001</b>	<b>T1-4HT</b>					
	Performed by	CUSTOME			06/09/22 16:00	
		R				
	pH	7.43	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	242	mg/L	10.0	06/24/22 13:40	
EPA 6010C	Magnesium	755	mg/L	10.0	06/24/22 13:40	
EPA 6010C	Potassium	274	mg/L	50.0	06/24/22 13:40	
EPA 6010C	Sodium	5740	mg/L	40.0	06/24/22 14:30	P6
EPA 6020B	Arsenic	0.0049J	mg/L	0.050	07/13/22 17:48	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 17:48	M1
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 17:48	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.8	mg/L	5.0	06/15/22 16:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.8	mg/L	5.0	06/15/22 16:33	
SM 2540C-2015	Total Dissolved Solids	22700	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	3260	mg/L	100	06/13/22 22:57	
EPA 300.0 Rev 2.1 1993	Sulfate	380	mg/L	100	06/13/22 22:57	
<b>92608869002</b>	<b>T1-4HTS</b>					
	Performed by	CUSTOME			06/09/22 16:00	
		R				
	pH	7.50	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	248	mg/L	10.0	06/24/22 13:52	
EPA 6010C	Magnesium	775	mg/L	10.0	06/24/22 13:52	
EPA 6010C	Potassium	282	mg/L	50.0	06/24/22 13:52	
EPA 6010C	Sodium	5990	mg/L	40.0	06/24/22 14:38	
EPA 6020B	Boron	3.6	mg/L	2.5	07/13/22 18:19	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:19	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.8	mg/L	5.0	06/15/22 16:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.8	mg/L	5.0	06/15/22 16:43	
SM 2540C-2015	Total Dissolved Solids	24500	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	4270	mg/L	100	06/13/22 23:12	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/12/22 23:14	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1230	mg/L	20.0	06/12/22 23:14	
<b>92608869003</b>	<b>T2-1HT</b>					
	Performed by	CUSTOME			06/09/22 16:00	
		R				
	pH	7.55	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	214	mg/L	10.0	06/24/22 13:53	
EPA 6010C	Magnesium	663	mg/L	10.0	06/24/22 13:53	
EPA 6010C	Potassium	242	mg/L	50.0	06/24/22 13:53	
EPA 6010C	Sodium	5180	mg/L	40.0	06/24/22 14:40	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 18:23	
EPA 6020B	Lithium	0.098J	mg/L	0.12	07/13/22 18:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	87.5	mg/L	5.0	06/15/22 16:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	87.5	mg/L	5.0	06/15/22 16:53	
SM 2540C-2015	Total Dissolved Solids	21200	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	3560	mg/L	100	06/13/22 23:28	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/12/22 23:30	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1050	mg/L	20.0	06/12/22 23:30	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869004</b>	<b>T2-2HT</b>					
	Performed by	CUSTOME			06/09/22 16:00	
		R				
	pH	7.40	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	244	mg/L	10.0	06/24/22 13:55	
EPA 6010C	Magnesium	762	mg/L	10.0	06/24/22 13:55	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 13:55	
EPA 6010C	Sodium	5940	mg/L	40.0	06/24/22 14:42	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 18:27	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.5	mg/L	5.0	06/15/22 17:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.5	mg/L	5.0	06/15/22 17:02	
SM 2540C-2015	Total Dissolved Solids	20600	mg/L	2500	06/10/22 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	4550	mg/L	100	06/14/22 00:36	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:06	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 00:06	
<b>92608869005</b>	<b>T2-2HTS</b>					
	Performed by	CUSTOME			06/09/22 16:00	
		R				
	pH	7.49	Std. Units		06/09/22 16:00	
EPA 6010C	Calcium	206	mg/L	10.0	06/24/22 13:57	
EPA 6010C	Magnesium	634	mg/L	10.0	06/24/22 13:57	
EPA 6010C	Potassium	232	mg/L	50.0	06/24/22 13:57	
EPA 6010C	Sodium	4990	mg/L	40.0	06/24/22 14:43	
EPA 6020B	Boron	3.1	mg/L	2.5	07/13/22 18:32	
EPA 6020B	Lithium	0.098J	mg/L	0.12	07/13/22 18:32	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	83.3	mg/L	5.0	06/15/22 17:22	
SM 2320B-2011	Alkalinity, Total as CaCO3	83.3	mg/L	5.0	06/15/22 17:22	
SM 2540C-2015	Total Dissolved Solids	18400	mg/L	2500	06/11/22 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	3430	mg/L	100	06/14/22 00:52	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:22	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1010	mg/L	20.0	06/13/22 00:22	
<b>92608869006</b>	<b>T2-3HT</b>					
	Performed by	CUSTOME			06/09/22 16:01	
		R				
	pH	7.43	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	253	mg/L	10.0	06/24/22 13:58	
EPA 6010C	Magnesium	795	mg/L	10.0	06/24/22 13:58	
EPA 6010C	Potassium	290	mg/L	50.0	06/24/22 13:58	
EPA 6010C	Sodium	6130	mg/L	40.0	06/24/22 14:45	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 18:36	
EPA 6020B	Lithium	0.12J	mg/L	0.12	07/13/22 18:36	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.3	mg/L	5.0	06/15/22 17:31	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.3	mg/L	5.0	06/15/22 17:31	
SM 2540C-2015	Total Dissolved Solids	24100	mg/L	2500	06/11/22 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	4090	mg/L	100	06/14/22 01:08	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 00:38	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1250	mg/L	20.0	06/13/22 00:38	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869007</b>	<b>T2-3HTS</b>					
	Performed by	CUSTOME			06/09/22 16:01	
		R				
	pH	7.58	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	230	mg/L	10.0	06/24/22 14:00	
EPA 6010C	Magnesium	717	mg/L	10.0	06/24/22 14:00	
EPA 6010C	Potassium	263	mg/L	50.0	06/24/22 14:00	
EPA 6010C	Sodium	5530	mg/L	40.0	06/24/22 14:50	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 18:40	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 18:40	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	95.7	mg/L	5.0	06/15/22 17:40	
SM 2320B-2011	Alkalinity, Total as CaCO3	95.7	mg/L	5.0	06/15/22 17:40	
SM 2540C-2015	Total Dissolved Solids	23400	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3740	mg/L	100	06/14/22 01:23	M1, R1
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 00:54	D3, M1
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 00:54	M1
<b>92608869008</b>	<b>T2-4HT</b>					
	Performed by	CUSTOME			06/09/22 16:01	
		R				
	pH	7.44	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	229	mg/L	10.0	06/24/22 14:02	
EPA 6010C	Magnesium	718	mg/L	10.0	06/24/22 14:02	
EPA 6010C	Potassium	262	mg/L	50.0	06/24/22 14:02	
EPA 6010C	Sodium	5460	mg/L	40.0	06/24/22 14:52	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 18:43	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 18:43	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	89.8	mg/L	5.0	06/15/22 17:49	
SM 2320B-2011	Alkalinity, Total as CaCO3	89.8	mg/L	5.0	06/15/22 17:49	
SM 2540C-2015	Total Dissolved Solids	21600	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3810	mg/L	100	06/14/22 02:11	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 02:13	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	20.0	06/13/22 02:13	
<b>92608869009</b>	<b>T2-4HTS</b>					
	Performed by	CUSTOME			06/09/22 16:01	
		R				
	pH	7.56	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	208	mg/L	10.0	06/24/22 14:03	
EPA 6010C	Magnesium	647	mg/L	10.0	06/24/22 14:03	
EPA 6010C	Potassium	235	mg/L	50.0	06/24/22 14:03	
EPA 6010C	Sodium	4990	mg/L	40.0	06/24/22 14:53	
EPA 6020B	Boron	3.0	mg/L	2.5	07/13/22 18:47	
EPA 6020B	Lithium	0.096J	mg/L	0.12	07/13/22 18:47	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	86.6	mg/L	5.0	06/15/22 17:58	
SM 2320B-2011	Alkalinity, Total as CaCO3	86.6	mg/L	5.0	06/15/22 17:58	
SM 2540C-2015	Total Dissolved Solids	19900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3700	mg/L	100	06/14/22 02:26	
EPA 300.0 Rev 2.1 1993	Fluoride	1.0J	mg/L	2.0	06/13/22 02:28	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	20.0	06/13/22 02:28	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869010</b>	<b>T3-4HT</b>					
	Performed by	CUSTOMER			06/09/22 16:01	
	pH	7.37	Std. Units		06/09/22 16:01	
EPA 6010C	Calcium	247	mg/L	10.0	06/24/22 14:05	
EPA 6010C	Magnesium	775	mg/L	10.0	06/24/22 14:05	
EPA 6010C	Potassium	283	mg/L	50.0	06/24/22 14:05	
EPA 6010C	Sodium	5870	mg/L	40.0	06/24/22 14:55	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 20:36	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:36	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	101	mg/L	5.0	06/15/22 18:07	M1
SM 2320B-2011	Alkalinity, Total as CaCO3	101	mg/L	5.0	06/15/22 18:07	M1
SM 2540C-2015	Total Dissolved Solids	22800	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3930	mg/L	100	06/14/22 02:42	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 02:44	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1240	mg/L	20.0	06/13/22 02:44	
<b>92608869011</b>	<b>T3-4HTS</b>					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.51	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	171	mg/L	10.0	06/24/22 14:10	
EPA 6010C	Magnesium	521	mg/L	10.0	06/24/22 14:10	
EPA 6010C	Potassium	187	mg/L	50.0	06/24/22 14:10	
EPA 6010C	Sodium	4080	mg/L	40.0	06/24/22 14:57	
EPA 6020B	Boron	2.4J	mg/L	2.5	07/13/22 20:40	
EPA 6020B	Lithium	0.079J	mg/L	0.12	07/13/22 20:40	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	73.1	mg/L	5.0	06/15/22 18:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	73.1	mg/L	5.0	06/15/22 18:33	
SM 2540C-2015	Total Dissolved Solids	16900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	2660	mg/L	100	06/14/22 03:30	
EPA 300.0 Rev 2.1 1993	Sulfate	861	mg/L	20.0	06/13/22 03:00	
<b>92608869012</b>	<b>T4-1HB</b>					
	Performed by	CUSTOMER			06/09/22 16:02	
	pH	7.34	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	245	mg/L	10.0	06/24/22 14:12	
EPA 6010C	Magnesium	770	mg/L	10.0	06/24/22 14:12	
EPA 6010C	Potassium	280	mg/L	50.0	06/24/22 14:12	
EPA 6010C	Sodium	5830	mg/L	40.0	06/24/22 14:59	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 20:43	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:43	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	96.6	mg/L	5.0	06/15/22 18:41	
SM 2320B-2011	Alkalinity, Total as CaCO3	96.6	mg/L	5.0	06/15/22 18:41	
SM 2540C-2015	Total Dissolved Solids	22900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	3930	mg/L	100	06/14/22 04:06	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 03:36	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1250	mg/L	20.0	06/13/22 03:36	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869013</b>	<b>T4-1HS</b>					
	Performed by	CUSTOME			06/09/22 16:02	
		R				
	pH	7.03	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	241	mg/L	10.0	06/24/22 14:13	
EPA 6010C	Magnesium	760	mg/L	10.0	06/24/22 14:13	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 14:13	
EPA 6010C	Sodium	5790	mg/L	40.0	06/24/22 15:01	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 20:47	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:47	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	98.9	mg/L	5.0	06/15/22 19:00	
SM 2320B-2011	Alkalinity, Total as CaCO3	98.9	mg/L	5.0	06/15/22 19:00	
SM 2540C-2015	Total Dissolved Solids	18900	mg/L	2500	06/11/22 11:41	
EPA 300.0 Rev 2.1 1993	Chloride	4040	mg/L	100	06/14/22 04:22	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 03:52	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1240	mg/L	20.0	06/13/22 03:52	
<b>92608869014</b>	<b>T4-2HB</b>					
	Performed by	CUSTOME			06/09/22 16:02	
		R				
	pH	7.38	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	251	mg/L	10.0	06/24/22 14:15	
EPA 6010C	Magnesium	787	mg/L	10.0	06/24/22 14:15	
EPA 6010C	Potassium	287	mg/L	50.0	06/24/22 14:15	
EPA 6010C	Sodium	6000	mg/L	40.0	06/24/22 15:03	
EPA 6020B	Boron	3.7	mg/L	2.5	07/13/22 20:51	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 20:51	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.8	mg/L	5.0	06/15/22 19:09	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.8	mg/L	5.0	06/15/22 19:09	
SM 2540C-2015	Total Dissolved Solids	23100	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	4140	mg/L	100	06/14/22 04:37	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:08	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1300	mg/L	20.0	06/13/22 04:08	
<b>92608869015</b>	<b>T4-2HS</b>					
	Performed by	CUSTOME			06/09/22 16:02	
		R				
	pH	7.49	Std. Units		06/09/22 16:02	
EPA 6010C	Calcium	236	mg/L	10.0	06/24/22 14:17	
EPA 6010C	Magnesium	741	mg/L	10.0	06/24/22 14:17	
EPA 6010C	Potassium	272	mg/L	50.0	06/24/22 14:17	
EPA 6010C	Sodium	5670	mg/L	40.0	06/24/22 15:04	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:06	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:06	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.6	mg/L	5.0	06/15/22 19:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.6	mg/L	5.0	06/15/22 19:19	
SM 2540C-2015	Total Dissolved Solids	21400	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	3860	mg/L	100	06/14/22 04:53	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:23	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1210	mg/L	20.0	06/13/22 04:23	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869016</b>	<b>T4-3HB</b>					
	Performed by	CUSTOME			06/09/22 16:03	
		R				
	pH	7.33	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	249	mg/L	10.0	06/24/22 14:18	
EPA 6010C	Magnesium	787	mg/L	10.0	06/24/22 14:18	
EPA 6010C	Potassium	285	mg/L	50.0	06/24/22 14:18	
EPA 6010C	Sodium	6020	mg/L	40.0	06/24/22 15:06	
EPA 6020B	Boron	3.5	mg/L	2.5	07/13/22 21:10	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:10	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	5.0	06/15/22 19:29	
SM 2320B-2011	Alkalinity, Total as CaCO3	105	mg/L	5.0	06/15/22 19:29	
SM 2540C-2015	Total Dissolved Solids	24700	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	4080	mg/L	100	06/14/22 05:09	
EPA 300.0 Rev 2.1 1993	Fluoride	1.1J	mg/L	2.0	06/13/22 04:39	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1360	mg/L	20.0	06/13/22 04:39	
<b>92608869017</b>	<b>T4-3HS</b>					
	Performed by	CUSTOME			06/09/22 16:03	
		R				
	pH	7.51	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	242	mg/L	10.0	06/24/22 14:20	
EPA 6010C	Magnesium	761	mg/L	10.0	06/24/22 14:20	
EPA 6010C	Potassium	279	mg/L	50.0	06/24/22 14:20	
EPA 6010C	Sodium	5880	mg/L	40.0	06/24/22 15:14	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:18	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 21:18	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	97.5	mg/L	5.0	06/15/22 19:39	
SM 2320B-2011	Alkalinity, Total as CaCO3	97.5	mg/L	5.0	06/15/22 19:39	
SM 2540C-2015	Total Dissolved Solids	20800	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	8700	mg/L	100	06/14/22 20:24	
EPA 300.0 Rev 2.1 1993	Sulfate	1160	mg/L	100	06/14/22 20:24	
<b>92608869018</b>	<b>T4-4HB</b>					
	Performed by	CUSTOME			06/09/22 16:03	
		R				
	pH	7.49	Std. Units		06/09/22 16:03	
EPA 6010C	Calcium	263	mg/L	10.0	06/24/22 14:22	
EPA 6010C	Magnesium	829	mg/L	10.0	06/24/22 14:22	
EPA 6010C	Potassium	305	mg/L	50.0	06/24/22 14:22	
EPA 6010C	Sodium	6340	mg/L	40.0	06/24/22 15:15	
EPA 6020B	Boron	3.8	mg/L	2.5	07/13/22 21:22	
EPA 6020B	Lithium	0.12J	mg/L	0.12	07/13/22 21:22	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	106	mg/L	5.0	06/15/22 19:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	106	mg/L	5.0	06/15/22 19:48	
SM 2540C-2015	Total Dissolved Solids	25000	mg/L	2500	06/11/22 11:42	
EPA 300.0 Rev 2.1 1993	Chloride	9750	mg/L	100	06/14/22 20:39	
EPA 300.0 Rev 2.1 1993	Sulfate	1300	mg/L	100	06/14/22 20:39	

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92608869019</b>	<b>T4-4HS</b>					
	Performed by	CUSTOME			06/09/22 16:04	
		R				
	pH	7.53	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	248	mg/L	10.0	06/24/22 14:23	
EPA 6010C	Magnesium	782	mg/L	10.0	06/24/22 14:23	
EPA 6010C	Potassium	284	mg/L	50.0	06/24/22 14:23	
EPA 6010C	Sodium	5980	mg/L	40.0	06/24/22 15:17	
EPA 6020B	Boron	3.4	mg/L	2.5	07/13/22 21:57	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 21:57	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	101	mg/L	5.0	06/15/22 19:58	
SM 2320B-2011	Alkalinity, Total as CaCO3	101	mg/L	5.0	06/15/22 19:58	
SM 2540C-2015	Total Dissolved Solids	22000	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	9120	mg/L	100	06/14/22 20:55	
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	100	06/14/22 20:55	
<b>92608869020</b>	<b>BG-1LT</b>					
	Performed by	CUSTOME			06/09/22 16:04	
		R				
	pH	6.58	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	222	mg/L	10.0	06/24/22 14:25	
EPA 6010C	Magnesium	690	mg/L	10.0	06/24/22 14:25	
EPA 6010C	Potassium	252	mg/L	50.0	06/24/22 14:25	
EPA 6010C	Sodium	5370	mg/L	40.0	06/24/22 15:19	
EPA 6020B	Boron	2.9	mg/L	2.5	07/13/22 22:00	
EPA 6020B	Lithium	0.097J	mg/L	0.12	07/13/22 22:00	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	99.2	mg/L	5.0	06/16/22 11:56	
SM 2320B-2011	Alkalinity, Total as CaCO3	99.2	mg/L	5.0	06/16/22 11:56	
SM 2540C-2015	Total Dissolved Solids	23000	mg/L	2500	06/13/22 12:03	
EPA 300.0 Rev 2.1 1993	Chloride	7920	mg/L	100	06/14/22 21:11	
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	100	06/14/22 21:11	
<b>92608869021</b>	<b>BG-2HT</b>					
	Performed by	CUSTOME			06/09/22 16:04	
		R				
	pH	7.51	Std. Units		06/09/22 16:04	
EPA 6010C	Calcium	284	mg/L	10.0	06/24/22 15:25	
EPA 6010C	Magnesium	890	mg/L	10.0	06/24/22 15:25	
EPA 6010C	Potassium	330	mg/L	50.0	06/24/22 15:25	
EPA 6010C	Sodium	6990	mg/L	100	06/24/22 15:48	P6
EPA 6020B	Boron	3.6	mg/L	2.5	07/13/22 23:41	M1
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 23:41	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	118	mg/L	5.0	06/16/22 10:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	118	mg/L	5.0	06/16/22 10:42	
SM 2540C-2015	Total Dissolved Solids	26000	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	10200	mg/L	200	06/15/22 00:43	
EPA 300.0 Rev 2.1 1993	Sulfate	1370	mg/L	100	06/14/22 21:26	
<b>92608869022</b>	<b>DUP-1</b>					
EPA 6010C	Calcium	243	mg/L	10.0	06/24/22 15:37	

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### SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92608869022</b>	<b>DUP-1</b>					
EPA 6010C	Magnesium	763	mg/L	10.0	06/24/22 15:37	
EPA 6010C	Potassium	280	mg/L	50.0	06/24/22 15:37	
EPA 6010C	Sodium	5830	mg/L	40.0	06/24/22 16:00	
EPA 6020B	Boron	3.2	mg/L	2.5	07/13/22 22:55	
EPA 6020B	Lithium	0.10J	mg/L	0.12	07/13/22 22:55	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	104	mg/L	5.0	06/16/22 11:08	
SM 2320B-2011	Alkalinity, Total as CaCO3	104	mg/L	5.0	06/16/22 11:08	
SM 2540C-2015	Total Dissolved Solids	23500	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	8940	mg/L	100	06/14/22 06:38	
EPA 300.0 Rev 2.1 1993	Fluoride	5.8J	mg/L	10.0	06/14/22 06:38	D3
EPA 300.0 Rev 2.1 1993	Sulfate	1190	mg/L	100	06/14/22 06:38	
<b>92608869023</b>	<b>DUP-2</b>					
EPA 6010C	Calcium	257	mg/L	10.0	06/24/22 15:39	
EPA 6010C	Magnesium	810	mg/L	10.0	06/24/22 15:39	
EPA 6010C	Potassium	293	mg/L	50.0	06/24/22 15:39	
EPA 6010C	Sodium	5950	mg/L	40.0	06/24/22 16:01	
EPA 6020B	Boron	3.3	mg/L	2.5	07/13/22 22:58	
EPA 6020B	Lithium	0.11J	mg/L	0.12	07/13/22 22:58	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	109	mg/L	5.0	06/16/22 11:17	
SM 2320B-2011	Alkalinity, Total as CaCO3	109	mg/L	5.0	06/16/22 11:17	
SM 2540C-2015	Total Dissolved Solids	25800	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	8870	mg/L	100	06/14/22 06:53	
EPA 300.0 Rev 2.1 1993	Sulfate	1170	mg/L	100	06/14/22 06:53	
<b>92608869024</b>	<b>DUP-3</b>					
EPA 6010C	Calcium	207	mg/L	10.0	06/24/22 15:40	
EPA 6010C	Magnesium	639	mg/L	10.0	06/24/22 15:40	
EPA 6010C	Potassium	230	mg/L	50.0	06/24/22 15:40	
EPA 6010C	Sodium	4930	mg/L	40.0	06/24/22 16:03	
EPA 6020B	Boron	2.9	mg/L	2.5	07/13/22 23:02	
EPA 6020B	Lithium	0.090J	mg/L	0.12	07/13/22 23:02	D3
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	94.6	mg/L	5.0	06/16/22 11:27	
SM 2320B-2011	Alkalinity, Total as CaCO3	94.6	mg/L	5.0	06/16/22 11:27	
SM 2540C-2015	Total Dissolved Solids	21800	mg/L	2500	06/11/22 11:43	
EPA 300.0 Rev 2.1 1993	Chloride	7260	mg/L	100	06/14/22 07:41	M1
EPA 300.0 Rev 2.1 1993	Sulfate	950	mg/L	100	06/14/22 07:41	M1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

**Sample: T1-4HT**      **Lab ID: 92608869001**      Collected: 06/07/22 18:06      Received: 06/09/22 11:00      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:00		
pH	<b>7.43</b>	Std. Units			1		06/09/22 16:00		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C    Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>242</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:40	7440-70-2	
Magnesium	<b>755</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:40	7439-95-4	
Potassium	<b>274</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:40	7440-09-7	
Sodium	<b>5740</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:30	7440-23-5	P6
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	<b>0.0049J</b>	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 17:48	7440-38-2	
Boron	<b>3.4</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 17:48	7440-42-8	M1
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 17:48	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>98.8</b>	mg/L	5.0	5.0	1		06/15/22 16:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 16:33		
Alkalinity, Total as CaCO3	<b>98.8</b>	mg/L	5.0	5.0	1		06/15/22 16:33		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>22700</b>	mg/L	2500	2500	1		06/10/22 15:36		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3260</b>	mg/L	100	60.0	100		06/13/22 22:57	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/13/22 22:57	16984-48-8	D3
Sulfate	<b>380</b>	mg/L	100	50.0	100		06/13/22 22:57	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: T1-4HTS		Lab ID: 92608869002		Collected: 06/07/22 18:10		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:00		
pH	<b>7.50</b>	Std. Units			1		06/09/22 16:00		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>248</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:52	7440-70-2	
Magnesium	<b>775</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:52	7439-95-4	
Potassium	<b>282</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:52	7440-09-7	
Sodium	<b>5990</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:38	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	<b>ND</b>	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:19	7440-38-2	D3
Boron	<b>3.6</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:19	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:19	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>99.8</b>	mg/L	5.0	5.0	1		06/15/22 16:43		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	<b>ND</b>	mg/L	5.0	5.0	1		06/15/22 16:43		
Alkalinity, Total as CaCO <sub>3</sub>	<b>99.8</b>	mg/L	5.0	5.0	1		06/15/22 16:43		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>24500</b>	mg/L	2500	2500	1		06/10/22 15:36		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4270</b>	mg/L	100	60.0	100		06/13/22 23:12	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/12/22 23:14	16984-48-8	D3
Sulfate	<b>1230</b>	mg/L	20.0	10.0	20		06/12/22 23:14	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

**Sample: T2-1HT**      **Lab ID: 92608869003**      Collected: 06/07/22 16:54      Received: 06/09/22 11:00      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:00		
pH	<b>7.55</b>	Std. Units			1		06/09/22 16:00		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C    Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>214</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:53	7440-70-2	
Magnesium	<b>663</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:53	7439-95-4	
Potassium	<b>242</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:53	7440-09-7	
Sodium	<b>5180</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:40	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:23	7440-38-2	D3
Boron	<b>3.4</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:23	7440-42-8	
Lithium	<b>0.098J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:23	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>87.5</b>	mg/L	5.0	5.0	1		06/15/22 16:53		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 16:53		
Alkalinity, Total as CaCO3	<b>87.5</b>	mg/L	5.0	5.0	1		06/15/22 16:53		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>21200</b>	mg/L	2500	2500	1		06/10/22 15:36		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3560</b>	mg/L	100	60.0	100		06/13/22 23:28	16887-00-6	
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/12/22 23:30	16984-48-8	D3
Sulfate	<b>1050</b>	mg/L	20.0	10.0	20		06/12/22 23:30	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T2-2HT		Lab ID: 92608869004		Collected: 06/07/22 17:05		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:00		
pH	<b>7.40</b>	Std. Units			1		06/09/22 16:00		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>244</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:55	7440-70-2	
Magnesium	<b>762</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:55	7439-95-4	
Potassium	<b>279</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:55	7440-09-7	
Sodium	<b>5940</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:42	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	<b>ND</b>	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:27	7440-38-2	D3
Boron	<b>3.8</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:27	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:27	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>98.5</b>	mg/L	5.0	5.0	1		06/15/22 17:02		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	<b>ND</b>	mg/L	5.0	5.0	1		06/15/22 17:02		
Alkalinity, Total as CaCO <sub>3</sub>	<b>98.5</b>	mg/L	5.0	5.0	1		06/15/22 17:02		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>20600</b>	mg/L	2500	2500	1		06/10/22 15:36		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4550</b>	mg/L	100	60.0	100		06/14/22 00:36	16887-00-6	
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/13/22 00:06	16984-48-8	D3
Sulfate	<b>1210</b>	mg/L	20.0	10.0	20		06/13/22 00:06	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T2-2HTS		Lab ID: 92608869005		Collected: 06/07/22 17:00		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:00		
pH	<b>7.49</b>	Std. Units			1		06/09/22 16:00		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>206</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:57	7440-70-2	
Magnesium	<b>634</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:57	7439-95-4	
Potassium	<b>232</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:57	7440-09-7	
Sodium	<b>4990</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:43	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:32	7440-38-2	D3
Boron	<b>3.1</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:32	7440-42-8	
Lithium	<b>0.098J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:32	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>83.3</b>	mg/L	5.0	5.0	1		06/15/22 17:22		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:22		
Alkalinity, Total as CaCO3	<b>83.3</b>	mg/L	5.0	5.0	1		06/15/22 17:22		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>18400</b>	mg/L	2500	2500	1		06/11/22 11:40		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3430</b>	mg/L	100	60.0	100		06/14/22 00:52	16887-00-6	
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/13/22 00:22	16984-48-8	D3
Sulfate	<b>1010</b>	mg/L	20.0	10.0	20		06/13/22 00:22	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: T2-3HT		Lab ID: 92608869006		Collected: 06/07/22 17:28		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:01		
pH	<b>7.43</b>	Std. Units			1		06/09/22 16:01		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>253</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 13:58	7440-70-2	
Magnesium	<b>795</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 13:58	7439-95-4	
Potassium	<b>290</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 13:58	7440-09-7	
Sodium	<b>6130</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:45	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:36	7440-38-2	D3
Boron	<b>3.8</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:36	7440-42-8	
Lithium	<b>0.12J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:36	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>98.3</b>	mg/L	5.0	5.0	1		06/15/22 17:31		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:31		
Alkalinity, Total as CaCO3	<b>98.3</b>	mg/L	5.0	5.0	1		06/15/22 17:31		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>24100</b>	mg/L	2500	2500	1		06/11/22 11:40		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4090</b>	mg/L	100	60.0	100		06/14/22 01:08	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 00:38	16984-48-8	D3
Sulfate	<b>1250</b>	mg/L	20.0	10.0	20		06/13/22 00:38	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: T2-3HTS		Lab ID: 92608869007		Collected: 06/07/22 17:24	Received: 06/09/22 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:01		
pH	<b>7.58</b>	Std. Units			1		06/09/22 16:01		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A									
Pace Analytical Services - Minneapolis									
Calcium	<b>230</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:00	7440-70-2	
Magnesium	<b>717</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:00	7439-95-4	
Potassium	<b>263</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:00	7440-09-7	
Sodium	<b>5530</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:50	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Arsenic	<b>ND</b>	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:40	7440-38-2	D3
Boron	<b>3.5</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:40	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:40	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>95.7</b>	mg/L	5.0	5.0	1		06/15/22 17:40		
Alkalinity, Carbonate (CaCO3)	<b>ND</b>	mg/L	5.0	5.0	1		06/15/22 17:40		
Alkalinity, Total as CaCO3	<b>95.7</b>	mg/L	5.0	5.0	1		06/15/22 17:40		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>23400</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>3740</b>	mg/L	100	60.0	100		06/14/22 01:23	16887-00-6	M1,R1
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/13/22 00:54	16984-48-8	D3,M1
Sulfate	<b>1210</b>	mg/L	20.0	10.0	20		06/13/22 00:54	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T2-4HT		Lab ID: 92608869008		Collected: 06/07/22 17:45		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:01		
pH	<b>7.44</b>	Std. Units			1		06/09/22 16:01		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>229</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:02	7440-70-2	
Magnesium	<b>718</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:02	7439-95-4	
Potassium	<b>262</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:02	7440-09-7	
Sodium	<b>5460</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:52	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:43	7440-38-2	D3
Boron	<b>3.3</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:43	7440-42-8	
Lithium	<b>0.10J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:43	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>89.8</b>	mg/L	5.0	5.0	1		06/15/22 17:49		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/15/22 17:49		
Alkalinity, Total as CaCO <sub>3</sub>	<b>89.8</b>	mg/L	5.0	5.0	1		06/15/22 17:49		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>21600</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3810</b>	mg/L	100	60.0	100		06/14/22 02:11	16887-00-6	
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/13/22 02:13	16984-48-8	D3
Sulfate	<b>1040</b>	mg/L	20.0	10.0	20		06/13/22 02:13	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

**Sample: T2-4HTS**      **Lab ID: 92608869009**      Collected: 06/07/22 17:40      Received: 06/09/22 11:00      Matrix: Water

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

Analytical Method:  
Pace Analytical Services - Charlotte

Performed by	<b>CUSTOMER</b>				1		06/09/22 16:01		
pH	<b>7.56</b>	Std. Units			1		06/09/22 16:01		

**6010C MET ICP**

Analytical Method: EPA 6010C      Preparation Method: EPA 3010A  
Pace Analytical Services - Minneapolis

Calcium	<b>208</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:03	7440-70-2	
Magnesium	<b>647</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:03	7439-95-4	
Potassium	<b>235</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:03	7440-09-7	
Sodium	<b>4990</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:53	7440-23-5	

**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3010A  
Pace Analytical Services - Asheville

Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 18:47	7440-38-2	D3
Boron	<b>3.0</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 18:47	7440-42-8	
Lithium	<b>0.096J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 18:47	7439-93-2	D3

**2320B Alkalinity**

Analytical Method: SM 2320B-2011  
Pace Analytical Services - Asheville

Alkalinity, Bicarbonate (CaCO3)	<b>86.6</b>	mg/L	5.0	5.0	1		06/15/22 17:58		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 17:58		
Alkalinity, Total as CaCO3	<b>86.6</b>	mg/L	5.0	5.0	1		06/15/22 17:58		

**2540C Total Dissolved Solids**

Analytical Method: SM 2540C-2015  
Pace Analytical Services - Asheville

Total Dissolved Solids	<b>19900</b>	mg/L	2500	2500	1		06/11/22 11:41		
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**300.0 IC Anions 28 Days**

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

Chloride	<b>3700</b>	mg/L	100	60.0	100		06/14/22 02:26	16887-00-6	
Fluoride	<b>1.0J</b>	mg/L	2.0	1.0	20		06/13/22 02:28	16984-48-8	D3
Sulfate	<b>1040</b>	mg/L	20.0	10.0	20		06/13/22 02:28	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T3-4HT		Lab ID: 92608869010		Collected: 06/07/22 17:57		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:01		
pH	<b>7.37</b>	Std. Units			1		06/09/22 16:01		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>247</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:05	7440-70-2	
Magnesium	<b>775</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:05	7439-95-4	
Potassium	<b>283</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:05	7440-09-7	
Sodium	<b>5870</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:55	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:36	7440-38-2	D3
Boron	<b>3.3</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:36	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:36	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>101</b>	mg/L	5.0	5.0	1		06/15/22 18:07		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:07		
Alkalinity, Total as CaCO3	<b>101</b>	mg/L	5.0	5.0	1		06/15/22 18:07		M1
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>22800</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3930</b>	mg/L	100	60.0	100		06/14/22 02:42	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 02:44	16984-48-8	D3
Sulfate	<b>1240</b>	mg/L	20.0	10.0	20		06/13/22 02:44	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: T3-4HTS		Lab ID: 92608869011		Collected: 06/07/22 17:53		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:02		
pH	<b>7.51</b>	Std. Units			1		06/09/22 16:02		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>171</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:10	7440-70-2	
Magnesium	<b>521</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:10	7439-95-4	
Potassium	<b>187</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:10	7440-09-7	
Sodium	<b>4080</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:57	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:40	7440-38-2	D3
Boron	<b>2.4J</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:40	7440-42-8	
Lithium	<b>0.079J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:40	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>73.1</b>	mg/L	5.0	5.0	1		06/15/22 18:33		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:33		
Alkalinity, Total as CaCO3	<b>73.1</b>	mg/L	5.0	5.0	1		06/15/22 18:33		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>16900</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>2660</b>	mg/L	100	60.0	100		06/14/22 03:30	16887-00-6	
Fluoride	ND	mg/L	2.0	1.0	20		06/13/22 03:00	16984-48-8	D3
Sulfate	<b>861</b>	mg/L	20.0	10.0	20		06/13/22 03:00	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: T4-1HB		Lab ID: 92608869012		Collected: 06/07/22 14:54		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:02		
pH	<b>7.34</b>	Std. Units			1		06/09/22 16:02		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>245</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:12	7440-70-2	
Magnesium	<b>770</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:12	7439-95-4	
Potassium	<b>280</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:12	7440-09-7	
Sodium	<b>5830</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 14:59	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:43	7440-38-2	D3
Boron	<b>3.5</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:43	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:43	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>96.6</b>	mg/L	5.0	5.0	1		06/15/22 18:41		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 18:41		
Alkalinity, Total as CaCO3	<b>96.6</b>	mg/L	5.0	5.0	1		06/15/22 18:41		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>22900</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3930</b>	mg/L	100	60.0	100		06/14/22 04:06	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 03:36	16984-48-8	D3
Sulfate	<b>1250</b>	mg/L	20.0	10.0	20		06/13/22 03:36	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-1HS      Lab ID: 92608869013      Collected: 06/07/22 14:45      Received: 06/09/22 11:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:02		
pH	<b>7.03</b>	Std. Units			1		06/09/22 16:02		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C      Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>241</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:13	7440-70-2	
Magnesium	<b>760</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:13	7439-95-4	
Potassium	<b>279</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:13	7440-09-7	
Sodium	<b>5790</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:01	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:47	7440-38-2	D3
Boron	<b>3.5</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:47	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:47	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>98.9</b>	mg/L	5.0	5.0	1		06/15/22 19:00		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/15/22 19:00		
Alkalinity, Total as CaCO <sub>3</sub>	<b>98.9</b>	mg/L	5.0	5.0	1		06/15/22 19:00		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>18900</b>	mg/L	2500	2500	1		06/11/22 11:41		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4040</b>	mg/L	100	60.0	100		06/14/22 04:22	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 03:52	16984-48-8	D3
Sulfate	<b>1240</b>	mg/L	20.0	10.0	20		06/13/22 03:52	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-2HB		Lab ID: 92608869014		Collected: 06/07/22 15:16		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:02		
pH	<b>7.38</b>	Std. Units			1		06/09/22 16:02		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>251</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:15	7440-70-2	
Magnesium	<b>787</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:15	7439-95-4	
Potassium	<b>287</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:15	7440-09-7	
Sodium	<b>6000</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:03	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 20:51	7440-38-2	D3
Boron	<b>3.7</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 20:51	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 20:51	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>99.8</b>	mg/L	5.0	5.0	1		06/15/22 19:09		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:09		
Alkalinity, Total as CaCO3	<b>99.8</b>	mg/L	5.0	5.0	1		06/15/22 19:09		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>23100</b>	mg/L	2500	2500	1		06/11/22 11:42		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4140</b>	mg/L	100	60.0	100		06/14/22 04:37	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 04:08	16984-48-8	D3
Sulfate	<b>1300</b>	mg/L	20.0	10.0	20		06/13/22 04:08	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-2HS		Lab ID: 92608869015		Collected: 06/07/22 15:09		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:02		
pH	<b>7.49</b>	Std. Units			1		06/09/22 16:02		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>236</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:17	7440-70-2	
Magnesium	<b>741</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:17	7439-95-4	
Potassium	<b>272</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:17	7440-09-7	
Sodium	<b>5670</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:04	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:06	7440-38-2	D3
Boron	<b>3.4</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:06	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:06	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>99.6</b>	mg/L	5.0	5.0	1		06/15/22 19:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:19		
Alkalinity, Total as CaCO3	<b>99.6</b>	mg/L	5.0	5.0	1		06/15/22 19:19		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>21400</b>	mg/L	2500	2500	1		06/11/22 11:42		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3860</b>	mg/L	100	60.0	100		06/14/22 04:53	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 04:23	16984-48-8	D3
Sulfate	<b>1210</b>	mg/L	20.0	10.0	20		06/13/22 04:23	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-3HB Lab ID: 92608869016 Collected: 06/07/22 15:38 Received: 06/09/22 11:00 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:03		
pH	<b>7.33</b>	Std. Units			1		06/09/22 16:03		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>249</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:18	7440-70-2	
Magnesium	<b>787</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:18	7439-95-4	
Potassium	<b>285</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:18	7440-09-7	
Sodium	<b>6020</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:06	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:10	7440-38-2	D3
Boron	<b>3.5</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:10	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:10	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>105</b>	mg/L	5.0	5.0	1		06/15/22 19:29		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:29		
Alkalinity, Total as CaCO3	<b>105</b>	mg/L	5.0	5.0	1		06/15/22 19:29		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>24700</b>	mg/L	2500	2500	1		06/11/22 11:42		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4080</b>	mg/L	100	60.0	100		06/14/22 05:09	16887-00-6	
Fluoride	<b>1.1J</b>	mg/L	2.0	1.0	20		06/13/22 04:39	16984-48-8	D3
Sulfate	<b>1360</b>	mg/L	20.0	10.0	20		06/13/22 04:39	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-3HS      Lab ID: 92608869017      Collected: 06/07/22 15:30      Received: 06/09/22 11:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:03		
pH	<b>7.51</b>	Std. Units			1		06/09/22 16:03		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C      Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>242</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:20	7440-70-2	
Magnesium	<b>761</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:20	7439-95-4	
Potassium	<b>279</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:20	7440-09-7	
Sodium	<b>5880</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:14	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:18	7440-38-2	D3
Boron	<b>3.4</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:18	7440-42-8	
Lithium	<b>0.10J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:18	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>97.5</b>	mg/L	5.0	5.0	1		06/15/22 19:39		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/15/22 19:39		
Alkalinity, Total as CaCO <sub>3</sub>	<b>97.5</b>	mg/L	5.0	5.0	1		06/15/22 19:39		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>20800</b>	mg/L	2500	2500	1		06/11/22 11:42		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8700</b>	mg/L	100	60.0	100		06/14/22 20:24	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:24	16984-48-8	D3
Sulfate	<b>1160</b>	mg/L	100	50.0	100		06/14/22 20:24	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: T4-4HB		Lab ID: 92608869018		Collected: 06/07/22 15:57		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:03		
pH	<b>7.49</b>	Std. Units			1		06/09/22 16:03		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>263</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:22	7440-70-2	
Magnesium	<b>829</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:22	7439-95-4	
Potassium	<b>305</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:22	7440-09-7	
Sodium	<b>6340</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:15	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:22	7440-38-2	D3
Boron	<b>3.8</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:22	7440-42-8	
Lithium	<b>0.12J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:22	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>106</b>	mg/L	5.0	5.0	1		06/15/22 19:48		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/15/22 19:48		
Alkalinity, Total as CaCO3	<b>106</b>	mg/L	5.0	5.0	1		06/15/22 19:48		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>25000</b>	mg/L	2500	2500	1		06/11/22 11:42		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>9750</b>	mg/L	100	60.0	100		06/14/22 20:39	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:39	16984-48-8	D3
Sulfate	<b>1300</b>	mg/L	100	50.0	100		06/14/22 20:39	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

**Sample: T4-4HS**      **Lab ID: 92608869019**      Collected: 06/07/22 15:52      Received: 06/09/22 11:00      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:04		
pH	<b>7.53</b>	Std. Units			1		06/09/22 16:04		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C    Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>248</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:23	7440-70-2	
Magnesium	<b>782</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:23	7439-95-4	
Potassium	<b>284</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:23	7440-09-7	
Sodium	<b>5980</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:17	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 21:57	7440-38-2	D3
Boron	<b>3.4</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 21:57	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 21:57	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>101</b>	mg/L	5.0	5.0	1		06/15/22 19:58		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/15/22 19:58		
Alkalinity, Total as CaCO <sub>3</sub>	<b>101</b>	mg/L	5.0	5.0	1		06/15/22 19:58		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>22000</b>	mg/L	2500	2500	1		06/11/22 11:43		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>9120</b>	mg/L	100	60.0	100		06/14/22 20:55	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 20:55	16984-48-8	D3
Sulfate	<b>1190</b>	mg/L	100	50.0	100		06/14/22 20:55	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

**Sample: BG-1LT**      **Lab ID: 92608869020**      Collected: 06/08/22 10:20      Received: 06/09/22 11:00      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:04		
pH	<b>6.58</b>	Std. Units			1		06/09/22 16:04		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C    Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	<b>222</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 14:25	7440-70-2	
Magnesium	<b>690</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 14:25	7439-95-4	
Potassium	<b>252</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 14:25	7440-09-7	
Sodium	<b>5370</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 15:19	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:00	7440-38-2	D3
Boron	<b>2.9</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:00	7440-42-8	
Lithium	<b>0.097J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:00	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	<b>99.2</b>	mg/L	5.0	5.0	1		06/16/22 11:56		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:56		
Alkalinity, Total as CaCO3	<b>99.2</b>	mg/L	5.0	5.0	1		06/16/22 11:56		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>23000</b>	mg/L	2500	2500	1		06/13/22 12:03		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7920</b>	mg/L	100	60.0	100		06/14/22 21:11	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 21:11	16984-48-8	D3
Sulfate	<b>1040</b>	mg/L	100	50.0	100		06/14/22 21:11	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Sample: <b>BG-2HT</b>		Lab ID: <b>92608869021</b>		Collected: 06/07/22 16:20	Received: 06/09/22 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		06/09/22 16:04		
pH	<b>7.51</b>	Std. Units			1		06/09/22 16:04		
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C Preparation Method: EPA 3010A									
Pace Analytical Services - Minneapolis									
Calcium	<b>284</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:25	7440-70-2	
Magnesium	<b>890</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:25	7439-95-4	
Potassium	<b>330</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:25	7440-09-7	
Sodium	<b>6990</b>	mg/L	100	6.6	5	06/23/22 05:41	06/24/22 15:48	7440-23-5	P6
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Asheville									
Arsenic	<b>ND</b>	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 23:41	7440-38-2	D3
Boron	<b>3.6</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 23:41	7440-42-8	M1
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 23:41	7439-93-2	D3
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>118</b>	mg/L	5.0	5.0	1		06/16/22 10:42		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	<b>ND</b>	mg/L	5.0	5.0	1		06/16/22 10:42		
Alkalinity, Total as CaCO <sub>3</sub>	<b>118</b>	mg/L	5.0	5.0	1		06/16/22 10:42		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Asheville									
Total Dissolved Solids	<b>26000</b>	mg/L	2500	2500	1		06/11/22 11:43		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>10200</b>	mg/L	200	120	200		06/15/22 00:43	16887-00-6	
Fluoride	<b>ND</b>	mg/L	10.0	5.0	100		06/14/22 21:26	16984-48-8	D3
Sulfate	<b>1370</b>	mg/L	100	50.0	100		06/14/22 21:26	14808-79-8	

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: DUP-1		Lab ID: 92608869022		Collected: 06/07/22 00:00		Received: 06/09/22 11:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010C MET ICP</b>		Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>243</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:37	7440-70-2	
Magnesium	<b>763</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:37	7439-95-4	
Potassium	<b>280</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:37	7440-09-7	
Sodium	<b>5830</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:00	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:55	7440-38-2	D3
Boron	<b>3.2</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:55	7440-42-8	
Lithium	<b>0.10J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:55	7439-93-2	D3
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	<b>104</b>	mg/L	5.0	5.0	1		06/16/22 11:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/16/22 11:08		
Alkalinity, Total as CaCO3	<b>104</b>	mg/L	5.0	5.0	1		06/16/22 11:08		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>23500</b>	mg/L	2500	2500	1		06/11/22 11:43		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>8940</b>	mg/L	100	60.0	100		06/14/22 06:38	16887-00-6	
Fluoride	<b>5.8J</b>	mg/L	10.0	5.0	100		06/14/22 06:38	16984-48-8	D3
Sulfate	<b>1190</b>	mg/L	100	50.0	100		06/14/22 06:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: DUP-2		Lab ID: 92608869023		Collected: 06/07/22 00:00	Received: 06/09/22 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010C MET ICP</b>		Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>257</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:39	7440-70-2	
Magnesium	<b>810</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:39	7439-95-4	
Potassium	<b>293</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:39	7440-09-7	
Sodium	<b>5950</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:01	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 22:58	7440-38-2	D3
Boron	<b>3.3</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 22:58	7440-42-8	
Lithium	<b>0.11J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 22:58	7439-93-2	D3
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>109</b>	mg/L	5.0	5.0	1		06/16/22 11:17		
Alkalinity,Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 11:17		
Alkalinity, Total as CaCO <sub>3</sub>	<b>109</b>	mg/L	5.0	5.0	1		06/16/22 11:17		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>25800</b>	mg/L	2500	2500	1		06/11/22 11:43		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>8870</b>	mg/L	100	60.0	100		06/14/22 06:53	16887-00-6	
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 06:53	16984-48-8	D3
Sulfate	<b>1170</b>	mg/L	100	50.0	100		06/14/22 06:53	14808-79-8	

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: DUP-3		Lab ID: 92608869024		Collected: 06/07/22 00:00	Received: 06/09/22 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010C MET ICP</b>		Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis							
Calcium	<b>207</b>	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:40	7440-70-2	
Magnesium	<b>639</b>	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:40	7439-95-4	
Potassium	<b>230</b>	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:40	7440-09-7	
Sodium	<b>4930</b>	mg/L	40.0	2.6	2	06/23/22 05:41	06/24/22 16:03	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville							
Arsenic	ND	mg/L	0.050	0.0043	50	07/13/22 00:48	07/13/22 23:02	7440-38-2	D3
Boron	<b>2.9</b>	mg/L	2.5	0.42	50	07/13/22 00:48	07/13/22 23:02	7440-42-8	
Lithium	<b>0.090J</b>	mg/L	0.12	0.025	50	07/13/22 00:48	07/13/22 23:02	7439-93-2	D3
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>94.6</b>	mg/L	5.0	5.0	1		06/16/22 11:27		
Alkalinity,Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 11:27		
Alkalinity, Total as CaCO <sub>3</sub>	<b>94.6</b>	mg/L	5.0	5.0	1		06/16/22 11:27		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville							
Total Dissolved Solids	<b>21800</b>	mg/L	2500	2500	1		06/11/22 11:43		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>7260</b>	mg/L	100	60.0	100		06/14/22 07:41	16887-00-6	M1
Fluoride	ND	mg/L	10.0	5.0	100		06/14/22 07:41	16984-48-8	D3,M1
Sulfate	<b>950</b>	mg/L	100	50.0	100		06/14/22 07:41	14808-79-8	M1

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## ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

**Sample: FB-1**      **Lab ID: 92608869025**      Collected: 06/08/22 08:55      Received: 06/09/22 11:00      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010C MET ICP</b>									
Analytical Method: EPA 6010C    Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis									
Calcium	ND	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:42	7440-70-2	
Magnesium	ND	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:42	7439-95-4	
Potassium	ND	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:42	7440-09-7	
Sodium	ND	mg/L	20.0	1.3	1	06/23/22 05:41	06/24/22 15:42	7440-23-5	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3010A Pace Analytical Services - Asheville									
Arsenic	ND	mg/L	0.0010	0.000087	1	06/18/22 16:52	06/19/22 18:25	7440-38-2	
Boron	ND	mg/L	0.050	0.0085	1	06/18/22 16:52	06/19/22 18:25	7440-42-8	
Lithium	ND	mg/L	0.0025	0.00050	1	06/18/22 16:52	06/19/22 18:25	7439-93-2	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
Alkalinity,Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
Alkalinity, Total as CaCO <sub>3</sub>	ND	mg/L	5.0	5.0	1		06/16/22 12:05		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/13/22 12:03		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		06/14/22 08:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/14/22 08:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/14/22 08:28	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Sample: EB-1		Lab ID: 92608869026		Collected: 06/08/22 09:00	Received: 06/09/22 11:00	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010C MET ICP</b>		Analytical Method: EPA 6010C Preparation Method: EPA 3010A Pace Analytical Services - Minneapolis								
Calcium	ND	mg/L	10.0	0.46	1	06/23/22 05:41	06/24/22 15:44	7440-70-2		
Magnesium	ND	mg/L	10.0	0.16	1	06/23/22 05:41	06/24/22 15:44	7439-95-4		
Potassium	ND	mg/L	50.0	1.7	1	06/23/22 05:41	06/24/22 15:44	7440-09-7		
Sodium	ND	mg/L	20.0	1.3	1	06/23/22 05:41	06/24/22 15:44	7440-23-5		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Asheville								
Arsenic	ND	mg/L	0.0010	0.000087	1	06/21/22 12:15	06/21/22 21:22	7440-38-2		
Boron	ND	mg/L	0.050	0.0085	1	06/21/22 12:15	06/21/22 21:22	7440-42-8		
Lithium	ND	mg/L	0.0025	0.00050	1	06/21/22 12:15	06/21/22 21:22	7439-93-2		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 12:10			
Alkalinity,Carbonate (CaCO <sub>3</sub> )	ND	mg/L	5.0	5.0	1		06/16/22 12:10			
Alkalinity, Total as CaCO <sub>3</sub>	ND	mg/L	5.0	5.0	1		06/16/22 12:10			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Asheville								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		06/13/22 12:03			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		06/14/22 08:44	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		06/14/22 08:44	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		06/14/22 08:44	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch:	823415	Analysis Method:	EPA 6010C
QC Batch Method:	EPA 3010A	Analysis Description:	6010C Water
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

METHOD BLANK: 4362950 Matrix: Water  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.023	06/24/22 13:36	
Magnesium	mg/L	ND	0.50	0.0078	06/24/22 13:36	
Potassium	mg/L	ND	2.5	0.087	06/24/22 13:36	
Sodium	mg/L	ND	1.0	0.066	06/24/22 13:36	

LABORATORY CONTROL SAMPLE: 4362951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	18.9	95	80-120	
Magnesium	mg/L	20	19.1	95	80-120	
Potassium	mg/L	20	18.9	95	80-120	
Sodium	mg/L	20	18.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4362952 4362953

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608869001 Result	Spike Conc.	Spike Conc.	Conc.								
Calcium	mg/L	242	400	400	400	612	611	92	92	75-125	0	20	
Magnesium	mg/L	755	400	400	400	1110	1110	90	89	75-125	0	20	
Potassium	mg/L	274	400	400	400	694	691	105	104	75-125	0	20	
Sodium	mg/L	5740	400	400	400	6110	6030	93	74	75-125	1	20	P6

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 823416 Analysis Method: EPA 6010C  
QC Batch Method: EPA 3010A Analysis Description: 6010C Water  
Laboratory: Pace Analytical Services - Minneapolis  
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

METHOD BLANK: 4362954 Matrix: Water  
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.023	06/24/22 15:22	
Magnesium	mg/L	ND	0.50	0.0078	06/24/22 15:22	
Potassium	mg/L	ND	2.5	0.087	06/24/22 15:22	
Sodium	mg/L	ND	1.0	0.066	06/24/22 15:22	

LABORATORY CONTROL SAMPLE: 4362955

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	20	19.3	97	80-120	
Magnesium	mg/L	20	19.7	98	80-120	
Potassium	mg/L	20	19.4	97	80-120	
Sodium	mg/L	20	19.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4362956 4362957

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608869021 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	284	400	400	649	682	91	99	75-125	5	20
Magnesium	mg/L	890	400	400	1240	1320	88	107	75-125	6	20
Potassium	mg/L	330	400	400	743	783	103	113	75-125	5	20
Sodium	mg/L	6990	400	400	7040	7460	14	117	75-125	6	20 P6

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 705475 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3010A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608869025

METHOD BLANK: 3681135 Matrix: Water  
Associated Lab Samples: 92608869025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	06/19/22 18:13	
Boron	mg/L	ND	0.050	0.0085	06/19/22 18:13	
Lithium	mg/L	ND	0.0025	0.00050	06/19/22 18:13	

LABORATORY CONTROL SAMPLE: 3681136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.051	102	80-120	
Lithium	mg/L	0.05	0.050	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3681137 3681138

Parameter	Units	92606866011 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	0.05	0.05	0.050	0.050	101	101	75-125	0	20	
Boron	mg/L	ND	0.05	0.05	0.051	0.051	100	102	75-125	2	20	
Lithium	mg/L	ND	0.05	0.05	0.051	0.051	101	102	75-125	0	20	CL

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 705909      Analysis Method: EPA 6020B  
QC Batch Method: EPA 3010A      Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608869026

METHOD BLANK: 3682937      Matrix: Water  
Associated Lab Samples: 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	06/21/22 21:15	
Boron	mg/L	ND	0.050	0.0085	06/21/22 21:15	
Lithium	mg/L	ND	0.0025	0.00050	06/21/22 21:15	

LABORATORY CONTROL SAMPLE: 3682938

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.050J	100	80-120	
Lithium	mg/L	0.05	0.050	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3682939      3682940

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608869026	Result	Spike Conc.	Spike Conc.								
Arsenic	mg/L	ND	0.05	0.05	0.051	0.052	101	104	75-125	3	20		
Boron	mg/L	ND	0.05	0.05	0.049J	0.051	90	96	75-125		20		
Lithium	mg/L	ND	0.05	0.05	0.050	0.051	100	102	75-125	1	20		

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch:	710140	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

METHOD BLANK: 3703302 Matrix: Water  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	07/13/22 14:11	
Boron	mg/L	ND	0.050	0.0085	07/13/22 17:41	
Lithium	mg/L	ND	0.0025	0.00050	07/13/22 14:11	

LABORATORY CONTROL SAMPLE: 3703303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.050	100	80-120	
Boron	mg/L	0.05	0.053	105	80-120	
Lithium	mg/L	0.05	0.050	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703304 3703305

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608869001 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	0.0049J	0.05	0.05	0.063	0.059	116	109	75-125	6	20
Boron	mg/L	3.4	0.05	0.05	3.7	3.8	668	792	75-125	2	20 M1
Lithium	mg/L	0.11J	0.05	0.05	0.16	0.16	110	106	75-125	1	20

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 710141 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3010A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024

METHOD BLANK: 3703306 Matrix: Water  
Associated Lab Samples: 92608869021, 92608869022, 92608869023, 92608869024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	0.000087	07/13/22 23:33	
Boron	mg/L	ND	0.050	0.0085	07/13/22 23:33	
Lithium	mg/L	ND	0.0025	0.00050	07/13/22 23:33	

LABORATORY CONTROL SAMPLE: 3703307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.05	0.048	96	80-120	
Boron	mg/L	0.05	0.049J	99	80-120	
Lithium	mg/L	0.05	0.048	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703308 3703309

Parameter	Units	92608869021 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	0.05	0.05	0.055	0.060	103	113	75-125	8	20	
Boron	mg/L	3.6	0.05	0.05	3.8	4.3	378	1370	75-125	12	20	M1
Lithium	mg/L	0.11J	0.05	0.05	0.16	0.16	96	102	75-125	2	20	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 704567 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019

METHOD BLANK: 3676445 Matrix: Water  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/15/22 15:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/15/22 15:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/15/22 15:57	

LABORATORY CONTROL SAMPLE: 3676446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.0	100	80-120	

LABORATORY CONTROL SAMPLE: 3676447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.4	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3676448 3676449

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO3	mg/L	42.3	50	50	50	91.8	90.5	99	96	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3676450 3676451

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO3	mg/L	101	50	50	50	144	140	87	78	80-120	3	25 M1	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 704687 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92608869020, 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

METHOD BLANK: 3677119 Matrix: Water  
Associated Lab Samples: 92608869020, 92608869021, 92608869022, 92608869023, 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/16/22 10:22	

LABORATORY CONTROL SAMPLE: 3677120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.2	104	80-120	

LABORATORY CONTROL SAMPLE: 3677121

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677122 3677123

Parameter	Units	3677122		3677123		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92608869021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Alkalinity, Total as CaCO3	mg/L	118	50	50	168	166	101	98	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3677124 3677125

Parameter	Units	3677124		3677125		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92609055032 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Alkalinity, Total as CaCO3	mg/L	58.7	50	50	115	115	112	112	80-120	0	25	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 703674 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: 92608869001, 92608869002, 92608869003, 92608869004

METHOD BLANK: 3672042 Matrix: Water  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/10/22 15:32	

LABORATORY CONTROL SAMPLE: 3672043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	244	98	90-110	

SAMPLE DUPLICATE: 3672044

Parameter	Units	92608790010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	210	211	0	25	

SAMPLE DUPLICATE: 3672045

Parameter	Units	92608790020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	151	147	3	25	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

QC Batch:	703821	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: 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869021, 92608869022, 92608869023, 92608869024

METHOD BLANK: 3673168 Matrix: Water

Associated Lab Samples: 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016, 92608869017, 92608869018, 92608869019, 92608869021, 92608869022, 92608869023, 92608869024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/11/22 11:40	

LABORATORY CONTROL SAMPLE: 3673169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	258	103	90-110	

SAMPLE DUPLICATE: 3673170

Parameter	Units	92608869005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18400	19700	7	25	

SAMPLE DUPLICATE: 3673171

Parameter	Units	92608869015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	21400	23600	10	25	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 703871 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: 92608869020, 92608869025, 92608869026

METHOD BLANK: 3673282 Matrix: Water  
Associated Lab Samples: 92608869020, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	06/13/22 12:01	

LABORATORY CONTROL SAMPLE: 3673283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	252	101	90-110	

SAMPLE DUPLICATE: 3673284

Parameter	Units	92608728008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	564	572	1	25	

SAMPLE DUPLICATE: 3673285

Parameter	Units	92608958001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 703913 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016

METHOD BLANK: 3673346 Matrix: Water  
Associated Lab Samples: 92608869001, 92608869002, 92608869003, 92608869004, 92608869005, 92608869006, 92608869007, 92608869008, 92608869009, 92608869010, 92608869011, 92608869012, 92608869013, 92608869014, 92608869015, 92608869016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/12/22 19:35	
Fluoride	mg/L	ND	0.10	0.050	06/12/22 19:35	
Sulfate	mg/L	ND	1.0	0.50	06/12/22 19:35	

LABORATORY CONTROL SAMPLE: 3673347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.8	104	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3673348 3673349

Parameter	Units	92609177001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Chloride	mg/L		50	57.8	58.4	102	103	90-110	1	10		
Fluoride	mg/L		2.5	2.7	2.7	103	105	90-110	2	10		
Sulfate	mg/L		50	59.9	60.8	101	103	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3673350 3673351

Parameter	Units	92608869007 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Chloride	mg/L	3740	50	3840	4320	203	1170	90-110	12	10	M1, R1	
Fluoride	mg/L	1.0J	2.5	2.5	2.5	57	60	90-110	3	10	M1	
Sulfate	mg/L	1210	50	1180	1180	-46	-47	90-110	0	10	M1	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 704144	Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993	Analysis Description: 300.0 IC Anions
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92608869017, 92608869018, 92608869019, 92608869020, 92608869021, 92608869022, 92608869023

METHOD BLANK: 3674648 Matrix: Water  
Associated Lab Samples: 92608869017, 92608869018, 92608869019, 92608869020, 92608869021, 92608869022, 92608869023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/13/22 22:41	
Fluoride	mg/L	ND	0.10	0.050	06/13/22 22:41	
Sulfate	mg/L	ND	1.0	0.50	06/13/22 22:41	

LABORATORY CONTROL SAMPLE: 3674649

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.5	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674650 3674651

Parameter	Units	92608334002		3674650		3674651		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	95.1	95.1	50	50	116	115	41	39	90-110	1	10	M1
Fluoride	mg/L	0.43	0.43	2.5	2.5	3.1	3.0	106	105	90-110	0	10	
Sulfate	mg/L	48.0	48.0	50	50	97.7	98.2	99	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674764 3674765

Parameter	Units	92608304001		3674764		3674765		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	11.0	11.0	50	50	61.5	61.8	101	102	90-110	0	10	
Fluoride	mg/L	0.40	0.40	2.5	2.5	2.9	2.9	99	98	90-110	0	10	
Sulfate	mg/L	24.9	24.9	50	50	74.6	76.0	99	102	90-110	2	10	

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### QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

QC Batch: 704146 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92608869024, 92608869025, 92608869026

METHOD BLANK: 3674655 Matrix: Water  
Associated Lab Samples: 92608869024, 92608869025, 92608869026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/14/22 07:09	
Fluoride	mg/L	ND	0.10	0.050	06/14/22 07:09	
Sulfate	mg/L	ND	1.0	0.50	06/14/22 07:09	

LABORATORY CONTROL SAMPLE: 3674656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.1	108	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674657 3674658

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608869024 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	7260	50	50	7230	7340	-53	157	90-110	1	10	M1	
Fluoride	mg/L	ND	2.5	2.5	5.7J	5.5J	32	24	90-110		10	D3,M1	
Sulfate	mg/L	950	50	50	977	990	55	80	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3674766 3674767

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92608137004 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	13.8	50	50	65.3	65.6	103	103	90-110	0	10		
Fluoride	mg/L	0.15	2.5	2.5	2.6	2.7	100	101	90-110	1	10		
Sulfate	mg/L	11.6	50	50	62.5	63.0	102	103	90-110	1	10		

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## QUALIFIERS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869001	T1-4HT				
92608869002	T1-4HTS				
92608869003	T2-1HT				
92608869004	T2-2HT				
92608869005	T2-2HTS				
92608869006	T2-3HT				
92608869007	T2-3HTS				
92608869008	T2-4HT				
92608869009	T2-4HTS				
92608869010	T3-4HT				
92608869011	T3-4HTS				
92608869012	T4-1HB				
92608869013	T4-1HS				
92608869014	T4-2HB				
92608869015	T4-2HS				
92608869016	T4-3HB				
92608869017	T4-3HS				
92608869018	T4-4HB				
92608869019	T4-4HS				
92608869020	BG-1LT				
92608869021	BG-2HT				
92608869001	T1-4HT	EPA 3010A	823415	EPA 6010C	823927
92608869002	T1-4HTS	EPA 3010A	823415	EPA 6010C	823927
92608869003	T2-1HT	EPA 3010A	823415	EPA 6010C	823927
92608869004	T2-2HT	EPA 3010A	823415	EPA 6010C	823927
92608869005	T2-2HTS	EPA 3010A	823415	EPA 6010C	823927
92608869006	T2-3HT	EPA 3010A	823415	EPA 6010C	823927
92608869007	T2-3HTS	EPA 3010A	823415	EPA 6010C	823927
92608869008	T2-4HT	EPA 3010A	823415	EPA 6010C	823927
92608869009	T2-4HTS	EPA 3010A	823415	EPA 6010C	823927
92608869010	T3-4HT	EPA 3010A	823415	EPA 6010C	823927
92608869011	T3-4HTS	EPA 3010A	823415	EPA 6010C	823927
92608869012	T4-1HB	EPA 3010A	823415	EPA 6010C	823927
92608869013	T4-1HS	EPA 3010A	823415	EPA 6010C	823927
92608869014	T4-2HB	EPA 3010A	823415	EPA 6010C	823927
92608869015	T4-2HS	EPA 3010A	823415	EPA 6010C	823927
92608869016	T4-3HB	EPA 3010A	823415	EPA 6010C	823927
92608869017	T4-3HS	EPA 3010A	823415	EPA 6010C	823927
92608869018	T4-4HB	EPA 3010A	823415	EPA 6010C	823927
92608869019	T4-4HS	EPA 3010A	823415	EPA 6010C	823927
92608869020	BG-1LT	EPA 3010A	823415	EPA 6010C	823927
92608869021	BG-2HT	EPA 3010A	823416	EPA 6010C	823923
92608869022	DUP-1	EPA 3010A	823416	EPA 6010C	823923
92608869023	DUP-2	EPA 3010A	823416	EPA 6010C	823923
92608869024	DUP-3	EPA 3010A	823416	EPA 6010C	823923
92608869025	FB-1	EPA 3010A	823416	EPA 6010C	823923
92608869026	EB-1	EPA 3010A	823416	EPA 6010C	823923

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report  
Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869001	T1-4HT	EPA 3010A	710140	EPA 6020B	710161
92608869002	T1-4HTS	EPA 3010A	710140	EPA 6020B	710161
92608869003	T2-1HT	EPA 3010A	710140	EPA 6020B	710161
92608869004	T2-2HT	EPA 3010A	710140	EPA 6020B	710161
92608869005	T2-2HTS	EPA 3010A	710140	EPA 6020B	710161
92608869006	T2-3HT	EPA 3010A	710140	EPA 6020B	710161
92608869007	T2-3HTS	EPA 3010A	710140	EPA 6020B	710161
92608869008	T2-4HT	EPA 3010A	710140	EPA 6020B	710161
92608869009	T2-4HTS	EPA 3010A	710140	EPA 6020B	710161
92608869010	T3-4HT	EPA 3010A	710140	EPA 6020B	710161
92608869011	T3-4HTS	EPA 3010A	710140	EPA 6020B	710161
92608869012	T4-1HB	EPA 3010A	710140	EPA 6020B	710161
92608869013	T4-1HS	EPA 3010A	710140	EPA 6020B	710161
92608869014	T4-2HB	EPA 3010A	710140	EPA 6020B	710161
92608869015	T4-2HS	EPA 3010A	710140	EPA 6020B	710161
92608869016	T4-3HB	EPA 3010A	710140	EPA 6020B	710161
92608869017	T4-3HS	EPA 3010A	710140	EPA 6020B	710161
92608869018	T4-4HB	EPA 3010A	710140	EPA 6020B	710161
92608869019	T4-4HS	EPA 3010A	710140	EPA 6020B	710161
92608869020	BG-1LT	EPA 3010A	710140	EPA 6020B	710161
92608869021	BG-2HT	EPA 3010A	710141	EPA 6020B	710163
92608869022	DUP-1	EPA 3010A	710141	EPA 6020B	710163
92608869023	DUP-2	EPA 3010A	710141	EPA 6020B	710163
92608869024	DUP-3	EPA 3010A	710141	EPA 6020B	710163
92608869025	FB-1	EPA 3010A	705475	EPA 6020B	705488
92608869026	EB-1	EPA 3010A	705909	EPA 6020B	706043
92608869001	T1-4HT	SM 2320B-2011	704567		
92608869002	T1-4HTS	SM 2320B-2011	704567		
92608869003	T2-1HT	SM 2320B-2011	704567		
92608869004	T2-2HT	SM 2320B-2011	704567		
92608869005	T2-2HTS	SM 2320B-2011	704567		
92608869006	T2-3HT	SM 2320B-2011	704567		
92608869007	T2-3HTS	SM 2320B-2011	704567		
92608869008	T2-4HT	SM 2320B-2011	704567		
92608869009	T2-4HTS	SM 2320B-2011	704567		
92608869010	T3-4HT	SM 2320B-2011	704567		
92608869011	T3-4HTS	SM 2320B-2011	704567		
92608869012	T4-1HB	SM 2320B-2011	704567		
92608869013	T4-1HS	SM 2320B-2011	704567		
92608869014	T4-2HB	SM 2320B-2011	704567		
92608869015	T4-2HS	SM 2320B-2011	704567		
92608869016	T4-3HB	SM 2320B-2011	704567		
92608869017	T4-3HS	SM 2320B-2011	704567		
92608869018	T4-4HB	SM 2320B-2011	704567		
92608869019	T4-4HS	SM 2320B-2011	704567		
92608869020	BG-1LT	SM 2320B-2011	704687		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869021	BG-2HT	SM 2320B-2011	704687		
92608869022	DUP-1	SM 2320B-2011	704687		
92608869023	DUP-2	SM 2320B-2011	704687		
92608869024	DUP-3	SM 2320B-2011	704687		
92608869025	FB-1	SM 2320B-2011	704687		
92608869026	EB-1	SM 2320B-2011	704687		
92608869001	T1-4HT	SM 2540C-2015	703674		
92608869002	T1-4HTS	SM 2540C-2015	703674		
92608869003	T2-1HT	SM 2540C-2015	703674		
92608869004	T2-2HT	SM 2540C-2015	703674		
92608869005	T2-2HTS	SM 2540C-2015	703821		
92608869006	T2-3HT	SM 2540C-2015	703821		
92608869007	T2-3HTS	SM 2540C-2015	703821		
92608869008	T2-4HT	SM 2540C-2015	703821		
92608869009	T2-4HTS	SM 2540C-2015	703821		
92608869010	T3-4HT	SM 2540C-2015	703821		
92608869011	T3-4HTS	SM 2540C-2015	703821		
92608869012	T4-1HB	SM 2540C-2015	703821		
92608869013	T4-1HS	SM 2540C-2015	703821		
92608869014	T4-2HB	SM 2540C-2015	703821		
92608869015	T4-2HS	SM 2540C-2015	703821		
92608869016	T4-3HB	SM 2540C-2015	703821		
92608869017	T4-3HS	SM 2540C-2015	703821		
92608869018	T4-4HB	SM 2540C-2015	703821		
92608869019	T4-4HS	SM 2540C-2015	703821		
92608869020	BG-1LT	SM 2540C-2015	703871		
92608869021	BG-2HT	SM 2540C-2015	703821		
92608869022	DUP-1	SM 2540C-2015	703821		
92608869023	DUP-2	SM 2540C-2015	703821		
92608869024	DUP-3	SM 2540C-2015	703821		
92608869025	FB-1	SM 2540C-2015	703871		
92608869026	EB-1	SM 2540C-2015	703871		
92608869001	T1-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869002	T1-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869003	T2-1HT	EPA 300.0 Rev 2.1 1993	703913		
92608869004	T2-2HT	EPA 300.0 Rev 2.1 1993	703913		
92608869005	T2-2HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869006	T2-3HT	EPA 300.0 Rev 2.1 1993	703913		
92608869007	T2-3HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869008	T2-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869009	T2-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869010	T3-4HT	EPA 300.0 Rev 2.1 1993	703913		
92608869011	T3-4HTS	EPA 300.0 Rev 2.1 1993	703913		
92608869012	T4-1HB	EPA 300.0 Rev 2.1 1993	703913		
92608869013	T4-1HS	EPA 300.0 Rev 2.1 1993	703913		
92608869014	T4-2HB	EPA 300.0 Rev 2.1 1993	703913		

### REPORT OF LABORATORY ANALYSIS

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

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92608869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92608869015	T4-2HS	EPA 300.0 Rev 2.1 1993	703913		
92608869016	T4-3HB	EPA 300.0 Rev 2.1 1993	703913		
92608869017	T4-3HS	EPA 300.0 Rev 2.1 1993	704144		
92608869018	T4-4HB	EPA 300.0 Rev 2.1 1993	704144		
92608869019	T4-4HS	EPA 300.0 Rev 2.1 1993	704144		
92608869020	BG-1LT	EPA 300.0 Rev 2.1 1993	704144		
92608869021	BG-2HT	EPA 300.0 Rev 2.1 1993	704144		
92608869022	DUP-1	EPA 300.0 Rev 2.1 1993	704144		
92608869023	DUP-2	EPA 300.0 Rev 2.1 1993	704144		
92608869024	DUP-3	EPA 300.0 Rev 2.1 1993	704146		
92608869025	FB-1	EPA 300.0 Rev 2.1 1993	704146		
92608869026	EB-1	EPA 300.0 Rev 2.1 1993	704146		

### REPORT OF LABORATORY ANALYSIS

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DC#\_Title: ENV-FRM-HUN1-0083 v01\_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO#: 92608869



92608869

Date/Initials Person Examining Contents: 6-7-22 AR

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer:

IR Gun ID: 937071

Type of Ice:  Wet  Blue  None

Biological Tissue Frozen?

Yes  No  N/A

Cooler Temp: 12/3.1/2.2/1.9 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C): 3.1/2.2/1.9/1.2

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

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

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

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





DC#\_Title: ENV-FRM-HUN1-0084 v01\_Tech Spec Sample Condition  
Upon Receipt

Effective Date: 05/12/2022

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

Exceptions: VOA, Coliform, TDC, Oil and Grease, DRO/8025 (water) DOC, LLHg

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

\*\*\*Check all unpreserved Nitrates for chlorine

Project #

WO#: 92608869

PM: NMG

Due Date: 06/16/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	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-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (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)	DG8U-40 mL Amber Unpreserved vials (N/A)	
1	2	1			1																							
2	2	1			1																							
3	2	1			1																							
4	2	1			1																							
5	2	1			1																							
6	2	1			1																							
7	2	1			1																							
8	2	1			1																							
9	2	1			1																							
10	2	1			1																							
11	2	1			1																							
12	2	1			1																							

pH Adjustment Log for Preserved Samples

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

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



DC#\_Title: ENV-FRM-HUN1-0083 v01\_Sample Condition Upon Receipt

Effective Date: 05/12/2022

\*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#: 92608869

PM: NMG

Due Date: 06/16/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	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-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SPZT-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	2	1																											
2	2	1																											
3	2	1																											
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7	2	1																											
8																													
9																													
10																													
11																													
12	2	1																											

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)





DC#\_ Title: ENV-FRM-HUN1-0083 v01\_Sample Condition Upon Receipt

Effective Date: 05/12/2022

\*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#: 92608869

PM: NMG

Due Date: 06/16/22

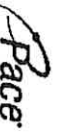
CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BPM5-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (p>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-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (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		2	1																									
2		2	1																									
3		2	1																									
4		2	1																									
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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. Out of hold, incorrect preservative, out of temp, incorrect containers



Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.paceabs.com/hubs/pace-standard-terms.pdf>.

**Section A**

Required Client Information:  
 Company: Georgia Power  
 Address: 1003 Weatherstone Parkway  
 Suite 320 Woodstock, GA 30788  
 Email: kevin.stephenson@paceabs.com  
 Phone: (678)546-9415 Fax: \_\_\_\_\_  
 Requested Due Date: \_\_\_\_\_

Required Project Information:  
 Report To: Kevin Stephenson  
 Copy To: Laura Mitchell  
 Purchase Order #: \_\_\_\_\_

**Section B**

Company Name: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Project Name: Madras Surface Water Sampling  
 Project #: \_\_\_\_\_  
 Pace Project Manager: nicole.doleo@paceabs.com  
 Pace Profile #: 10768-14

Regulatory Agency: \_\_\_\_\_  
 State: GA  
 Date: 6/8/22

**CHAIN-OF-CUSTODY / Analytical Request Document**

ITEM #	SAMPLE ID		MATRIX	CODE	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test				Residual Chlorine (YN)				
	One Character per box. (A-Z, 0-9, -, ) Sample IDs must be unique	(A-Z, 0-9, -, )									Dinking Water Water Wastewater Pond Process Oil Wipe Air Other Tissue	DW WT PW SL SL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	START	END	Unpreserved	H2SO4	HNO3	HCl	NaOH		Na2S2O3	Methanol	Other	6010/6020
1	T1-4HT	6/17/22	1806	WT	6/17/22	1810			4	3																7.43
2	T1-4HTS	6/17/22	1654	WT	6/17/22	1705			4	3																7.50
3	T2-2HT	6/17/22	1705	WT	6/17/22	1700			4	3																7.40
4	T2-2HTS	6/17/22	1728	WT	6/17/22	1724			4	3																7.49
5	T2-3HT	6/17/22	1746	WT	6/17/22	1745			4	3																7.43
6	T2-3HTS	6/17/22	1745	WT	6/17/22	1751			4	3																7.58
7	T2-4HT	6/17/22	1746	WT	6/17/22	1753			4	3																7.44
8	T2-4HTS	6/17/22	1753	WT	6/17/22	1454			4	3																7.56
9	T3-4HT	6/17/22	1757	WT	6/17/22	1454			4	3																7.37
10	T3-4HTS	6/17/22	1757	WT	6/17/22	1454			4	3																7.51
11	T4-1HB	6/17/22	1454	WT	6/17/22	1454			4	3																7.34

# Ca, Mg, K, Na, As, B, Li

PRINT Name of SAMPLER: Meredith Duncan, Will Leaker, Trent Godwin  
 SIGNATURE of SAMPLER: *Meredith Duncan*  
 DATE Signed: 6/8/22

TEMP in C: 3.1, 2.2, 1.9  
 Received on Ice (Y/N): Y, Y, Y  
 Custody Sealed Cooler (Y/N): Y, Y, Y  
 Samples Intact (Y/N): Y, Y, Y



**Page**

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Page Terms and Conditions found at <https://info.pacelabs.com/html/pas-standard-terms.pdf>.

### CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : **3** OF **3**

**Section A Required Client Information:**

Company: Georgia Power  
 Address: 1003 Weatherstone Parkway  
 Suite 320 Woodstock, GA 30188  
 Email: kevin.stephenson@ge.com  
 Project Name: Fiac  
 Reported Due Date:

**Section B Required Project Information:**

Report To: Kevin Stephenson  
 Copy To: LAURA MITCHELL  
 Purchase Order #: Mddemus Surface Water Sampling  
 Project #:

**Section C Invoice Information:**

Attention: Address: Pace Project Manager: nicole.d@pacelabs.com  
 Address: Pace Profile #: 10768-14

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Preservatives						Analytes Test				Residual Chlorine (Y/N)	7.51	
			START DATE	END DATE	TIME	TIME		Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	6010/6020*	Cl, F, SO4			Alkalinity
20	BC-2HT	WT	6/7/22	6/7/22	1620	—	4	3	1								X	X	X	X
26	DUP-1	WT	6/7/22	6/7/22	—	—	4	3	1								X	X	X	X
27	DUP-2	WT	6/7/22	6/7/22	—	—	4	3	1								X	X	X	X
28	DUP-3	WT	6/7/22	6/7/22	—	—	4	3	1								X	X	X	X
29	DUP-4	WT	6/7/22	6/7/22	—	—	4	3	1								X	X	X	X
30	FB-1	WT	6/8/22	6/8/22	0855	—	4	3	1								X	X	X	X
31	EB-1	WT	6/8/22	6/8/22	0900	—	4	3	1								X	X	X	X
32		WT	6/8/22	6/8/22		—	4	3	1								X	X	X	X
33		WT															X	X	X	X
34		WT															X	X	X	X
35		WT															X	X	X	X
36		WT															X	X	X	X

\* Ca, Mg, K, Na, As, B, Li

ANALYST SIGNATURE: *Allan Bayley/PACE/PVL* DATE: 6/8/22 TIME: 1100

TEMP IN C: 3.1, 2.2, 1.9

Received on Ice (Y/N): Y, Y, Y

Custody Sealed Cooler (Y/N): Y, Y, Y

Samples Intact (Y/N): Y, Y, Y

SAMPLER NAME AND SIGNATURE: *Meredith Duncan, Will Laker, Trend Godwin*

DATE SIGNED: 6/8/22



## ANALYTICAL REPORT

Eurofins Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404  
Tel: (912)354-7858

Laboratory Job ID: 680-221593-1

Client Project/Site: Plant McManus Surface Water  
Revision: 1

For:  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
10/31/2022 12:40:52 PM

David Fuller, Project Manager  
(770)344-8986  
[David.Fuller@et.eurofinsus.com](mailto:David.Fuller@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

### 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, high biased
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

# Sample Summary

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-221593-1	T1-4HT	Water	09/22/22 09:49	09/23/22 10:40
680-221593-2	T1-4HTS	Water	09/22/22 09:43	09/23/22 10:40
680-221593-3	T2-1HT	Water	09/22/22 08:40	09/23/22 10:40
680-221593-4	T2-2HT	Water	09/22/22 08:50	09/23/22 10:40
680-221593-5	T2-2HTS	Water	09/22/22 08:44	09/23/22 10:40
680-221593-6	T2-3HT	Water	09/22/22 09:05	09/23/22 10:40
680-221593-7	T2-3HTS	Water	09/22/22 09:00	09/23/22 10:40
680-221593-8	T2-4HT	Water	09/22/22 09:35	09/23/22 10:40
680-221593-9	T2-4HTS	Water	09/22/22 09:30	09/23/22 10:40
680-221593-10	T3-4HT	Water	09/22/22 09:22	09/23/22 10:40
680-221593-11	T3-4HTS	Water	09/22/22 09:17	09/23/22 10:40
680-221593-12	T4-1HB	Water	09/22/22 07:20	09/23/22 10:40
680-221593-13	T4-1HS	Water	09/22/22 07:12	09/23/22 10:40
680-221593-14	T4-2HB	Water	09/22/22 07:36	09/23/22 10:40
680-221593-15	T4-2HS	Water	09/22/22 07:30	09/23/22 10:40
680-221593-16	T4-3HB	Water	09/22/22 07:50	09/23/22 10:40
680-221593-17	T4-3HS	Water	09/22/22 07:43	09/23/22 10:40
680-221593-18	T4-4HB	Water	09/22/22 08:08	09/23/22 10:40
680-221593-19	T4-4HS	Water	09/22/22 08:00	09/23/22 10:40
680-221593-20	BG-2HT	Water	09/22/22 08:23	09/23/22 10:40
680-221593-21	DUP-1	Water	09/22/22 00:00	09/23/22 10:40
680-221593-22	DUP-2	Water	09/22/22 00:00	09/23/22 10:40
680-221593-23	FB-1	Water	09/22/22 10:30	09/23/22 10:40
680-221593-24	EB-1	Water	09/22/22 10:25	09/23/22 10:40
680-221861-1	T1-4LT	Water	09/28/22 07:59	09/29/22 12:40
680-221861-2	T2-4LT	Water	09/28/22 08:07	09/29/22 12:40
680-221861-3	T3-4LT	Water	09/28/22 08:15	09/29/22 12:40
680-221861-4	T4-4L	Water	09/27/22 17:35	09/29/22 12:40
680-221861-5	BG-1LT	Water	09/28/22 07:49	09/29/22 12:40
680-221861-6	DUP-3	Water	09/28/22 00:00	09/29/22 12:40
680-221861-7	FB-2	Water	09/28/22 08:50	09/29/22 12:40
680-221861-8	EB-2	Water	09/28/22 09:00	09/29/22 12:40



# Case Narrative

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Job ID: 680-221593-1**

**Laboratory: Eurofins Savannah**

## Narrative

### Job Narrative 680-221593-1

#### Revision 1

The report being provided is a revision of the original report sent on 10/25/2022. The report (revision 1) is being revised in order to report a lower dilution for Arsenic & Lithium.

#### Receipt

The samples were received on 9/23/2022 10:40 AM and 9/29/2022 12:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.2°C, 1.8°C, 2.3°C and 3.0°C

#### HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-744417 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

Method 6020B: All samples in this submittal were diluted to bring the concentration of target analytes within the calibration range and/or due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Method 6020B: The method blank for preparation batch 400-594691 and analytical batch 400-594928 contained Sodium and Potassium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020B: The CRI associated with batch 400-597203 recovered above the upper control limit for Potassium. The samples associated with this CRI had hits significantly above the CRI, and there is supporting CCV bracket passing above the CRI as well as a non-detection for the method blank and a passing LCS for the affected analytes; therefore, the data have been reported.

Method 6020B: The CRI associated with batch 400-597203 recovered above the upper control limit for Potassium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6020B: The method blank for preparation batch 400-594692 and analytical batch 400-594928 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020B: The following samples were diluted because the initial analysis produced a significant negative result - the absolute value exceeded the reporting limit (RL): FB-1 (680-221593-23), EB-1 (680-221593-24), FB-2 (680-221861-7) and EB-2 (680-221861-8). Reporting limits (RLs) are elevated as a result.

Method 6020B: Due to sample matrix, there was a marginal failure in the internal standard limits associated with Lithium and Arsenic. As a proper dilution puts the reporting limit over the client requirements, initial results run at a greater concentration are now reported.

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.

#### Field Service / Mobile Lab

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T1-4HT**

**Lab Sample ID: 680-221593-1**

Date Collected: 09/22/22 09:49

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		250	50	mg/L			10/08/22 02:59	250
Fluoride	<10		25	10	mg/L			10/08/22 02:59	250
Sulfate	1400		250	100	mg/L			10/08/22 02:59	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:51	5
Boron	2.0	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:01	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:51	5
Lithium	0.092		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:51	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:51	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:51	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:51	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/27/22 22:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/27/22 22:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/27/22 22:26	1
Total Dissolved Solids (SM 2540C-2011)	18000		2000	2000	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.98				SU			09/22/22 09:49	1

**Client Sample ID: T1-4HTS**

**Lab Sample ID: 680-221593-2**

Date Collected: 09/22/22 09:43

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 18:18	40
Sulfate	1500		40	16	mg/L			10/08/22 18:18	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		100	20	mg/L			10/10/22 17:11	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:54	5
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:04	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:54	5
Lithium	0.092		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:54	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:54	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:54	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:54	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T1-4HTS**

**Lab Sample ID: 680-221593-2**

Date Collected: 09/22/22 09:43

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:05	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			09/22/22 09:43	1

**Client Sample ID: T2-1HT**

**Lab Sample ID: 680-221593-3**

Date Collected: 09/22/22 08:40

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 18:56	40
Sulfate	1500		40	16	mg/L			10/08/22 18:56	40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15000		100	20	mg/L			10/10/22 17:49	100

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 20:57	5
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:07	500
Calcium	230	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 20:57	5
Lithium	0.090		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 20:57	5
Magnesium	700	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 20:57	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 20:57	5
Sodium	5500	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 20:57	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:03	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.28				SU			09/22/22 08:40	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-2HT**

**Lab Sample ID: 680-221593-4**

Date Collected: 09/22/22 08:50

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:09	40
Sulfate	1500		40	16	mg/L			10/08/22 19:09	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15000		100	20	mg/L			10/10/22 18:01	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:00	5
Boron	2.0	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:10	500
Calcium	250	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:00	5
Lithium	0.096		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:00	5
Magnesium	750	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:00	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:00	5
Sodium	5900	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:00	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:43	1
Total Dissolved Solids (SM 2540C-2011)	16000		2000	2000	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.99				SU			09/22/22 08:50	1

**Client Sample ID: T2-2HTS**

**Lab Sample ID: 680-221593-5**

Date Collected: 09/22/22 08:44

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:22	40
Sulfate	1500		40	16	mg/L			10/08/22 19:22	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		100	20	mg/L			10/10/22 18:14	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0028		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:03	5
Boron	1.9	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:13	500
Calcium	230	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:03	5
Lithium	0.088		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:03	5
Magnesium	690	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:03	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-2HTS**

**Lab Sample ID: 680-221593-5**

Date Collected: 09/22/22 08:44

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	230	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:03	5
Sodium	5400	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:03	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:24	1
Total Dissolved Solids (SM 2540C-2011)	19000		2000	2000	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/22/22 08:44	1

**Client Sample ID: T2-3HT**

**Lab Sample ID: 680-221593-6**

Date Collected: 09/22/22 09:05

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:34	40
Sulfate	1600		40	16	mg/L			10/08/22 19:34	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 18:27	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:06	5
Boron	2.2	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:16	500
Calcium	250	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:06	5
Lithium	0.097		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:06	5
Magnesium	760	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:06	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:06	5
Sodium	6000	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:06	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:13	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/27/22 12:02	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-3HT**

Date Collected: 09/22/22 09:05

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221593-6**

Matrix: Water

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.97				SU			09/22/22 09:05	1

**Client Sample ID: T2-3HTS**

Date Collected: 09/22/22 09:00

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221593-7**

Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 19:47	40
Sulfate	1400		40	16	mg/L			10/08/22 19:47	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		100	20	mg/L			10/10/22 18:39	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:34	5
Boron	1.9	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:20	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:34	5
Lithium	0.087		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:34	5
Magnesium	710	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:34	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:34	5
Sodium	5600	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:34	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:53	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			09/22/22 09:00	1

**Client Sample ID: T2-4HT**

Date Collected: 09/22/22 09:35

Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221593-8**

Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		500	100	mg/L			10/11/22 12:03	500
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:00	40
Sulfate	1600		40	16	mg/L			10/08/22 20:00	40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:37	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-4HT**

**Lab Sample ID: 680-221593-8**

Date Collected: 09/22/22 09:35

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:23	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:37	5
Lithium	0.090		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:37	5
Magnesium	720	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:37	5
Potassium	240	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:37	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:37	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 17:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 17:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 17:33	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/27/22 12:02	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.01				SU			09/22/22 09:35	1

**Client Sample ID: T2-4HTS**

**Lab Sample ID: 680-221593-9**

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:12	40
Sulfate	1500		40	16	mg/L			10/08/22 20:12	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11000		100	20	mg/L			10/10/22 19:05	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:40	5
Boron	1.7	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:26	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:40	5
Lithium	0.091		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:40	5
Magnesium	730	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:40	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:40	5
Sodium	5700	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:40	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:23	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: T2-4HTS

Lab Sample ID: 680-221593-9

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

### General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C-2011)	22000		2000	2000	mg/L			09/28/22 12:20	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.04				SU			09/22/22 09:30	1

## Client Sample ID: T3-4HT

Lab Sample ID: 680-221593-10

Date Collected: 09/22/22 09:22

Matrix: Water

Date Received: 09/23/22 10:40

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:25	40
Sulfate	1600		40	16	mg/L			10/08/22 20:25	40

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 19:17	100

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 21:43	5
Boron	2.2	J B	5.0	0.12	mg/L		10/02/22 11:35	10/07/22 22:47	500
Calcium	240	B	0.25	0.13	mg/L		10/02/22 11:35	10/03/22 21:43	5
Lithium	0.091		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 21:43	5
Magnesium	750	B	0.13	0.041	mg/L		10/02/22 11:35	10/03/22 21:43	5
Potassium	250	B ^2	0.25	0.17	mg/L		10/02/22 11:35	10/03/22 21:43	5
Sodium	5800	B ^2	0.25	0.16	mg/L		10/02/22 11:35	10/03/22 21:43	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			09/28/22 18:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			09/28/22 18:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:43	1
Total Dissolved Solids (SM 2540C-2011)	22000		2000	2000	mg/L			09/28/22 12:20	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.98				SU			09/22/22 09:22	1

## Client Sample ID: T3-4HTS

Lab Sample ID: 680-221593-11

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 20:38	40
Sulfate	1400		40	16	mg/L			10/08/22 20:38	40

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T3-4HTS**

**Lab Sample ID: 680-221593-11**

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11000		100	20	mg/L			10/10/22 19:30	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:18	5
Boron	2.1		0.050	0.0012	mg/L		10/02/22 11:35	10/03/22 17:18	5
Calcium	210		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:18	5
Lithium	0.079		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:18	5
Magnesium	620		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:18	5
Potassium	210		0.25	0.17	mg/L		10/02/22 11:35	10/03/22 17:18	5
Sodium	4900		0.25	0.16	mg/L		10/02/22 11:35	10/03/22 17:18	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	95		5.0	2.2	mg/L			09/28/22 18:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	95		5.0	5.0	mg/L			09/28/22 18:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 18:33	1
Total Dissolved Solids (SM 2540C-2011)	19000		2000	2000	mg/L			09/28/22 12:20	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.09				SU			09/22/22 09:17	1

**Client Sample ID: T4-1HB**

**Lab Sample ID: 680-221593-12**

Date Collected: 09/22/22 07:20

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 21:28	40
Sulfate	1600		40	16	mg/L			10/08/22 21:28	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 20:33	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:58	5
Boron	2.9 J		5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:27	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:58	5
Lithium	0.099		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:58	5
Magnesium	770		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:58	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 14:27	500
Sodium	6800		25	16	mg/L		10/02/22 11:35	10/10/22 14:27	500

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-1HB**

**Lab Sample ID: 680-221593-12**

Date Collected: 09/22/22 07:20

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			09/28/22 19:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			09/28/22 19:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:44	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/28/22 12:20	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.85				SU			09/22/22 07:20	1

**Client Sample ID: T4-1HS**

**Lab Sample ID: 680-221593-13**

Date Collected: 09/22/22 07:12

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:06	40
Sulfate	1700		40	16	mg/L			10/08/22 22:06	40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:11	100

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:01	5
Boron	2.9	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:30	500
Calcium	250		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:01	5
Lithium	0.099		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:01	5
Magnesium	760		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:01	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 14:30	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 14:30	500

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			09/28/22 19:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			09/28/22 19:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:34	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/28/22 12:20	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.59				SU			09/22/22 07:12	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-2HB**

**Lab Sample ID: 680-221593-14**

Date Collected: 09/22/22 07:36

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:19	40
Sulfate	1700		40	16	mg/L			10/08/22 22:19	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:24	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:04	5
Boron	2.9	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:33	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:04	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:04	5
Magnesium	770		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:04	5
Potassium	240		25	17	mg/L		10/02/22 11:35	10/10/22 14:33	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 14:33	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			09/28/22 19:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			09/28/22 19:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			09/28/22 19:14	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			09/28/22 12:20	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.98				SU			09/22/22 07:36	1

**Client Sample ID: T4-2HS**

**Lab Sample ID: 680-221593-15**

Date Collected: 09/22/22 07:30

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:31	40
Sulfate	1700		40	16	mg/L			10/08/22 22:31	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:36	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:07	5
Boron	2.9	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 14:36	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:07	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:07	5
Magnesium	770		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:07	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-2HS**

**Lab Sample ID: 680-221593-15**

Date Collected: 09/22/22 07:30

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	240		25	17	mg/L		10/02/22 11:35	10/10/22 14:36	500
Sodium	6800		25	16	mg/L		10/02/22 11:35	10/10/22 14:36	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:27	1
Total Dissolved Solids (SM 2540C-2011)	11000		2000	2000	mg/L			09/28/22 12:20	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.96				SU			09/22/22 07:30	1

**Client Sample ID: T4-3HB**

**Lab Sample ID: 680-221593-16**

Date Collected: 09/22/22 07:50

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:44	40
Sulfate	1700		40	16	mg/L			10/08/22 22:44	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 21:49	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:10	5
Boron	3.4	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:23	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:10	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:10	5
Magnesium	790		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:10	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 15:23	500
Sodium	6800		25	16	mg/L		10/02/22 11:35	10/10/22 15:23	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:07	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/28/22 12:20	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-3HB**

**Lab Sample ID: 680-221593-16**

Date Collected: 09/22/22 07:50

Matrix: Water

Date Received: 09/23/22 10:40

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.97				SU			09/22/22 07:50	1

**Client Sample ID: T4-3HS**

**Lab Sample ID: 680-221593-17**

Date Collected: 09/22/22 07:43

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 22:57	40
Sulfate	1600		40	16	mg/L			10/08/22 22:57	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 22:02	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:13	5
Boron	2.7	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:42	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:13	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:13	5
Magnesium	780		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:13	5
Potassium	240		25	17	mg/L		10/02/22 11:35	10/10/22 15:42	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 15:42	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:36	1
Total Dissolved Solids (SM 2540C-2011)	23000		2000	2000	mg/L			09/28/22 12:20	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.01				SU			09/22/22 07:43	1

**Client Sample ID: T4-4HB**

**Lab Sample ID: 680-221593-18**

Date Collected: 09/22/22 08:08

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:09	40
Sulfate	1700		40	16	mg/L			10/08/22 23:09	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 22:14	100

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-4HB**

**Lab Sample ID: 680-221593-18**

Date Collected: 09/22/22 08:08

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:16	5
Boron	2.7	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:51	500
Calcium	270		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:16	5
Lithium	0.11		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:16	5
Magnesium	810		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:16	5
Potassium	230		25	17	mg/L		10/02/22 11:35	10/10/22 15:51	500
Sodium	6700		25	16	mg/L		10/02/22 11:35	10/10/22 15:51	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:57	1
Total Dissolved Solids (SM 2540C-2011)	23000		2000	2000	mg/L			09/28/22 12:20	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/22/22 08:08	1

**Client Sample ID: T4-4HS**

**Lab Sample ID: 680-221593-19**

Date Collected: 09/22/22 08:00

Matrix: Water

Date Received: 09/23/22 10:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:22	40
Sulfate	1700		40	16	mg/L			10/08/22 23:22	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	20	mg/L			10/10/22 22:27	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0029		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:19	5
Boron	2.8	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:54	500
Calcium	260		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:19	5
Lithium	0.10		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:19	5
Magnesium	790		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:19	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 15:54	500
Sodium	7000		25	16	mg/L		10/02/22 11:35	10/10/22 15:54	500

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:17	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-4HS**

**Lab Sample ID: 680-221593-19**

Date Collected: 09/22/22 08:00

Matrix: Water

Date Received: 09/23/22 10:40

### General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:17	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>21000</b>		2000	2000	mg/L			09/28/22 12:20	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			09/22/22 08:00	1

**Client Sample ID: BG-2HT**

**Lab Sample ID: 680-221593-20**

Date Collected: 09/22/22 08:23

Matrix: Water

Date Received: 09/23/22 10:40

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:35	40
Sulfate	1900		40	16	mg/L			10/08/22 23:35	40

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		100	20	mg/L			10/10/22 22:40	100

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0026		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 18:47	5
Boron	2.9	J	5.0	0.12	mg/L		10/02/22 11:35	10/10/22 15:57	500
Calcium	280		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 18:47	5
Lithium	0.11		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 18:47	5
Magnesium	840		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 18:47	5
Potassium	250		25	17	mg/L		10/02/22 11:35	10/10/22 15:57	500
Sodium	7200		25	16	mg/L		10/02/22 11:35	10/10/22 15:57	500

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO <sub>3</sub> to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 15:46	1
Bicarbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 15:46	1
Carbonate Alkalinity as CaCO <sub>3</sub> (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 15:46	1
<b>Total Dissolved Solids (SM 2540C-2011)</b>	<b>24000</b>		2000	2000	mg/L			09/28/22 12:20	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.12				SU			09/22/22 08:23	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: DUP-1**  
Date Collected: 09/22/22 00:00  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221593-21**  
Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/08/22 23:47	40
Sulfate	1600		40	16	mg/L			10/08/22 23:47	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		100	20	mg/L			10/10/22 22:52	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0026		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 21:51	5
Boron	3.7	J B	5.0	0.12	mg/L		09/27/22 16:07	10/10/22 16:10	500
Calcium	280		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 21:51	5
Lithium	0.12	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 21:51	5
Magnesium	860		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 21:51	5
Potassium	270	B	25	17	mg/L		09/27/22 16:07	10/10/22 16:10	500
Sodium	6700		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 21:51	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/04/22 16:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/04/22 16:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 16:07	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/28/22 12:20	1

**Client Sample ID: DUP-2**  
Date Collected: 09/22/22 00:00  
Date Received: 09/23/22 10:40

**Lab Sample ID: 680-221593-22**  
Matrix: Water

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.6		4.0	1.6	mg/L			10/09/22 01:54	40
Sulfate	1500		40	16	mg/L			10/09/22 01:54	40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		100	20	mg/L			10/10/22 23:30	100

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0028		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:06	5
Boron	2.8	J B	5.0	0.12	mg/L		09/27/22 16:07	10/10/22 16:13	500
Calcium	250		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:06	5
Lithium	0.10	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:06	5
Magnesium	770		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:06	5
Potassium	230	B	25	17	mg/L		09/27/22 16:07	10/10/22 16:13	500
Sodium	5900		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:06	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: DUP-2**

**Lab Sample ID: 680-221593-22**

Date Collected: 09/22/22 00:00

Matrix: Water

Date Received: 09/23/22 10:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.0	2.2	mg/L			10/04/22 16:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	100		5.0	5.0	mg/L			10/04/22 16:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 16:16	1
Total Dissolved Solids (SM 2540C-2011)	22000		2000	2000	mg/L			09/28/22 12:20	1

**Client Sample ID: FB-1**

**Lab Sample ID: 680-221593-23**

Date Collected: 09/22/22 10:30

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 01:16	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 01:16	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 01:16	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:09	5
Boron	0.021	J B	0.50	0.012	mg/L		09/27/22 16:07	10/10/22 16:16	50
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:09	5
Lithium	<0.0049	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:09	5
Magnesium	0.057	J	0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:09	5
Potassium	2.0	J B	2.5	1.7	mg/L		09/27/22 16:07	10/10/22 16:16	50
Sodium	1.2		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:09	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/04/22 14:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:45	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/28/22 12:20	1

**Client Sample ID: EB-1**

**Lab Sample ID: 680-221593-24**

Date Collected: 09/22/22 10:25

Matrix: Water

Date Received: 09/23/22 10:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 02:07	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 02:07	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 02:07	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 22:37	5

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: EB-1**

**Lab Sample ID: 680-221593-24**

Date Collected: 09/22/22 10:25

Matrix: Water

Date Received: 09/23/22 10:40

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.50	0.012	mg/L		09/27/22 16:07	10/10/22 16:34	50
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 22:37	5
Lithium	<0.0049	^3+	0.0050	0.0049	mg/L		09/27/22 16:07	09/29/22 22:37	5
Magnesium	<0.041		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 22:37	5
Potassium	3.3	B	2.5	1.7	mg/L		09/27/22 16:07	10/10/22 16:34	50
Sodium	0.36		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 22:37	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/04/22 14:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/04/22 14:56	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/28/22 12:20	1

**Client Sample ID: T1-4LT**

**Lab Sample ID: 680-221861-1**

Date Collected: 09/28/22 07:59

Matrix: Water

Date Received: 09/29/22 12:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 15:38	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 15:38	200
Sulfate	1500		200	80	mg/L			10/14/22 15:38	200

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:19	25
Boron	2.5		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:19	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:19	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:19	25
Magnesium	770		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:19	25
Potassium	190	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 15:45	250
Sodium	6100		13	8.0	mg/L		10/15/22 12:10	10/21/22 23:24	250

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 22:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 22:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:07	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/29/22 11:31	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.69				SU			09/28/22 07:59	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-4LT**

**Lab Sample ID: 680-221861-2**

Date Collected: 09/28/22 08:07

Matrix: Water

Date Received: 09/29/22 12:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		200	40	mg/L			10/14/22 15:50	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 15:50	200
Sulfate	1700		200	80	mg/L			10/14/22 15:50	200

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:22	25
Boron	2.5		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:22	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:22	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:22	25
Magnesium	760		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:22	25
Potassium	190	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 15:48	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/21/22 23:59	250

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 22:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 22:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:27	1
Total Dissolved Solids (SM 2540C-2011)	19000		2000	2000	mg/L			09/29/22 11:31	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.06				SU			09/28/22 08:07	1

**Client Sample ID: T3-4LT**

**Lab Sample ID: 680-221861-3**

Date Collected: 09/28/22 08:15

Matrix: Water

Date Received: 09/29/22 12:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000		200	40	mg/L			10/14/22 10:34	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:34	200
Sulfate	1600		200	80	mg/L			10/14/22 10:34	200

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:25	25
Boron	2.7		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:25	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:25	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:25	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:25	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:17	250
Sodium	6100		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:02	250

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T3-4LT**

**Lab Sample ID: 680-221861-3**

Date Collected: 09/28/22 08:15

Matrix: Water

Date Received: 09/29/22 12:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 22:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 22:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:17	1
Total Dissolved Solids (SM 2540C-2011)	17000		2000	2000	mg/L			09/29/22 11:31	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.16				SU			09/28/22 08:15	1

**Client Sample ID: T4-4L**

**Lab Sample ID: 680-221861-4**

Date Collected: 09/27/22 17:35

Matrix: Water

Date Received: 09/29/22 12:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 10:47	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:47	200
Sulfate	1500		200	80	mg/L			10/14/22 10:47	200

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:28	25
Boron	2.6		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:28	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:28	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:28	25
Magnesium	760		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:28	25
Potassium	190	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:20	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:05	250

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.0	2.2	mg/L			10/06/22 21:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	5.0	mg/L			10/06/22 21:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 21:57	1
Total Dissolved Solids (SM 2540C-2011)	21000		2000	2000	mg/L			09/29/22 11:31	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.14				SU			09/28/22 17:35	1

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: BG-1LT**

**Lab Sample ID: 680-221861-5**

Date Collected: 09/28/22 07:49

Matrix: Water

Date Received: 09/29/22 12:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 10:59	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 10:59	200
Sulfate	1600		200	80	mg/L			10/14/22 10:59	200

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:31	25
Boron	2.8		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:31	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:31	25
Lithium	0.10		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:31	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:31	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:23	250
Sodium	6000		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:08	250

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 23:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 23:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 23:37	1
Total Dissolved Solids (SM 2540C-2011)	20000		2000	2000	mg/L			09/29/22 11:31	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.95				SU			09/28/22 07:49	1

**Client Sample ID: DUP-3**

**Lab Sample ID: 680-221861-6**

Date Collected: 09/28/22 00:00

Matrix: Water

Date Received: 09/29/22 12:40

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		200	40	mg/L			10/14/22 11:12	200
Fluoride	<8.0		20	8.0	mg/L			10/14/22 11:12	200
Sulfate	1500		200	80	mg/L			10/14/22 11:12	200

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0060		0.0063	0.0060	mg/L		10/15/22 12:10	10/21/22 01:35	25
Boron	2.8		0.25	0.0059	mg/L		10/15/22 12:10	10/21/22 01:35	25
Calcium	260		1.3	0.63	mg/L		10/15/22 12:10	10/21/22 01:35	25
Lithium	0.095		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:35	25
Magnesium	780		0.63	0.21	mg/L		10/15/22 12:10	10/21/22 01:35	25
Potassium	200	^3+	13	8.5	mg/L		10/15/22 12:10	10/24/22 16:26	250
Sodium	5900		13	8.0	mg/L		10/15/22 12:10	10/22/22 00:11	250

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# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: DUP-3**

**Lab Sample ID: 680-221861-6**

Date Collected: 09/28/22 00:00

Matrix: Water

Date Received: 09/29/22 12:40

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.0	2.2	mg/L			10/06/22 23:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	110		5.0	5.0	mg/L			10/06/22 23:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 23:18	1
Total Dissolved Solids (SM 2540C-2011)	18000		2000	2000	mg/L			09/29/22 11:31	1

**Client Sample ID: FB-2**

**Lab Sample ID: 680-221861-7**

Date Collected: 09/28/22 08:50

Matrix: Water

Date Received: 09/29/22 12:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 11:25	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 11:25	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 11:25	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/24/22 16:29	5
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/24/22 16:29	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/24/22 16:29	5
Lithium	<0.025		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:38	25
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/22/22 00:14	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/22/22 00:14	5
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/22/22 00:14	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/06/22 22:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:33	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/29/22 11:31	1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221861-8**

Date Collected: 09/28/22 09:00

Matrix: Water

Date Received: 09/29/22 12:40

## Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 11:37	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 11:37	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 11:37	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/24/22 16:33	5

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# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221861-8**

**Date Collected: 09/28/22 09:00**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/24/22 16:33	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/24/22 16:33	5
Lithium	<0.025		0.025	0.025	mg/L		10/15/22 12:10	10/21/22 01:41	25
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/22/22 00:18	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/22/22 00:18	5
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/22/22 00:18	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			10/06/22 22:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			10/06/22 22:38	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			09/29/22 11:31	1

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 680-744183/41**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/07/22 21:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/07/22 21:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/07/22 21:43	1

**Lab Sample ID: LCS 680-744183/42**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	2.00	1.99		mg/L		100	90 - 110
Sulfate	10.0	9.74		mg/L		97	90 - 110

**Lab Sample ID: LCSD 680-744183/43**  
**Matrix: Water**  
**Analysis Batch: 744183**

**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
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	2.00	1.99		mg/L		100	90 - 110	0	15
Sulfate	10.0	9.82		mg/L		98	90 - 110	1	15

**Lab Sample ID: 680-221590-G-10 MS**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		10.0	27.8		mg/L		104	80 - 120
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120
Sulfate	24		10.0	34.3		mg/L		101	80 - 120

**Lab Sample ID: 680-221590-G-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 744183**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		10.0	27.9		mg/L		105	80 - 120	1	15
Fluoride	<0.040		2.00	2.09		mg/L		104	80 - 120	1	15
Sulfate	24		10.0	34.5		mg/L		102	80 - 120	1	15

**Lab Sample ID: MB 680-744246/2**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/08/22 12:31	1
Fluoride	<0.040		0.10	0.040	mg/L			10/08/22 12:31	1
Sulfate	<0.40		1.0	0.40	mg/L			10/08/22 12:31	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 680-744246/3**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.84		mg/L		98	90 - 110
Fluoride	2.00	1.96		mg/L		98	90 - 110
Sulfate	10.0	9.66		mg/L		97	90 - 110

**Lab Sample ID: LCSD 680-744246/4**  
**Matrix: Water**  
**Analysis Batch: 744246**

**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
Chloride	10.0	9.83		mg/L		98	90 - 110	0	15
Fluoride	2.00	1.96		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.64		mg/L		96	90 - 110	0	15

**Lab Sample ID: 680-221593-2 MS**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: T1-4HTS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<1.6		80.0	76.4		mg/L		95	80 - 120
Sulfate	1500		400	1850		mg/L		96	80 - 120

**Lab Sample ID: 680-221593-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: T1-4HTS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<1.6		80.0	76.2		mg/L		95	80 - 120	0	15
Sulfate	1500		400	1910		mg/L		111	80 - 120	3	15

**Lab Sample ID: 680-221593-12 MS**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: T4-1HB**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<1.6		80.0	76.3		mg/L		95	80 - 120
Sulfate	1600		400	1990		mg/L		97	80 - 120

**Lab Sample ID: 680-221593-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 744246**

**Client Sample ID: T4-1HB**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<1.6		80.0	75.8		mg/L		95	80 - 120	1	15
Sulfate	1600		400	2040		mg/L		111	80 - 120	3	15

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 680-744247/33**  
**Matrix: Water**  
**Analysis Batch: 744247**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/09/22 00:25	1
Fluoride	<0.040		0.10	0.040	mg/L			10/09/22 00:25	1
Sulfate	<0.40		1.0	0.40	mg/L			10/09/22 00:25	1

**Lab Sample ID: LCS 680-744247/34**  
**Matrix: Water**  
**Analysis Batch: 744247**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.88		mg/L		99	90 - 110
Fluoride	2.00	1.97		mg/L		99	90 - 110
Sulfate	10.0	9.75		mg/L		97	90 - 110

**Lab Sample ID: LCSD 680-744247/35**  
**Matrix: Water**  
**Analysis Batch: 744247**

**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
Chloride	10.0	9.87		mg/L		99	90 - 110	0	15
Fluoride	2.00	1.97		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	0	15

**Lab Sample ID: 680-221593-23 MS**  
**Matrix: Water**  
**Analysis Batch: 744247**

**Client Sample ID: FB-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.20		10.0	10.0		mg/L		100	80 - 120
Fluoride	<0.040		2.00	2.00		mg/L		100	80 - 120
Sulfate	<0.40		10.0	10.0		mg/L		100	80 - 120

**Lab Sample ID: 680-221593-23 MSD**  
**Matrix: Water**  
**Analysis Batch: 744247**

**Client Sample ID: FB-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.20		10.0	9.74		mg/L		97	80 - 120	3	15
Fluoride	<0.040		2.00	1.95		mg/L		98	80 - 120	2	15
Sulfate	<0.40		10.0	9.72		mg/L		97	80 - 120	3	15

**Lab Sample ID: MB 680-744417/2**  
**Matrix: Water**  
**Analysis Batch: 744417**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/10/22 10:32	1
Fluoride	<0.040		0.10	0.040	mg/L			10/10/22 10:32	1
Sulfate	<0.40		1.0	0.40	mg/L			10/10/22 10:32	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 680-744417/3**  
**Matrix: Water**  
**Analysis Batch: 744417**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	90 - 110
Fluoride	2.00	2.14		mg/L		107	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

**Lab Sample ID: LCSD 680-744417/4**  
**Matrix: Water**  
**Analysis Batch: 744417**

**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
Chloride	10.0	10.4		mg/L		104	90 - 110	0	15
Fluoride	2.00	2.18		mg/L		109	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	1	15

**Lab Sample ID: MB 680-744497/32**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/10/22 19:55	1
Fluoride	<0.040		0.10	0.040	mg/L			10/10/22 19:55	1
Sulfate	<0.40		1.0	0.40	mg/L			10/10/22 19:55	1

**Lab Sample ID: LCS 680-744497/33**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	90 - 110
Fluoride	2.00	2.09		mg/L		104	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

**Lab Sample ID: LCSD 680-744497/34**  
**Matrix: Water**  
**Analysis Batch: 744497**

**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
Chloride	10.0	10.3		mg/L		103	90 - 110	0	15
Fluoride	2.00	2.09		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	1	15

**Lab Sample ID: 680-221593-22 MS**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: DUP-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	12000		1000	12600	4	mg/L		94	80 - 120
Fluoride	<4.0		200	205		mg/L		102	80 - 120
Sulfate	1500		1000	2520		mg/L		104	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 680-221593-22 MSD**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: DUP-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12000		1000	12600	4	mg/L		92	80 - 120	0	15
Fluoride	<4.0		200	205		mg/L		103	80 - 120	0	15
Sulfate	1500		1000	2510		mg/L		103	80 - 120	0	15

**Lab Sample ID: MB 680-744574/2**  
**Matrix: Water**  
**Analysis Batch: 744574**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/11/22 10:23	1
Fluoride	<0.040		0.10	0.040	mg/L			10/11/22 10:23	1
Sulfate	<0.40		1.0	0.40	mg/L			10/11/22 10:23	1

**Lab Sample ID: LCS 680-744574/3**  
**Matrix: Water**  
**Analysis Batch: 744574**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	2.00	2.01		mg/L		101	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 680-744574/4**  
**Matrix: Water**  
**Analysis Batch: 744574**

**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
Chloride	10.0	10.1		mg/L		101	90 - 110	1	15
Fluoride	2.00	2.04		mg/L		102	90 - 110	2	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	2	15

**Lab Sample ID: 680-222027-B-12 MS**  
**Matrix: Water**  
**Analysis Batch: 744574**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3300		250	3080	4	mg/L		-102	80 - 120
Fluoride	<1.0	F1	50.0	59.5		mg/L		119	80 - 120
Sulfate	18	J	250	297		mg/L		111	80 - 120

**Lab Sample ID: 680-222027-B-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 744574**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3300		250	3250	4	mg/L		-33	80 - 120	5	15
Fluoride	<1.0	F1	50.0	60.9	F1	mg/L		122	80 - 120	2	15
Sulfate	18	J	250	307		mg/L		115	80 - 120	3	15

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 680-745161/2**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			10/14/22 09:43	1
Fluoride	<0.040		0.10	0.040	mg/L			10/14/22 09:43	1
Sulfate	<0.40		1.0	0.40	mg/L			10/14/22 09:43	1

**Lab Sample ID: LCS 680-745161/3**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.79		mg/L		98	90 - 110
Fluoride	2.00	1.89		mg/L		95	90 - 110
Sulfate	10.0	9.40		mg/L		94	90 - 110

**Lab Sample ID: LCSD 680-745161/4**  
**Matrix: Water**  
**Analysis Batch: 745161**

**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
Chloride	10.0	9.78		mg/L		98	90 - 110	0	15
Fluoride	2.00	1.90		mg/L		95	90 - 110	1	15
Sulfate	10.0	9.53		mg/L		95	90 - 110	1	15

**Lab Sample ID: 660-124143-E-4 MS**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	75		10.0	84.9	4	mg/L		98	80 - 120
Fluoride	0.13		2.00	2.11		mg/L		99	80 - 120
Sulfate	91		10.0	100	4	mg/L		95	80 - 120

**Lab Sample ID: 660-124143-E-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	75		10.0	84.8	4	mg/L		97	80 - 120	0	15
Fluoride	0.13		2.00	2.13		mg/L		100	80 - 120	1	15
Sulfate	91		10.0	100	4	mg/L		95	80 - 120	0	15

**Lab Sample ID: 680-222508-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	35		10.0	45.7		mg/L		103	80 - 120
Fluoride	0.64		2.00	2.56		mg/L		96	80 - 120
Sulfate	74		10.0	83.6	4	mg/L		96	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 680-222508-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 745161**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	35		10.0	45.8		mg/L		104	80 - 120	0	15
Fluoride	0.64		2.00	2.58		mg/L		97	80 - 120	1	15
Sulfate	74		10.0	83.6	4	mg/L		96	80 - 120	0	15

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography - DL

**Lab Sample ID: 680-221593-2 MS**  
**Matrix: Water**  
**Analysis Batch: 744417**

**Client Sample ID: T1-4HTS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	12000		1000	13400	4	mg/L		168	80 - 120		
Fluoride - DL	<4.0		200	214		mg/L		107	80 - 120		
Sulfate - DL	1500	F1	1000	2670	F1	mg/L		122	80 - 120		

**Lab Sample ID: 680-221593-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 744417**

**Client Sample ID: T1-4HTS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	12000		1000	14400	4	mg/L		270	80 - 120	7	15
Fluoride - DL	<4.0		200	231		mg/L		115	80 - 120	8	15
Sulfate - DL	1500	F1	1000	2940	F1	mg/L		149	80 - 120	10	15

**Lab Sample ID: 680-221593-12 MS**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: T4-1HB**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	13000		1000	13800	4	mg/L		110	80 - 120		
Fluoride - DL	<4.0		200	207		mg/L		103	80 - 120		
Sulfate - DL	1600		1000	2670		mg/L		106	80 - 120		

**Lab Sample ID: 680-221593-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 744497**

**Client Sample ID: T4-1HB**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	13000		1000	13800	4	mg/L		108	80 - 120	0	15
Fluoride - DL	<4.0		200	207		mg/L		103	80 - 120	0	15
Sulfate - DL	1600		1000	2680		mg/L		106	80 - 120	0	15

## Method: 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 400-594103/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594519**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		09/27/22 16:07	09/29/22 21:45	5

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-594103/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594519**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		09/27/22 16:07	09/29/22 21:45	5
Magnesium	<0.041		0.13	0.041	mg/L		09/27/22 16:07	09/29/22 21:45	5
Sodium	<0.16		0.25	0.16	mg/L		09/27/22 16:07	09/29/22 21:45	5

**Lab Sample ID: MB 400-594103/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594696**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0049		0.0050	0.0049	mg/L		09/27/22 16:07	09/30/22 18:44	5

**Lab Sample ID: LCS 400-594103/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594519**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0546		mg/L		109	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Magnesium	5.00	5.08		mg/L		102	80 - 120
Sodium	5.00	4.82		mg/L		96	80 - 120

**Lab Sample ID: LCS 400-594103/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594696**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.0500	0.0532		mg/L		106	80 - 120

**Lab Sample ID: LCS 400-594103/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595819**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.112		mg/L		112	80 - 120
Potassium	5.00	5.12		mg/L		102	80 - 120

**Lab Sample ID: 680-221593-21 MS**  
**Matrix: Water**  
**Analysis Batch: 594519**

**Client Sample ID: DUP-1**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594103**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0026		0.0500	0.0584		mg/L		112	75 - 125
Calcium	280		5.00	285	4	mg/L		106	75 - 125
Magnesium	860		5.00	859	4	mg/L		-99	75 - 125
Sodium	6700		5.00	6590	4	mg/L		-2616	75 - 125

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221593-21 MS**

**Matrix: Water**

**Analysis Batch: 594696**

**Client Sample ID: DUP-1**

**Prep Type: Total Recoverable**

**Prep Batch: 594103**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Calcium	280		5.00	289	4	mg/L		259		75 - 125
Lithium	0.12	F1	0.0500	0.183	F1	mg/L		136		75 - 125

**Lab Sample ID: 680-221593-21 MSD**

**Matrix: Water**

**Analysis Batch: 594519**

**Client Sample ID: DUP-1**

**Prep Type: Total Recoverable**

**Prep Batch: 594103**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	0.0026		0.0500	0.0563		mg/L		107		75 - 125	4	20
Calcium	280		5.00	277	4	mg/L		-52		75 - 125	3	20
Magnesium	860		5.00	837	4	mg/L		-525		75 - 125	3	20
Sodium	6700		5.00	6380	4	mg/L		-6800		75 - 125	3	20

**Lab Sample ID: 680-221593-21 MSD**

**Matrix: Water**

**Analysis Batch: 594696**

**Client Sample ID: DUP-1**

**Prep Type: Total Recoverable**

**Prep Batch: 594103**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Calcium	280		5.00	282	4	mg/L		110		75 - 125	3	20
Lithium	0.12	F1	0.0500	0.155		mg/L		79		75 - 125	17	20

**Lab Sample ID: MB 400-594691/1-A ^5**

**Matrix: Water**

**Analysis Batch: 594928**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 594691**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 19:15	5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 19:15	5

**Lab Sample ID: MB 400-594691/1-A ^5**

**Matrix: Water**

**Analysis Batch: 595577**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 594691**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/07/22 21:11	5
Magnesium	<0.041		0.13	0.041	mg/L		10/02/22 11:35	10/07/22 21:11	5
Sodium	<0.16		0.25	0.16	mg/L		10/02/22 11:35	10/07/22 21:11	5

**Lab Sample ID: MB 400-594691/1-A ^5**

**Matrix: Water**

**Analysis Batch: 596288**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 594691**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.0012		0.050	0.0012	mg/L		10/02/22 11:35	10/13/22 19:27	5
Calcium	<0.13		0.25	0.13	mg/L		10/02/22 11:35	10/13/22 19:27	5
Potassium	<0.17		0.25	0.17	mg/L		10/02/22 11:35	10/13/22 19:27	5

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-594691/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	5.08		mg/L		102	80 - 120
Lithium	0.0500	0.0460		mg/L		92	80 - 120
Magnesium	5.00	4.85		mg/L		97	80 - 120
Potassium	5.00	5.38		mg/L		108	80 - 120
Sodium	5.00	4.91		mg/L		98	80 - 120

**Lab Sample ID: LCS 400-594691/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0862		mg/L		86	80 - 120

**Lab Sample ID: 680-221590-E-8-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.0	B **	0.100	1.21	4	mg/L		178	75 - 125
Calcium	93	B	5.00	95.8	4	mg/L		66	75 - 125
Lithium	0.028		0.0500	0.0755		mg/L		95	75 - 125
Magnesium	200	B	5.00	203	4	mg/L		118	75 - 125
Potassium	83	B ^2	5.00	89.4	4	mg/L		120	75 - 125
Sodium	1800	B ^2	5.00	1760	4	mg/L		43	75 - 125

**Lab Sample ID: 680-221590-E-8-B MS ^50**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.012		0.0500	0.0438		mg/L		88	75 - 125
Boron	1.0	B	0.100	1.10	4	mg/L		76	75 - 125
Magnesium	190		5.00	197	4	mg/L		206	75 - 125
Potassium	59	*-	5.00	66.4	4	mg/L		152	75 - 125
Sodium	1800		5.00	1860	4	mg/L		1104	75 - 125

**Lab Sample ID: 680-221590-E-8-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.0	B **	0.100	1.17	4	mg/L		139	75 - 125	3	20
Calcium	93	B	5.00	91.6	4	mg/L		-18	75 - 125	5	20
Lithium	0.028		0.0500	0.0727		mg/L		90	75 - 125	4	20
Magnesium	200	B	5.00	194	4	mg/L		-76	75 - 125	5	20
Potassium	83	B ^2	5.00	84.7	4	mg/L		27	75 - 125	5	20
Sodium	1800	B ^2	5.00	1680	4	mg/L		-1571	75 - 125	5	20

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221590-E-8-C MSD ^50**  
**Matrix: Water**  
**Analysis Batch: 595577**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594691**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	<0.012		0.0500	0.0480		mg/L		96	75 - 125	9	20
Boron	1.0	B	0.100	1.11	4	mg/L		93	75 - 125	1	20
Magnesium	190		5.00	195	4	mg/L		157	75 - 125	1	20
Potassium	59	*-	5.00	64.6	4	mg/L		116	75 - 125	3	20
Sodium	1800		5.00	1840	4	mg/L		681	75 - 125	1	20

**Lab Sample ID: MB 400-594692/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594692**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/02/22 11:35	10/03/22 17:11		5
Boron	0.00557	J	0.050	0.0012	mg/L		10/02/22 11:35	10/03/22 17:11		5
Calcium	<0.13		0.25	0.13	mg/L		10/02/22 11:35	10/03/22 17:11		5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/02/22 11:35	10/03/22 17:11		5
Magnesium	<0.041		0.13	0.041	mg/L		10/02/22 11:35	10/03/22 17:11		5
Potassium	<0.17		0.25	0.17	mg/L		10/02/22 11:35	10/03/22 17:11		5
Sodium	<0.16		0.25	0.16	mg/L		10/02/22 11:35	10/03/22 17:11		5

**Lab Sample ID: LCS 400-594692/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594692**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Arsenic	0.0500	0.0471		mg/L		94	80 - 120
Boron	0.100	0.0941		mg/L		94	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Lithium	0.0500	0.0458		mg/L		92	80 - 120
Magnesium	5.00	4.84		mg/L		97	80 - 120
Potassium	5.00	4.93		mg/L		99	80 - 120
Sodium	5.00	4.64		mg/L		93	80 - 120

**Lab Sample ID: 680-221593-11 MS**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: T3-4HTS**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594692**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Arsenic	0.0021		0.0500	0.0492		mg/L		94	75 - 125
Boron	2.1		0.100	2.20	4 ^+	mg/L		72	75 - 125
Calcium	210		5.00	215	4	mg/L		100	75 - 125
Lithium	0.079		0.0500	0.128		mg/L		98	75 - 125
Magnesium	620		5.00	617	4	mg/L		-69	75 - 125
Potassium	210		5.00	214	4	mg/L		76	75 - 125
Sodium	4900		5.00	4850	4	mg/L		-866	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-221593-11 MSD**  
**Matrix: Water**  
**Analysis Batch: 594928**

**Client Sample ID: T3-4HTS**  
**Prep Type: Total Recoverable**  
**Prep Batch: 594692**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	0.0021		0.0500	0.0501		mg/L		96	75 - 125	2	20
Boron	2.1		0.100	2.36	4 ^+	mg/L		234	75 - 125	7	20
Calcium	210		5.00	224	4	mg/L		286	75 - 125	4	20
Lithium	0.079		0.0500	0.134		mg/L		109	75 - 125	4	20
Magnesium	620		5.00	652	4	mg/L		627	75 - 125	5	20
Potassium	210		5.00	226	4	mg/L		305	75 - 125	5	20
Sodium	4900		5.00	5060	4	mg/L		3359	75 - 125	4	20

**Lab Sample ID: MB 400-596445/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 597203**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.0012		0.0013	0.0012	mg/L		10/15/22 12:10	10/20/22 23:44	5
Boron	<0.0012		0.050	0.0012	mg/L		10/15/22 12:10	10/20/22 23:44	5
Calcium	<0.13		0.25	0.13	mg/L		10/15/22 12:10	10/20/22 23:44	5
Lithium	<0.0049		0.0050	0.0049	mg/L		10/15/22 12:10	10/20/22 23:44	5
Magnesium	<0.041		0.13	0.041	mg/L		10/15/22 12:10	10/20/22 23:44	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		10/15/22 12:10	10/20/22 23:44	5

**Lab Sample ID: MB 400-596445/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 597436**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sodium	<0.16		0.25	0.16	mg/L		10/15/22 12:10	10/21/22 22:02	5

**Lab Sample ID: LCS 400-596445/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 597203**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Arsenic	0.0500	0.0462		mg/L		92	80 - 120
Calcium	5.00	4.81		mg/L		96	80 - 120
Lithium	0.0500	0.0472		mg/L		94	80 - 120
Magnesium	5.00	4.51		mg/L		90	80 - 120
Potassium	5.00	4.82	^3+	mg/L		96	80 - 120

**Lab Sample ID: LCS 400-596445/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 597672**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Boron	0.100	0.0928		mg/L		93	80 - 120
Sodium	5.00	4.68		mg/L		94	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-226773-G-1-B MS ^25**  
**Matrix: Water**  
**Analysis Batch: 597203**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	<0.0060		0.0500	0.0505		mg/L		101		75 - 125
Boron	<0.0059	F1 *-	0.100	0.0759	J	mg/L		76		75 - 125
Calcium	190		5.00	190	4	mg/L		66		75 - 125
Lithium	<0.025	F1	0.0500	0.0666	F1	mg/L		133		75 - 125
Magnesium	17		5.00	21.1		mg/L		90		75 - 125

**Lab Sample ID: 400-226773-G-1-B MS ^25**  
**Matrix: Water**  
**Analysis Batch: 597436**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	<0.0060		0.0500	0.0470		mg/L		94		75 - 125
Calcium	180		5.00	185	4	mg/L		129		75 - 125
Magnesium	17		5.00	21.3		mg/L		93		75 - 125
Potassium	<0.85	^3+ F1 L *_	5.00	<0.85	F1 ^3+	mg/L		0		75 - 125
Sodium	21		5.00	26.3	4	mg/L		110		75 - 125

**Lab Sample ID: 400-226773-G-1-C MSD ^25**  
**Matrix: Water**  
**Analysis Batch: 597203**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	<0.0060		0.0500	0.0505		mg/L		101		75 - 125	0	20
Boron	<0.0059	F1 *-	0.100	0.0701	J F1	mg/L		70		75 - 125	8	20
Calcium	190		5.00	188	4	mg/L		15		75 - 125	1	20
Lithium	<0.025	F1	0.0500	0.0672	F1	mg/L		134		75 - 125	1	20
Magnesium	17		5.00	21.2		mg/L		93		75 - 125	1	20

**Lab Sample ID: 400-226773-G-1-C MSD ^25**  
**Matrix: Water**  
**Analysis Batch: 597436**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 596445**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	<0.0060		0.0500	0.0435		mg/L		87		75 - 125	8	20
Calcium	180		5.00	182	4	mg/L		73		75 - 125	2	20
Magnesium	17		5.00	21.3		mg/L		93		75 - 125	0	20
Potassium	<0.85	^3+ F1 L *_	5.00	<0.85	^3+ F1	mg/L		0		75 - 125	NC	20
Sodium	21		5.00	25.4	4	mg/L		92		75 - 125	4	20

## Method: 2320B-2011 - Alkalinity, Total

**Lab Sample ID: MB 680-742597/4**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/27/22 18:23	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 2320B-2011 - Alkalinity, Total (Continued)

**Lab Sample ID: MB 680-742597/4**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/27/22 18:23	1

**Lab Sample ID: LCS 680-742597/6**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112

**Lab Sample ID: LCSD 680-742597/31**  
**Matrix: Water**  
**Analysis Batch: 742597**

**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
Total Alkalinity as CaCO3 to pH 4.5	250	244		mg/L		98	90 - 112	1	30

**Lab Sample ID: 680-221590-D-5 DU**  
**Matrix: Water**  
**Analysis Batch: 742597**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300		293		mg/L		1	30
Bicarbonate Alkalinity as CaCO3	300		293		mg/L		1	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: MB 680-742777/4**  
**Matrix: Water**  
**Analysis Batch: 742777**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			09/28/22 16:38	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/28/22 16:38	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			09/28/22 16:38	1

**Lab Sample ID: LCS 680-742777/6**  
**Matrix: Water**  
**Analysis Batch: 742777**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 2320B-2011 - Alkalinity, Total (Continued)

**Lab Sample ID: LCSD 680-742777/31**  
**Matrix: Water**  
**Analysis Batch: 742777**

**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
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112	1	30

**Lab Sample ID: 680-221593-2 DU**  
**Matrix: Water**  
**Analysis Batch: 742777**

**Client Sample ID: T1-4HTS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	100		102		mg/L		0.3	30
Bicarbonate Alkalinity as CaCO3	100		102		mg/L		0.3	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: 680-221593-14 DU**  
**Matrix: Water**  
**Analysis Batch: 742777**

**Client Sample ID: T4-2HB**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	110		109		mg/L		3	30
Bicarbonate Alkalinity as CaCO3	110		109		mg/L		3	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: MB 680-743661/4**  
**Matrix: Water**  
**Analysis Batch: 743661**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			10/04/22 14:22	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/04/22 14:22	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/04/22 14:22	1

**Lab Sample ID: LCS 680-743661/6**  
**Matrix: Water**  
**Analysis Batch: 743661**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	252		mg/L		101	90 - 112		

**Lab Sample ID: LCSD 680-743661/31**  
**Matrix: Water**  
**Analysis Batch: 743661**

**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
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112	2	30

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 2320B-2011 - Alkalinity, Total (Continued)

**Lab Sample ID: 680-221593-23 DU**  
**Matrix: Water**  
**Analysis Batch: 743661**

**Client Sample ID: FB-1**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Alkalinity as CaCO3 to pH 4.5	<2.2		<2.2		mg/L		NC	30
Bicarbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

**Lab Sample ID: MB 680-744061/4**  
**Matrix: Water**  
**Analysis Batch: 744061**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity as CaCO3 to pH 4.5	<2.2		5.0	2.2	mg/L			10/06/22 20:38	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/06/22 20:38	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			10/06/22 20:38	1

**Lab Sample ID: LCS 680-744061/6**  
**Matrix: Water**  
**Analysis Batch: 744061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

**Lab Sample ID: LCSD 680-744061/31**  
**Matrix: Water**  
**Analysis Batch: 744061**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

**Lab Sample ID: 680-221861-6 DU**  
**Matrix: Water**  
**Analysis Batch: 744061**

**Client Sample ID: DUP-3**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Alkalinity as CaCO3 to pH 4.5	110		109		mg/L		0.1	30
Bicarbonate Alkalinity as CaCO3	110		109		mg/L		0.1	30
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	30

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

**Lab Sample ID: MB 680-742396/1**  
**Matrix: Water**  
**Analysis Batch: 742396**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			09/27/22 12:02	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

**Lab Sample ID: LCS 680-742396/2**  
**Matrix: Water**  
**Analysis Batch: 742396**

**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	2420	2440		mg/L		101	80 - 120

**Lab Sample ID: LCSD 680-742396/3**  
**Matrix: Water**  
**Analysis Batch: 742396**

**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
Total Dissolved Solids	2420	2410		mg/L		100	80 - 120	1	25

**Lab Sample ID: 680-221590-C-4 DU**  
**Matrix: Water**  
**Analysis Batch: 742396**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2100		2010		mg/L		3	5

**Lab Sample ID: MB 680-742611/1**  
**Matrix: Water**  
**Analysis Batch: 742611**

**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	<10		10	10	mg/L			09/28/22 12:20	1

**Lab Sample ID: LCS 680-742611/2**  
**Matrix: Water**  
**Analysis Batch: 742611**

**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	2420	2460		mg/L		102	80 - 120

**Lab Sample ID: LCSD 680-742611/3**  
**Matrix: Water**  
**Analysis Batch: 742611**

**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
Total Dissolved Solids	2420	2440		mg/L		101	80 - 120	1	25

**Lab Sample ID: 680-221732-C-2 DU**  
**Matrix: Water**  
**Analysis Batch: 742611**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	710		710		mg/L		0.3	5

**Lab Sample ID: 680-221762-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 742611**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	420		424		mg/L		0.9	5

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

**Lab Sample ID: MB 680-742802/1**  
**Matrix: Water**  
**Analysis Batch: 742802**

**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	<10		10	10	mg/L			09/29/22 11:31	1

**Lab Sample ID: LCS 680-742802/2**  
**Matrix: Water**  
**Analysis Batch: 742802**

**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	2420	2460		mg/L		102	80 - 120

**Lab Sample ID: LCSD 680-742802/3**  
**Matrix: Water**  
**Analysis Batch: 742802**

**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
Total Dissolved Solids	2420	2420		mg/L		100	80 - 120	1	25

**Lab Sample ID: 680-221651-O-1 DU**  
**Matrix: Water**  
**Analysis Batch: 742802**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	450		448		mg/L		0.4	5

**Lab Sample ID: 680-221651-P-2 DU**  
**Matrix: Water**  
**Analysis Batch: 742802**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	480		460		mg/L		4	5



# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## HPLC/IC

### Analysis Batch: 744183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	300.0-1993 R2.1	
MB 680-744183/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744183/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744183/43	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221590-G-10 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-221590-G-10 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-3	T2-1HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-4	T2-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-5	T2-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-6	T2-3HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-7	T2-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-8	T2-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-9	T2-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-10	T3-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-11	T3-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-12	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-13	T4-1HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-14	T4-2HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-15	T4-2HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-16	T4-3HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-17	T4-3HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-18	T4-4HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-19	T4-4HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-20	BG-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-21	DUP-1	Total/NA	Water	300.0-1993 R2.1	
MB 680-744246/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744246/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744246/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MS	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MSD	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MS	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MSD	T4-1HB	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-22	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221593-23	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-24	EB-1	Total/NA	Water	300.0-1993 R2.1	
MB 680-744247/33	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744247/34	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744247/35	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-23 MS	FB-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-23 MSD	FB-1	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2 - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## HPLC/IC (Continued)

### Analysis Batch: 744417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-3 - DL	T2-1HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-4 - DL	T2-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-5 - DL	T2-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-6 - DL	T2-3HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-7 - DL	T2-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-9 - DL	T2-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-10 - DL	T3-4HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-11 - DL	T3-4HTS	Total/NA	Water	300.0-1993 R2.1	
MB 680-744417/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744417/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744417/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MS - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	
680-221593-2 MSD - DL	T1-4HTS	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-12 - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-13 - DL	T4-1HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-14 - DL	T4-2HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-15 - DL	T4-2HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-16 - DL	T4-3HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-17 - DL	T4-3HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-18 - DL	T4-4HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-19 - DL	T4-4HS	Total/NA	Water	300.0-1993 R2.1	
680-221593-20 - DL	BG-2HT	Total/NA	Water	300.0-1993 R2.1	
680-221593-21 - DL	DUP-1	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 - DL	DUP-2	Total/NA	Water	300.0-1993 R2.1	
MB 680-744497/32	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744497/33	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744497/34	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MS - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-12 MSD - DL	T4-1HB	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 MS	DUP-2	Total/NA	Water	300.0-1993 R2.1	
680-221593-22 MSD	DUP-2	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 744574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-8	T2-4HT	Total/NA	Water	300.0-1993 R2.1	
MB 680-744574/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-744574/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-744574/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-222027-B-12 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-222027-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

### Analysis Batch: 745161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-2	T2-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-3	T3-4LT	Total/NA	Water	300.0-1993 R2.1	
680-221861-4	T4-4L	Total/NA	Water	300.0-1993 R2.1	
680-221861-5	BG-1LT	Total/NA	Water	300.0-1993 R2.1	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## HPLC/IC (Continued)

### Analysis Batch: 745161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-6	DUP-3	Total/NA	Water	300.0-1993 R2.1	
680-221861-7	FB-2	Total/NA	Water	300.0-1993 R2.1	
680-221861-8	EB-2	Total/NA	Water	300.0-1993 R2.1	
MB 680-745161/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-745161/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-745161/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
660-124143-E-4 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
660-124143-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-222508-A-1 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-222508-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	

## Metals

### Prep Batch: 594103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-21	DUP-1	Total Recoverable	Water	3005A	
680-221593-22	DUP-2	Total Recoverable	Water	3005A	
680-221593-23	FB-1	Total Recoverable	Water	3005A	
680-221593-24	EB-1	Total Recoverable	Water	3005A	
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221593-21 MS	DUP-1	Total Recoverable	Water	3005A	
680-221593-21 MSD	DUP-1	Total Recoverable	Water	3005A	

### Analysis Batch: 594519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-21	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-22	DUP-2	Total Recoverable	Water	6020B	594103
680-221593-23	FB-1	Total Recoverable	Water	6020B	594103
680-221593-24	EB-1	Total Recoverable	Water	6020B	594103
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103
680-221593-21 MS	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-21 MSD	DUP-1	Total Recoverable	Water	6020B	594103

### Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	3005A	
680-221593-2	T1-4HTS	Total Recoverable	Water	3005A	
680-221593-3	T2-1HT	Total Recoverable	Water	3005A	
680-221593-4	T2-2HT	Total Recoverable	Water	3005A	
680-221593-5	T2-2HTS	Total Recoverable	Water	3005A	
680-221593-6	T2-3HT	Total Recoverable	Water	3005A	
680-221593-7	T2-3HTS	Total Recoverable	Water	3005A	
680-221593-8	T2-4HT	Total Recoverable	Water	3005A	
680-221593-9	T2-4HTS	Total Recoverable	Water	3005A	
680-221593-10	T3-4HT	Total Recoverable	Water	3005A	
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221590-E-8-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
680-221590-E-8-B MS ^50	Matrix Spike	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Metals (Continued)

### Prep Batch: 594691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221590-E-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
680-221590-E-8-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 594692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-11	T3-4HTS	Total Recoverable	Water	3005A	
680-221593-12	T4-1HB	Total Recoverable	Water	3005A	
680-221593-13	T4-1HS	Total Recoverable	Water	3005A	
680-221593-14	T4-2HB	Total Recoverable	Water	3005A	
680-221593-15	T4-2HS	Total Recoverable	Water	3005A	
680-221593-16	T4-3HB	Total Recoverable	Water	3005A	
680-221593-17	T4-3HS	Total Recoverable	Water	3005A	
680-221593-18	T4-4HB	Total Recoverable	Water	3005A	
680-221593-19	T4-4HS	Total Recoverable	Water	3005A	
680-221593-20	BG-2HT	Total Recoverable	Water	3005A	
MB 400-594692/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-594692/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-221593-11 MS	T3-4HTS	Total Recoverable	Water	3005A	
680-221593-11 MSD	T3-4HTS	Total Recoverable	Water	3005A	

### Analysis Batch: 594696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594103/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103
680-221593-21 MS	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-21 MSD	DUP-1	Total Recoverable	Water	6020B	594103

### Analysis Batch: 594928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	6020B	594691
680-221593-2	T1-4HTS	Total Recoverable	Water	6020B	594691
680-221593-3	T2-1HT	Total Recoverable	Water	6020B	594691
680-221593-4	T2-2HT	Total Recoverable	Water	6020B	594691
680-221593-5	T2-2HTS	Total Recoverable	Water	6020B	594691
680-221593-6	T2-3HT	Total Recoverable	Water	6020B	594691
680-221593-7	T2-3HTS	Total Recoverable	Water	6020B	594691
680-221593-8	T2-4HT	Total Recoverable	Water	6020B	594691
680-221593-9	T2-4HTS	Total Recoverable	Water	6020B	594691
680-221593-10	T3-4HT	Total Recoverable	Water	6020B	594691
680-221593-11	T3-4HTS	Total Recoverable	Water	6020B	594692
680-221593-12	T4-1HB	Total Recoverable	Water	6020B	594692
680-221593-13	T4-1HS	Total Recoverable	Water	6020B	594692
680-221593-14	T4-2HB	Total Recoverable	Water	6020B	594692
680-221593-15	T4-2HS	Total Recoverable	Water	6020B	594692
680-221593-16	T4-3HB	Total Recoverable	Water	6020B	594692
680-221593-17	T4-3HS	Total Recoverable	Water	6020B	594692
680-221593-18	T4-4HB	Total Recoverable	Water	6020B	594692
680-221593-19	T4-4HS	Total Recoverable	Water	6020B	594692
680-221593-20	BG-2HT	Total Recoverable	Water	6020B	594692
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
MB 400-594692/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594692

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Metals (Continued)

### Analysis Batch: 594928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
LCS 400-594692/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594692
680-221590-E-8-B MS ^5	Matrix Spike	Total Recoverable	Water	6020B	594691
680-221590-E-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691
680-221593-11 MS	T3-4HTS	Total Recoverable	Water	6020B	594692
680-221593-11 MSD	T3-4HTS	Total Recoverable	Water	6020B	594692

### Analysis Batch: 595577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total Recoverable	Water	6020B	594691
680-221593-2	T1-4HTS	Total Recoverable	Water	6020B	594691
680-221593-3	T2-1HT	Total Recoverable	Water	6020B	594691
680-221593-4	T2-2HT	Total Recoverable	Water	6020B	594691
680-221593-5	T2-2HTS	Total Recoverable	Water	6020B	594691
680-221593-6	T2-3HT	Total Recoverable	Water	6020B	594691
680-221593-7	T2-3HTS	Total Recoverable	Water	6020B	594691
680-221593-8	T2-4HT	Total Recoverable	Water	6020B	594691
680-221593-9	T2-4HTS	Total Recoverable	Water	6020B	594691
680-221593-10	T3-4HT	Total Recoverable	Water	6020B	594691
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691
LCS 400-594691/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594691
680-221590-E-8-B MS ^50	Matrix Spike	Total Recoverable	Water	6020B	594691
680-221590-E-8-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691

### Analysis Batch: 595819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-12	T4-1HB	Total Recoverable	Water	6020B	594692
680-221593-13	T4-1HS	Total Recoverable	Water	6020B	594692
680-221593-14	T4-2HB	Total Recoverable	Water	6020B	594692
680-221593-15	T4-2HS	Total Recoverable	Water	6020B	594692
680-221593-16	T4-3HB	Total Recoverable	Water	6020B	594692
680-221593-17	T4-3HS	Total Recoverable	Water	6020B	594692
680-221593-18	T4-4HB	Total Recoverable	Water	6020B	594692
680-221593-19	T4-4HS	Total Recoverable	Water	6020B	594692
680-221593-20	BG-2HT	Total Recoverable	Water	6020B	594692
680-221593-21	DUP-1	Total Recoverable	Water	6020B	594103
680-221593-22	DUP-2	Total Recoverable	Water	6020B	594103
680-221593-23	FB-1	Total Recoverable	Water	6020B	594103
680-221593-24	EB-1	Total Recoverable	Water	6020B	594103
LCS 400-594103/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	594103

### Analysis Batch: 596288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-594691/1-A ^5	Method Blank	Total Recoverable	Water	6020B	594691

### Prep Batch: 596445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	3005A	
680-221861-2	T2-4LT	Total Recoverable	Water	3005A	
680-221861-3	T3-4LT	Total Recoverable	Water	3005A	
680-221861-4	T4-4L	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Metals (Continued)

### Prep Batch: 596445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-5	BG-1LT	Total Recoverable	Water	3005A	
680-221861-6	DUP-3	Total Recoverable	Water	3005A	
680-221861-7	FB-2	Total Recoverable	Water	3005A	
680-221861-8	EB-2	Total Recoverable	Water	3005A	
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 597203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	6020B	596445
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	596445
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	6020B	596445
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020B	596445

### Analysis Batch: 597436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
MB 400-596445/1-A ^5	Method Blank	Total Recoverable	Water	6020B	596445
400-226773-G-1-B MS ^25	Matrix Spike	Total Recoverable	Water	6020B	596445
400-226773-G-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020B	596445

### Analysis Batch: 597672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total Recoverable	Water	6020B	596445
680-221861-2	T2-4LT	Total Recoverable	Water	6020B	596445
680-221861-3	T3-4LT	Total Recoverable	Water	6020B	596445
680-221861-4	T4-4L	Total Recoverable	Water	6020B	596445
680-221861-5	BG-1LT	Total Recoverable	Water	6020B	596445
680-221861-6	DUP-3	Total Recoverable	Water	6020B	596445
680-221861-7	FB-2	Total Recoverable	Water	6020B	596445
680-221861-8	EB-2	Total Recoverable	Water	6020B	596445
LCS 400-596445/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	596445

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## General Chemistry

### Analysis Batch: 742396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	2540C-2011	
680-221593-2	T1-4HTS	Total/NA	Water	2540C-2011	
680-221593-3	T2-1HT	Total/NA	Water	2540C-2011	
680-221593-4	T2-2HT	Total/NA	Water	2540C-2011	
680-221593-5	T2-2HTS	Total/NA	Water	2540C-2011	
680-221593-6	T2-3HT	Total/NA	Water	2540C-2011	
680-221593-7	T2-3HTS	Total/NA	Water	2540C-2011	
680-221593-8	T2-4HT	Total/NA	Water	2540C-2011	
MB 680-742396/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742396/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742396/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221590-C-4 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 742597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	2320B-2011	
MB 680-742597/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742597/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742597/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221590-D-5 DU	Duplicate	Total/NA	Water	2320B-2011	

### Analysis Batch: 742611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-9	T2-4HTS	Total/NA	Water	2540C-2011	
680-221593-10	T3-4HT	Total/NA	Water	2540C-2011	
680-221593-11	T3-4HTS	Total/NA	Water	2540C-2011	
680-221593-12	T4-1HB	Total/NA	Water	2540C-2011	
680-221593-13	T4-1HS	Total/NA	Water	2540C-2011	
680-221593-14	T4-2HB	Total/NA	Water	2540C-2011	
680-221593-15	T4-2HS	Total/NA	Water	2540C-2011	
680-221593-16	T4-3HB	Total/NA	Water	2540C-2011	
680-221593-17	T4-3HS	Total/NA	Water	2540C-2011	
680-221593-18	T4-4HB	Total/NA	Water	2540C-2011	
680-221593-19	T4-4HS	Total/NA	Water	2540C-2011	
680-221593-20	BG-2HT	Total/NA	Water	2540C-2011	
680-221593-21	DUP-1	Total/NA	Water	2540C-2011	
680-221593-22	DUP-2	Total/NA	Water	2540C-2011	
680-221593-23	FB-1	Total/NA	Water	2540C-2011	
680-221593-24	EB-1	Total/NA	Water	2540C-2011	
MB 680-742611/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742611/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742611/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221732-C-2 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221762-A-1 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 742777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-2	T1-4HTS	Total/NA	Water	2320B-2011	
680-221593-3	T2-1HT	Total/NA	Water	2320B-2011	
680-221593-4	T2-2HT	Total/NA	Water	2320B-2011	
680-221593-5	T2-2HTS	Total/NA	Water	2320B-2011	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## General Chemistry (Continued)

### Analysis Batch: 742777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-6	T2-3HT	Total/NA	Water	2320B-2011	
680-221593-7	T2-3HTS	Total/NA	Water	2320B-2011	
680-221593-8	T2-4HT	Total/NA	Water	2320B-2011	
680-221593-9	T2-4HTS	Total/NA	Water	2320B-2011	
680-221593-10	T3-4HT	Total/NA	Water	2320B-2011	
680-221593-11	T3-4HTS	Total/NA	Water	2320B-2011	
680-221593-12	T4-1HB	Total/NA	Water	2320B-2011	
680-221593-13	T4-1HS	Total/NA	Water	2320B-2011	
680-221593-14	T4-2HB	Total/NA	Water	2320B-2011	
MB 680-742777/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-742777/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-742777/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221593-2 DU	T1-4HTS	Total/NA	Water	2320B-2011	
680-221593-14 DU	T4-2HB	Total/NA	Water	2320B-2011	

### Analysis Batch: 742802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	2540C-2011	
680-221861-2	T2-4LT	Total/NA	Water	2540C-2011	
680-221861-3	T3-4LT	Total/NA	Water	2540C-2011	
680-221861-4	T4-4L	Total/NA	Water	2540C-2011	
680-221861-5	BG-1LT	Total/NA	Water	2540C-2011	
680-221861-6	DUP-3	Total/NA	Water	2540C-2011	
680-221861-7	FB-2	Total/NA	Water	2540C-2011	
680-221861-8	EB-2	Total/NA	Water	2540C-2011	
MB 680-742802/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-742802/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCSD 680-742802/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-221651-O-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-221651-P-2 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 743661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-15	T4-2HS	Total/NA	Water	2320B-2011	
680-221593-16	T4-3HB	Total/NA	Water	2320B-2011	
680-221593-17	T4-3HS	Total/NA	Water	2320B-2011	
680-221593-18	T4-4HB	Total/NA	Water	2320B-2011	
680-221593-19	T4-4HS	Total/NA	Water	2320B-2011	
680-221593-20	BG-2HT	Total/NA	Water	2320B-2011	
680-221593-21	DUP-1	Total/NA	Water	2320B-2011	
680-221593-22	DUP-2	Total/NA	Water	2320B-2011	
680-221593-23	FB-1	Total/NA	Water	2320B-2011	
680-221593-24	EB-1	Total/NA	Water	2320B-2011	
MB 680-743661/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-743661/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-743661/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221593-23 DU	FB-1	Total/NA	Water	2320B-2011	

### Analysis Batch: 744061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	2320B-2011	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## General Chemistry (Continued)

### Analysis Batch: 744061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-2	T2-4LT	Total/NA	Water	2320B-2011	
680-221861-3	T3-4LT	Total/NA	Water	2320B-2011	
680-221861-4	T4-4L	Total/NA	Water	2320B-2011	
680-221861-5	BG-1LT	Total/NA	Water	2320B-2011	
680-221861-6	DUP-3	Total/NA	Water	2320B-2011	
680-221861-7	FB-2	Total/NA	Water	2320B-2011	
680-221861-8	EB-2	Total/NA	Water	2320B-2011	
MB 680-744061/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-744061/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-744061/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-221861-6 DU	DUP-3	Total/NA	Water	2320B-2011	

## Field Service / Mobile Lab

### Analysis Batch: 742126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221593-1	T1-4HT	Total/NA	Water	Field Sampling	
680-221593-2	T1-4HTS	Total/NA	Water	Field Sampling	
680-221593-3	T2-1HT	Total/NA	Water	Field Sampling	
680-221593-4	T2-2HT	Total/NA	Water	Field Sampling	
680-221593-5	T2-2HTS	Total/NA	Water	Field Sampling	
680-221593-6	T2-3HT	Total/NA	Water	Field Sampling	
680-221593-7	T2-3HTS	Total/NA	Water	Field Sampling	
680-221593-8	T2-4HT	Total/NA	Water	Field Sampling	
680-221593-9	T2-4HTS	Total/NA	Water	Field Sampling	
680-221593-10	T3-4HT	Total/NA	Water	Field Sampling	
680-221593-11	T3-4HTS	Total/NA	Water	Field Sampling	
680-221593-12	T4-1HB	Total/NA	Water	Field Sampling	
680-221593-13	T4-1HS	Total/NA	Water	Field Sampling	
680-221593-14	T4-2HB	Total/NA	Water	Field Sampling	
680-221593-15	T4-2HS	Total/NA	Water	Field Sampling	
680-221593-16	T4-3HB	Total/NA	Water	Field Sampling	
680-221593-17	T4-3HS	Total/NA	Water	Field Sampling	
680-221593-18	T4-4HB	Total/NA	Water	Field Sampling	
680-221593-19	T4-4HS	Total/NA	Water	Field Sampling	
680-221593-20	BG-2HT	Total/NA	Water	Field Sampling	

### Analysis Batch: 743581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-221861-1	T1-4LT	Total/NA	Water	Field Sampling	
680-221861-2	T2-4LT	Total/NA	Water	Field Sampling	
680-221861-3	T3-4LT	Total/NA	Water	Field Sampling	
680-221861-4	T4-4L	Total/NA	Water	Field Sampling	
680-221861-5	BG-1LT	Total/NA	Water	Field Sampling	

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T1-4HT**

**Date Collected: 09/22/22 09:49**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	744183	10/08/22 02:59	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:51	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:01	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742597	09/27/22 22:26	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:49	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T1-4HTS**

**Date Collected: 09/22/22 09:43**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 18:18	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 17:11	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:54	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:04	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:05	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:43	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-1HT**

**Date Collected: 09/22/22 08:40**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 18:56	AF	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-1HT**

**Date Collected: 09/22/22 08:40**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 17:49	UI	EET SAV
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 20:57	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:07	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:03	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:40	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-2HT**

**Date Collected: 09/22/22 08:50**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:09	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:01	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:00	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:10	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:43	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:50	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-2HTS**

**Date Collected: 09/22/22 08:44**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:22	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:14	UI	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-2HTS**

**Lab Sample ID: 680-221593-5**

**Date Collected: 09/22/22 08:44**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:03	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:13	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:24	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:44	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-3HT**

**Lab Sample ID: 680-221593-6**

**Date Collected: 09/22/22 09:05**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:34	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:27	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:06	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:16	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:13	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:05	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-3HTS**

**Lab Sample ID: 680-221593-7**

**Date Collected: 09/22/22 09:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 19:47	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 18:39	UI	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-3HTS**

**Lab Sample ID: 680-221593-7**

**Date Collected: 09/22/22 09:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:34	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:20	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:53	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:00	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-4HT**

**Lab Sample ID: 680-221593-8**

**Date Collected: 09/22/22 09:35**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:00	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1		500	5 mL	5 mL	744574	10/11/22 12:03	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:37	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:23	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 17:33	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742396	09/27/22 12:02	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:35	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T2-4HTS**

**Lab Sample ID: 680-221593-9**

**Date Collected: 09/22/22 09:30**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:12	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:05	UI	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: T2-4HTS

## Lab Sample ID: 680-221593-9

Date Collected: 09/22/22 09:30

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:40	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:26	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:23	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:30	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T3-4HT

## Lab Sample ID: 680-221593-10

Date Collected: 09/22/22 09:22

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:25	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:17	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 21:43	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595577	10/07/22 22:47	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:43	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:22	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T3-4HTS

## Lab Sample ID: 680-221593-11

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 20:38	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744417	10/10/22 19:30	UI	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: T3-4HTS

## Lab Sample ID: 680-221593-11

Date Collected: 09/22/22 09:17

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 17:18	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 18:33	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 09:17	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T4-1HB

## Lab Sample ID: 680-221593-12

Date Collected: 09/22/22 07:20

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 21:28	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 20:33	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 17:58	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:27	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:44	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:20	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T4-1HS

## Lab Sample ID: 680-221593-13

Date Collected: 09/22/22 07:12

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:06	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:11	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:01	NTH	EET PEN
Instrument ID: Athena										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: T4-1HS

Date Collected: 09/22/22 07:12

Date Received: 09/23/22 10:40

## Lab Sample ID: 680-221593-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:30	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:34	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:12	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T4-2HB

Date Collected: 09/22/22 07:36

Date Received: 09/23/22 10:40

## Lab Sample ID: 680-221593-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:19	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:24	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:04	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:33	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			742777	09/28/22 19:14	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:36	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T4-2HS

Date Collected: 09/22/22 07:30

Date Received: 09/23/22 10:40

## Lab Sample ID: 680-221593-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:31	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:36	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:07	NTH	EET PEN
Instrument ID: Athena										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-2HS**

**Date Collected: 09/22/22 07:30**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-15**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 14:36	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:27	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:30	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T4-3HB**

**Date Collected: 09/22/22 07:50**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-16**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:44	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 21:49	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:10	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:23	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:07	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:50	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T4-3HS**

**Date Collected: 09/22/22 07:43**

**Date Received: 09/23/22 10:40**

**Lab Sample ID: 680-221593-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 22:57	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:02	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:13	NTH	EET PEN
Instrument ID: Athena										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-3HS**

**Lab Sample ID: 680-221593-17**

**Date Collected: 09/22/22 07:43**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:42	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:36	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 07:43	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T4-4HB**

**Lab Sample ID: 680-221593-18**

**Date Collected: 09/22/22 08:08**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:09	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:14	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:16	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:51	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:57	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:08	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T4-4HS**

**Lab Sample ID: 680-221593-19**

**Date Collected: 09/22/22 08:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:22	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:27	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:19	NTH	EET PEN
Instrument ID: Athena										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: T4-4HS

## Lab Sample ID: 680-221593-19

Date Collected: 09/22/22 08:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:54	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:17	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:00	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: BG-2HT

## Lab Sample ID: 680-221593-20

Date Collected: 09/22/22 08:23

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:35	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:40	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		5			594928	10/03/22 18:47	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594692	10/02/22 11:35	JL	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 15:57	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 15:46	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			742126	09/22/22 08:23	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: DUP-1

## Lab Sample ID: 680-221593-21

Date Collected: 09/22/22 00:00

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744246	10/08/22 23:47	AF	EET SAV
Instrument ID: CICK										
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 22:52	UI	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 21:51	NTH	EET PEN
Instrument ID: Athena										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 680-221593-21**

**Date Collected: 09/22/22 00:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 16:10	BAW	EET PEN
		Instrument ID: Athena								
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 16:07	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: DUP-2**

**Lab Sample ID: 680-221593-22**

**Date Collected: 09/22/22 00:00**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		40	5 mL	5 mL	744247	10/09/22 01:54	AF	EET SAV
		Instrument ID: CICK								
Total/NA	Analysis	300.0-1993 R2.1	DL	100	5 mL	5 mL	744497	10/10/22 23:30	UI	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:06	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		500			595819	10/10/22 16:13	BAW	EET PEN
		Instrument ID: Athena								
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 16:16	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: FB-1**

**Lab Sample ID: 680-221593-23**

**Date Collected: 09/22/22 10:30**

**Matrix: Water**

**Date Received: 09/23/22 10:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744247	10/09/22 01:16	AF	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:09	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		50			595819	10/10/22 16:16	BAW	EET PEN
		Instrument ID: Athena								
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 14:45	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
		Instrument ID: NOEQUIP								

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# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Client Sample ID: EB-1

Lab Sample ID: 680-221593-24

Date Collected: 09/22/22 10:25

Matrix: Water

Date Received: 09/23/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	744247	10/09/22 02:07	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			594519	09/29/22 22:37	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	594103	09/27/22 16:07	KWN	EET PEN
Total Recoverable	Analysis	6020B		50			595819	10/10/22 16:34	BAW	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			743661	10/04/22 14:56	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742611	09/28/22 12:20	PG	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T1-4LT

Lab Sample ID: 680-221861-1

Date Collected: 09/28/22 07:59

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 15:38	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:19	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/21/22 23:24	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 15:45	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:07	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 07:59	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T2-4LT

Lab Sample ID: 680-221861-2

Date Collected: 09/28/22 08:07

Matrix: Water

Date Received: 09/29/22 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 15:50	AF	EET SAV
Instrument ID: CICK										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T2-4LT**

**Lab Sample ID: 680-221861-2**

**Date Collected: 09/28/22 08:07**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:22	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/21/22 23:59	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 15:48	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:27	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 08:07	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T3-4LT**

**Lab Sample ID: 680-221861-3**

**Date Collected: 09/28/22 08:15**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:34	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:25	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:02	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:17	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:17	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 08:15	T1C	EET SAV
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: T4-4L**

**Lab Sample ID: 680-221861-4**

**Date Collected: 09/27/22 17:35**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:47	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:28	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:05	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:20	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 21:57	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 17:35	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: BG-1LT**

**Lab Sample ID: 680-221861-5**

**Date Collected: 09/28/22 07:49**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 10:59	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:31	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:08	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:23	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 23:37	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			743581	09/28/22 07:49	T1C	EET SAV
Instrument ID: NOEQUIP										

Eurofins Savannah



# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: DUP-3**

**Lab Sample ID: 680-221861-6**

**Date Collected: 09/28/22 00:00**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		200	5 mL	5 mL	745161	10/14/22 11:12	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:35	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597436	10/22/22 00:11	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		250			597672	10/24/22 16:26	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 23:18	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: FB-2**

**Lab Sample ID: 680-221861-7**

**Date Collected: 09/28/22 08:50**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	745161	10/14/22 11:25	AF	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:38	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597436	10/22/22 00:14	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597672	10/24/22 16:29	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:33	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221861-8**

**Date Collected: 09/28/22 09:00**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	745161	10/14/22 11:37	AF	EET SAV
Instrument ID: CICK										

Eurofins Savannah



# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

**Client Sample ID: EB-2**

**Lab Sample ID: 680-221861-8**

**Date Collected: 09/28/22 09:00**

**Matrix: Water**

**Date Received: 09/29/22 12:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		25			597203	10/21/22 01:41	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597436	10/22/22 00:18	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	596445	10/15/22 12:10	JL	EET PEN
Total Recoverable	Analysis	6020B		5			597672	10/24/22 16:33	NTH	EET PEN
Instrument ID: Athena										
Total/NA	Analysis	2320B-2011		1			744061	10/06/22 22:38	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	742802	09/29/22 11:31	PG	EET SAV
Instrument ID: NOEQUIP										

\* Completion dates and times are reported or not reported per method requirements or individual lab discretion.

**Laboratory References:**

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

## Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

# Method Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-221593-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN

## Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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.

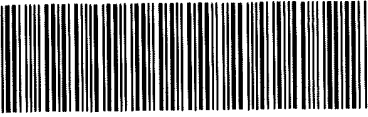
## Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

**Chain of Custody Record**

**ATTENTION**

<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNUJURINK@SOUTHERNCO.COM Project Name: Plant McManus Surface Water Site:		Lab PM: Fuller, David E-Mail: David Fuller@eurofins.com State of Origin: GA Job #:	
Sampler: Meredith Duncan, Will Leaker Phone: 470-895-0650 PWSID:		GOC No: 680-138977-50656 1 Page 1 of 4	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #:		Analysis Requested: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHCO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Water, Solid, Sewage/Oil, etc.) Preservation Code (1st-Tissue, 2nd-Water)		Perform MS/MSD (Yes or No) 6020B - Metals - Select List - SAV 300_ORGM_2BD - Chloride Fluoride Sulfate 2320B - Alkalinity, Total, Carb/Bicarb 6020B - Metals - Select List - PIT 2540C - Solids, Total Dissolved (TDS) Total Number of Containers	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/Note: PH  680-221593 Chain of Custody	
Empty Kit Relinquished by: William Leaker Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 n. <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Date/Time: 9/23/22 0910 Date/Time: 9/23/22 1040 Date/Time:		Date/Time: 9/23/22 0910 Date/Time: 9/23/22 1040 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 1.9/1.8 1.3/1.2 2.9/2.3 Ver: 01/16/2019	



Client Information		Sampler		Lab P/N:		Carrier Tracking No(s)		COC No:						
Kristen Jurinko		Meredith Duncan, Will Laaker		Fuller, David				680-136977-50656.2						
Southern Company		Phone: 470-895-0650		E-Mail: David.Fuller@et.eurofins.com		State of Origin: GA		Page 2 of 4						
Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State: GA, 30308		Job #:								
Phone: 404-506-7116(Tel)		Lab Project #: 68027841		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Due Date Requested:								
Email: KNJURINK@SOUTHERNCO.COM		Lab PO #: GPC82130-0001		Project #:		TAT Requested (days):								
Project Name: Plant McManus Surface Water		Site:				PWSID:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other/Soil, Other/Slur)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300 ORGM_2BD - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)	Total Number of Containers	Special Instructions/Note:
T4-1HB	9/22/22	0720	G	Water		X	X	X	X	X	X	X	5	6 85
T4-1HS	9/22/22	0712	G	Water		X	X	X	X	X	X	X	5	6 59
T4-2HB	9/22/22	0736	G	Water		X	X	X	X	X	X	X	5	6 98
T4-2HS	9/22/22	0730	G	Water		X	X	X	X	X	X	X	5	6 96
T4-3HB	9/22/22	0750	G	Water		X	X	X	X	X	X	X	5	6 97
T4-3HS	9/22/22	0743	G	Water		X	X	X	X	X	X	X	5	7 01
T4-4HB	9/22/22	0808	G	Water		X	X	X	X	X	X	X	5	7 06
T4-4HS	9/22/22	0800	G	Water		X	X	X	X	X	X	X	5	7 03
T1-4LT				Water										
T2-4LT				Water										
T3-4LT				Water										

**Preservation Codes:**  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2SO4  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4-5  
 Y - Trizma  
 Z - other (specify)

**Analysis Requested**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

**Relinquished by:** William Laaker Date/Time: 9/23/22 0910 Company: Resolute  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seals Intact:**  Yes  No **Custody Seal No.** \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

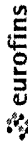


**244-ATLANTA**

<b>Client Information</b>		Sampler: <b>Mercedith Duncan, Will Locker</b>		Lab P#: <b>Fuller, David</b>	POC No: <b>680-136977-506563</b>						
Client Contact: <b>Kristen Jurnko</b>		Phone: <b>470-395-0650</b>		E-Mail: <b>David Fuller@et.eurofins.com</b>	Page: <b>Page 3 of 4</b>						
Company: <b>Southern Company</b>		PWSID:		State of Origin: <b>GA</b>							
Address: <b>241 Ralph McGill Blvd SE B10185</b>		Due Date Requested:		Job #:							
City: <b>Atlanta</b>		TAT Requested (days):		Preservation Codes:							
State, Zip: <b>GA, 30308</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)							
Phone: <b>404-506-7116(Tel)</b>		Lab Project #:		Other							
Email: <b>KNJURINK@SOUTHERNCO.COM</b>		Lab PO #:		Total Number of Containers							
Project Name: <b>Plant McManus Surface Water</b>		GPC82130-0001		Special Instructions/Note:							
Site:		SSOW#:		<b>PH</b>							
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Metals - Select List - SAV	300_ORGM_2BD - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PIT	2540C - Solids, Total Dissolved (TDS)
T4-4L				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
BG-1LT				Water							
BG-2HT	9/22/22	0823	G	Water			X	X	X	X	5
DUP-1	9/22/22	-	G	Water			X	X	X	X	5
DUP-2	9/22/22	-	G	Water			X	X	X	X	5
DUP-3				Water							
FB-1	9/22/22	1030	G	Water			X	X	X	X	5
EB-1	9/22/22	1025	G	Water			X	X	X	X	5
Extra 1				Water							
Extra 2				Water							
Extra 3				Water							
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)											
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Special Instructions/QC Requirements:											
Empty Kit Relinquished by: _____ Date: _____											
Relinquished by: <b>William Locker</b> Date/Time: <b>9/23/22 0910</b> Company: <b>Resolute</b>											
Relinquished by: _____ Date/Time: _____ Company: _____											
Relinquished by: _____ Date/Time: _____ Company: _____											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Custody Seal No. _____ Cooler Temperature(s) °C and Other Remarks: _____											



# Chain of Custody Record



<p><b>Client Information</b> Client Contact: <b>William Locker, Meredith Duncan</b> Phone: <b>470-895-0650</b></p>		<p>Lab P#: <b>Fuller, David</b> E-Mail: <b>David.Fuller@et.eurofins.us.com</b></p>	
<p>Company: <b>Southern Company</b></p>		<p>State of Origin: <b>GA</b></p>	
<p>Address: <b>241 Ralph McGill Blvd SE B10185</b> City: <b>Atlanta</b> State Zip: <b>GA, 30308</b> Phone: <b>404-506-7116(Tel)</b></p>		<p>Analysis Requested</p>	
<p>Project Name: <b>KNJURINK@SOUTHERNCO COM</b> Plant: <b>McManus Surface Water</b> Site:</p>		<p>300_ORGM_2BD - Chloride Fluoride Sulfate 602B - Metals - Select List - SAV 2320B - Alkalinity, Total, Carb/Bicarb 6020B - Metals - Select List - PT 2540C - Solids, Total Dissolved (TDS)</p>	
<p>Lab PO #: <b>GPC82130-0001</b> Project #: <b>68027841</b> SSOW#:</p>		<p>Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> <b>X</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> <b>X</b> Total Number of Containers <input checked="" type="checkbox"/> <b>X</b></p>	
<p>Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: <b>68027841</b></p>		<p>Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other</p>	
<p>Sample Identification Extra 4</p>		<p>Special Instructions/Note: <b>pH</b></p>	
<p><b>Possible Hazard Identification</b>  <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological          Deliverable Requested I, II, III, IV, Other (specify)</p>			
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>			
<p>Special Instructions/QC Requirements:</p>			
<p>Empty Kit Relinquished by: <b>William Locker</b></p>		<p>Method of Shipment</p>	
<p>Relinquished by: <b>William Locker</b></p>		<p>Received by: </p>	
<p>Relinquished by:</p>		<p>Received by: </p>	
<p>Relinquished by:</p>		<p>Received by:</p>	
<p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		<p>Cooler Temperature(s) °C and Other Remarks:</p>	

# Chain of Custody Record

**WINN-DIXIE**  
COC # 1111111111  
680-138977-50656.1

<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116 (Tel) Email: KJURINK@SOUTHERNCO.COM Project Name: Plant McManus Surface Water Site:		Lab P.I.: Fuller, David E-Mail: David.Fuller@et.eurofins.com State of Origin: GA Page: Page 1 of 4 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #: SSOW#:		<b>Analysis Requested</b> 300_ORGM_28D - Chloride Fluoride Sulfate 6020B - Metals - Select Lat - SAV 2220B - Alkalinity, Total, Carb/Bicarb 6020B - Metals - Select Lat - PIT 2540C - Solids, Total Dissolved (TDS)	
Sample Identification T1-4HT T1-4HTS T2-1HT T2-2HT T2-2HTS T2-3HT T2-3HTS T2-4HT T2-4HTS T3-4HT T3-4HTS		Matrix (Water, Solid, Other): Sample Type (C=Comp, G=grab): Sample Date: Preservation Code: Water Water Water Water Water Water Water Water Water Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: William Lacker		Received by: [Signature]	
Relinquished by:		Received by: [Signature]	
Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 3.1/3.0	





<b>Client Information</b>		Sampler: <b>Meredith Dunton, Will Locker</b>		Carrier Tracking No(s): <b>680-138977-50656.2</b>	
Client Contact: <b>Kristen Jurinko</b>		Lab P/N: <b>Fuller, David</b>		Page: <b>Page 2 of 4</b>	
Company: <b>Southern Company</b>		Phone: <b>470-395-0650</b>		Job #: _____	
Address: <b>241 Ralph McGill Blvd SE B10185</b>		E-Mail: <b>David.Fuller@et.eurofins.com</b>		State of Origin: <b>GA</b>	
City: <b>Atlanta</b>		State: <b>GA</b>		PWSID: _____	
State, Zip: <b>GA, 30308</b>		Due Date Requested: _____		Analysis Requested	
Phone: <b>404-506-7116 (Tel)</b>		TAT Requested (days): _____		<input checked="" type="checkbox"/> 300_ORGFM_28D - Chloride Fluoride Sulfate <input type="checkbox"/> 6020B - Metals - Select List - SAV <input type="checkbox"/> 2220B - Alkalinity, Total, Carbonate <input type="checkbox"/> 6020B - Metals - Select List - PIT <input type="checkbox"/> 2540C - Solids, Total Dissolved (TDS)	
Email: <b>KNJURINK@SOUTHERNCO.COM</b>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes: A - HCl      M - Hexane B - NaOH    N - None C - Zn Acetate    O - AsNaO2 D - Nitric Acid    P - Na2O4S E - NaHSO4        Q - Na2SO3 F - MeOH          R - Na2S2O3 G - Amchlor        S - H2SO4 H - Ascorbic Acid    T - TSP Dodecahydrate I - Ice              U - Acetone J - DI Water        V - MCAA K - EDTA          W - pH 4-5 L - EDTA          Y - Trizma Z - other (specify)	
Lab Project #: <b>68027841</b>		Lab PO #: <b>GPC82130-0001</b>		Total Number of Containers: <input checked="" type="checkbox"/>	
Project #: _____		Project #: _____		Special Instructions/Note: <b>pH</b>	
SSOW#: _____		Site: <b>Plant McManus Surface Water</b>		Other: _____	
<b>Sample Identification</b>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sewage, Sludge, Oil, Other)	Preservation Code	
T4-1HB			Water		
T4-1HS			Water		
T4-2HB			Water		
T4-2HS			Water		
T4-3HB			Water		
T4-3HS			Water		
T4-4HB			Water		
T4-4HS			Water		
T1-4LT	9/23/22 0759	G	Water		5 669
T2-4LT	9/23/22 0807	G	Water		5 706
T3-4LT	9/23/22 0815	G	Water		5 716
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify) _____					
Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: _____					
Empty Kit Relinquished by _____		Date: _____		Time: _____	
Relinquished by <b>William Locker</b>		Date/Time: <b>9/28/22 1030</b>		Company: <b>Resolute</b>	
Relinquished by _____		Date/Time: _____		Company: _____	
Relinquished by _____		Date/Time: _____		Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.: <b>3-1130</b>		Cooler Temperature(s) °C and Other Remarks: _____	



**244-ATLANTA**  
 Center for Testing

Sampler: **Meredith Dutton, Will Locker**  
 Phone: **470-895-0650**  
 Lab P/N: **Fuller, David**  
 E-Mail: **David.Fuller@et.eurofins.com**  
 State of Origin: **GA**  
 Job #: **680-138977-50656.3**  
 Page: **Page 3 of 4**

Company: **Southern Company**  
 Address: **241 Ralph McGill Blvd SE B10185**  
 City: **Atlanta**  
 State, Zip: **GA, 30308**  
 Phone: **404-506-7116(Tel)**  
 Lab Project #: **68027841**  
 Lab PO #: **GPC82130-0001**  
 Project Name: **KNJURINK@SOUTHERNCO.COM**  
 Plant: **McManus Surface Water**  
 Site:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Composite, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested				Total Number of Containers	Special Instructions/Note:
							6020B - Metals - Select List - SAV	300_ORGM_28D - Chloride Fluoride Sulfate	2320B - Alkalinity, Total, Carb/Bicarb	6020B - Metals - Select List - PT		
T4-4L	9/27/22	1735	G	Water	X	X	X	X	X	X	5	7 14
BG-1LT	9/28/22	0749	G	Water	X	X	X	X	X	X	5	5 9 5
BG-2HT				Water								
DUP-1				Water								
DUP-2				Water								
DUP-3	9/28/22		G	Water	X	X	X	X	X	X	5	
FB-1				Water								
EB-1				Water								
Extra-1 FB-2	9/28/22	0850	G	Water	X	X	X	X	X	X	5	
Extra-2 EB-2	9/28/22	0900	G	Water	X	X	X	X	X	X	5	
Extra 3				Water								

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: **William Locker** Date/Time: **9/28/22 1030** Company: **RESOLUTE**

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact: **Δ Yes Δ No** Custody Seal No.: \_\_\_\_\_

Received by: **[Signature]** Date/Time: **9/28/22 10:50** Company: \_\_\_\_\_

Received by: **[Signature]** Date/Time: **9/28/22 12:40** Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

# Chain of Custody Record

<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KJURINK@SOUTHERNCO.COM Project Name: Plant McManus Surface Water Site:		Lab Pk#: Fuller, David E-Mail: David.Fuller@et.eurofins.com State of Origin: GA Page 4 of 4 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #: S50W#: PWSID:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 6020B - Metals - Select List - SAV <input type="checkbox"/> 300_ORGM_2BD - Chloride Fluoride Sulfate <input type="checkbox"/> 2220B - Alkalinity, Total, Carb/Bicarb <input type="checkbox"/> 6020B - Metals - Select List - PT <input type="checkbox"/> 2540C - Solids, Total Dissolved (TDS) <input type="checkbox"/> Total Number of Containers: <input checked="" type="checkbox"/>	
<b>Sample Identification</b> Extra 4		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
<b>Empty Kit Relinquished by</b> Relinquished by: William Lacker Relinquished by: Relinquished by:		<b>Special Instructions/QC Requirements:</b> Method of Shipment: Received by: Received by: Received by:	
Date/Time: 9/28/22 1030 Date/Time: Date/Time:		Date/Time: 9/29 10:30 Date/Time: 9/29 12:40 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	





# Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fuller, David	Carrier Tracking No(s): 680-709401.1
Client Contact: Shipping/Receiving		E-Mail: David.Fuller@et.eurofins.com	State of Origin: Georgia
Company: Eurofins Environment Testing Southeast, 3355 McLemore Drive, Pensacola, FL 32514		Accreditations Required (See note): State - Georgia	
Address: 3355 McLemore Drive, Pensacola, FL 32514		Job #: 680-221593-1	
City: Pensacola		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
State, Zip: FL, 32514		Other: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA	
Phone: 850-474-1001 (Tel) 850-478-2671 (Fax)		Total Number of Containers: 1	
Email: 850-474-1001 (Tel) 850-478-2671 (Fax)		Special Instructions/Note:	
Project Name: Plant McManus		6020B/3005A Select 7 Surface Water Metals	
Site: S50W#		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
Due Date Requested: 10/6/2022		Form M/MSD (Yes or No) <input checked="" type="checkbox"/>	
TAT Requested (days):		Preservation Code:	
PO #:		Sample Time	
WO #:		Sample Date	
Project #: 68027841		Sample Type (C=Comp, G=grab)	
Site: S50W#		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=air)	
Sample Identification - Client ID (Lab ID)		Sample Time	
T1-4HT (680-221593-1)		09:49 Eastern	
T1-4HTS (680-221593-2)		09:43 Eastern	
T2-1HT (680-221593-3)		08:40 Eastern	
T2-2HT (680-221593-4)		08:50 Eastern	
T2-2HTS (680-221593-5)		08:44 Eastern	
T2-3HT (680-221593-6)		09:05 Eastern	
T2-3HTS (680-221593-7)		09:00 Eastern	
T2-4HT (680-221593-8)		09:35 Eastern	
T2-4HTS (680-221593-9)		09:30 Eastern	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte &amp; accreditation compliance upon subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.</p>			
<b>Possible Hazard Identification</b>			
Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months			
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2			
Empty or Relinquished by:		Date:	
Relinquished by: <i>[Signature]</i>		Date: 9/22/2022 18:59	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks: 3,4°C 1.7°C		Ver: 06/08/2021	





# Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fuller, David	Carrier Tracking No(s): 680-709401.2		
Client Contact Shipping/Receiving		E-Mail: David.Fuller@eurofins.com	Page: Page 2 of 3		
Company: Eurofins Environment Testing Southeast,		State of Origin: Georgia	Job # 680-221593-1		
Address: 3355 McLemore Drive,		Accreditations Required (See note): State - Georgia	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - Trizma Y - EDTA Z - other (specify) Other:		
City: Pensacola	Due Date Requested: 10/6/2022	<b>Analysis Requested</b>			
State, Zip: FL, 32514	TAT Requested (days):				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	
Email: Plant McManus	WO #	6020B/3005A Select 7 Surface Water Metals	6020B/3005A Select 7 Surface Water Metals		
Project Name: Plant McManus	Project # 68027841	Sample Date	Sample Time	Sample Type (C=Comp, G=grab) 817-Tissue, A=Air	Matrix (W=water, S=solid, O=waste/oil)
Site:	SSOW#:	Sample Date	Sample Time	Sample Type (C=Comp, G=grab) 817-Tissue, A=Air	Matrix (W=water, S=solid, O=waste/oil)
<b>Sample Identification - Client ID (Lab ID)</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=grab) 817-Tissue, A=Air	Matrix (W=water, S=solid, O=waste/oil)
T3-4HT (680-221593-10)		9/22/22	09:22 Eastern	Water	Water
T3-4HTS (680-221593-11)		9/22/22	09:17 Eastern	Water	Water
T4-1HB (680-221593-12)		9/22/22	07:20 Eastern	Water	Water
T4-1HS (680-221593-13)		9/22/22	07:12 Eastern	Water	Water
T4-2HB (680-221593-14)		9/22/22	07:36 Eastern	Water	Water
T4-2HS (680-221593-15)		9/22/22	07:30 Eastern	Water	Water
T4-3HB (680-221593-16)		9/22/22	07:50 Eastern	Water	Water
T4-3HS (680-221593-17)		9/22/22	07:43 Eastern	Water	Water
T4-4HB (680-221593-18)		9/22/22	08:08 Eastern	Water	Water

**Special Instructions/Note:**

Field Filtered Sample (Yes or No)  Perform MS/MSD (Yes or No)

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Special Instructions/QC Requirements:**

Primary Deliverable Rank: 2

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Requisitioned by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: 9/23/22 18:59 Company \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 9-24-22 8:30 Company \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company \_\_\_\_\_

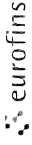
Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 3.4°C 1.7°C JRS

Ver: 06/08/2021



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fuller, David	Carrier Tracking No(s): 680-709401.3
Shipping/Receiving		E-Mail: David.Fuller@et.eurofins.com	Page: Page 3 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Georgia	Job #: 680-221593-1
Address: 3355 McLemore Drive,		<b>Preservation Codes:</b>	
City: Pensacola	State, Zip: FL, 32514	A - HCL	M - Hexane
Phone: 850-474-1001 (Tel) 850-478-2671 (Fax)	PO #:	B - NaOH	N - None
Email:	WO #:	C - Zn Acetate	O - ASNAC2
Project #: 68027841		D - Nitric Acid	P - Na2O4S
Site:		E - NaHSO4	Q - Na2SO3
		F - MeOH	R - Na2S2O3
		G - Amchlor	S - H2SO4
		H - Ascorbic Acid	T - TSP Dodecahydrate
		I - Ice	U - Acetone
		J - DI Water	V - MCAA
		K - EDTA	W - pH 4.5
		L - EDA	Y - Trizma
		Other:	Z - other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, or wastewater)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of Containers	Special Instructions/Note:
T4-4HS (680-221593-19)	9/22/22	08:00 Eastern	Water	Water	X	X		1	
BG-2HT (680-221593-20)	9/22/22	08:23 Eastern	Water	Water	X	X		1	
DUP-1 (680-221593-21)	9/22/22	Eastern	Water	Water	X	X		1	
DUP-2 (680-221593-22)	9/22/22	Eastern	Water	Water	X	X		1	
FB-1 (680-221593-23)	9/22/22	10:30 Eastern	Water	Water	X	X		1	
EB-1 (680-221593-24)	9/22/22	10:25 Eastern	Water	Water	X	X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date: 9/22/2022 10:39  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Method of Shipment: \_\_\_\_\_  
 Received by: *[Signature]* Date/Time: 9-24-22 9:11  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 7.4°C 1.7°C JRG



Environment Testing  
merica

ORIGIN ID:SAVA (912) 354-  
SHIPPING  
EUROFINS/TESTAMERICA  
5102 LA ROCHE AVE

DATE: 23SEP22  
20.00 LB MAN  
18389/CAFE3616

SAVANNAH, GA 31404  
UNITED STATES US

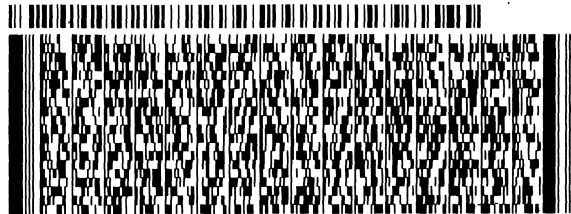
DER

TO SHIPPING/RECEIVING  
EUROFINS ENVIRONMENT TESTING SOUTHE  
3355 MCLEMORE DRIVE

PENSACOLA FL 32514

(850) 474-1001  
PO: YES

REF: S680-139387



FedEx  
Express



1 of 2

TRK# 1864 9070 5330

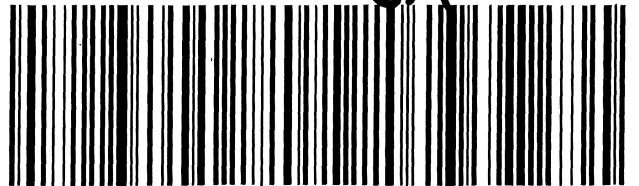
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## MASTER ##

SATURDAY 12:00P  
PRIORITY OVERNIGHT

XO PNSA

1.702  
TRG  
JK

32514  
FL-US BFM



Part # 159469-434 RIT2 EXP 02/21

1  
2  
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11  
12



Environment Testing  
TestAmerica

Part # 159169-434 RTT2 EXP 02/21

RT 687

12:00

A  
5340  
09.24

ST 0

SHIP ID: SAVA (912) 354-7858  
SHIPPING  
EUROFINS/TESTAMERICA  
5102 LA ROCHE AVE

SHIP DATE: 23SEP22  
ACTWGT: 20.00 LB MAN  
CAD: 0148389/CAFE3616

SAVANNAH, GA 31404  
UNITED STATES US

BILL SENDER

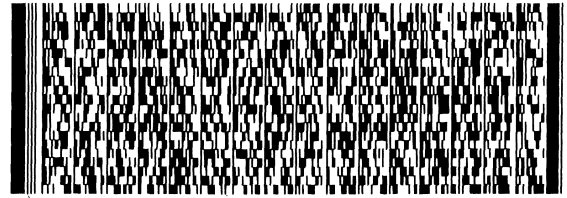
TO SHIPPING/RECEIVING  
EUROFINS ENVIRONMENT TESTING SOUTHE  
3355 MCLEMORE DRIVE

PENSACOLA FL 32514

3.4%  
ZRB JTM

(850) 474-1001  
PO: YES

REF: S680-139387



FedEx  
Express



5771/FRC/429

J222020220328010Y

2 of 2

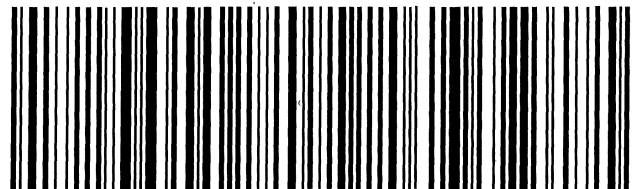
MPS# 1864 9070 5340

Mstr# 1864 9070 5330

SATURDAY 12:00P  
PRIORITY OVERNIGHT

XO PNSA

32514  
FL-US BFM





# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

**Login Number: 221593**

**List Source: Eurofins Savannah**

**List Number: 1**

**Creator: Sims, Robert D**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

**Login Number: 221593**

**List Number: 2**

**Creator: Whitley, Adrian**

**List Source: Eurofins Pensacola**

**List Creation: 09/24/22 11:16 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4, 1.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

**Login Number: 221861**

**List Source: Eurofins Savannah**

**List Number: 1**

**Creator: Padayao, Abigail**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-221593-1

**Login Number: 221861**

**List Number: 2**

**Creator: DeKlerk, Michaela**

**List Source: Eurofins Pensacola**

**List Creation: 10/05/22 10:12 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kristen N Jurinko  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Generated 12/30/2022 9:41:17 AM

## JOB DESCRIPTION

Plant McManus Surface Water

## JOB NUMBER

680-228110-1

# Eurofins Savannah

## Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

## Authorization



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12/30/2022 9:41:17 AM

Authorized for release by  
David Fuller, Project Manager  
[David.Fuller@et.eurofinsus.com](mailto:David.Fuller@et.eurofinsus.com)  
(770)344-8986

# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## 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.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control 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
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.

## 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

# Sample Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-228110-1	T1-1HT	Water	12/20/22 07:51	12/21/22 09:45
680-228110-2	T1-2HT	Water	12/20/22 08:01	12/21/22 09:45
680-228110-3	T1-2HTS	Water	12/20/22 07:56	12/21/22 09:45
680-228110-4	T1-3HT	Water	12/20/22 08:18	12/21/22 09:45
680-228110-5	T1-3HTS	Water	12/20/22 08:12	12/21/22 09:45
680-228110-6	T3-1HT	Water	12/20/22 07:07	12/21/22 09:45
680-228110-7	T3-2HT	Water	12/20/22 07:18	12/21/22 09:45
680-228110-8	T3-2HTS	Water	12/20/22 07:12	12/21/22 09:45
680-228110-9	T3-3HT	Water	12/20/22 07:38	12/21/22 09:45
680-228110-10	T3-3HTS	Water	12/20/22 07:30	12/21/22 09:45
680-228110-11	DUP-4	Water	12/20/22 00:00	12/21/22 09:45
680-228110-12	FB-3	Water	12/20/22 09:10	12/21/22 09:45
680-228110-13	EB-3	Water	12/20/22 09:15	12/21/22 09:45

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# Case Narrative

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Job ID: 680-228110-1**

**Laboratory: Eurofins Savannah**

## Narrative

### Job Narrative 680-228110-1

#### Receipt

The samples were received on 12/21/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 2.9° C.

#### HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6020B: The ICV for batch 400-606565 passed recovery/accuracy criteria which serves the ICV purpose of verifying the calibration standards. The replicate RPDs for the elements were outside of the criteria for standards but within the criteria for field samples. Data has therefore been reported and narrated accordingly.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606565 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The following samples were diluted to bring the concentration of target analytes within the calibration range: T1-3HTS (680-228110-5), T3-1HT (680-228110-6), T3-2HTS (680-228110-8), T3-3HT (680-228110-9), T3-3HTS (680-228110-10) and DUP-4 (680-228110-11). Elevated reporting limits (RLs) are provided.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606563 contained Lithium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The LCS associated with this CCV were within limits for the affected analytes; therefore, the data have been reported. The associated LCS is impacted: (CCV 400-606565/57) and (LCS 400-606254/2-A ^5).

Method 6020B: The serial dilution performed for the following sample associated with batch 400-606565 was outside control limits: (680-228110-B-1-A SD ^25)

Method 6020B: The post digestion spike % recovery for Boron associated with batch 400-606565 was outside of control limits. The associated sample is: (680-228110-B-1-A PDS ^5).

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-606254 and analytical batch 400-606565 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6020B: The continuing calibration blank (CCB) for analytical batch 400-606700 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6020B: The following sample was diluted to bring the concentration of target analytes within the calibration range: T3-2HT (680-228110-7). Elevated reporting limits (RLs) are provided.

Method 6020B: The continuing calibration verification (CCV) associated with batch 400-606565 recovered above the upper control limit for Boron and Lithium. The method blank associated with this CCV were below the reporting limit for the affected analytes, and the laboratory control spike associated with the CCV was within the acceptable limits; therefore, the data have been reported.

# Case Narrative

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

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## Job ID: 680-228110-1 (Continued)

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### Laboratory: Eurofins Savannah (Continued)

Method 6020B: The CRI associated with batch 400-606700 recovered above the upper control limit for Potassium. The samples associated with this CRI were non-detects for the affected analytes; therefore, the data have been reported.

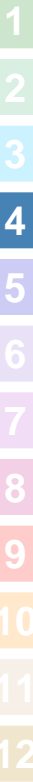
Method 6020B: The instrument blank for analytical batch 400-606700 contained Sodium greater than the reporting limit (RL) and were not reanalyzed because the associated non blank samples were 10x greater than the instrument blanks. NOTE: Field sample blank detections were significantly less than those "non-blank" hits and only slightly above the RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### General Chemistry

Method SM 2540C: The sample duplicate precision for the following sample associated with analytical batch 680-756570 was outside control limits: (680-228018-F-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T1-1HT**

**Lab Sample ID: 680-228110-1**

Date Collected: 12/20/22 07:51

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 10:17	250
Fluoride	<10		25	10	mg/L			12/28/22 10:17	250
Sulfate	2000		250	100	mg/L			12/28/22 10:17	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:10	5
Boron	3.6	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:14	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:10	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 12:58	10
Magnesium	1000		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:10	5
Potassium	320		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:10	5
Sodium	8300		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:10	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:24	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:24	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:24	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.56				SU			12/20/22 07:51	1

**Client Sample ID: T1-2HT**

**Lab Sample ID: 680-228110-2**

Date Collected: 12/20/22 08:01

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 12:29	250
Fluoride	<10		25	10	mg/L			12/28/22 12:29	250
Sulfate	2100		250	100	mg/L			12/28/22 12:29	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:25	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:17	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:25	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:02	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:25	5
Potassium	340		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:25	5
Sodium	8800		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:25	5

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T1-2HT

Lab Sample ID: 680-228110-2

Date Collected: 12/20/22 08:01

Matrix: Water

Date Received: 12/21/22 09:45

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:05	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:05	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:05	1
Total Dissolved Solids (SM 2540C-2011)	27000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.55				SU			12/20/22 08:01	1

## Client Sample ID: T1-2HTS

Lab Sample ID: 680-228110-3

Date Collected: 12/20/22 07:56

Matrix: Water

Date Received: 12/21/22 09:45

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18000		250	50	mg/L			12/28/22 12:42	250
Fluoride	<10		25	10	mg/L			12/28/22 12:42	250
Sulfate	2300		250	100	mg/L			12/28/22 12:42	250

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:28	5
Boron	3.7	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:20	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:28	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:05	10
Magnesium	1000		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:28	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:28	5
Sodium	8500		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:28	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:15	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:15	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:15	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.57				SU			12/20/22 07:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T1-3HT**

**Lab Sample ID: 680-228110-4**

Date Collected: 12/20/22 08:18

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29000		250	50	mg/L			12/28/22 13:22	250
Fluoride	<10		25	10	mg/L			12/28/22 13:22	250
Sulfate	3900		250	100	mg/L			12/28/22 13:22	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:31	5
Boron	4.0	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:23	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:31	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:08	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:31	5
Potassium	340		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:31	5
Sodium	8800		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:31	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 05:55	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 05:55	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 05:55	1
Total Dissolved Solids (SM 2540C-2011)	25000		2000	2000	mg/L			12/22/22 14:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.53				SU			12/20/22 08:18	1

**Client Sample ID: T1-3HTS**

**Lab Sample ID: 680-228110-5**

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20000		250	50	mg/L			12/28/22 13:35	250
Fluoride	<10		25	10	mg/L			12/28/22 13:35	250
Sulfate	2600		250	100	mg/L			12/28/22 13:35	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:34	5
Boron	4.1	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:27	10
Calcium	380		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:34	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:51	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:34	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:34	5
Sodium	9300	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:33	1000

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T1-3HTS

Lab Sample ID: 680-228110-5

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:54	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:54	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:54	1
Total Dissolved Solids (SM 2540C-2011)	23000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.54				SU			12/20/22 08:12	1

## Client Sample ID: T3-1HT

Lab Sample ID: 680-228110-6

Date Collected: 12/20/22 07:07

Matrix: Water

Date Received: 12/21/22 09:45

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20000		250	50	mg/L			12/28/22 13:48	250
Fluoride	<10		25	10	mg/L			12/28/22 13:48	250
Sulfate	2500		250	100	mg/L			12/28/22 13:48	250

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:37	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:30	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:37	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:54	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:37	5
Potassium	320		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:37	5
Sodium	8800	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:36	1000

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:39	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:39	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:39	1
Total Dissolved Solids (SM 2540C-2011)	25000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.58				SU			12/20/22 07:07	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T3-2HT**

**Lab Sample ID: 680-228110-7**

Date Collected: 12/20/22 07:18

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20000		250	50	mg/L			12/28/22 14:01	250
Fluoride	<10		25	10	mg/L			12/28/22 14:01	250
Sulfate	2600		250	100	mg/L			12/28/22 14:01	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:40	5
Boron	3.9	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:33	10
Calcium	370		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:40	5
Lithium	0.12		0.10	0.098	mg/L		12/27/22 12:40	12/29/22 12:55	100
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:40	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:40	5
Sodium	8400	^2	5.0	3.2	mg/L		12/27/22 12:40	12/29/22 12:55	100

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:14	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:14	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:14	1
Total Dissolved Solids (SM 2540C-2011)	26000		2000	2000	mg/L			12/22/22 14:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.31				SU			12/20/22 07:18	1

**Client Sample ID: T3-2HTS**

**Lab Sample ID: 680-228110-8**

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:14	250
Fluoride	<10		25	10	mg/L			12/28/22 14:14	250
Sulfate	2000		250	100	mg/L			12/28/22 14:14	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:43	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:37	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:43	5
Lithium	0.13		0.010	0.0098	mg/L		12/27/22 12:40	12/29/22 13:57	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:43	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:43	5
Sodium	10000	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:42	1000

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T3-2HTS

Lab Sample ID: 680-228110-8

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 06:29	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 06:29	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:29	1
Total Dissolved Solids (SM 2540C-2011)	26000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.14				SU			12/20/22 07:12	1

## Client Sample ID: T3-3HT

Lab Sample ID: 680-228110-9

Date Collected: 12/20/22 07:38

Matrix: Water

Date Received: 12/21/22 09:45

### Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23000		250	50	mg/L			12/28/22 14:27	250
Fluoride	<10		25	10	mg/L			12/28/22 14:27	250
Sulfate	3100		250	100	mg/L			12/28/22 14:27	250

### Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:47	5
Boron	4.0	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:53	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:47	5
Lithium	0.14		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:53	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:47	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:47	5
Sodium	24000	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:45	1000

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 07:22	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 07:22	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:22	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

### Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.46				SU			12/20/22 07:38	1



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T3-3HTS**

**Lab Sample ID: 680-228110-10**

Date Collected: 12/20/22 07:30

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:41	250
Fluoride	<10		25	10	mg/L			12/28/22 14:41	250
Sulfate	2100		250	100	mg/L			12/28/22 14:41	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:50	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:56	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:50	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:56	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:50	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:50	5
Sodium	9100	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:48	1000

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 07:03	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 07:03	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:03	1
Total Dissolved Solids (SM 2540C-2011)	24000		2000	2000	mg/L			12/22/22 14:22	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.39				SU			12/20/22 07:30	1

**Client Sample ID: DUP-4**

**Lab Sample ID: 680-228110-11**

Date Collected: 12/20/22 00:00

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16000		250	50	mg/L			12/28/22 14:54	250
Fluoride	<10		25	10	mg/L			12/28/22 14:54	250
Sulfate	2000		250	100	mg/L			12/28/22 14:54	250

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:53	5
Boron	3.8	B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 17:59	10
Calcium	360		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:53	5
Lithium	0.15		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 17:59	10
Magnesium	1100		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:53	5
Potassium	330		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 16:53	5
Sodium	9400	^2	50	32	mg/L		12/27/22 12:40	12/28/22 17:51	1000

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: DUP-4**

**Lab Sample ID: 680-228110-11**

Date Collected: 12/20/22 00:00

Matrix: Water

Date Received: 12/21/22 09:45

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	130		5.0	2.2	mg/L			12/23/22 07:13	1
Alkalinity, Bicarbonate (SM 2320B-2011)	130		5.0	5.0	mg/L			12/23/22 07:13	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 07:13	1
Total Dissolved Solids (SM 2540C-2011)	2500		2000	2000	mg/L			12/22/22 14:22	1

**Client Sample ID: FB-3**

**Lab Sample ID: 680-228110-12**

Date Collected: 12/20/22 09:10

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 15:07	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 15:07	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 15:07	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:56	5
Boron	0.061	J B	0.10	0.0024	mg/L		12/27/22 12:40	12/28/22 18:03	10
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:56	5
Lithium	0.019		0.010	0.0098	mg/L		12/27/22 12:40	12/28/22 18:03	10
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/29/22 12:48	5
Potassium	<0.17	^3+	0.25	0.17	mg/L		12/27/22 12:40	12/29/22 12:48	5
Sodium	0.34	^2	0.25	0.16	mg/L		12/27/22 12:40	12/29/22 12:48	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			12/23/22 06:20	1
Alkalinity, Bicarbonate (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:20	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:20	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			12/22/22 14:22	1

**Client Sample ID: EB-3**

**Lab Sample ID: 680-228110-13**

Date Collected: 12/20/22 09:15

Matrix: Water

Date Received: 12/21/22 09:45

**Method: MCAWW 300.0-1993 R2.1 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 15:46	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 15:46	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 15:46	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 16:59	5

Eurofins Savannah

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: EB-3**

**Lab Sample ID: 680-228110-13**

Date Collected: 12/20/22 09:15

Matrix: Water

Date Received: 12/21/22 09:45

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Boron</b>	<b>0.0049</b>	<b>J B</b>	0.050	0.0012	mg/L		12/27/22 12:40	12/29/22 12:45	5
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 16:59	5
Lithium	<0.0049		0.0050	0.0049	mg/L		12/27/22 12:40	12/29/22 12:45	5
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 16:59	5
Potassium	<0.17	<sup>^3+</sup>	0.25	0.17	mg/L		12/27/22 12:40	12/29/22 12:45	5
<b>Sodium</b>	<b>0.25</b>	<b><sup>^2</sup></b>	0.25	0.16	mg/L		12/27/22 12:40	12/29/22 12:45	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 (SM 2320B-2011)	<2.2		5.0	2.2	mg/L			12/23/22 06:45	1
<b>Alkalinity, Bicarbonate (SM 2320B-2011)</b>	<b>8.0</b>		5.0	5.0	mg/L			12/23/22 06:45	1
Alkalinity, Carbonate (As CaCO3) (SM 2320B-2011)	<5.0		5.0	5.0	mg/L			12/23/22 06:45	1
Total Dissolved Solids (SM 2540C-2011)	<10		10	10	mg/L			12/22/22 14:22	1

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 680-756996/2**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.20		1.0	0.20	mg/L			12/28/22 09:25	1
Fluoride	<0.040		0.10	0.040	mg/L			12/28/22 09:25	1
Sulfate	<0.40		1.0	0.40	mg/L			12/28/22 09:25	1

**Lab Sample ID: LCS 680-756996/4**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.09		mg/L		104	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

**Lab Sample ID: LCSD 680-756996/5**  
**Matrix: Water**  
**Analysis Batch: 756996**

**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	2.00	2.07		mg/L		104	90 - 110	1	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	1	15

**Lab Sample ID: 680-227790-D-32 MS**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<0.040		2.00	2.06		mg/L		103	80 - 120
Sulfate	<0.40		10.0	10.2		mg/L		102	80 - 120

**Lab Sample ID: 680-227790-D-32 MSD**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<0.040		2.00	2.04		mg/L		102	80 - 120	1	15
Sulfate	<0.40		10.0	10.0		mg/L		100	80 - 120	1	15

**Lab Sample ID: 680-228110-12 MS**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: FB-3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<0.040		2.00	2.16		mg/L		108	80 - 120
Sulfate	<0.40		10.0	10.6		mg/L		106	80 - 120

# QC Sample Results

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 680-228110-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 756996**

**Client Sample ID: FB-3**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	<0.20		10.0	9.98		mg/L		100	80 - 120	1	15
Fluoride	<0.040		2.00	2.15		mg/L		107	80 - 120	1	15
Sulfate	<0.40		10.0	10.7		mg/L		107	80 - 120	0	15

## Method: 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 400-606254/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 606565**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 606254**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	<0.0012		0.0013	0.0012	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Boron	0.00785	J ^+	0.050	0.0012	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Calcium	<0.13		0.25	0.13	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Lithium	<0.0049	^+	0.0050	0.0049	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Magnesium	<0.041		0.13	0.041	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Potassium	<0.17		0.25	0.17	mg/L		12/27/22 12:40	12/28/22 15:03	5	
Sodium	<0.16		0.25	0.16	mg/L		12/27/22 12:40	12/28/22 15:03	5	

**Lab Sample ID: LCS 400-606254/2-A ^5**  
**Matrix: Water**  
**Analysis Batch: 606565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 606254**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
							Added
Arsenic	0.0500	0.0499		mg/L		100	80 - 120
Boron	0.100	0.113	^+	mg/L		113	80 - 120
Calcium	5.00	5.22		mg/L		104	80 - 120
Lithium	0.0500	0.0535	^+	mg/L		107	80 - 120
Magnesium	5.00	4.98		mg/L		100	80 - 120
Potassium	5.00	4.78		mg/L		96	80 - 120
Sodium	5.00	4.81		mg/L		96	80 - 120

**Lab Sample ID: 680-228110-1 MS**  
**Matrix: Water**  
**Analysis Batch: 606565**

**Client Sample ID: T1-1HT**  
**Prep Type: Total Recoverable**  
**Prep Batch: 606254**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Arsenic	0.0020		0.0500	0.0529		mg/L		102	75 - 125
Boron	3.7	B ^+	0.100	4.18	4 ^+	mg/L		469	75 - 125
Calcium	360		5.00	367	4	mg/L		213	75 - 125
Lithium	0.15	F1 ^+ ^2	0.0500	0.232	F1 ^+	mg/L		172	75 - 125
Magnesium	1000		5.00	1050	4	mg/L		658	75 - 125
Potassium	320		5.00	333	4	mg/L		223	75 - 125
Sodium	8300		5.00	8440	4	mg/L		3686	75 - 125

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-228110-1 MSD  
Matrix: Water  
Analysis Batch: 606565

Client Sample ID: T1-1HT  
Prep Type: Total Recoverable  
Prep Batch: 606254

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Arsenic	0.0020		0.0500	0.0538		mg/L		104	75 - 125	2	20
Boron	3.7	B ^+	0.100	4.24	4 ^+	mg/L		532	75 - 125	1	20
Calcium	360		5.00	362	4	mg/L		126	75 - 125	1	20
Lithium	0.15	F1 ^+ ^2	0.0500	0.238	F1 ^+	mg/L		183	75 - 125	2	20
Magnesium	1000		5.00	1040	4	mg/L		490	75 - 125	1	20
Potassium	320		5.00	333	4	mg/L		217	75 - 125	0	20
Sodium	8300		5.00	8410	4	mg/L		3116	75 - 125	0	20

## Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-756843/4  
Matrix: Water  
Analysis Batch: 756843

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity as CaCO3	<2.2		5.0	2.2	mg/L			12/23/22 03:39	1
Alkalinity, Bicarbonate	<5.0		5.0	5.0	mg/L			12/23/22 03:39	1
Alkalinity, Carbonate (As CaCO3)	<5.0		5.0	5.0	mg/L			12/23/22 03:39	1

Lab Sample ID: LCS 680-756843/6  
Matrix: Water  
Analysis Batch: 756843

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Total Alkalinity as CaCO3	250	243		mg/L		97	90 - 112

Lab Sample ID: LCSD 680-756843/31  
Matrix: Water  
Analysis Batch: 756843

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
		Result	Qualifier				Limits	RPD	Limit
Total Alkalinity as CaCO3	250	253		mg/L		101	90 - 112	4	30

Lab Sample ID: 680-228110-4 DU  
Matrix: Water  
Analysis Batch: 756843

Client Sample ID: T1-3HT  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier				Limits	Limit
Total Alkalinity as CaCO3	130		133		mg/L		2	2	30
Alkalinity, Bicarbonate	130		133		mg/L		2	2	30
Alkalinity, Carbonate (As CaCO3)	<5.0		<5.0		mg/L		NC	NC	30

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 680-756570/1  
Matrix: Water  
Analysis Batch: 756570

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			12/22/22 14:22	1

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# QC Sample Results

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Method: 2540C-2011 - Total Dissolved Solids (Dried at 180 °C) (Continued)

**Lab Sample ID: LCS 680-756570/2**  
**Matrix: Water**  
**Analysis Batch: 756570**

**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	2340	2390		mg/L		102	80 - 120

**Lab Sample ID: LCSD 680-756570/3**  
**Matrix: Water**  
**Analysis Batch: 756570**

**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
Total Dissolved Solids	2340	2370		mg/L		101	80 - 120	1	25

**Lab Sample ID: 680-228018-F-1 DU**  
**Matrix: Water**  
**Analysis Batch: 756570**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	210		196	F5	mg/L		8	5

**Lab Sample ID: 680-228018-F-2 DU**  
**Matrix: Water**  
**Analysis Batch: 756570**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		124		mg/L		3	5

# QC Association Summary

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## HPLC/IC

### Analysis Batch: 756996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-2	T1-2HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-3	T1-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-4	T1-3HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-5	T1-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-6	T3-1HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-7	T3-2HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-8	T3-2HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-9	T3-3HT	Total/NA	Water	300.0-1993 R2.1	
680-228110-10	T3-3HTS	Total/NA	Water	300.0-1993 R2.1	
680-228110-11	DUP-4	Total/NA	Water	300.0-1993 R2.1	
680-228110-12	FB-3	Total/NA	Water	300.0-1993 R2.1	
680-228110-13	EB-3	Total/NA	Water	300.0-1993 R2.1	
MB 680-756996/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-756996/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCS 680-756996/5	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
680-227790-D-32 MS	Matrix Spike	Total/NA	Water	300.0-1993 R2.1	
680-227790-D-32 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0-1993 R2.1	
680-228110-12 MS	FB-3	Total/NA	Water	300.0-1993 R2.1	
680-228110-12 MSD	FB-3	Total/NA	Water	300.0-1993 R2.1	

## Metals

### Prep Batch: 606254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	3005A	
680-228110-2	T1-2HT	Total Recoverable	Water	3005A	
680-228110-3	T1-2HTS	Total Recoverable	Water	3005A	
680-228110-4	T1-3HT	Total Recoverable	Water	3005A	
680-228110-5	T1-3HTS	Total Recoverable	Water	3005A	
680-228110-6	T3-1HT	Total Recoverable	Water	3005A	
680-228110-7	T3-2HT	Total Recoverable	Water	3005A	
680-228110-8	T3-2HTS	Total Recoverable	Water	3005A	
680-228110-9	T3-3HT	Total Recoverable	Water	3005A	
680-228110-10	T3-3HTS	Total Recoverable	Water	3005A	
680-228110-11	DUP-4	Total Recoverable	Water	3005A	
680-228110-12	FB-3	Total Recoverable	Water	3005A	
680-228110-13	EB-3	Total Recoverable	Water	3005A	
MB 400-606254/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-606254/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
680-228110-1 MS	T1-1HT	Total Recoverable	Water	3005A	
680-228110-1 MSD	T1-1HT	Total Recoverable	Water	3005A	

### Analysis Batch: 606563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254

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# QC Association Summary

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Metals (Continued)

### Analysis Batch: 606563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254

### Analysis Batch: 606565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-9	T3-3HT	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-10	T3-3HTS	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-11	DUP-4	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254
680-228110-13	EB-3	Total Recoverable	Water	6020B	606254
MB 400-606254/1-A ^5	Method Blank	Total Recoverable	Water	6020B	606254
LCS 400-606254/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	606254
680-228110-1 MS	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-1 MSD	T1-1HT	Total Recoverable	Water	6020B	606254

### Analysis Batch: 606700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total Recoverable	Water	6020B	606254
680-228110-2	T1-2HT	Total Recoverable	Water	6020B	606254
680-228110-3	T1-2HTS	Total Recoverable	Water	6020B	606254
680-228110-4	T1-3HT	Total Recoverable	Water	6020B	606254
680-228110-5	T1-3HTS	Total Recoverable	Water	6020B	606254
680-228110-6	T3-1HT	Total Recoverable	Water	6020B	606254
680-228110-7	T3-2HT	Total Recoverable	Water	6020B	606254
680-228110-8	T3-2HTS	Total Recoverable	Water	6020B	606254
680-228110-12	FB-3	Total Recoverable	Water	6020B	606254
680-228110-13	EB-3	Total Recoverable	Water	6020B	606254

## General Chemistry

### Analysis Batch: 756570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	2540C-2011	

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# QC Association Summary

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## General Chemistry (Continued)

### Analysis Batch: 756570 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-2	T1-2HT	Total/NA	Water	2540C-2011	
680-228110-3	T1-2HTS	Total/NA	Water	2540C-2011	
680-228110-4	T1-3HT	Total/NA	Water	2540C-2011	
680-228110-5	T1-3HTS	Total/NA	Water	2540C-2011	
680-228110-6	T3-1HT	Total/NA	Water	2540C-2011	
680-228110-7	T3-2HT	Total/NA	Water	2540C-2011	
680-228110-8	T3-2HTS	Total/NA	Water	2540C-2011	
680-228110-9	T3-3HT	Total/NA	Water	2540C-2011	
680-228110-10	T3-3HTS	Total/NA	Water	2540C-2011	
680-228110-11	DUP-4	Total/NA	Water	2540C-2011	
680-228110-12	FB-3	Total/NA	Water	2540C-2011	
680-228110-13	EB-3	Total/NA	Water	2540C-2011	
MB 680-756570/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 680-756570/2	Lab Control Sample	Total/NA	Water	2540C-2011	
LCS 680-756570/3	Lab Control Sample Dup	Total/NA	Water	2540C-2011	
680-228018-F-1 DU	Duplicate	Total/NA	Water	2540C-2011	
680-228018-F-2 DU	Duplicate	Total/NA	Water	2540C-2011	

### Analysis Batch: 756843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	2320B-2011	
680-228110-2	T1-2HT	Total/NA	Water	2320B-2011	
680-228110-3	T1-2HTS	Total/NA	Water	2320B-2011	
680-228110-4	T1-3HT	Total/NA	Water	2320B-2011	
680-228110-5	T1-3HTS	Total/NA	Water	2320B-2011	
680-228110-6	T3-1HT	Total/NA	Water	2320B-2011	
680-228110-7	T3-2HT	Total/NA	Water	2320B-2011	
680-228110-8	T3-2HTS	Total/NA	Water	2320B-2011	
680-228110-9	T3-3HT	Total/NA	Water	2320B-2011	
680-228110-10	T3-3HTS	Total/NA	Water	2320B-2011	
680-228110-11	DUP-4	Total/NA	Water	2320B-2011	
680-228110-12	FB-3	Total/NA	Water	2320B-2011	
680-228110-13	EB-3	Total/NA	Water	2320B-2011	
MB 680-756843/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-756843/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 680-756843/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-228110-4 DU	T1-3HT	Total/NA	Water	2320B-2011	

## Field Service / Mobile Lab

### Analysis Batch: 756450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-1	T1-1HT	Total/NA	Water	Field Sampling	
680-228110-2	T1-2HT	Total/NA	Water	Field Sampling	
680-228110-3	T1-2HTS	Total/NA	Water	Field Sampling	
680-228110-4	T1-3HT	Total/NA	Water	Field Sampling	
680-228110-5	T1-3HTS	Total/NA	Water	Field Sampling	
680-228110-6	T3-1HT	Total/NA	Water	Field Sampling	
680-228110-7	T3-2HT	Total/NA	Water	Field Sampling	
680-228110-8	T3-2HTS	Total/NA	Water	Field Sampling	
680-228110-9	T3-3HT	Total/NA	Water	Field Sampling	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Field Service / Mobile Lab (Continued)

### Analysis Batch: 756450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-228110-10	T3-3HTS	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T1-1HT**

**Lab Sample ID: 680-228110-1**

**Date Collected: 12/20/22 07:51**

**Matrix: Water**

**Date Received: 12/21/22 09:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 10:17	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:10	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:14	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 12:58	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:24	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:51	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T1-2HT**

**Lab Sample ID: 680-228110-2**

**Date Collected: 12/20/22 08:01**

**Matrix: Water**

**Date Received: 12/21/22 09:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 12:29	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:25	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:17	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:02	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:05	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:01	T1C	EET SAV
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: T1-2HTS**

**Lab Sample ID: 680-228110-3**

**Date Collected: 12/20/22 07:56**

**Matrix: Water**

**Date Received: 12/21/22 09:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 12:42	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:28	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:20	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:05	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:15	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:56	T1C	EET SAV
Instrument ID: NOEQUIP										

**Client Sample ID: T1-3HT**

**Lab Sample ID: 680-228110-4**

**Date Collected: 12/20/22 08:18**

**Matrix: Water**

**Date Received: 12/21/22 09:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:22	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 15:31	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:23	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:08	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 05:55	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:18	T1C	EET SAV
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T1-3HTS

## Lab Sample ID: 680-228110-5

Date Collected: 12/20/22 08:12

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:35	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:34	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:33	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:27	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:51	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:54	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 08:12	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T3-1HT

## Lab Sample ID: 680-228110-6

Date Collected: 12/20/22 07:07

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 13:48	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:37	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:36	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:30	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:54	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:39	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T3-1HT

Date Collected: 12/20/22 07:07

Date Received: 12/21/22 09:45

## Lab Sample ID: 680-228110-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:07	T1C	EET SAV

## Client Sample ID: T3-2HT

Date Collected: 12/20/22 07:18

Date Received: 12/21/22 09:45

## Lab Sample ID: 680-228110-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:01	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:40	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:33	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		100			606700	12/29/22 12:55	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:14	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:18	T1C	EET SAV
Instrument ID: NOEQUIP										

## Client Sample ID: T3-2HTS

Date Collected: 12/20/22 07:12

Date Received: 12/21/22 09:45

## Lab Sample ID: 680-228110-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:14	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:43	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:42	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:37	NTH	EET PEN
Instrument ID: Goofy										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606700	12/29/22 13:57	NTH	EET PEN
Instrument ID: Goofy										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T3-2HTS

Lab Sample ID: 680-228110-8

Date Collected: 12/20/22 07:12

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:29	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:12	T1C	EET SAV
		Instrument ID: NOEQUIP								

## Client Sample ID: T3-3HT

Lab Sample ID: 680-228110-9

Date Collected: 12/20/22 07:38

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:27	OK	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:47	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:45	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:53	NTH	EET PEN
		Instrument ID: Goofy								
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:22	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:38	T1C	EET SAV
		Instrument ID: NOEQUIP								

## Client Sample ID: T3-3HTS

Lab Sample ID: 680-228110-10

Date Collected: 12/20/22 07:30

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:41	OK	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:50	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:48	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:56	NTH	EET PEN
		Instrument ID: Goofy								

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Client Sample ID: T3-3HTS

Lab Sample ID: 680-228110-10

Date Collected: 12/20/22 07:30

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:03	PG	EET SAV
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			756450	12/20/22 07:30	T1C	EET SAV
		Instrument ID: NOEQUIP								

## Client Sample ID: DUP-4

Lab Sample ID: 680-228110-11

Date Collected: 12/20/22 00:00

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		250	5 mL	5 mL	756996	12/28/22 14:54	OK	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:53	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		1000			606565	12/28/22 17:51	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 17:59	NTH	EET PEN
		Instrument ID: Goofy								
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 07:13	PG	EET SAV
		Instrument ID: MANTECH 2								
Total/NA	Analysis	2540C-2011		1	1 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
		Instrument ID: NOEQUIP								

## Client Sample ID: FB-3

Lab Sample ID: 680-228110-12

Date Collected: 12/20/22 09:10

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	756996	12/28/22 15:07	OK	EET SAV
		Instrument ID: CICK								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:56	NTH	EET PEN
		Instrument ID: Athena								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		10			606563	12/28/22 18:03	NTH	EET PEN
		Instrument ID: Goofy								
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606700	12/29/22 12:48	NTH	EET PEN
		Instrument ID: Goofy								
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:20	PG	EET SAV
		Instrument ID: MANTECH 2								

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# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

**Client Sample ID: FB-3**

**Lab Sample ID: 680-228110-12**

Date Collected: 12/20/22 09:10

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV

**Client Sample ID: EB-3**

**Lab Sample ID: 680-228110-13**

Date Collected: 12/20/22 09:15

Matrix: Water

Date Received: 12/21/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	756996	12/28/22 15:46	OK	EET SAV
Instrument ID: CICK										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606565	12/28/22 16:59	NTH	EET PEN
Instrument ID: Athena										
Total Recoverable	Prep	3005A			50 mL	50 mL	606254	12/27/22 12:40	KWN	EET PEN
Total Recoverable	Analysis	6020B		5			606700	12/29/22 12:45	NTH	EET PEN
Instrument ID: Goofy										
Total/NA	Analysis	2320B-2011		1			756843	12/23/22 06:45	PG	EET SAV
Instrument ID: MANTECH 2										
Total/NA	Analysis	2540C-2011		1	200 mL	200 mL	756570	12/22/22 14:22	PG	EET SAV
Instrument ID: NOEQUIP										

\* Completion dates and times are reported or not reported per method requirements or individual lab discretion.

**Laboratory References:**

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001  
 EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

## Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Georgia	State	E87052	06-30-23

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

# Method Summary

Client: Southern Company  
Project/Site: Plant McManus Surface Water

Job ID: 680-228110-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	EET SAV
6020B	Metals (ICP/MS)	SW846	EET PEN
2320B-2011	Alkalinity, Total	SM	EET SAV
2540C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	EET SAV
Field Sampling	Field Sampling	EPA	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET PEN

#### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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:


EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Chain of Custody Record

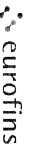
<b>Client Information</b> Client Contact: Kristen Jurinko Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: KNJURINK@SOUTHERNCO.COM Project Name: Plant McManus Surface Water Site:		Sampler: Meredith Duncan, William Lasker Phone: 470-995-0650 Lab PM: Fuller David E-Mail: David.Fuller@et.eurolins.com PWSID:		Carrier Tracking No(s) State of Origin: GA Page 1 of 2 Job #:		COC No: Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F - MeOH G Amchlor H Ascorbic Acid I - Ice J DI Water K - EDTA L EDA Other:	
Due Date Requested: TAT Requested (days): 4 Days Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Lab Project #: 68027841 Lab PO #: GPC82130-0001 Project #: SSOW#:		Analysis Requested: 6020B Metals - Select List Phenols, P14 300 ORGM_2BD Chloride Fluoride Sulfate 2208B - Alkalinity, Total, Carb/Bicarb 2540C Solids, Total Dissolved (TDS) 6020B - Metals - Select List - SAV TEST BOTTLES Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Total Number of Containers: 5 Special Instructions/Note: PH		Preservation Codes: M Hexane N None O - AsNaO2 P Na2O4S Q Na2SO3 R - Na2S2O3 S H2SO4 T TSP Dodecahydrate U Acetone V - MCAA W pH 4-5 Y Trizma Z other (specify)	
Sample Identification Sample Date   Sample Time   Sample Type (C=Comp, G=grab)   Preservation Code   Matrix (W=Water, S=solid, O=Other, U=Unknown, L=Leachate, A=Asphalt)				680-228110 Chain of Custody		680-228110 Chain of Custody	
T1-1HT   12/20/22   0751   G   WS T1-2HT   12/20/22   0801   G   WS T1-2HTS   12/20/22   0756   G   WS T1-3HT   12/20/22   0818   G   WS T1-3HTS   12/20/22   0812   G   WS T3-1HT   12/20/22   0707   G   WS T3-2HT   12/20/22   0718   G   WS T3-2HTS   12/20/22   0712   G   WS T3-3HT   12/20/22   0738   G   WS T3-3HTS   12/20/22   0730   G   WS DUP-4   12/20/22   -   G   WS				5 7 56 5 7 55 5 7 57 5 7 53 5 7 54 5 6 58 5 7 31 5 7 14 5 7 46 5 7 39		PH Special Instructions/Note	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested I II III IV Other (specify)				Special Instructions/QC Requirements			
Empty Kit Relinquished by:				Method of Shipment:			
Relinquished by: Meredith Duncan Date/Time: 12/21/22 0937 Company: Resolute		Received by: <i>[Signature]</i> Date/Time: 12/21/22 0937 Company:		Relinquished by:		Received by:	
Relinquished by:		Date/Time:		Relinquished by:		Received by:	
Relinquished by:		Date/Time:		Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Cooler Temperature(s) °C and Other Remarks: 29/2.9 1-1/1.1			

## Chain of Custody Record

<b>Client Information</b> Client Contact: <b>Kristen Jurinko</b> Company: <b>Southern Company</b> Address: <b>241 Ralph McGill Blvd SE B10185</b> City: <b>Atlanta</b> State/Zip: <b>GA, 30308</b> Phone: <b>404-506-7116(Tel)</b> Email: <b>KNJURINK@SOUTHERNCO.COM</b> Project Name: <b>Plant McManus Surface Water</b> Site:		<b>Sampler:</b> <b>Meredith Duncan, William Lecker</b> Phone: <b>470-395-0650</b> Lab PM: <b>Fuller David</b> E-Mail: <b>David.Fuller@et.eurofins.com</b> State of Origin: <b>GA</b> Carrier Tracking No(s):		COC No: Page <b>2 of 2</b> Job #:	
<b>Due Date Requested</b> TAT Requested (days): <b>4 Days</b> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Lab Project #: <b>68027841</b> Lab PO #: <b>GPC82130-0001</b> Project #: <b>SSOW#</b>		<b>Analysis Requested</b>			
<b>Sample Identification</b> Sample Date: <b>12/20/22</b> Sample Time: <b>0910</b> Sample Type (C=Comp, G=grab): <b>G</b> Preservation Code: <b>WG</b> Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air): <b>WG</b>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 6020B Metals - Select List - <b>benzene</b> 300_ORGM_28D - Chloride Fluoride Sulfate 2320B Alkalinity, Total Carb/Bicarb 2540C Solids, Total Dissolved (TDS) 6020B - Metals Select List - <b>SAV TEST BOTTLES</b> Total Number of Containers: <input checked="" type="checkbox"/>			
FB-3 EB-3		Special Instructions/Note: M - Hexane N - None O - Ash/NaOH P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)					
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
<b>Special Instructions/QC Requirements</b>					
<b>Empty Kit Relinquished by:</b> Relinquished by: <b>Meredith Duncan</b> Date/Time: <b>12/21/22 0937</b> Company: <b>Resolute</b>		<b>Method of Shipment:</b> Received by:  Date/Time: <b>12/21/22 0937</b> Company:			
<b>Custody Seals Intact:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>Cooler Temperature(s) °C and Other Remarks:</b>			



**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>	Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No
Client Contact: Shipping/Receiving	Phone:	Fuller, David		680-721977.1
Company: Eurofins Environment Testing Southeast		Email: David.Fuller@et.eurofins.com	State of Origin: Georgia	Page 1 of 2
Address: 3355 McLemore Drive,	Due Date Requested: 12/27/2022	Accreditations Required (See note)	State - Georgia	Job #: 680-228110-1
City: Pensacola	TAT Requested (days):	<b>Analysis Requested</b>		
State Zip: FL 32514				
Phone: 850-474-1001 (Tel) 850-478-2671 (Fax)	PO #:			
Email:	WO #:			
Project Name: Plant McManus Surface Water	Project #: 68027841			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Seawater, Stormwater, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A Select 7 Surface Water Metals	Total Number of containers	Special Instructions/Note:
T1-1HT (680-228110-1)	12/20/22	07:51	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T1-2HT (680-228110-2)	12/20/22	08:01	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T1-2HTS (680-228110-3)	12/20/22	07:56	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T1-3HT (680-228110-4)	12/20/22	08:18	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T1-3HTS (680-228110-5)	12/20/22	08:12	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T3-1HT (680-228110-6)	12/20/22	07:07	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T3-2HT (680-228110-7)	12/20/22	07:18	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T3-2HTS (680-228110-8)	12/20/22	07:12	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!
T3-3HT (680-228110-9)	12/20/22	07:38	Eastern	Water		X			1	THESE SAMPLES HAVE HIGH SALINITY!

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

**Possible Hazard Identification**

Return To Client  Dispose By Lab  Archive For \_\_\_\_\_ Months

**Unconfirmed**

Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_ Primary Deliverable Rank: 2

Special Instructions/QC Requirements: \_\_\_\_\_

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: *M* Date/Time: *12-22-22 9:19* Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

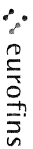
Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: *1.1, 2.6°C*



**Eurofins Savannah**

**Chain of Custody Record**



5102 LaRoche Avenue  
Savannah, GA 31404  
Phone: 912-354-7858 Fax: 912-352-0165

<b>Client Information (Sub Contract Lab)</b>	Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No
Client Contract	Phone:	Fuller, David		680-7219772
Shipping/Receiving	E-Mail:	David.Fuller@eurofins.com	State of Origin:	Page 2 of 2
Company:	Accreditations Required (See note):	State - Georgia	Job #:	680-228110-1
Eurofins Environment Testing Southeast				

Address:	Due Date Requested:	Analysis Requested	
3355 McLemore Drive,	12/27/2022		
City:	TAT Requested (days):		
Pensacola			
State, zip:			
FL, 32514			
Phone:	PO #:		
850-474-1001 (Tel) 850-478-2671 (Fax)			
Email:	WO #:		
Project Name:	Project #:		
Plant McManus Surface Water	68027841		
Site:	SSOW#:		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (We-water, Solid, On-wastefill, B=Trisau, AA=)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
T3-3HTS (680-228110-10)	12/20/22	07:30 Eastern	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	THESE SAMPLES HAVE HIGH SALINITY!	
DUP-4 (680-228110-11)	12/20/22	Eastern	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	THESE SAMPLES HAVE HIGH SALINITY!	
FB-3 (680-228110-12)	12/20/22	09:10 Eastern	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	THESE SAMPLES HAVE HIGH SALINITY!	
EB-3 (680-228110-13)	12/20/22	09:15 Eastern	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	THESE SAMPLES HAVE HIGH SALINITY!	
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix, being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

**Possible Hazard Identification**

Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

Primary Deliverable Rank: 2

Special Instructions/QC Requirements: \_\_\_\_\_

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No		26.1°C	



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-228110-1

**Login Number: 228110**

**List Number: 1**

**Creator: Johnson, Corey M**

**List Source: Eurofins Savannah**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 680-228110-1

**Login Number: 228110**

**List Number: 2**

**Creator: Peckinpugh, Marshall**

**List Source: Eurofins Pensacola**

**List Creation: 12/22/22 02:04 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C/2.6°C IR10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



April 11, 2023

Kristen Jurinko  
Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308

Re: Plant McManus CCR Groundwater Compliance SW  
Work Order: 612966

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 03, 2023. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0007  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 612966 GEL Work Order: 612966

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-1HT Project: GPCC00105  
Sample ID: 612966001 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 15:33  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.93			SU		MG5		03/01/23	1533	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	03/03/23	2133	2393295	2
Chloride		10200	268	800	mg/L		4000	JLD1	03/03/23	2303	2393295	3
Sulfate		2150	133	400	mg/L		1000	JLD1	03/03/23	1434	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		6250	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1315	2408318	5
Potassium		226	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1017	2408318	6
Boron		2.88	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1033	2393351	7
Magnesium		367	0.250	0.750	mg/L	1.00	25	SKJ	04/06/23	1415	2408318	8
Calcium		246	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1656	2393351	9
Arsenic	J	0.00558	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1221	2393351	10
Lithium		0.113	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19000	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		96.6	1.45	4.00	mg/L			HH2	03/07/23	1322	2393623	12
Bicarbonate alkalinity (CaCO3)		96.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-1HT Project: GPCC00105  
Sample ID: 612966001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-2HT Project: GPCC00105  
Sample ID: 612966002 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 15:40  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.58			SU		MG5		03/01/23	1540	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	03/04/23	0132	2393295	2
Sulfate		1980	133	400	mg/L		1000	JLD1	03/03/23	1604	2393295	3
Chloride		9800	268	800	mg/L		4000	JLD1	03/04/23	0202	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		736	0.500	1.50	mg/L	1.00	50	SKJ	04/06/23	1417	2408318	5
Calcium		257	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1708	2393351	6
Potassium		233	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1019	2408318	7
Boron		2.72	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1047	2393351	8
Sodium		6390	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1317	2408318	9
Arsenic	J	0.00573	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1237	2393351	10
Lithium		0.117	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21100	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.8	1.45	4.00	mg/L			HH2	03/07/23	1329	2393623	12
Bicarbonate alkalinity (CaCO3)		99.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-2HT Project: GPCC00105  
Sample ID: 612966002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-2HTS Project: GPCC00105  
Sample ID: 612966003 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 15:35  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.54			SU			MG5	03/01/23	1535	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0232	2393295	2
Chloride		9570	134	400	mg/L		2000	JLD1	03/04/23	0302	2393295	3
Sulfate		1580	133	400	mg/L		1000	JLD1	03/03/23	1634	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00611	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1239	2393351	5
Lithium		0.113	0.00600	0.0400	mg/L	1.00	2					
Calcium		247	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1711	2393351	6
Sodium		6390	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1325	2408318	7
Magnesium		716	0.500	1.50	mg/L	1.00	50	SKJ	04/06/23	1425	2408318	8
Potassium		231	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1031	2408318	9
Boron		2.69	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1049	2393351	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22300	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.6	1.45	4.00	mg/L			HH2	03/07/23	1333	2393623	12
Bicarbonate alkalinity (CaCO3)		98.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-2HTS Project: GPCC00105  
Sample ID: 612966003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-3HT	Project: GPCC00105
Sample ID: 612966004	Client ID: GPCC001
Matrix: WS	
Collect Date: 01-MAR-23 15:57	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.39			SU			MG5	03/01/23	1557	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1710	133	400	mg/L		1000	JLD1	03/03/23	1704	2393295	2
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0331	2393295	3
Chloride		10100	134	400	mg/L		2000	JLD1	03/04/23	0401	2393295	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		2.92	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1052	2393351	5
Arsenic	J	0.00610	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1242	2393351	6
Lithium		0.121	0.00600	0.0400	mg/L	1.00	2					
Magnesium		727	0.500	1.50	mg/L	1.00	50	SKJ	04/06/23	1427	2408318	7
Potassium		232	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1033	2408318	8
Calcium		251	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1720	2393351	9
Sodium		6110	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1331	2408318	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22800	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.0	1.45	4.00	mg/L			HH2	03/07/23	1337	2393623	12
Bicarbonate alkalinity (CaCO3)		99.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

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Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-3HT Project: GPCC00105  
Sample ID: 612966004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-3HTS Project: GPCC00105  
Sample ID: 612966005 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 15:52  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.12			SU		MG5		03/01/23	1552	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1770	133	400	mg/L		1000	JLD1	03/03/23	1734	2393295	2
Chloride		9850	134	400	mg/L		2000	JLD1	03/04/23	0501	2393295	3
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0431	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Potassium		234	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1035	2408318	5
Sodium		6450	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1333	2408318	6
Calcium		253	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1723	2393351	7
Boron		2.81	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1054	2393351	8
Magnesium		725	0.500	1.50	mg/L	1.00	50	SKJ	04/06/23	1429	2408318	9
Arsenic	J	0.00613	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1244	2393351	10
Lithium		0.121	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21300	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.8	1.45	4.00	mg/L			HH2	03/07/23	1338	2393623	12
Bicarbonate alkalinity (CaCO3)		99.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-3HTS Project: GPCC00105  
Sample ID: 612966005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4HT Project: GPCC00105  
Sample ID: 612966006 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:09  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.48			SU			MG5	03/01/23	1609	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0531	2393295	2
Sulfate		1630	133	400	mg/L		1000	JLD1	03/03/23	1804	2393295	3
Chloride		10400	134	400	mg/L		2000	JLD1	03/04/23	0601	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Potassium		237	0.800	3.00	mg/L	1.00	10	SKJ	04/07/23	1037	2408318	5
Arsenic	J	0.00606	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1246	2393351	6
Lithium		0.125	0.00600	0.0400	mg/L	1.00	2					
Calcium		254	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1726	2393351	7
Magnesium		787	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0939	2408318	8
Boron		2.93	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1056	2393351	9
Sodium		6670	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1335	2408318	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23500	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.2	1.45	4.00	mg/L			HH2	03/07/23	1341	2393623	12
Bicarbonate alkalinity (CaCO3)		99.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4HT Project: GPCC00105  
Sample ID: 612966006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4HTS	Project: GPCC00105
Sample ID: 612966007	Client ID: GPCC001
Matrix: WS	
Collect Date: 01-MAR-23 16:05	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.41			SU			MG5	03/01/23	1605	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1790	133	400	mg/L		1000	JLD1	03/03/23	1933	2393295	2
Chloride		10500	134	400	mg/L		2000	JLD1	03/04/23	0800	2393295	3
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0730	2393295	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		767	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0941	2408318	5
Arsenic	J	0.00598	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1248	2393351	6
Lithium		0.126	0.00600	0.0400	mg/L	1.00	2					
Boron		2.95	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1059	2393351	7
Potassium		227	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1514	2408318	8
Sodium		6570	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1337	2408318	9
Calcium		262	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1730	2393351	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23600	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		101	1.45	4.00	mg/L			HH2	03/07/23	1344	2393623	12
Bicarbonate alkalinity (CaCO3)		101	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4HTS Project: GPCC00105  
Sample ID: 612966007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-1HT	Project: GPCC00105
Sample ID: 612966008	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 17:14	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.61			SU			MG5	02/28/23	1714	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0830	2393295	2
Chloride		10100	134	400	mg/L		2000	JLD1	03/04/23	0900	2393295	3
Sulfate		1850	133	400	mg/L		1000	JLD1	03/03/23	2003	2393295	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		254	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1733	2393351	5
Arsenic	J	0.00629	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1251	2393351	6
Lithium		0.122	0.00600	0.0400	mg/L	1.00	2					
Magnesium		765	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0943	2408318	7
Sodium		6470	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1339	2408318	8
Potassium		226	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1516	2408318	9
Boron		2.97	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1101	2393351	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22400	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		94.2	1.45	4.00	mg/L			HH2	03/07/23	1346	2393623	12
Bicarbonate alkalinity (CaCO3)		94.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-1HT Project: GPCC00105  
Sample ID: 612966008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HT Project: GPCC00105  
Sample ID: 612966009 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 17:20  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.62			SU		MG5		02/28/23	1720	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1860	133	400	mg/L		1000	JLD1	03/03/23	2033	2393295	2
Chloride		9980	134	400	mg/L		2000	JLD1	03/04/23	1000	2393295	3
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0930	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.95	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1103	2393351	5
Magnesium		717	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0945	2408318	6
Arsenic	J	0.00613	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1253	2393351	7
Lithium		0.123	0.00600	0.0400	mg/L	1.00	2					
Potassium		222	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1518	2408318	8
Sodium		6400	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1341	2408318	9
Calcium		253	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1736	2393351	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23700	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.6	1.45	4.00	mg/L			HH2	03/07/23	1348	2393623	12
Bicarbonate alkalinity (CaCO3)		99.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HT Project: GPCC00105  
Sample ID: 612966009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HTS Project: GPCC00105  
Sample ID: 612966010 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 17:16  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.62			SU		MG5		02/28/23	1716	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	1030	2393295	2
Chloride		9970	134	400	mg/L		2000	JLD1	03/04/23	1100	2393295	3
Sulfate		1700	133	400	mg/L		1000	JLD1	03/03/23	2103	2393295	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		6260	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1343	2408318	5
Potassium		220	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1520	2408318	6
Magnesium		733	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0947	2408318	7
Boron		2.90	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1106	2393351	8
Calcium		258	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1739	2393351	9
Arsenic	J	0.00589	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1255	2393351	10
Lithium		0.126	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23400	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.2	1.45	4.00	mg/L			HH2	03/07/23	1350	2393623	12
Bicarbonate alkalinity (CaCO3)		99.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-2HTS Project: GPCC00105  
Sample ID: 612966010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HT Project: GPCC00105  
Sample ID: 612966011 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 17:29  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.60			SU		MG5	02/28/23	1729	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10700	134	400	mg/L	2000	JLD1	03/04/23	0017	2393336		2
Sulfate		1650	133	400	mg/L	1000	JLD1	03/03/23	1516	2393336		3
Fluoride	U	ND	0.825	4.00	mg/L	25	JLD1	03/03/23	2242	2393336		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		6520	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1345	2408318	5
Boron		2.81	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1108	2393351	6
Arsenic	J	0.00619	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1257	2393351	7
Lithium		0.125	0.00600	0.0400	mg/L	1.00	2					
Magnesium		754	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0949	2408318	8
Calcium		251	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1742	2393351	9
Potassium		226	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1522	2408318	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20100	23.8	100	mg/L		CH6	03/06/23	1303	2393739		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		101	1.45	4.00	mg/L		HH2	03/07/23	1351	2393623		12
Bicarbonate alkalinity (CaCO3)		101	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HT Project: GPCC00105  
Sample ID: 612966011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HTS Project: GPCC00105  
Sample ID: 612966012 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 17:25  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.65			SU			MG5	02/28/23	1725	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1700	133	400	mg/L		1000	JLD1	03/03/23	1652	2393336	2
Chloride		10800	134	400	mg/L		2000	JLD1	03/04/23	0328	2393336	3
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0257	2393336	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Potassium		227	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1524	2408318	5
Calcium		248	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1745	2393351	6
Sodium		6360	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1347	2408318	7
Boron		2.81	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1115	2393351	8
Magnesium		743	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0955	2408318	9
Arsenic	J	0.00654	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1304	2393351	10
Lithium		0.128	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20900	23.8	100	mg/L			CH6	03/06/23	1303	2393739	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.4	1.45	4.00	mg/L			HH2	03/07/23	1358	2393623	12
Bicarbonate alkalinity (CaCO3)		99.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-3HTS Project: GPCC00105  
Sample ID: 612966012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SM 2540C		
12	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HT	Project: GPCC00105
Sample ID: 612966013	Client ID: GPCC001
Matrix: WS	
Collect Date: 01-MAR-23 16:24	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.50			SU			MG5	03/01/23	1624	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		8740	67.0	200	mg/L		1000	JLD1	03/03/23	1723	2393336	2
Sulfate		1170	133	400	mg/L		1000					
Fluoride	U	ND	0.660	4.00	mg/L		20	JLD1	03/04/23	0400	2393336	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		781	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	0957	2408318	4
Boron		2.77	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1117	2393351	5
Calcium		253	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1754	2393351	6
Sodium		6540	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1353	2408318	7
Potassium		227	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1526	2408318	8
Arsenic	J	0.00600	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1306	2393351	9
Lithium		0.124	0.00600	0.0400	mg/L	1.00	2					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21500	23.8	100	mg/L			CH6	03/06/23	1303	2393739	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		94.2	1.45	4.00	mg/L			HH2	03/07/23	1400	2393623	11
Bicarbonate alkalinity (CaCO3)		94.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HT Project: GPCC00105  
Sample ID: 612966013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HTS Project: GPCC00105  
Sample ID: 612966014 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:18  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.50			SU		MG5	03/01/23	1618	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10800	134	400	mg/L		2000 JLD1	03/04/23	0504	2393336		2
Fluoride	U	ND	0.825	4.00	mg/L		25 JLD1	03/04/23	0432	2393336		3
Sulfate		1620	133	400	mg/L		1000 JLD1	03/03/23	1755	2393336		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		744	0.500	1.50	mg/L	1.00	50 SKJ	04/07/23	0959	2408318		5
Sodium		6390	16.0	50.0	mg/L	1.00	200 SKJ	04/06/23	1355	2408318		6
Potassium		220	0.800	3.00	mg/L	1.00	10 SKJ	04/06/23	1532	2408318		7
Boron		2.81	0.260	0.750	mg/L	1.00	50 PRB	03/16/23	1120	2393351		8
Arsenic	J	0.00624	0.00400	0.0100	mg/L	1.00	2 PRB	03/16/23	1309	2393351		9
Lithium		0.129	0.00600	0.0400	mg/L	1.00	2					
Calcium		258	0.800	2.00	mg/L	1.00	10 SKJ	03/14/23	1757	2393351		10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21200	23.8	100	mg/L		CH6	03/06/23	1328	2393740		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.6	1.45	4.00	mg/L		HH2	03/07/23	1402	2393623		12
Bicarbonate alkalinity (CaCO3)		98.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4HTS Project: GPCC00105  
Sample ID: 612966014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-1HT Project: GPCC00105  
Sample ID: 612966015 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 16:55  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.64			SU		MG5		02/28/23	1655	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	0536	2393336	2
Chloride		10700	134	400	mg/L		2000	JLD1	03/04/23	0608	2393336	3
Sulfate		1470	133	400	mg/L		1000	JLD1	03/03/23	1827	2393336	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		724	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1001	2408318	5
Sodium		6250	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1357	2408318	6
Calcium		255	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1800	2393351	7
Arsenic	J	0.00677	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1311	2393351	8
Lithium		0.126	0.00600	0.0400	mg/L	1.00	2					
Potassium		222	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1534	2408318	9
Boron		2.99	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1122	2393351	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21500	23.8	100	mg/L			CH6	03/06/23	1328	2393740	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.6	1.45	4.00	mg/L			HH2	03/07/23	1404	2393623	12
Bicarbonate alkalinity (CaCO3)		99.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-1HT Project: GPCC00105  
Sample ID: 612966015 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-2HT	Project: GPCC00105
Sample ID: 612966016	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 17:02	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.61			SU		MG5		02/28/23	1702	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		11000	268	800	mg/L		4000	JLD1	03/04/23	0711	2393336	2
Sulfate		1870	133	400	mg/L		1000	JLD1	03/03/23	1859	2393336	3
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	03/04/23	0639	2393336	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00639	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1313	2393351	5
Lithium		0.124	0.00600	0.0400	mg/L	1.00	2					
Potassium		224	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1536	2408318	6
Magnesium		744	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1003	2408318	7
Sodium		6780	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1359	2408318	8
Boron		3.01	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1124	2393351	9
Calcium		252	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1803	2393351	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19100	23.8	100	mg/L			CH6	03/06/23	1328	2393740	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.6	1.45	4.00	mg/L			HH2	03/07/23	1406	2393623	12
Bicarbonate alkalinity (CaCO3)		98.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-2HT Project: GPCC00105  
Sample ID: 612966016 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SM 2540C		
12	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-2HTS Project: GPCC00105  
Sample ID: 612966017 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 16:57  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.64			SU		MG5	02/28/23	1657	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10100	268	800	mg/L	4000	JLD1	03/04/23	0919	2393336		2
Fluoride	U	ND	1.32	4.00	mg/L	40	JLD1	03/04/23	0743	2393336		3
Sulfate		1830	133	400	mg/L	1000	JLD1	03/03/23	2034	2393336		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		245	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1807	2393351	5
Boron		2.75	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1126	2393351	6
Potassium		225	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1538	2408318	7
Magnesium		779	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1005	2408318	8
Sodium		6500	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1401	2408318	9
Arsenic	J	0.00663	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1315	2393351	10
Lithium		0.126	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20600	23.8	100	mg/L		CH6	03/06/23	1328	2393740		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.6	1.45	4.00	mg/L		HH2	03/07/23	1407	2393623		12
Bicarbonate alkalinity (CaCO3)		99.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-2HTS Project: GPCC00105  
Sample ID: 612966017 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-3HT Project: GPCC00105  
Sample ID: 612966018 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:40  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.50			SU		MG5		03/01/23	1640	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	JLD1	03/04/23	0950	2393336	2
Sulfate		1740	133	400	mg/L		1000	JLD1	03/03/23	2106	2393336	3
Chloride		10600	268	800	mg/L		4000	JLD1	03/04/23	1022	2393336	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.87	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1129	2393351	5
Calcium		251	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1810	2393351	6
Sodium		6680	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1403	2408318	7
Arsenic	J	0.00621	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1318	2393351	8
Lithium		0.129	0.00600	0.0400	mg/L	1.00	2					
Magnesium		792	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1007	2408318	9
Potassium		226	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1540	2408318	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19400	23.8	100	mg/L			CH6	03/06/23	1328	2393740	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.8	1.45	4.00	mg/L			HH2	03/07/23	1409	2393623	12
Bicarbonate alkalinity (CaCO3)		98.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-3HT Project: GPCC00105  
Sample ID: 612966018 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-3HTS Project: GPCC00105  
Sample ID: 612966019 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:36  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.49			SU		MG5	SKJ	03/01/23	1636	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1770	133	400	mg/L	1000	JLD1	SKJ	03/03/23	2138	2393336	2
Fluoride	U	ND	1.32	4.00	mg/L	40	JLD1	SKJ	03/04/23	1054	2393336	3
Chloride		10300	268	800	mg/L	4000	JLD1	SKJ	03/04/23	1126	2393336	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		705	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1009	2408318	5
Boron		2.82	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1131	2393351	6
Calcium		261	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1813	2393351	7
Potassium		218	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1542	2408318	8
Sodium		6140	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1405	2408318	9
Arsenic	J	0.00634	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1320	2393351	10
Lithium		0.126	0.00600	0.0400	mg/L	1.00	2					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19200	23.8	100	mg/L		CH6	SKJ	03/06/23	1328	2393740	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		101	1.45	4.00	mg/L		HH2	SKJ	03/07/23	1410	2393623	12
Bicarbonate alkalinity (CaCO3)		101	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-3HTS Project: GPCC00105  
Sample ID: 612966019 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4HT Project: GPCC00105  
Sample ID: 612966020 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:53  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.53			SU			MG5	03/01/23	1653	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	JLD1	03/04/23	1158	2393336	2
Chloride		11000	134	400	mg/L		2000	JLD1	03/04/23	1230	2393336	3
Sulfate		1490	133	400	mg/L		1000	JLD1	03/03/23	2210	2393336	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Potassium		235	0.800	3.00	mg/L	1.00	10	SKJ	04/06/23	1544	2408318	5
Arsenic	J	0.00601	0.00400	0.0100	mg/L	1.00	2	PRB	03/16/23	1322	2393351	6
Lithium		0.131	0.00600	0.0400	mg/L	1.00	2					
Magnesium		758	0.500	1.50	mg/L	1.00	50	SKJ	04/07/23	1011	2408318	7
Sodium		6730	16.0	50.0	mg/L	1.00	200	SKJ	04/06/23	1407	2408318	8
Calcium		255	0.800	2.00	mg/L	1.00	10	SKJ	03/14/23	1816	2393351	9
Boron		2.90	0.260	0.750	mg/L	1.00	50	PRB	03/16/23	1133	2393351	10
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20600	23.8	100	mg/L			CH6	03/06/23	1328	2393740	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.6	1.45	4.00	mg/L			HH2	03/07/23	1412	2393623	12
Bicarbonate alkalinity (CaCO3)		98.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393350
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408317

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4HT Project: GPCC00105  
Sample ID: 612966020 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SM 2540C		
12	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4HTS Project: GPCC00105  
Sample ID: 612966021 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 16:49  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.51			SU		MG5	03/01/23	1649	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		11100	134	400	mg/L		2000 LXA2	03/04/23	0540	2393377		2
Fluoride	U	ND	0.825	4.00	mg/L		25 LXA2	03/04/23	0709	2393377		3
Sulfate		1710	133	400	mg/L		1000 LXA2	03/03/23	1544	2393377		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		703	1.00	3.00	mg/L	1.00	100 PRB	04/06/23	1416	2408400		5
Potassium		217	8.00	30.0	mg/L	1.00	100					
Boron		2.50	0.104	0.300	mg/L	1.00	20 PRB	03/14/23	1222	2393353		6
Calcium		250	1.60	4.00	mg/L	1.00	20					
Arsenic	J	0.00299	0.00200	0.0100	mg/L	1.00	1 PRB	03/13/23	0539	2393353		7
Lithium		0.103	0.0120	0.0400	mg/L	1.00	4 PRB	03/15/23	1152	2393353		8
Sodium		5970	40.0	125	mg/L	1.00	500 PRB	04/06/23	1418	2408400		9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20200	23.8	100	mg/L		CH6	03/06/23	1328	2393740		10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		96.4	1.45	4.00	mg/L		HH2	03/07/23	1420	2393624		11
Bicarbonate alkalinity (CaCO3)		96.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4HTS Project: GPCC00105  
Sample ID: 612966021 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-1HB Project: GPCC00105  
Sample ID: 612966022 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 16:19  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.60			SU		MG5	02/28/23	1619	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		15600	134	400	mg/L		2000 LXA2	03/04/23	0939	2393377		2
Sulfate		1830	133	400	mg/L		1000 LXA2	03/03/23	1614	2393377		3
Fluoride	U	ND	1.32	4.00	mg/L		40 LXA2	03/04/23	1009	2393377		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.71	0.104	0.300	mg/L	1.00	20 PRB	03/14/23	1238	2393353		5
Calcium		258	1.60	4.00	mg/L	1.00	20					
Magnesium		721	1.00	3.00	mg/L	1.00	100 PRB	04/06/23	1420	2408400		6
Potassium		221	8.00	30.0	mg/L	1.00	100					
Sodium		6320	40.0	125	mg/L	1.00	500 PRB	04/06/23	1431	2408400		7
Lithium		0.107	0.0120	0.0400	mg/L	1.00	4 PRB	03/15/23	1202	2393353		8
Arsenic	J	0.00366	0.00200	0.0100	mg/L	1.00	1 PRB	03/13/23	0604	2393353		9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21600	23.8	100	mg/L		CH6	03/06/23	1328	2393740		10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		107	1.45	4.00	mg/L		HH2	03/07/23	1425	2393624		11
Bicarbonate alkalinity (CaCO3)		107	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-1HB Project: GPCC00105  
Sample ID: 612966022 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-1HS Project: GPCC00105  
Sample ID: 612966023 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 16:14  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.63			SU		MG5	02/28/23	1614	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40 LXA2	03/04/23	1108	2393377		2
Sulfate		2040	133	400	mg/L		1000 LXA2	03/03/23	1643	2393377		3
Chloride		16700	134	400	mg/L		2000 LXA2	03/04/23	1039	2393377		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		6630	40.0	125	mg/L	1.00	500 PRB	04/06/23	1441	2408400		5
Arsenic	J	0.00362	0.00200	0.0100	mg/L	1.00	1 PRB	03/13/23	0608	2393353		6
Lithium		0.111	0.0120	0.0400	mg/L	1.00	4 PRB	03/15/23	1211	2393353		7
Boron		2.67	0.104	0.300	mg/L	1.00	20 PRB	03/14/23	1250	2393353		8
Calcium		263	1.60	4.00	mg/L	1.00	20					
Magnesium		716	1.00	3.00	mg/L	1.00	100 PRB	04/06/23	1439	2408400		9
Potassium		222	8.00	30.0	mg/L	1.00	100					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20700	23.8	100	mg/L		CH6	03/06/23	1328	2393740		10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		104	1.45	4.00	mg/L		HH2	03/07/23	1426	2393624		11
Bicarbonate alkalinity (CaCO3)		104	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-1HS  
Sample ID: 612966023  
Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SM 2540C		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-2HB Project: GPCC00105  
Sample ID: 612966024 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 16:06  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.59			SU			MG5	02/28/23	1606	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		10600	134	400	mg/L		2000	LXA2	03/04/23	1138	2393377	2
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	1208	2393377	3
Sulfate		1740	133	400	mg/L		1000	LXA2	03/03/23	1713	2393377	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		732	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1443	2408400	5
Potassium		226	8.00	30.0	mg/L	1.00	100					
Lithium		0.109	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1213	2393353	6
Boron		2.61	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1256	2393353	7
Calcium		263	1.60	4.00	mg/L	1.00	20					
Arsenic	J	0.00358	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0611	2393353	8
Sodium		6790	40.0	125	mg/L	1.00	500	PRB	04/06/23	1445	2408400	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		24300	23.8	100	mg/L			CH6	03/06/23	1328	2393740	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		106	1.45	4.00	mg/L			HH2	03/07/23	1428	2393624	11
Bicarbonate alkalinity (CaCO3)		106	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-2HB Project: GPCC00105  
Sample ID: 612966024 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-2HS	Project: GPCC00105
Sample ID: 612966025	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 16:00	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.59			SU			MG5	02/28/23	1600	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14500	134	400	mg/L		2000	LXA2	03/04/23	1238	2393377	2
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	1308	2393377	3
Sulfate		1710	133	400	mg/L		1000	LXA2	03/03/23	1743	2393377	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Lithium		0.107	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1215	2393353	5
Sodium		6750	40.0	125	mg/L	1.00	500	PRB	04/06/23	1449	2408400	6
Boron		2.63	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1303	2393353	7
Calcium		255	1.60	4.00	mg/L	1.00	20					
Magnesium		736	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1447	2408400	8
Potassium		227	8.00	30.0	mg/L	1.00	100					
Arsenic	J	0.00347	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0615	2393353	9
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		24100	23.8	100	mg/L			CH6	03/06/23	1328	2393740	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		106	1.45	4.00	mg/L			HH2	03/07/23	1429	2393624	11
Bicarbonate alkalinity (CaCO3)		106	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-2HS Project: GPCC00105  
Sample ID: 612966025 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-3HB	Project: GPCC00105
Sample ID: 612966026	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 15:47	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.62			SU			MG5	02/28/23	1547	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	1407	2393377	2
Chloride		16100	134	400	mg/L		2000	LXA2	03/04/23	1338	2393377	3
Sulfate		2020	133	400	mg/L		1000	LXA2	03/03/23	1813	2393377	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		723	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1454	2408400	5
Potassium		224	8.00	30.0	mg/L	1.00	100					
Lithium		0.111	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1217	2393353	6
Arsenic	J	0.00339	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0618	2393353	7
Sodium		6690	40.0	125	mg/L	1.00	500	PRB	04/06/23	1456	2408400	8
Boron		2.69	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1309	2393353	9
Calcium		271	1.60	4.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		23200	23.8	100	mg/L			CH6	03/06/23	1328	2393740	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		106	1.45	4.00	mg/L			HH2	03/07/23	1431	2393624	11
Bicarbonate alkalinity (CaCO3)		106	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-3HB Project: GPCC00105  
Sample ID: 612966026 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-3HS Project: GPCC00105  
Sample ID: 612966027 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 15:40  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.61			SU		MG5	02/28/23	1540	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		13900	134	400	mg/L		2000 LXA2	03/04/23	1537	2393377		2
Sulfate		1970	133	400	mg/L		1000 LXA2	03/03/23	1843	2393377		3
Fluoride	U	ND	1.32	4.00	mg/L		40 LXA2	03/04/23	1607	2393377		4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.67	0.104	0.300	mg/L	1.00	20 PRB	03/14/23	1321	2393353		5
Calcium		270	1.60	4.00	mg/L	1.00	20					
Magnesium		722	1.00	3.00	mg/L	1.00	100 PRB	04/06/23	1458	2408400		6
Potassium		223	8.00	30.0	mg/L	1.00	100					
Sodium		6490	40.0	125	mg/L	1.00	500 PRB	04/06/23	1500	2408400		7
Lithium		0.110	0.0120	0.0400	mg/L	1.00	4 PRB	03/15/23	1219	2393353		8
Arsenic	J	0.00338	0.00200	0.0100	mg/L	1.00	1 PRB	03/13/23	0622	2393353		9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22100	23.8	100	mg/L		CH6	03/06/23	1328	2393740		10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		103	1.45	4.00	mg/L		HH2	03/07/23	1432	2393624		11
Bicarbonate alkalinity (CaCO3)		103	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-3HS Project: GPCC00105  
Sample ID: 612966027 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4HB Project: GPCC00105  
Sample ID: 612966028 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 15:30  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.65			SU			MG5	02/28/23	1530	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1730	133	400	mg/L		1000	LXA2	03/03/23	1913	2393377	2
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	1707	2393377	3
Chloride		15000	134	400	mg/L		2000	LXA2	03/04/23	1637	2393377	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.56	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1327	2393353	5
Calcium		263	1.60	4.00	mg/L	1.00	20					
Magnesium		715	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1502	2408400	6
Potassium		219	8.00	30.0	mg/L	1.00	100					
Lithium		0.108	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1221	2393353	7
Sodium		6540	40.0	125	mg/L	1.00	500	PRB	04/06/23	1504	2408400	8
Arsenic	J	0.00329	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0626	2393353	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22300	23.8	100	mg/L			CH6	03/06/23	1328	2393740	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		102	1.45	4.00	mg/L			HH2	03/07/23	1435	2393624	11
Bicarbonate alkalinity (CaCO3)		102	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4HB Project: GPCC00105  
Sample ID: 612966028 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SM 2540C		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4HS	Project: GPCC00105
Sample ID: 612966029	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 15:20	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.64			SU			MG5	02/28/23	1520	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.718	0.660	4.00	mg/L		20	LXA2	03/04/23	1736	2393377	2
Chloride		11800	134	400	mg/L		2000	LXA2	03/03/23	1943	2393377	3
Sulfate		1910	266	800	mg/L		2000					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00301	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0629	2393353	4
Sodium		6490	40.0	125	mg/L	1.00	500	PRB	04/06/23	1508	2408400	5
Magnesium		686	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1506	2408400	6
Potassium		215	8.00	30.0	mg/L	1.00	100					
Lithium		0.109	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1223	2393353	7
Boron		2.63	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1334	2393353	8
Calcium		260	1.60	4.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21700	23.8	100	mg/L			CH6	03/06/23	1328	2393740	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		104	1.45	4.00	mg/L			HH2	03/07/23	1437	2393624	10
Bicarbonate alkalinity (CaCO3)		104	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4HS Project: GPCC00105  
Sample ID: 612966029 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SW846 3005A/6020B										
9	SM 2540C										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4LT	Project: GPCC00105
Sample ID: 612966030	Client ID: GPCC001
Matrix: WS	
Collect Date: 02-MAR-23 13:32	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.97			SU			MG5	03/02/23	1332	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		13500	134	400	mg/L		2000	LXA2	03/03/23	2012	2393377	2
Sulfate		2070	266	800	mg/L		2000					
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	1806	2393377	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00298	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0633	2393353	4
Lithium		0.106	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1233	2393353	5
Magnesium		698	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1514	2408400	6
Potassium		217	8.00	30.0	mg/L	1.00	100					
Sodium		6240	40.0	125	mg/L	1.00	500	PRB	04/06/23	1516	2408400	7
Boron		2.48	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1340	2393353	8
Calcium		252	1.60	4.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21400	23.8	100	mg/L			CH6	03/06/23	1328	2393740	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.8	1.45	4.00	mg/L			HH2	03/07/23	1440	2393624	10
Bicarbonate alkalinity (CaCO3)		99.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T1-4LT Project: GPCC00105  
Sample ID: 612966030 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4LT Project: GPCC00105  
Sample ID: 612966031 Client ID: GPCC001  
Matrix: WS  
Collect Date: 02-MAR-23 13:44  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.93			SU		MG5		03/02/23	1344	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40 LXA2		03/04/23	1836	2393377	2
Chloride		10600	134	400	mg/L		2000 LXA2		03/03/23	2142	2393377	3
Sulfate		1650	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		662	1.00	3.00	mg/L	1.00	100 PRB		04/06/23	1518	2408400	4
Potassium		203	8.00	30.0	mg/L	1.00	100					
Lithium		0.109	0.0120	0.0400	mg/L	1.00	4 PRB		03/15/23	1234	2393353	5
Boron		2.52	0.104	0.300	mg/L	1.00	20 PRB		03/14/23	1352	2393353	6
Calcium		256	1.60	4.00	mg/L	1.00	20					
Sodium		6070	40.0	125	mg/L	1.00	500 PRB		04/06/23	1519	2408400	7
Arsenic	J	0.00324	0.00200	0.0100	mg/L	1.00	1 PRB		03/13/23	0636	2393353	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22900	23.8	100	mg/L		CH6		03/06/23	1328	2393740	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		102	1.45	4.00	mg/L		HH2		03/07/23	1450	2393624	10
Bicarbonate alkalinity (CaCO3)		102	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T2-4LT Project: GPCC00105  
Sample ID: 612966031 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SW846 3005A/6020B										
9	SM 2540C										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4LT Project: GPCC00105  
Sample ID: 612966032 Client ID: GPCC001  
Matrix: WS  
Collect Date: 02-MAR-23 13:58  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.90			SU		MG5	03/02/23	1358	2393857		1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.700	0.660	4.00	mg/L		20 LXA2	03/04/23	2006	2393377		2
Chloride		10400	134	400	mg/L		2000 LXA2	03/03/23	2212	2393377		3
Sulfate		1650	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.43	0.104	0.300	mg/L	1.00	20 PRB	03/14/23	1358	2393353		4
Calcium		251	1.60	4.00	mg/L	1.00	20					
Lithium		0.103	0.0120	0.0400	mg/L	1.00	4 PRB	03/15/23	1236	2393353		5
Arsenic	J	0.00319	0.00200	0.0100	mg/L	1.00	1 PRB	03/13/23	0647	2393353		6
Magnesium		691	1.00	3.00	mg/L	1.00	100 PRB	04/06/23	1521	2408400		7
Potassium		215	8.00	30.0	mg/L	1.00	100					
Sodium		6000	40.0	125	mg/L	1.00	500 PRB	04/06/23	1523	2408400		8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19300	23.8	100	mg/L		CH6	03/06/23	1328	2393740		9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.2	1.45	4.00	mg/L		HH2	03/07/23	1502	2393624		10
Bicarbonate alkalinity (CaCO3)		99.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T3-4LT Project: GPCC00105  
Sample ID: 612966032 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4L Project: GPCC00105  
Sample ID: 612966033 Client ID: GPCC001  
Matrix: WS  
Collect Date: 02-MAR-23 13:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		7.35			SU			MG5	03/02/23	1300	2393857	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14000	134	400	mg/L		2000	LXA2	03/03/23	2242	2393377	2
Sulfate		2140	266	800	mg/L		2000					
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	2135	2393377	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		2.65	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1405	2393353	4
Calcium		264	1.60	4.00	mg/L	1.00	20					
Sodium		6420	40.0	125	mg/L	1.00	500	PRB	04/06/23	1527	2408400	5
Lithium		0.114	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1238	2393353	6
Arsenic	J	0.00350	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0651	2393353	7
Magnesium		710	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1525	2408400	8
Potassium		221	8.00	30.0	mg/L	1.00	100					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		24600	23.8	100	mg/L			CH6	03/06/23	1328	2393740	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		109	1.45	4.00	mg/L			HH2	03/07/23	1504	2393624	10
Bicarbonate alkalinity (CaCO3)		109	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-T4-4L Project: GPCC00105  
Sample ID: 612966033 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-1LT	Project: GPCC00105
Sample ID: 612966034	Client ID: GPCC001
Matrix: WS	
Collect Date: 02-MAR-23 11:22	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.11			SU			MG5	03/02/23	1122	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14600	134	400	mg/L		2000	LXA2	03/03/23	2312	2393377	2
Sulfate		2220	266	800	mg/L		2000					
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	2205	2393377	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Lithium		0.105	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1240	2393353	4
Magnesium		667	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1533	2408400	5
Potassium		207	8.00	30.0	mg/L	1.00	100					
Arsenic	J	0.00302	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0654	2393353	6
Boron		2.44	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1411	2393353	7
Calcium		250	1.60	4.00	mg/L	1.00	20					
Sodium		6090	40.0	125	mg/L	1.00	500	PRB	04/06/23	1535	2408400	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21700	23.8	100	mg/L			CH6	03/07/23	1036	2394285	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		97.4	1.45	4.00	mg/L			HH2	03/07/23	1506	2393624	10
Bicarbonate alkalinity (CaCO3)		97.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-1LT  
Sample ID: 612966034  
Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SW846 3005A/6020B										
9	SM 2540C										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-2HT	Project: GPCC00105
Sample ID: 612966035	Client ID: GPCC001
Matrix: WS	
Collect Date: 28-FEB-23 16:40	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.68			SU			MG5	02/28/23	1640	2393857	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		11600	134	400	mg/L		2000	LXA2	03/03/23	2341	2393377	2
Sulfate		1960	266	800	mg/L		2000					
Fluoride	U	ND	0.825	4.00	mg/L		25	LXA2	03/04/23	2235	2393377	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		730	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1537	2408400	4
Potassium		227	8.00	30.0	mg/L	1.00	100					
Arsenic	J	0.00314	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0658	2393353	5
Lithium		0.114	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1242	2393353	6
Sodium		6710	40.0	125	mg/L	1.00	500	PRB	04/06/23	1539	2408400	7
Boron		2.67	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1417	2393353	8
Calcium		274	1.60	4.00	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		21000	23.8	100	mg/L			CH6	03/07/23	1036	2394285	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		100	1.45	4.00	mg/L			HH2	03/07/23	1508	2393624	10
Bicarbonate alkalinity (CaCO3)		100	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-BG-2HT Project: GPCC00105  
Sample ID: 612966035 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description										Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SW846 3005A/6020B										
9	SM 2540C										
10	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-03 Project: GPCC00105  
Sample ID: 612966036 Client ID: GPCC001  
Matrix: WS  
Collect Date: 28-FEB-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	1.32	4.00	mg/L		40	LXA2	03/04/23	2305	2393377	1
Chloride		16600	134	400	mg/L		2000	LXA2	03/04/23	0011	2393377	2
Sulfate		2600	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium		741	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1541	2408400	3
Potassium		231	8.00	30.0	mg/L	1.00	100					
Lithium		0.113	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1252	2393353	4
Boron		2.57	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1429	2393353	5
Calcium		275	1.60	4.00	mg/L	1.00	20					
Arsenic	J	0.00323	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0702	2393353	6
Sodium		6820	40.0	125	mg/L	1.00	500	PRB	04/06/23	1543	2408400	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20700	23.8	100	mg/L			CH6	03/07/23	1036	2394285	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		103	1.45	4.00	mg/L			HH2	03/07/23	1509	2393624	9
Bicarbonate alkalinity (CaCO3)		103	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-03      Project: GPCC00105  
Sample ID: 612966036      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description	Analyst Comments										
1	EPA 300.0											
2	EPA 300.0											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	SW846 3005A/6020B											
8	SM 2540C											
9	SM 2320B											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-04 Project: GPCC00105  
Sample ID: 612966037 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12000	134	400	mg/L		2000	LXA2	03/04/23	0041	2393377	1
Sulfate		1950	266	800	mg/L		2000					
Fluoride	U	ND	0.825	4.00	mg/L		25	LXA2	03/04/23	2335	2393377	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lithium		0.107	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1254	2393353	3
Sodium		6520	40.0	125	mg/L	1.00	500	PRB	04/06/23	1546	2408400	4
Magnesium		694	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1545	2408400	5
Potassium		219	8.00	30.0	mg/L	1.00	100					
Arsenic	J	0.00300	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0705	2393353	6
Boron		2.45	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1436	2393353	7
Calcium		250	1.60	4.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		18700	23.8	100	mg/L			CH6	03/07/23	1036	2394285	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		98.8	1.45	4.00	mg/L			HH2	03/07/23	1513	2393624	9
Bicarbonate alkalinity (CaCO3)		98.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-04      Project: GPCC00105  
Sample ID: 612966037      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description	Analyst Comments									
1	EPA 300.0										
2	EPA 300.0										
3	SW846 3005A/6020B										
4	SW846 3005A/6020B										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SW846 3005A/6020B										
8	SM 2540C										
9	SM 2320B										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-05 Project: GPCC00105  
Sample ID: 612966038 Client ID: GPCC001  
Matrix: WS  
Collect Date: 01-MAR-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	LXA2	03/05/23	0005	2393377	1
Chloride		12100	134	400	mg/L		2000	LXA2	03/04/23	0111	2393377	2
Sulfate		2010	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00298	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0709	2393353	3
Magnesium		695	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1552	2408400	4
Potassium		215	8.00	30.0	mg/L	1.00	100					
Sodium		6310	40.0	125	mg/L	1.00	500	PRB	04/06/23	1554	2408400	5
Boron		2.55	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1442	2393353	6
Calcium		262	1.60	4.00	mg/L	1.00	20					
Lithium		0.118	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1256	2393353	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		19500	23.8	100	mg/L			CH6	03/07/23	1036	2394285	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		99.8	1.45	4.00	mg/L			HH2	03/07/23	1517	2393624	9
Bicarbonate alkalinity (CaCO3)		99.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-05      Project: GPCC00105  
Sample ID: 612966038      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description	Analyst Comments										
1	EPA 300.0											
2	EPA 300.0											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	SW846 3005A/6020B											
8	SM 2540C											
9	SM 2320B											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-06 Project: GPCC00105  
Sample ID: 612966039 Client ID: GPCC001  
Matrix: WS  
Collect Date: 02-MAR-23 12:00  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.825	4.00	mg/L		25	HXC1	03/06/23	1219	2393496	1
Chloride		12000	134	400	mg/L		2000	HXC1	03/04/23	1439	2393496	2
Sulfate		1710	266	800	mg/L		2000					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Sodium		6130	40.0	125	mg/L	1.00	500	PRB	04/06/23	1558	2408400	3
Magnesium		656	1.00	3.00	mg/L	1.00	100	PRB	04/06/23	1556	2408400	4
Potassium		204	8.00	30.0	mg/L	1.00	100					
Boron		2.36	0.104	0.300	mg/L	1.00	20	PRB	03/14/23	1448	2393353	5
Calcium		247	1.60	4.00	mg/L	1.00	20					
Arsenic	J	0.00318	0.00200	0.0100	mg/L	1.00	1	PRB	03/13/23	0713	2393353	6
Lithium		0.106	0.0120	0.0400	mg/L	1.00	4	PRB	03/15/23	1257	2393353	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		22300	23.8	100	mg/L			CH6	03/07/23	1036	2394285	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		100	1.45	4.00	mg/L			HH2	03/07/23	1518	2393624	9
Bicarbonate alkalinity (CaCO3)		100	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FD-06 Project: GPCC00105  
Sample ID: 612966039 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description	Analyst Comments										
1	EPA 300.0											
2	EPA 300.0											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	SW846 3005A/6020B											
8	SM 2540C											
9	SM 2320B											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
 Address : 241 Ralph McGill Blvd NE  
 Bin 10160  
 Atlanta, Georgia 30308  
 Contact: Kristen Jurinko  
 Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FB-04	Project: GPCC00105
Sample ID: 612966040	Client ID: GPCC001
Matrix: WS	
Collect Date: 02-MAR-23 16:05	
Receive Date: 03-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.399	0.0670	0.200	mg/L		1	HXC1	03/04/23	1510	2393496	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	PRB	03/14/23	1454	2393353	2
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1	PRB	03/15/23	1303	2393353	3
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	PRB	04/06/23	1600	2408400	4
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	2.60	1.45	4.00	mg/L			HH2	03/07/23	1520	2393624	6
Bicarbonate alkalinity (CaCO3)	J	2.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393352
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408398

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-FB-04  
Sample ID: 612966040

Project: GPCC00105  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

Client Sample ID: MCM-AP1-EB-04 Project: GPCC00105  
Sample ID: 612966041 Client ID: GPCC001  
Matrix: WS  
Collect Date: 02-MAR-23 16:10  
Receive Date: 03-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.188	0.0670	0.200	mg/L		1	HXC1	03/04/23	1541	2393496	1
Fluoride	U	ND	0.0330	4.00	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	SKJ	04/06/23	1303	2408405	2
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.0100	mg/L	1.00	1	SKJ	03/10/23	0046	2393357	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0400	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	03/07/23	1036	2394285	4
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	J	2.40	1.45	4.00	mg/L			MS3	03/09/23	1511	2393626	5
Bicarbonate alkalinity (CaCO3)	J	2.40	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	04/05/23	0820	2408404
SW846 3005A	ICP-MS 3005A PREP	JD2	03/06/23	0900	2393356

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 2320B	

Notes:

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## Certificate of Analysis

Report Date: April 11, 2023

Company : Georgia Power Company  
Address : 241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia 30308  
Contact: Kristen Jurinko  
Project: Plant McManus CCR Groundwater ComplianceSW

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Client Sample ID:	MCM-AP1-EB-04	Project:	GPCC00105
Sample ID:	612966041	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## QC Summary

Report Date: April 11, 2023

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Georgia Power Company  
241 Ralph McGill Blvd NE  
Bin 10160  
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 612966

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393295										
QC1205336400	612966001	DUP									
Chloride		10200		10200	mg/L	0.177		(0%-20%)	JLD1	03/03/23	23:32
Fluoride	U	ND	U	ND	mg/L	N/A				03/03/23	22:03
Sulfate		2150		2160	mg/L	0.195		(0%-20%)		03/03/23	15:04
QC1205336399	LCS										
Chloride	5.00			4.57	mg/L		91.3	(90%-110%)		03/03/23	14:05
Fluoride	2.50			2.54	mg/L		102	(90%-110%)			
Sulfate	10.0			9.42	mg/L		94.2	(90%-110%)			
QC1205336398	MB										
Chloride			U	ND	mg/L					03/03/23	13:35
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336401	612966001	PS									
Chloride	5.00	2.55		7.12	mg/L		91.4	(90%-110%)		03/04/23	00:02
Fluoride	2.50	U	ND	2.36	mg/L		94.2	(90%-110%)		03/03/23	22:33
Sulfate	10.0	2.15		11.5	mg/L		94	(90%-110%)		03/03/23	15:34

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch 2393336											
QC1205336470 612966011 DUP											
Chloride		10700		10700	mg/L	0.0617		(0%-20%)	JLD1	03/04/23	00:49
Fluoride	U	ND	U	ND	mg/L	N/A				03/03/23	23:14
Sulfate		1650		1640	mg/L	0.432 ^		(+/-400)		03/03/23	15:48
QC1205336469 LCS											
Chloride	5.00			4.96	mg/L		99.2	(90%-110%)		03/03/23	14:44
Fluoride	2.50			2.50	mg/L		100	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205336468 MB											
Chloride			U	ND	mg/L					03/03/23	14:13
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336471 612966011 PS											
Chloride	5.00	5.35		10.8	mg/L		110	(90%-110%)		03/04/23	01:21
Fluoride	2.50	U	ND	2.40	mg/L		96	(90%-110%)		03/03/23	23:45
Sulfate	10.0	1.65		11.8	mg/L		101	(90%-110%)		03/03/23	16:20
Batch 2393377											
QC1205336516 612966021 DUP											
Chloride		11100		11100	mg/L	0.695		(0%-20%)	LXA2	03/04/23	06:10
Fluoride	U	ND	U	ND	mg/L	N/A				03/04/23	07:39



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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393377										
Sulfate		1710		1700	mg/L	0.562 ^		(+/-400)	LXA2	03/04/23	03:40
QC1205336518	612966031 DUP										
Chloride		10600		10600	mg/L	0.0527		(0%-20%)		03/04/23	04:40
Fluoride	U	ND	U	ND	mg/L	N/A				03/04/23	19:06
Sulfate		1650		1630	mg/L	1.11 ^		(+/-800)		03/04/23	04:40
QC1205336515	LCS										
Chloride	5.00			4.91	mg/L		98.2	(90%-110%)		03/04/23	02:11
Fluoride	2.50			2.68	mg/L		107	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205336514	MB										
Chloride			U	ND	mg/L					03/04/23	01:41
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336517	612966021 PS										
Chloride	5.00	5.53		11.2	mg/L		114*	(90%-110%)		03/06/23	12:42
Fluoride	2.50	U	ND	2.53	mg/L		99.9	(90%-110%)		03/04/23	08:09
Sulfate	10.0	1.71		11.8	mg/L		101	(90%-110%)		03/04/23	04:10
QC1205336519	612966031 PS										
Chloride	5.00	5.32		10.8	mg/L		110	(90%-110%)		03/04/23	05:10

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2393377										
Fluoride	2.50	U	ND	2.55	mg/L		102	(90%-110%)	LXA2	03/04/23	19:36
Sulfate	10.0		0.826	10.7	mg/L		98.7	(90%-110%)		03/04/23	05:10
Batch	2393496										
QC1205336656	613002007 DUP										
Chloride			1470	1490	mg/L	1.45 ^		(+/-400)	HXC1	03/04/23	20:49
Fluoride		J	0.419	J	0.295	mg/L	34.6 ^	(+/-4.00)		03/06/23	16:26
Sulfate			157	157	mg/L	0.0617		(0%-20%)		03/07/23	15:41
QC1205336655	LCS										
Chloride	5.00			4.80	mg/L		95.9	(90%-110%)		03/04/23	14:08
Fluoride	2.50			2.45	mg/L		98.1	(90%-110%)			
Sulfate	10.0			9.72	mg/L		97.2	(90%-110%)			
QC1205336654	MB										
Chloride			U	ND	mg/L					03/04/23	13:37
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205336657	613002007 PS										
Chloride	5.00		0.733	5.50	mg/L		95.3	(90%-110%)		03/04/23	21:20
Fluoride	2.50	J	0.0837	2.42	mg/L		93.5	(90%-110%)		03/06/23	16:57
Sulfate	10.0		15.7	26.7	mg/L		110	(90%-110%)		03/07/23	16:12

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393351										
QC1205336484	LCS										
Arsenic	0.0500			0.0437	mg/L		87.5	(80%-120%)	PRB	03/16/23	12:14
Boron	0.100			0.0981	mg/L		98.1	(80%-120%)		03/16/23	10:31
Calcium	2.00			2.24	mg/L		112	(80%-120%)	SKJ	03/14/23	16:52
Lithium	0.0500			0.0483	mg/L		96.6	(80%-120%)	PRB	03/16/23	12:14
QC1205336483	MB										
Arsenic			U	ND	mg/L					03/16/23	12:12
Boron			U	ND	mg/L					03/16/23	10:28
Calcium			U	ND	mg/L				SKJ	03/14/23	16:49
Lithium			U	ND	mg/L				PRB	03/16/23	12:12
QC1205336485	612966001 MS										
Arsenic	0.0500	J	0.00558	0.0523	mg/L		93.4	(75%-125%)		03/16/23	12:23
Boron	0.100		2.88	2.82	mg/L		N/A	(75%-125%)		03/16/23	10:36
Calcium	2.00		246	240	mg/L		N/A	(75%-125%)	SKJ	03/14/23	16:59
Lithium	0.0500		0.113	0.167	mg/L		109	(75%-125%)	PRB	03/16/23	12:23
QC1205336486	612966001 MSD										
Arsenic	0.0500	J	0.00558	0.0510	mg/L	2.41	90.9	(0%-20%)		03/16/23	12:26
Boron	0.100		2.88	2.90	mg/L	2.76	N/A	(0%-20%)		03/16/23	10:38

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393351										
Calcium	2.00	246		245	mg/L	2.01	N/A	(0%-20%)	SKJ	03/14/23	17:02
Lithium	0.0500	0.113		0.170	mg/L	1.39	114	(0%-20%)	PRB	03/16/23	12:26
QC1205336487	612966001	SDILT									
Arsenic	J	2.79	U	ND	ug/L	N/A		(0%-20%)		03/16/23	12:30
Boron		57.6	J	12.7	ug/L	10.3		(0%-20%)		03/16/23	10:40
Calcium		24600		5060	ug/L	2.63		(0%-20%)	SKJ	03/14/23	17:05
Lithium		56.3		10.0	ug/L	11		(0%-20%)	PRB	03/16/23	12:30
Batch	2393353										
QC1205336489	LCS										
Arsenic	0.0500			0.0478	mg/L		95.5	(80%-120%)	PRB	03/13/23	05:35
Boron	0.100			0.111	mg/L		111	(80%-120%)		03/14/23	11:57
Calcium	2.00			2.04	mg/L		102	(80%-120%)			
Lithium	0.0500			0.0540	mg/L		108	(80%-120%)		03/15/23	11:50
Magnesium	2.00			2.18	mg/L		109	(80%-120%)		03/14/23	11:57
QC1205336488	MB										
Arsenic			U	ND	mg/L					03/13/23	05:31
Boron			U	ND	mg/L					03/14/23	11:54
Calcium			U	ND	mg/L						

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## *QC Summary*

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393353										
Lithium			U	ND	mg/L				PRB	03/15/23	11:48
QC1205336490	612966021	MS									
Arsenic	0.0500	J	0.00299	0.0449	mg/L		83.7	(75%-125%)		03/13/23	05:42
Boron	0.100		2.50	2.65	mg/L		N/A	(75%-125%)		03/14/23	12:25
Calcium	2.00		250	248	mg/L		N/A	(75%-125%)			
Lithium	0.0500		0.103	0.162	mg/L		118	(75%-125%)		03/15/23	11:54
QC1205336491	612966021	MSD									
Arsenic	0.0500	J	0.00299	0.0448	mg/L	0.196	83.6	(0%-20%)		03/13/23	05:46
Boron	0.100		2.50	2.58	mg/L	2.54	N/A	(0%-20%)		03/14/23	12:28
Calcium	2.00		250	249	mg/L	0.446	N/A	(0%-20%)			
Lithium	0.0500		0.103	0.158	mg/L	3.11	108	(0%-20%)		03/15/23	11:56
QC1205336492	612966021	SDILT									
Arsenic		J	2.99	U	ND	ug/L	N/A	(0%-20%)		03/13/23	05:53
Boron			125		27.0	ug/L	7.75	(0%-20%)		03/14/23	12:35
Calcium			12500		2410	ug/L	3.76	(0%-20%)			
Lithium			25.8	J	4.66	ug/L	9.79	(0%-20%)		03/15/23	12:00

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
QC1205336499	LCS										
Arsenic	0.0500			0.0501	mg/L		100	(80%-120%)	SKJ	03/10/23	00:42
Boron	0.100			0.114	mg/L		114	(80%-120%)			
Calcium	2.00			2.12	mg/L		106	(80%-120%)			
Lithium	0.0500			0.0549	mg/L		110	(80%-120%)			
Magnesium	2.00			2.14	mg/L		107	(80%-120%)			
Potassium	2.00			1.99	mg/L		99.7	(80%-120%)			
Sodium	2.00			2.09	mg/L		105	(80%-120%)			
QC1205336498	MB										
Arsenic			U	ND	mg/L					03/10/23	00:39
Boron			U	ND	mg/L						
Calcium			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
QC1205336500	613002026 MS										
Arsenic	0.0500	0.0543		0.102	mg/L		94.9	(75%-125%)	SKJ	03/10/23	01:18
Boron	0.100	0.743		0.842	mg/L		N/A	(75%-125%)		03/10/23	17:18
Calcium	2.00	41.5		43.4	mg/L		N/A	(75%-125%)		03/10/23	01:18
Lithium	0.0500	0.0195		0.0737	mg/L		109	(75%-125%)			
Magnesium	2.00	80.5		82.1	mg/L		N/A	(75%-125%)		03/10/23	17:18
Potassium	2.00	49.0		50.5	mg/L		N/A	(75%-125%)		03/10/23	01:18
Sodium	2.00	893		911	mg/L		N/A	(75%-125%)		03/10/23	17:06
QC1205336501	613002026 MSD										
Arsenic	0.0500	0.0543		0.105	mg/L	3.56	102	(0%-20%)		03/10/23	01:22
Boron	0.100	0.743		0.846	mg/L	0.517	N/A	(0%-20%)		03/10/23	17:21
Calcium	2.00	41.5		43.7	mg/L	0.87	N/A	(0%-20%)		03/10/23	01:22
Lithium	0.0500	0.0195		0.0749	mg/L	1.57	111	(0%-20%)			
Magnesium	2.00	80.5		82.3	mg/L	0.302	N/A	(0%-20%)		03/10/23	17:21
Potassium	2.00	49.0		51.4	mg/L	1.8	N/A	(0%-20%)		03/10/23	01:22
Sodium	2.00	893		906	mg/L	0.505	N/A	(0%-20%)		03/10/23	17:08

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2393357										
	QC1205336502 613002026 SDILT										
Arsenic		54.3		14.7	ug/L	35		(0%-20%)	SKJ	03/10/23	01:29
Boron		149		36.1	ug/L	21.5		(0%-20%)		03/10/23	17:23
Calcium		41500		8440	ug/L	1.59		(0%-20%)		03/10/23	01:29
Lithium		19.5	J	3.66	ug/L	5.92		(0%-20%)			
Magnesium		16100		3270	ug/L	1.69		(0%-20%)		03/10/23	17:23
Potassium		49000		9670	ug/L	1.23		(0%-20%)		03/10/23	01:29
Sodium		17900		3550	ug/L	.646		(0%-20%)		03/10/23	17:10
<hr/>											
Batch	2408318										
	QC1205365179 LCS										
Magnesium	2.00			2.27	mg/L		114	(80%-120%)	SKJ	04/06/23	13:13
Potassium	2.00			2.00	mg/L		100	(80%-120%)			
Sodium	2.00			2.31	mg/L		116	(80%-120%)			
	QC1205365178 MB										
Magnesium			U	ND	mg/L					04/06/23	13:11
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
	QC1205365180 612966002 MS										
Magnesium	2.00	736		707	mg/L		N/A	(75%-125%)		04/06/23	14:19



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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2408318										
Potassium	2.00	233		226	mg/L		N/A	(75%-125%)	SKJ	04/07/23	10:21
Sodium	2.00	6390		6330	mg/L		N/A	(75%-125%)		04/06/23	13:19
QC1205365181	612966002 MSD										
Magnesium	2.00	736		750	mg/L	5.97	N/A	(0%-20%)		04/06/23	14:21
Potassium	2.00	233		241	mg/L	6.54	N/A	(0%-20%)		04/07/23	10:23
Sodium	2.00	6390		6590	mg/L	4.02	N/A	(0%-20%)		04/06/23	13:21
QC1205365182	612966002 SDILT										
Magnesium		14700		2930	ug/L	.462		(0%-20%)		04/06/23	14:23
Potassium		23300		4620	ug/L	.801		(0%-20%)		04/07/23	10:25
Sodium		31900		6520	ug/L	2.06		(0%-20%)		04/06/23	13:23
Batch	2408400										
QC1205365340	LCS										
Magnesium	2.00			1.99	mg/L		99.6	(80%-120%)	PRB	04/06/23	14:14
Potassium	2.00			2.05	mg/L		102	(80%-120%)			
Sodium	2.00			2.14	mg/L		107	(80%-120%)			
QC1205365339	MB										
Magnesium			U	ND	mg/L					04/06/23	14:12
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2408400										
QC1205365341	612966022	MS									
Magnesium	2.00	721		722	mg/L		N/A	(75%-125%)	PRB	04/06/23	14:22
Potassium	2.00	221		224	mg/L		N/A	(75%-125%)			
Sodium	2.00	6320		6490	mg/L		N/A	(75%-125%)		04/06/23	14:33
QC1205365342	612966022	MSD									
Magnesium	2.00	721		736	mg/L	1.91	N/A	(0%-20%)		04/06/23	14:24
Potassium	2.00	221		228	mg/L	2.05	N/A	(0%-20%)			
Sodium	2.00	6320		6590	mg/L	1.6	N/A	(0%-20%)		04/06/23	14:35
QC1205365343	612966022	SDILT									
Magnesium		7210		1390	ug/L	3.49		(0%-20%)		04/06/23	14:25
Potassium		2210		429	ug/L	2.98		(0%-20%)			
Sodium		12600		2520	ug/L	.271		(0%-20%)		04/06/23	14:37
Batch	2408405										
QC1205365355	LCS										
Magnesium	2.00			2.35	mg/L		118	(80%-120%)	SKJ	04/06/23	12:59
Potassium	2.00			2.06	mg/L		103	(80%-120%)			
Sodium	2.00			2.40	mg/L		120	(80%-120%)			
QC1205365356	LCSD										
Magnesium	2.00			2.30	mg/L	2.18	115	(0%-20%)		04/06/23	13:01
Potassium	2.00			2.10	mg/L	1.86	105	(0%-20%)			

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## *QC Summary*

**Workorder: 612966**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2408405										
Sodium	2.00			2.32	mg/L	3.37	116	(0%-20%)	SKJ	04/06/23	13:01
QC1205365354	MB										
Magnesium			U	ND	mg/L					04/06/23	12:57
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205365357	612966041 SDILT										
Magnesium	U	ND	U	ND	ug/L	N/A		(0%-20%)		04/06/23	13:05
Potassium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Solids Analysis</b>											
Batch	2393739										
QC1205337149	612740005 DUP										
Total Dissolved Solids		9250		9620	mg/L	3.92		(0%-5%)	CH6	03/06/23	13:03
QC1205337148	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		03/06/23	13:03
QC1205337147	MB										
Total Dissolved Solids			U	ND	mg/L					03/06/23	13:03
Batch	2393740										
QC1205337153	612966014 DUP										
Total Dissolved Solids		21200		20000	mg/L	5.77*		(0%-5%)	CH6	03/06/23	13:28
QC1205337154	612966024 DUP										
Total Dissolved Solids		24300		22400	mg/L	8.48*		(0%-5%)		03/06/23	13:28

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2393740										
QC1205337152	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)	CH6	03/06/23	13:28
QC1205337151	MB										
Total Dissolved Solids			U	ND	mg/L					03/06/23	13:28
Batch	2394285										
QC1205338069	612966034	DUP									
Total Dissolved Solids			21700	19700	mg/L	9.95*		(0%-5%)	CH6	03/07/23	10:36
QC1205338070	613002009	DUP									
Total Dissolved Solids			3280	3660	mg/L	11*		(0%-5%)		03/07/23	10:36
QC1205338068	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		03/07/23	10:36
QC1205338067	MB										
Total Dissolved Solids			U	ND	mg/L					03/07/23	10:36
<b>Titration and Ion Analysis</b>											
Batch	2393623										
QC1205336853	612966001	DUP									
Alkalinity, Total as CaCO3			96.6	98.6	mg/L	2.05		(0%-20%)	HH2	03/07/23	13:25
Bicarbonate alkalinity (CaCO3)			96.6	98.6	mg/L	2.05		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205336855	612966011	DUP									
Alkalinity, Total as CaCO3			101	99.6	mg/L	1.2		(0%-20%)		03/07/23	13:53
Bicarbonate alkalinity (CaCO3)			101	99.6	mg/L	1.2		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2393623										
QC1205336852	LCS										
Alkalinity, Total as CaCO3	100			105	mg/L		105	(90%-110%)	HH2	03/07/23	13:18
QC1205336854	612966001	MS									
Alkalinity, Total as CaCO3	100	96.6		202	mg/L		105	(80%-120%)		03/07/23	13:26
QC1205336856	612966011	MS									
Alkalinity, Total as CaCO3	100	101		204	mg/L		103	(80%-120%)		03/07/23	13:55
Batch	2393624										
QC1205336858	612966021	DUP									
Alkalinity, Total as CaCO3		96.4		97.6	mg/L	1.24		(0%-20%)	HH2	03/07/23	14:22
Bicarbonate alkalinity (CaCO3)		96.4		97.6	mg/L	1.24		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205336860	612966031	DUP									
Alkalinity, Total as CaCO3		102		102	mg/L	0.784		(0%-20%)		03/07/23	14:56
Bicarbonate alkalinity (CaCO3)		102		102	mg/L	0.784		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205336857	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		03/07/23	14:14
QC1205336859	612966021	MS									
Alkalinity, Total as CaCO3	100	96.4		203	mg/L		107	(80%-120%)		03/07/23	14:23
QC1205336861	612966031	MS									
Alkalinity, Total as CaCO3	100	102		201	mg/L		99.2	(80%-120%)		03/07/23	14:58

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## QC Summary

Workorder: 612966

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2393626										
QC1205336868	613002001	DUP									
Alkalinity, Total as CaCO3		8.00		8.33	mg/L	4.08	^	(+/-6.67)	MS3	03/09/23	15:17
Bicarbonate alkalinity (CaCO3)		8.00		8.33	mg/L	4.08	^	(+/-6.67)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205336867	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L			(90%-110%)		03/09/23	14:16
QC1205336869	613002001	MS									
Alkalinity, Total as CaCO3	167	8.00		176	mg/L			(80%-120%)		03/09/23	15:20

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed



**Technical Case Narrative  
Georgia Power Company  
SDG #: 612966**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2393351

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2393350

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966001	MCM-T1-1HT
612966002	MCM-T1-2HT
612966003	MCM-T1-2HTS
612966004	MCM-T1-3HT
612966005	MCM-T1-3HTS
612966006	MCM-T1-4HT
612966007	MCM-T1-4HTS
612966008	MCM-T2-1HT
612966009	MCM-T2-2HT
612966010	MCM-T2-2HTS
612966011	MCM-T2-3HT
612966012	MCM-T2-3HTS
612966013	MCM-T2-4HT
612966014	MCM-T2-4HTS
612966015	MCM-T3-1HT
612966016	MCM-T3-2HT
612966017	MCM-T3-2HTS
612966018	MCM-T3-3HT
612966019	MCM-T3-3HTS
612966020	MCM-T3-4HT
1205336483	Method Blank (MB) <b>ICP-MS</b>
1205336484	Laboratory Control Sample (LCS)
1205336487	612966001(MCM-T1-1HTL) Serial Dilution (SD)
1205336485	612966001(MCM-T1-1HTS) Matrix Spike (MS)
1205336486	612966001(MCM-T1-1HTSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.



**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT), 612966010 (MCM-T2-2HTS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS), 612966013 (MCM-T2-4HT), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS) and 612966020 (MCM-T3-4HT) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, samples were diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	612966									
	001	002	003	004	005	006	007	008	009	010
Arsenic	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Boron	50X	50X	50X	50X	50X	50X	50X	50X	50X	50X
Calcium	10X	10X	10X	10X	10X	10X	10X	10X	10X	10X
Lithium	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X

Analyte	612966									
	011	012	013	014	015	016	017	018	019	020
Arsenic	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Boron	50X	50X	50X	50X	50X	50X	50X	50X	50X	50X
Calcium	10X	10X	10X	10X	10X	10X	10X	10X	10X	10X
Lithium	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2393353

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2393352

The following samples were analyzed using the above methods and analytical procedure(s).

**GEL Sample ID#**

612966021

**Client Sample Identification**

MCM-T3-4HTS

612966022	MCM-T4-1HB
612966023	MCM-T4-1HS
612966024	MCM-T4-2HB
612966025	MCM-T4-2HS
612966026	MCM-T4-3HB
612966027	MCM-T4-3HS
612966028	MCM-T4-4HB
612966029	MCM-T4-4HS
612966030	MCM-T1-4LT
612966031	MCM-T2-4LT
612966032	MCM-T3-4LT
612966033	MCM-T4-4L
612966034	MCM-BG-1LT
612966035	MCM-BG-2HT
612966036	MCM-AP1-FD-03
612966037	MCM-AP1-FD-04
612966038	MCM-AP1-FD-05
612966039	MCM-AP1-FD-06
612966040	MCM-AP1-FB-04
1205336488	Method Blank (MB)ICP-MS
1205336489	Laboratory Control Sample (LCS)
1205336492	612966021(MCM-T3-4HTSL) Serial Dilution (SD)
1205336490	612966021(MCM-T3-4HTSS) Matrix Spike (MS)
1205336491	612966021(MCM-T3-4HTSSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04), 612966038 (MCM-AP1-FD-05) and 612966039 (MCM-AP1-FD-06) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Samples 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04), 612966038 (MCM-AP1-FD-05) and 612966039 (MCM-AP1-FD-06) required

dilution after repeated attempts to analyze undiluted resulted in instrument QC failures.

Analyte	612966									
	021	022	023	024	025	026	027	028	029	030
Beryllium	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X
Boron	20X	20X	20X	20X	20X	20X	20X	20X	20X	20X
Cadmium	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X
Calcium	20X	20X	20X	20X	20X	20X	20X	20X	20X	20X
Lithium	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X

Analyte	612966								
	031	032	033	034	035	036	037	038	039
Beryllium	4X	4X	4X	4X	4X	4X	4X	4X	4X
Boron	20X	20X	20X	20X	20X	20X	20X	20X	20X
Cadmium	4X	4X	4X	4X	4X	4X	4X	4X	4X
Calcium	20X	20X	20X	20X	20X	20X	20X	20X	20X
Lithium	4X	4X	4X	4X	4X	4X	4X	4X	4X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2393357

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2393356

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966041	MCM-AP1-EB-04
1205336498	Method Blank (MB)ICP-MS
1205336499	Laboratory Control Sample (LCS)
1205336502	613002026(MCM-DR-01L) Serial Dilution (SD)
1205336500	613002026(MCM-DR-01S) Matrix Spike (MS)
1205336501	613002026(MCM-DR-01SD) Matrix Spike Duplicate (MSD)
1205339763	613002026(MCM-DR-01PS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2408318

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2408317

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966001	MCM-T1-1HT
612966002	MCM-T1-2HT
612966003	MCM-T1-2HTS
612966004	MCM-T1-3HT
612966005	MCM-T1-3HTS
612966006	MCM-T1-4HT
612966007	MCM-T1-4HTS
612966008	MCM-T2-1HT
612966009	MCM-T2-2HT
612966010	MCM-T2-2HTS
612966011	MCM-T2-3HT
612966012	MCM-T2-3HTS
612966013	MCM-T2-4HT
612966014	MCM-T2-4HTS
612966015	MCM-T3-1HT
612966016	MCM-T3-2HT
612966017	MCM-T3-2HTS
612966018	MCM-T3-3HT
612966019	MCM-T3-3HTS
612966020	MCM-T3-4HT
1205365178	Method Blank (MB) <b>ICP-MS</b>
1205365179	Laboratory Control Sample (LCS)
1205365182	612966002(MCM-T1-2HTL) Serial Dilution (SD)
1205365180	612966002(MCM-T1-2HTS) Matrix Spike (MS)
1205365181	612966002(MCM-T1-2HTSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT), 612966010 (MCM-T2-2HTS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS), 612966013 (MCM-T2-4HT), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS) and 612966020 (MCM-T3-4HT) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	612966									
	001	002	003	004	005	006	007	008	009	010
Magnesium	25X	50X	50X	50X	50X	50X	50X	50X	50X	50X
Potassium	10X	10X	10X	10X	10X	10X	10X	10X	10X	10X
Sodium	200X	200X	200X	200X	200X	200X	200X	200X	200X	200X

Analyte	612966									
	011	012	013	014	015	016	017	018	019	020
Magnesium	50X	50X	50X	50X	50X	50X	50X	50X	50X	50X
Potassium	10X	10X	10X	10X	10X	10X	10X	10X	10X	10X
Sodium	200X	200X	200X	200X	200X	200X	200X	200X	200X	200X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2408400

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2408398

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966021	MCM-T3-4HTS
612966022	MCM-T4-1HB
612966023	MCM-T4-1HS
612966024	MCM-T4-2HB
612966025	MCM-T4-2HS
612966026	MCM-T4-3HB
612966027	MCM-T4-3HS
612966028	MCM-T4-4HB
612966029	MCM-T4-4HS

612966030	MCM-T1-4LT
612966031	MCM-T2-4LT
612966032	MCM-T3-4LT
612966033	MCM-T4-4L
612966034	MCM-BG-1LT
612966035	MCM-BG-2HT
612966036	MCM-AP1-FD-03
612966037	MCM-AP1-FD-04
612966038	MCM-AP1-FD-05
612966039	MCM-AP1-FD-06
612966040	MCM-AP1-FB-04
1205365339	Method Blank (MB) <b>ICP-MS</b>
1205365340	Laboratory Control Sample (LCS)
1205365343	612966022(MCM-T4-1HBL) Serial Dilution (SD)
1205365341	612966022(MCM-T4-1HBS) Matrix Spike (MS)
1205365342	612966022(MCM-T4-1HBSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04), 612966038 (MCM-AP1-FD-05) and 612966039 (MCM-AP1-FD-06) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	612966									
	021	022	023	024	025	026	027	028	029	030
Magnesium	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Potassium	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Sodium	500X	500X	500X	500X	500X	500X	500X	500X	500X	500X

Analyte	612966								
	031	032	033	034	035	036	037	038	039
Magnesium	100X	100X	100X	100X	100X	100X	100X	100X	100X

Potassium	100X	100X	100X	100X	100X	100X	100X	100X	100X
Sodium	500X	500X	500X	500X	500X	500X	500X	500X	500X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2408405

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2408404

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966041	MCM-AP1-EB-04
1205365354	Method Blank (MB)ICP-MS
1205365355	Laboratory Control Sample (LCS)
1205365356	Laboratory Control Sample Duplicate (LCSD)
1205365357	612966041(MCM-AP1-EB-04L) Serial Dilution (SD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Quality Control (QC) Information**

**Laboratory Control Sample Duplicate (LCSD)**

An LCSD was used in place of matrix QC due to the designation of field QC. 1205365356 (LCSD).

**General Chemistry**

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393295

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
612966001	MCM-T1-1HT
612966002	MCM-T1-2HT
612966003	MCM-T1-2HTS
612966004	MCM-T1-3HT
612966005	MCM-T1-3HTS
612966006	MCM-T1-4HT
612966007	MCM-T1-4HTS
612966008	MCM-T2-1HT
612966009	MCM-T2-2HT
612966010	MCM-T2-2HTS
1205336398	Method Blank (MB)
1205336399	Laboratory Control Sample (LCS)
1205336400	612966001(MCM-T1-1HT) Sample Duplicate (DUP)
1205336401	612966001(MCM-T1-1HT) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205336400 (MCM-T1-1HTDUP), 1205336401 (MCM-T1-1HTPS), 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT) and 612966010 (MCM-T2-2HTS) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205336400 (MCM-T1-1HTDUP), 1205336401 (MCM-T1-1HTPS), 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT) and 612966010 (MCM-T2-2HTS) were diluted to minimize matrix effects on instrument performance. Samples 1205336400 (MCM-T1-1HTDUP), 1205336401 (MCM-T1-1HTPS), 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT) and 612966010 (MCM-T2-2HTS) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	612966									
	001	002	003	004	005	006	007	008	009	010
Chloride	4000X	4000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X
Fluoride	40X	40X	25X	25X	25X	25X	25X	25X	25X	25X
Sulfate	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X



**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393336

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966011	MCM-T2-3HT
612966012	MCM-T2-3HTS
612966013	MCM-T2-4HT
612966014	MCM-T2-4HTS
612966015	MCM-T3-1HT
612966016	MCM-T3-2HT
612966017	MCM-T3-2HTS
612966018	MCM-T3-3HT
612966019	MCM-T3-3HTS
612966020	MCM-T3-4HT
1205336468	Method Blank (MB)
1205336469	Laboratory Control Sample (LCS)
1205336470	612966011(MCM-T2-3HT) Sample Duplicate (DUP)
1205336471	612966011(MCM-T2-3HT) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205336470 (MCM-T2-3HTDUP), 1205336471 (MCM-T2-3HTPS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS), 612966013 (MCM-T2-4HT), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS) and 612966020 (MCM-T3-4HT) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205336470 (MCM-T2-3HTDUP), 1205336471 (MCM-T2-3HTPS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS), 612966013 (MCM-T2-4HT), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS) and 612966020 (MCM-T3-4HT) were diluted to minimize matrix effects on instrument performance. Samples 1205336470 (MCM-T2-3HTDUP), 1205336471 (MCM-T2-3HTPS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS), 612966013 (MCM-T2-4HT), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS) and 612966020 (MCM-T3-4HT) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	612966									
	011	012	013	014	015	016	017	018	019	020
Chloride	2000X	2000X	1000X	2000X	2000X	4000X	4000X	4000X	4000X	2000X
Fluoride	25X	25X	20X	25X	25X	40X	40X	40X	40X	25X

Sulfate	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X
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**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393377

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966021	MCM-T3-4HTS
612966022	MCM-T4-1HB
612966023	MCM-T4-1HS
612966024	MCM-T4-2HB
612966025	MCM-T4-2HS
612966026	MCM-T4-3HB
612966027	MCM-T4-3HS
612966028	MCM-T4-4HB
612966029	MCM-T4-4HS
612966030	MCM-T1-4LT
612966031	MCM-T2-4LT
612966032	MCM-T3-4LT
612966033	MCM-T4-4L
612966034	MCM-BG-1LT
612966035	MCM-BG-2HT
612966036	MCM-AP1-FD-03
612966037	MCM-AP1-FD-04
612966038	MCM-AP1-FD-05
1205336514	Method Blank (MB)
1205336515	Laboratory Control Sample (LCS)
1205336516	612966021(MCM-T3-4HTS) Sample Duplicate (DUP)
1205336517	612966021(MCM-T3-4HTS) Post Spike (PS)
1205336518	612966031(MCM-T2-4LT) Sample Duplicate (DUP)
1205336519	612966031(MCM-T2-4LT) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205336517 (MCM-T3-4HTSPS)	114* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205336516 (MCM-T3-4HTSDUP), 1205336517 (MCM-T3-4HTSPS), 1205336518 (MCM-T2-4LTDUP), 1205336519 (MCM-T2-4LTPS), 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04) and 612966038 (MCM-AP1-FD-05) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205336516 (MCM-T3-4HTSDUP), 1205336517 (MCM-T3-4HTSPS), 1205336518 (MCM-T2-4LTDUP), 1205336519 (MCM-T2-4LTPS), 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04) and 612966038 (MCM-AP1-FD-05) were diluted to minimize matrix effects on instrument performance. Samples 1205336516 (MCM-T3-4HTSDUP), 1205336517 (MCM-T3-4HTSPS), 1205336518 (MCM-T2-4LTDUP), 1205336519 (MCM-T2-4LTPS), 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT), 612966033 (MCM-T4-4L), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04) and 612966038 (MCM-AP1-FD-05) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	612966									
	021	022	023	024	025	026	027	028	029	030
Chloride	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X
Fluoride	25X	40X	40X	40X	40X	40X	40X	40X	20X	40X
Sulfate	1000X	1000X	1000X	1000X	1000X	1000X	1000X	1000X	2000X	2000X

Analyte	612966							
	031	032	033	034	035	036	037	038
Chloride	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X
Fluoride	40X	20X	40X	40X	25X	40X	25X	25X
Sulfate	2000X	2000X	2000X	2000X	2000X	2000X	2000X	2000X

**Sample Re-analysis**

Sample 1205336517 (MCM-T3-4HTSPS) was re-analyzed to verify the result.

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2393496

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
612966039	MCM-AP1-FD-06
612966040	MCM-AP1-FB-04
612966041	MCM-AP1-EB-04
1205336654	Method Blank (MB)
1205336655	Laboratory Control Sample (LCS)
1205336656	613002007(MCM-MCM-06) Sample Duplicate (DUP)
1205336657	613002007(MCM-MCM-06) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

#### **Technical Information**

##### **Sample Dilutions**

The following samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS) and 612966039 (MCM-AP1-FD-06) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS) and 612966039 (MCM-AP1-FD-06) were diluted to minimize matrix effects on instrument performance. Samples 1205336656 (MCM-MCM-06DUP), 1205336657 (MCM-MCM-06PS) and 612966039 (MCM-AP1-FD-06) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>612966</b>
	<b>039</b>
Chloride	2000X
Fluoride	25X
Sulfate	2000X

##### **Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2393739

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
612966001	MCM-T1-1HT
612966002	MCM-T1-2HT
612966003	MCM-T1-2HTS
612966004	MCM-T1-3HT
612966005	MCM-T1-3HTS
612966006	MCM-T1-4HT
612966007	MCM-T1-4HTS

612966008	MCM-T2-1HT
612966009	MCM-T2-2HT
612966010	MCM-T2-2HTS
612966011	MCM-T2-3HT
612966012	MCM-T2-3HTS
612966013	MCM-T2-4HT
1205337147	Method Blank (MB)
1205337148	Laboratory Control Sample (LCS)
1205337149	612740005(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205337149 (Non SDG 612740005DUP), 612966001 (MCM-T1-1HT), 612966002 (MCM-T1-2HT), 612966003 (MCM-T1-2HTS), 612966004 (MCM-T1-3HT), 612966005 (MCM-T1-3HTS), 612966006 (MCM-T1-4HT), 612966007 (MCM-T1-4HTS), 612966008 (MCM-T2-1HT), 612966009 (MCM-T2-2HT), 612966010 (MCM-T2-2HTS), 612966011 (MCM-T2-3HT), 612966012 (MCM-T2-3HTS) and 612966013 (MCM-T2-4HT).

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2393740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966014	MCM-T2-4HTS
612966015	MCM-T3-1HT
612966016	MCM-T3-2HT
612966017	MCM-T3-2HTS
612966018	MCM-T3-3HT
612966019	MCM-T3-3HTS
612966020	MCM-T3-4HT
612966021	MCM-T3-4HTS
612966022	MCM-T4-1HB
612966023	MCM-T4-1HS
612966024	MCM-T4-2HB
612966025	MCM-T4-2HS
612966026	MCM-T4-3HB
612966027	MCM-T4-3HS
612966028	MCM-T4-4HB
612966029	MCM-T4-4HS
612966030	MCM-T1-4LT
612966031	MCM-T2-4LT

612966032	MCM-T3-4LT
612966033	MCM-T4-4L
1205337151	Method Blank (MB)
1205337152	Laboratory Control Sample (LCS)
1205337153	612966014(MCM-T2-4HTS) Sample Duplicate (DUP)
1205337154	612966024(MCM-T4-2HB) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205337153 (MCM-T2-4HTSDUP)	5.77* (0%-5%)
	1205337154 (MCM-T4-2HBDUP)	8.48* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205337153 (MCM-T2-4HTSDUP), 1205337154 (MCM-T4-2HBDUP), 612966014 (MCM-T2-4HTS), 612966015 (MCM-T3-1HT), 612966016 (MCM-T3-2HT), 612966017 (MCM-T3-2HTS), 612966018 (MCM-T3-3HT), 612966019 (MCM-T3-3HTS), 612966020 (MCM-T3-4HT), 612966021 (MCM-T3-4HTS), 612966022 (MCM-T4-1HB), 612966023 (MCM-T4-1HS), 612966024 (MCM-T4-2HB), 612966025 (MCM-T4-2HS), 612966026 (MCM-T4-3HB), 612966027 (MCM-T4-3HS), 612966028 (MCM-T4-4HB), 612966029 (MCM-T4-4HS), 612966030 (MCM-T1-4LT), 612966031 (MCM-T2-4LT), 612966032 (MCM-T3-4LT) and 612966033 (MCM-T4-4L).

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2394285

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966034	MCM-BG-1LT
612966035	MCM-BG-2HT
612966036	MCM-AP1-FD-03
612966037	MCM-AP1-FD-04
612966038	MCM-AP1-FD-05
612966039	MCM-AP1-FD-06
612966040	MCM-AP1-FB-04

612966041	MCM-AP1-EB-04
1205338067	Method Blank (MB)
1205338068	Laboratory Control Sample (LCS)
1205338069	612966034(MCM-BG-1LT) Sample Duplicate (DUP)
1205338070	613002009(MCM-MCM-14) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205338069 (MCM-BG-1LTDUP)	9.95* (0%-5%)
	1205338070 (MCM-MCM-14DUP)	11* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205338069 (MCM-BG-1LTDUP), 1205338070 (MCM-MCM-14DUP), 612966034 (MCM-BG-1LT), 612966035 (MCM-BG-2HT), 612966036 (MCM-AP1-FD-03), 612966037 (MCM-AP1-FD-04), 612966038 (MCM-AP1-FD-05) and 612966039 (MCM-AP1-FD-06).

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2393623

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966001	MCM-T1-1HT
612966002	MCM-T1-2HT
612966003	MCM-T1-2HTS
612966004	MCM-T1-3HT
612966005	MCM-T1-3HTS
612966006	MCM-T1-4HT
612966007	MCM-T1-4HTS
612966008	MCM-T2-1HT
612966009	MCM-T2-2HT
612966010	MCM-T2-2HTS
612966011	MCM-T2-3HT
612966012	MCM-T2-3HTS

612966013	MCM-T2-4HT
612966014	MCM-T2-4HTS
612966015	MCM-T3-1HT
612966016	MCM-T3-2HT
612966017	MCM-T3-2HTS
612966018	MCM-T3-3HT
612966019	MCM-T3-3HTS
612966020	MCM-T3-4HT
1205336852	Laboratory Control Sample (LCS)
1205336853	612966001(MCM-T1-1HT) Sample Duplicate (DUP)
1205336854	612966001(MCM-T1-1HT) Matrix Spike (MS)
1205336855	612966011(MCM-T2-3HT) Sample Duplicate (DUP)
1205336856	612966011(MCM-T2-3HT) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2393624

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966021	MCM-T3-4HTS
612966022	MCM-T4-1HB
612966023	MCM-T4-1HS
612966024	MCM-T4-2HB
612966025	MCM-T4-2HS
612966026	MCM-T4-3HB
612966027	MCM-T4-3HS
612966028	MCM-T4-4HB
612966029	MCM-T4-4HS
612966030	MCM-T1-4LT
612966031	MCM-T2-4LT
612966032	MCM-T3-4LT
612966033	MCM-T4-4L
612966034	MCM-BG-1LT
612966035	MCM-BG-2HT
612966036	MCM-AP1-FD-03
612966037	MCM-AP1-FD-04
612966038	MCM-AP1-FD-05
612966039	MCM-AP1-FD-06
612966040	MCM-AP1-FB-04
1205336857	Laboratory Control Sample (LCS)
1205336858	612966021(MCM-T3-4HTS) Sample Duplicate (DUP)
1205336859	612966021(MCM-T3-4HTS) Matrix Spike (MS)
1205336860	612966031(MCM-T2-4LT) Sample Duplicate (DUP)



1205336861

612966031(MCM-T2-4LT) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2393626

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
612966041	MCM-AP1-EB-04
1205336867	Laboratory Control Sample (LCS)
1205336868	613002001(MCM-MCM-01) Sample Duplicate (DUP)
1205336869	613002001(MCM-MCM-01) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page 1 of 5  
 Project #: GPCC00105  
 GEL Quote #: GELP22-0819  
 CC Number (1):  
 PO Number:  
 Client Name: Kristen Jurinko  
 Project/Site Name: Plant McManus Surface Water Sampling  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308  
 Collected By: William Laaker, Meredith Duncan,  
 Kevin Stephenson  
 Send Results To: kjurinko@southemco.com; levin.stephenson@resoluteenv.com; ireni.godwin@resoluteenv.com  
 \*For composites - indicate start and stop date/time

612966  
**Chain of Custody and Analytical Request**  
 GEL Work Order Number: GEL Project Manager: Erin Trent  
 Phone #: N/A  
 Fax #:

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radiactive (f) Yes, please supply isotopic info.	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)		Comments
								Metals	Alkalinity/TDS/Anions	
MCM-T1-1HT	3/1/23	1533	G	N	WS			2	X	pH: 5.93
MCM-T1-2HT	3/1/23	1540	G	N	WS			2	X	pH: 7.58
MCM-T1-2HTS	3/1/23	1535	G	N	WS			2	X	pH: 6.54
MCM-T1-3HT	3/1/23	1557	G	N	WS			2	X	pH: 7.39
MCM-T1-3HTS	3/1/23	1552	G	N	WS			2	X	pH: 7.12
MCM-T1-4HT	3/1/23	1609	G	N	WS			2	X	pH: 7.48
MCM-T1-4HTS	3/1/23	1605	G	N	WS			2	X	pH: 7.41
MCM-T2-1HT	2/28/23	1714	G	N	WS			2	X	pH: 7.61
MCM-T2-2HT	2/28/23	1720	G	N	WS			2	X	pH: 7.62
MCM-T2-2HTS	2/28/23	1716	G	N	WS			2	X	pH: 7.62

**Chain of Custody Signatures**  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date 3/3/23 Time 945  
 1 *[Signature]*  
 2  
 3  
 TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urme, F=Feecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B 7470A -1)  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)  
 Waste code(s):  
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead, biphenyls  
 TSCA Regulated: PCB = Polychlorinated biphenyls



GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: Kristen Jurinko  
 Project/Site Name: Plant McManus Surface Water Sampling  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308

Phone #: N/A  
 Fax #  
 Collected By: William Laaker, Meredith Duncan, Kevin Stephenson  
 Send Results To: kjurink@southemco.com; meredith.duncan@resoluteenv.com; kstephenson@resoluteenv.com

Sample ID  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioactive (If yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Metals	Alkalinity/TDS/Anions	NI	Preservative Type (6)	Comments
MCM-T2-3HT	2/28/23	1729	G	N	WS			2	X	X			pH: 7.60
MCM-T2-3HTS	2/28/23	1725	G	N	WS			2	X	X			pH: 7.65
MCM-T2-4HT	3/1/23	1624	G	N	WS			2	X	X			pH: 7.50
MCM-T2-4HTS	3/1/23	1618	G	N	WS			2	X	X			pH: 7.50
MCM-T3-1HT	2/28/23	1655	G	N	WS			2	X	X			pH: 7.64
MCM-T3-2HT	2/28/23	1702	G	N	WS			2	X	X			pH: 7.61
MCM-T3-2HTS	2/28/23	1657	G	N	WS			2	X	X			pH: 7.64
MCM-T3-3HT	3/1/23	1640	G	N	WS			2	X	X			pH: 7.50
MCM-T3-3HTS	3/1/23	1636	G	N	WS			2	X	X			pH: 7.49
MCM-T3-4HT	3/1/23	1653	G	N	WS			2	X	X			pH: 7.53

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
William Laaker	2/28/23	Erin Trent	3/13/23	948
Meredith Duncan	3/1/23			

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Feecal, N=Nasal
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS
 

RCRA Metals	As = Arsenic	Hg = Mercury
	Ba = Barium	Se = Selenium
	Cd = Cadmium	Ag = Silver
	Cr = Chromium	MR = Misc. RCRA metals
	Pb = Lead	biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

## Chain of Custody and Analytical Request

**GEL Work Order Number: GEL Project Manager: Erin Trent**

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)		Comments
						Yes, please supply isotopic info)	(7) Known or possible Hazards		Metals	Alkalinity/TDS/Anions	
MCM-T3-4HTS	3/1/23	1649	G	N	WS			2	X		pH: 7.51
MCM-T4-1HB	2/28/23	1619	G	N	WS			2	X		pH: 7.60
MCM-T4-1HS	2/28/23	1614	G	N	WS			2	X		pH: 7.63
MCM-T4-2HB	2/28/23	1606	G	N	WS			2	X		pH: 7.59
MCM-T4-2HS	2/28/23	1600	G	N	WS			2	X		pH: 7.59
MCM-T4-3HB	2/28/23	1547	G	N	WS			2	X		pH: 7.62
MCM-T4-3HS	2/28/23	1540	G	N	WS			2	X		pH: 7.61
MCM-T4-4HB	2/28/23	1530	G	N	WS			2	X		pH: 7.65
MCM-T4-4HS	2/28/23	1520	G	N	WS			2	X		pH: 7.64
MCM-T1-4LT	3/2/23	1332	G	N	WS			2	X		pH: 7.97

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>			<i>[Signature]</i>	3/13/23	948

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  Level 1  Level 2  Level 3  Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

TSCA Regulated  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Page 4 of 5  
 Project #: GPCC00105  
 GEL Quote #: GELP22-0819  
 CS Number (1):  
 PONumber:

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**Chain of Custody and Analytical Request**  
 GEL Work Order Number: **GEL Project Manager: Erin Trent**

Client Name: Kristen Jurinko  
 Phone #: N/A  
 Project/Site Name: Plant McManus Surface Water Sampling  
 Fax #  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308

Collected By: William Laaker, Meredith Duncan,  
 K&M STEPHENSON  
 Send Results To: knjurnk@southernco.com; kevin.stephenson@resoluteenv.com;  
 trent.gotwin@resoluteenv.com

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radiative (f)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (e) (Fill in the number of containers for each test)		Preservative Type (6)	Comments
							Yes, please supply isotopic info.)	(7) Known or possible Hazards		Metals	Alkalinity/TDS/Anions		
MCM-T2-4LT	3/2/23	1344	G	N	WS				2	X			pH: 7.93
MCM-T3-4LT	3/2/23	1358	G	N	WS				2	X			pH: 7.90
MCM-T4-4L	3/2/23	1300	G	N	WS				2	X			pH: 7.35
MCM-BG-1LT	3/2/23	1122	G	N	WS				2	X			pH: 7.11
MCM-BG-2HT	2/28/23	1640	G	N	WS				2	X			pH: 7.68
MCM-API-FD-03	2/28/23	---	G	N	WS				2	X			
MCM-API-FD-04	3/1/23	---	G	N	WS				2	X			
MCM-API-FD-05	3/1/23	---	G	N	WS				2	X			
MCM-API-FD-06	3/2/23	---	G	N	WS				2	X			
MCM-API-FB-04	3/2/23	1605	G	N	WQ				2	X			

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	3/2/23	1605	<i>[Signature]</i>	3/2/23	945

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Urine, U=Urine, F=Faecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

TSCA Regulated  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



# Chain of Custody and Analytical Request

**GEL Work Order Number: GEL Project Manager: Erin Trent**

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: Kristen Jurinko  
 Phone #: N/A  
 Fax #

Project/Site Name: Plant McManus Surface Water Sampling  
 Address: 241 Ralph McGill Blvd NE, Atlanta, GA 30308

Collected By: William Laaker, Meredith Duncan, Kevin Stephensen  
 Send Results To: kjurink@southemco.com, kevin.stephenson@resoluteenv.com, trent.godwin@resoluteenv.com

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radiactive (if yes, please supply isotopic info)	Should this sample be considered: Possible Hazards	Sample Analysis Requested (6) (Fill in the number of containers for each test)						Comments Note: extra sample is required for sample specific QC	
								Metals	Alkalinity/TDS/Amions	NI	Total number of containers				Preservative Type (6)
-MCM-API-FB-05			G	N	WQ		(?) Known or								
MCM-API-EB-04	3/2/23	1610	G	N	WQ										
-MCM-API-EB-05			G	N	WQ										

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>William Laaker</i>			<i>[Signature]</i>	3/3/23	248

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urne, F=Faecal, N=Nasal
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristics Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**List of current GEL Certifications as of 11 April 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



**EQUIPMENT CALIBRATION LOG**

Field Technician: William Loaker Date: 6/7/22 Time (Calibration): 12:36 Time (Mid-day Check):

AquaTroll SN: 789301 Turbidity Meter Type: LaMotte 2020 SN: 2068-0320

Project: June 2022 Surface Water Weather Conditions: 89°/68° sunny w/ partly cloudy

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading of Calibration	Comments
DO (%) (1 pt, 100% water saturated air cal)				104.10	
Specific Conductance (µS/cm)	21470032 04/23	31.19	4490	4528.4	
pH (4)	21470032 04/24	31.02	4	4.13	
pH (7)	21380102 04/23	30.05	7	7.09	
pH (10)	20080056 04/23	29.54	10	10.05	
ORP (mV)	21140143 04/23	29.41	228	211.7	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.17	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	10.37	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		±0.1 SU	Yes	No	
Mid-Day pH (7) check		7		±0.1 SU	Yes	No	
Mid-Day pH (10) check		10		±0.1 SU	Yes	No	

Location Properties

BG-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 16:38:06

Time Offset = -04:00:00

Duration = 00:00:22

Readings = 12

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	4.352145	69.56929	100.8126	40403.08	34.50235	34196.7	21.84498	22.22785	24.75058
#####	4.35694	69.48421	100.7433	40393.12	34.32939	34284.22	21.90707	22.28474	24.75669
#####	4.356794	69.46958	100.7264	40392.38	34.31182	34293.27	21.91349	22.29063	24.75714
#####	4.356647	69.45494	100.7094	40391.64	34.29426	34302.32	21.91992	22.29651	24.7576
#####	4.3565	69.44031	100.6925	40390.91	34.2767	34311.38	21.92634	22.3024	24.75805
#####	4.405722	69.86126	101.412	40400.54	34.07515	34432.32	22.01212	22.38101	24.75215
#####	4.408024	69.87826	101.4426	40400.76	34.06252	34439.55	22.01725	22.38571	24.75201
#####	4.410326	69.89526	101.4733	40400.98	34.04988	34446.79	22.02238	22.39041	24.75188
#####	4.412627	69.91226	101.504	40401.2	34.03725	34454.02	22.02751	22.39512	24.75174
#####	4.419891	69.84914	101.4744	40298.92	33.69339	34560.49	22.103	22.46432	24.81458
#####	4.421187	69.85434	101.4869	40294.46	33.67355	34567.84	22.10822	22.4691	24.81732
#####	4.422483	69.85954	101.4995	40290	33.6537	34575.19	22.11343	22.47388	24.82006

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010355	-0.06447	0.487769	7.537376	-68.9955	96.09503	1016.06	33.87033	
1.010463	-0.06422	0.488342	7.529408	-68.4964	96.15667	1016.068	33.87036	
1.010474	-0.06439	0.487959	7.528841	-68.46	96.16071	1016.069	33.87019	
1.010485	-0.06455	0.487577	7.528274	-68.4236	96.16476	1016.069	33.87003	
1.010496	-0.06472	0.487194	7.527707	-68.3872	96.16879	1016.069	33.86986	
1.010632	-0.06075	0.496351	7.5213	-67.9892	96.24384	1016.035	33.87	
1.01064	-0.06057	0.496771	7.520855	-67.9615	96.24844	1016.033	33.87	
1.010648	-0.06039	0.497191	7.52041	-67.9337	96.25304	1016.032	33.87	
1.010657	-0.0602	0.497611	7.519964	-67.906	96.25763	1016.03	33.87	
1.010835	-0.04886	0.52378	7.515541	-67.5764	96.32788	1016.084	33.87897	
1.010846	-0.04827	0.525142	7.515205	-67.5531	96.3326	1016.086	33.87938	
1.010857	-0.04768	0.526504	7.51487	-67.5297	96.33733	1016.088	33.87979	

Location Properties

BG-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 16:20:11

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	4.842863	77.79829	112.8284	42947.68	34.26565	36489.95	23.47663	23.71847	23.28415	
#####	4.837636	77.44833	112.4069	42917.3	34.01505	36613.23	23.56474	23.7986	23.30065	
#####	4.834672	77.38356	112.3186	42912.66	33.99417	36621.66	23.57076	23.80408	23.30316	
#####	4.831708	77.31879	112.2304	42908.02	33.97329	36630.08	23.57679	23.80955	23.30567	
#####	4.828744	77.25401	112.1421	42903.39	33.95241	36638.5	23.58281	23.81503	23.30818	
#####	4.824914	76.83352	111.6381	42875.27	33.77124	36723.13	23.64326	23.87004	23.32347	
#####	4.824518	76.80596	111.6045	42873.29	33.75822	36729.23	23.64761	23.874	23.32455	
#####	4.824122	76.7784	111.5709	42871.32	33.7452	36735.33	23.65197	23.87796	23.32562	
#####	4.823726	76.75085	111.5374	42869.34	33.73218	36741.43	23.65633	23.88193	23.32669	
#####	4.80621	76.25777	110.8947	42807.16	33.38308	36899.16	23.76892	23.98446	23.36059	
#####	4.805303	76.22665	110.8549	42803.77	33.36376	36907.93	23.77518	23.99015	23.36243	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011648	-0.06846	0.478564	7.529131	-68.4505	98.97852	1016.129	34.36	
1.011803	-0.06756	0.480635	7.523257	-68.0777	99.02705	1016.129	34.36	
1.011815	-0.06777	0.480156	7.522879	-68.0522	99.03084	1016.129	34.36	
1.011827	-0.06798	0.479678	7.5225	-68.0266	99.03463	1016.13	34.36	
1.011839	-0.06819	0.479199	7.522122	-68.0011	99.03842	1016.13	34.36	
1.011949	-0.0789	0.454492	7.516189	-67.6358	99.04403	1016.121	34.3514	
1.011957	-0.07938	0.45339	7.515813	-67.6123	99.04522	1016.121	34.35101	
1.011965	-0.07985	0.452287	7.515437	-67.5889	99.04641	1016.12	34.35062	
1.011972	-0.08033	0.451185	7.51506	-67.5654	99.0476	1016.12	34.35023	
1.01218	-0.07933	0.453488	7.513478	-67.381	99.07452	1016.146	34.35024	
1.012191	-0.0795	0.453101	7.51329	-67.3655	99.07586	1016.147	34.35007	

Location Properties

T1-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 18:09:39

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.282955	79.93094	116.9349	37542.12	31.19789	33568.31	21.39799	21.8194	26.63675	
##### 5.262061	79.6104	116.4669	37540.34	31.19431	33568.77	21.39831	21.8197	26.63801	
##### 5.241166	79.28987	115.999	37538.57	31.19074	33569.23	21.39862	21.82	26.63927	
##### 5.066391	76.59417	112.0767	37615.87	31.12392	33676.82	21.47436	21.88993	26.58454	
##### 5.052888	76.38668	111.7742	37618.26	31.12011	33681.15	21.47741	21.89275	26.58285	
##### 5.039385	76.17918	111.4717	37620.66	31.1163	33685.49	21.48046	21.89557	26.58115	
##### 5.025881	75.97169	111.1692	37623.05	31.11249	33689.82	21.4835	21.89838	26.57946	
##### 4.890463	73.86621	108.1043	37635.79	31.10021	33708.31	21.49651	21.9104	26.57046	
##### 4.880774	73.71607	107.8857	37637.73	31.09836	33711.1	21.49848	21.91222	26.56909	
##### 4.871086	73.56593	107.6672	37639.66	31.09651	33713.9	21.50045	21.91403	26.56772	
##### 4.766313	71.97998	105.3492	37679.12	31.03681	33783.77	21.5496	21.95945	26.5399	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011173	-0.07191	0.470613	7.451541	-63.4427	98.82546	1016.024	34.53345	
1.011174	-0.07197	0.470464	7.451041	-63.4135	98.83092	1016.022	34.53194	
1.011175	-0.07204	0.470316	7.450542	-63.3844	98.83637	1016.021	34.53044	
1.011254	-0.06928	0.476667	7.44415	-63.0215	98.86288	1016.038	34.5223	
1.011258	-0.06917	0.476926	7.44372	-62.9967	98.86568	1016.038	34.52142	
1.011261	-0.06906	0.477185	7.44329	-62.972	98.86849	1016.038	34.52055	
1.011265	-0.06895	0.477443	7.442861	-62.9472	98.8713	1016.038	34.51968	
1.011278	-0.06503	0.486487	7.437541	-62.6394	98.90311	1016.048	34.50259	
1.011281	-0.0648	0.487001	7.437176	-62.6185	98.90514	1016.049	34.50165	
1.011283	-0.06458	0.487516	7.436811	-62.5975	98.90717	1016.049	34.50071	
1.011339	-0.06639	0.483351	7.431591	-62.2934	98.96976	1016.024	34.48372	

Location Properties

T1-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 18:06:45

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.550097	84.48286	123.4142	37135.81	31.72372	32909.48	20.93498	21.39116	26.92818
#####	5.550097	84.48286	123.4142	37135.81	31.72372	32909.48	20.93498	21.39116	26.92818
#####	5.420782	82.54925	120.5861	37171.32	31.74795	32927.44	20.94767	21.40284	26.90246
#####	5.412496	82.42534	120.4049	37173.6	31.7495	32928.59	20.94848	21.40358	26.90081
#####	5.404209	82.30143	120.2236	37175.88	31.75106	32929.74	20.94929	21.40433	26.89916
#####	5.395923	82.17753	120.0424	37178.15	31.75261	32930.89	20.9501	21.40508	26.89751
#####	5.349734	81.45068	118.9839	37208.88	31.74743	32961	20.97128	21.42465	26.87531
#####	5.344407	81.36938	118.8652	37211.16	31.7478	32962.81	20.97256	21.42583	26.87366
#####	5.339078	81.28807	118.7465	37213.44	31.74818	32964.63	20.97383	21.42701	26.87201
#####	5.333751	81.20676	118.6278	37215.72	31.74855	32966.44	20.97511	21.42818	26.87036
#####	5.297558	80.59434	117.7529	37176.18	31.67993	32969.69	20.97728	21.4303	26.89895



Density (g/cm³)	Pressure (ft)	Depth (ft)	pH (pH)	pH mV (mV)	ORP (mV)	Barometric	Temperature	Marked
1.010651	-0.08382	0.443134	7.526695	-67.8202	96.89316	1015.99	34.9	
1.010651	-0.08382	0.443134	7.526695	-67.8202	96.89316	1015.99	34.9	
1.010653	-0.06431	0.488147	7.514892	-67.1527	97.52088	1016.026	34.89088	
1.010653	-0.06306	0.491031	7.514135	-67.11	97.56111	1016.029	34.8903	
1.010653	-0.06181	0.493916	7.513379	-67.0672	97.60133	1016.031	34.88971	
1.010653	-0.06056	0.4968	7.512622	-67.0244	97.64156	1016.033	34.88913	
1.01067	-0.07714	0.458545	7.506647	-66.6819	97.68231	1015.986	34.8903	
1.010671	-0.0774	0.45794	7.506081	-66.6496	97.69987	1015.984	34.89012	
1.010672	-0.07767	0.457334	7.505515	-66.6174	97.71743	1015.983	34.88995	
1.010673	-0.07793	0.456729	7.504949	-66.5852	97.73499	1015.982	34.88977	
1.010697	-0.06976	0.47558	7.497952	-66.1714	97.81595	1016.026	34.88106	

Location Properties

T2-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 16:54:33

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.616908	86.55134	125.9527	34879.8	33.12784	30192.64	19.03496	19.62521	28.66991	
#####	5.605643	86.38039	125.7036	34882.27	33.13057	30193.41	19.0355	19.62572	28.66787	
#####	5.594378	86.20946	125.4544	34884.74	33.13331	30194.19	19.03604	19.62622	28.66582	
#####	5.532991	85.27181	124.0894	34959.91	33.12083	30265.49	19.08566	19.67257	28.60422	
#####	5.527731	85.19093	123.9718	34962.94	33.12109	30267.99	19.0874	19.67419	28.60173	
#####	5.52247	85.11005	123.8542	34965.97	33.12135	30270.48	19.08913	19.67581	28.59925	
#####	5.51721	85.02916	123.7366	34969	33.12162	30272.97	19.09087	19.67743	28.59676	
#####	5.473823	84.2551	122.6451	34992.97	33.08169	30313.74	19.11925	19.70393	28.57718	
#####	5.470562	84.20009	122.5667	34995.48	33.07962	30316.95	19.12148	19.70602	28.57512	
#####	5.467302	84.14508	122.4883	34997.99	33.07755	30320.16	19.12372	19.70811	28.57307	
#####	5.464042	84.09007	122.4099	35000.5	33.07549	30323.37	19.12595	19.71019	28.57101	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.008761	-0.06567	0.484993	7.585557	-71.4661	89.72636	1016.152	34.43575	
1.00876	-0.06596	0.484328	7.584449	-71.4033	89.7338	1016.154	34.43724	
1.008759	-0.06625	0.483663	7.583341	-71.3405	89.74122	1016.156	34.43874	
1.008801	-0.05989	0.498329	7.571146	-70.6395	89.80697	1016.115	34.4642	
1.008802	-0.0598	0.498556	7.570296	-70.5909	89.81178	1016.114	34.46582	
1.008803	-0.0597	0.498783	7.569448	-70.5423	89.81658	1016.113	34.46745	
1.008804	-0.0596	0.499011	7.568599	-70.4937	89.8214	1016.113	34.46908	
1.008839	-0.07942	0.453278	7.557044	-69.8273	89.8877	1016.146	34.4956	
1.008841	-0.08024	0.451396	7.556269	-69.7827	89.89208	1016.147	34.49733	
1.008844	-0.08106	0.449514	7.555494	-69.738	89.89646	1016.148	34.49905	
1.008846	-0.08187	0.447632	7.554719	-69.6934	89.90084	1016.149	34.50077	

Location Properties

T2-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:05:33

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	2.869051	43.1269	63.13158	36496.98	31.02136	32732.48	20.80896	21.27612	27.39938
#####	2.811236	42.25428	61.86131	36620.04	30.96517	32874.52	20.9087	21.36844	27.30757
#####	2.807337	42.19572	61.77601	36629.96	30.96226	32885.07	20.9161	21.37529	27.30011
#####	2.803438	42.13716	61.6907	36639.89	30.95934	32895.61	20.92351	21.38215	27.29266
#####	2.732197	41.08507	60.1539	36819.81	30.95001	33062.44	21.04088	21.49059	27.15947
#####	2.727818	41.02005	60.05901	36830.49	30.9485	33072.88	21.04822	21.49737	27.15154
#####	2.723439	40.95504	59.96413	36841.17	30.947	33083.32	21.05556	21.50416	27.14362
#####	2.719061	40.89002	59.86925	36851.86	30.94549	33093.76	21.0629	21.51094	27.13569
#####	2.666844	40.0753	58.68551	36963.1	30.90829	33214.88	21.14808	21.58967	27.05411
#####	2.663128	40.01846	58.60277	36971.55	30.90641	33223.54	21.15417	21.5953	27.04788
#####	2.659412	39.96163	58.52004	36980.01	30.90454	33232.2	21.16027	21.60093	27.04166

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010794	-0.06288	0.491431	7.406355	-60.8698	94.60312	1016.121	34.75944	
1.010886	-0.06274	0.491761	7.403584	-60.7043	94.90676	1016.138	34.75095	
1.010893	-0.06258	0.492134	7.40339	-60.6929	94.92827	1016.138	34.75071	
1.010899	-0.06242	0.492506	7.403195	-60.6814	94.94977	1016.139	34.75047	
1.01099	-0.07664	0.459698	7.400199	-60.5051	95.10074	1016.173	34.76721	
1.010996	-0.07727	0.458237	7.400007	-60.4937	95.11362	1016.175	34.7678	
1.011002	-0.07791	0.456777	7.399815	-60.4823	95.12651	1016.176	34.76839	
1.011008	-0.07854	0.455317	7.399622	-60.471	95.1394	1016.178	34.76897	
1.011083	-0.06341	0.49022	7.398654	-60.4088	95.38204	1016.135	34.76077	
1.011089	-0.063	0.491165	7.398552	-60.4025	95.39597	1016.134	34.76071	
1.011094	-0.06259	0.492109	7.398451	-60.3963	95.40989	1016.133	34.76065	

Location Properties

T2-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 16:59:40

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686	
#####	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686	
#####	5.828774	87.22459	127.4787	32449.77	31.65129	28792.04	18.06335	18.71483	30.81686	
#####	5.70785	85.42557	124.8448	32489.94	31.64725	28829.66	18.08935	18.73928	30.77876	
#####	5.699947	85.30801	124.6727	32492.57	31.64698	28832.12	18.09104	18.74088	30.77627	
#####	5.692046	85.19045	124.5006	32495.19	31.64672	28834.58	18.09274	18.74248	30.77378	
#####	5.684144	85.0729	124.3285	32497.82	31.64646	28837.03	18.09444	18.74407	30.77129	
#####	5.635246	84.3185	123.237	32505.12	31.63038	28851.38	18.10435	18.7534	30.76439	
#####	5.629923	84.23813	123.1199	32506.5	31.62957	28853	18.10546	18.75445	30.76308	
#####	5.6246	84.15775	123.0028	32507.87	31.62875	28854.61	18.10658	18.7555	30.76178	
#####	5.619277	84.07738	122.8857	32509.24	31.62794	28856.23	18.1077	18.75655	30.76048	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008544	-0.08773	0.434125	7.512456	-66.9929	89.33818	1016.25	34.8	
1.008565	-0.05777	0.50323	7.502505	-66.4268	89.75877	1016.203	34.8	
1.008566	-0.05581	0.507746	7.501854	-66.3898	89.78625	1016.2	34.8	
1.008568	-0.05385	0.512261	7.501204	-66.3528	89.81374	1016.197	34.8	
1.008569	-0.0519	0.516777	7.500554	-66.3158	89.84122	1016.194	34.8	
1.008582	-0.06334	0.490368	7.495736	-66.044	89.85916	1016.235	34.8	
1.008583	-0.06306	0.491015	7.495263	-66.0172	89.87096	1016.236	34.8	
1.008584	-0.06278	0.491662	7.49479	-65.9904	89.88277	1016.236	34.8	
1.008585	-0.0625	0.492309	7.494317	-65.9636	89.89458	1016.237	34.8	

Location Properties

T2-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:28:44

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	4.408839	65.91207	96.70335	38050.07	30.2514	34581.51	22.11086	22.47798	26.28124
#####	4.405968	65.86964	96.64149	38057.14	30.24964	34588.99	22.11615	22.48284	26.27634
#####	4.403097	65.82722	96.57963	38064.22	30.24788	34596.47	22.12144	22.48771	26.27143
#####	4.400226	65.78479	96.51777	38071.29	30.24611	34603.95	22.12672	22.49257	26.26653
#####	4.377334	65.37357	95.9283	38058.21	30.23281	34600.06	22.12391	22.49004	26.27555
#####	4.375521	65.34348	95.8849	38060.05	30.23175	34602.37	22.12554	22.49154	26.27427
#####	4.373708	65.31339	95.8415	38061.9	30.23069	34604.68	22.12717	22.49304	26.27299
#####	4.371894	65.28329	95.7981	38063.74	30.22964	34606.98	22.12881	22.49454	26.27171
#####	4.354321	64.99061	95.37527	38008.75	30.15024	34604.7	22.12684	22.49305	26.30974
#####	4.353065	64.96916	95.34437	38006.12	30.14647	34604.57	22.12673	22.49297	26.31156
#####	4.35181	64.94771	95.31347	38003.49	30.1427	34604.45	22.12663	22.49289	26.31338



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012017	-0.07906	0.454115	7.43465	-62.3075	97.1431	1016.427	33.86037	
1.012022	-0.07856	0.455275	7.43436	-62.2909	97.14693	1016.428	33.8602	
1.012026	-0.07806	0.456435	7.434069	-62.2742	97.15076	1016.429	33.86003	
1.012031	-0.07755	0.457594	7.433778	-62.2576	97.15459	1016.429	33.85986	
1.012033	-0.07841	0.455607	7.430377	-62.0561	97.15673	1016.412	33.85134	
1.012034	-0.07816	0.456187	7.430139	-62.0422	97.15804	1016.411	33.85094	
1.012036	-0.07791	0.456768	7.429901	-62.0283	97.15935	1016.411	33.85055	
1.012038	-0.07766	0.457348	7.429663	-62.0144	97.16065	1016.41	33.85015	
1.012062	-0.08738	0.434928	7.426811	-61.8408	97.14727	1016.41	33.84148	
1.012063	-0.08782	0.433903	7.426615	-61.829	97.14676	1016.41	33.84093	
1.012064	-0.08827	0.432877	7.42642	-61.8173	97.14624	1016.409	33.84037	

Location Properties

T2-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:24:50

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.633162	99.82422	146.0571	35673.08	31.29997	31841.6	20.18455	20.69704	28.03234	
##### 6.633162	99.82422	146.0571	35673.08	31.29997	31841.6	20.18455	20.69704	28.03234	
##### 6.653025	100.1457	146.5235	35746.84	31.29548	31909.88	20.23236	20.74142	27.97451	
##### 6.654307	100.1664	146.5536	35751.6	31.29519	31914.29	20.23545	20.74429	27.97078	
##### 6.65559	100.1872	146.5837	35756.36	31.2949	31918.69	20.23854	20.74715	27.96704	
##### 6.656872	100.2079	146.6138	35761.12	31.29461	31923.1	20.24163	20.75002	27.96331	
##### 6.671432	100.362	146.8569	35786.63	31.28843	31949.23	20.25992	20.767	27.94341	
##### 6.672595	100.3772	146.8798	35789.68	31.28804	31952.17	20.26198	20.76891	27.94102	
##### 6.673759	100.3924	146.9028	35792.73	31.28765	31955.11	20.26404	20.77082	27.93863	
##### 6.674922	100.4076	146.9257	35795.79	31.28726	31958.05	20.26609	20.77273	27.93624	
##### 6.687526	100.5462	147.1387	35728.41	31.22033	31934.34	20.24935	20.75732	27.98894	

Density (g/cm³)	Pressure (kPa)	Depth (ft)	pH (pH)	pH mV (mV)	ORP (mV)	Barometric (kPa)	Temperature (°C)	Marked
1.010237	-0.06334	0.49037	7.63271	-73.7008	94.33463	1016.42	34.07	
1.010237	-0.06334	0.49037	7.63271	-73.7008	94.33463	1016.42	34.07	
1.010274	-0.08042	0.45098	7.610923	-72.4697	94.90527	1016.382	34.06063	
1.010276	-0.08152	0.448437	7.609516	-72.3902	94.94212	1016.38	34.06002	
1.010278	-0.08263	0.445893	7.608109	-72.3107	94.97896	1016.377	34.05942	
1.010281	-0.08373	0.44335	7.606703	-72.2312	95.0158	1016.375	34.05882	
1.010296	-0.07114	0.472381	7.595916	-71.6135	95.02734	1016.372	34.06023	
1.010298	-0.07103	0.472643	7.59487	-71.554	95.04272	1016.371	34.06005	
1.0103	-0.07092	0.472904	7.593824	-71.4945	95.05811	1016.37	34.05986	
1.010301	-0.0708	0.473166	7.592778	-71.435	95.07349	1016.369	34.05968	
1.010311	-0.07801	0.456537	7.580517	-70.7329	95.11165	1016.37	34.06	

Location Properties

T2-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:45:18

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.0942	75.673	110.9356	35246.84	30.47596	31909.41	20.22999	20.74112	28.37133
#####	5.0942	75.673	110.9356	35246.84	30.47596	31909.41	20.22999	20.74112	28.37133
#####	5.083878	75.54641	110.7503	35352.62	30.47507	32005.66	20.29741	20.80368	28.28646
#####	5.083213	75.53827	110.7383	35359.42	30.47501	32011.86	20.30174	20.80771	28.281
#####	5.08255	75.53012	110.7264	35366.23	30.47495	32018.04	20.30608	20.81173	28.27555
#####	5.081885	75.52198	110.7145	35373.03	30.4749	32024.24	20.31042	20.81575	28.27009
#####	5.082538	75.53436	110.7336	35372.26	30.47688	32022.44	20.30917	20.81459	28.27075
#####	5.082298	75.5316	110.7296	35374.98	30.47694	32024.87	20.31087	20.81617	28.26857
#####	5.082057	75.52885	110.7256	35377.71	30.47701	32027.3	20.31257	20.81775	28.26638
#####	5.083523	75.54905	110.7531	35375.58	30.47607	32025.9	20.31158	20.81683	28.26809
#####	5.083567	75.54977	110.7541	35375.83	30.47606	32026.13	20.31175	20.81698	28.26789

Density (g/cm³)	Pressure (ft)	Depth (ft)	pH (pH)	pH mV (mV)	ORP (mV)	Barometric	Temperature	Marked
1.010544	-0.07818	0.456141	7.446539	-63.026	95.02695	1016.21	32.87	
1.010544	-0.07818	0.456141	7.446539	-63.026	95.02695	1016.21	32.87	
1.010594	-0.08679	0.436285	7.441982	-62.77	95.52469	1016.21	32.87	
1.010597	-0.08734	0.435008	7.441689	-62.7535	95.55671	1016.21	32.87	
1.0106	-0.0879	0.433731	7.441396	-62.737	95.58872	1016.21	32.87	
1.010604	-0.08845	0.432454	7.441103	-62.7206	95.62074	1016.21	32.87	
1.010602	-0.06954	0.476075	7.439483	-62.6297	95.62143	1016.227	32.88726	
1.010603	-0.06893	0.477476	7.439293	-62.6191	95.63443	1016.228	32.88802	
1.010605	-0.06833	0.478877	7.439103	-62.6084	95.64744	1016.228	32.88878	
1.010604	-0.14347	0.305539	7.437224	-62.5016	95.69211	1016.203	32.88921	
1.010604	-0.14664	0.298232	7.437093	-62.4942	95.69589	1016.203	32.88953	

Location Properties

T2-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:39:21

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.81704	85.74921	125.7426	33193.34	30.45109	30063.28	18.94226	19.54113	30.12653	
##### 5.807898	85.61741	125.5486	33197	30.45244	30065.89	18.94408	19.54283	30.1232	
##### 5.798754	85.48561	125.3546	33200.66	30.45379	30068.5	18.9459	19.54453	30.11987	
##### 5.789611	85.35381	125.1607	33204.32	30.45514	30071.12	18.94771	19.54622	30.11655	
##### 5.725205	84.41956	123.7884	33204.54	30.46323	30067.1	18.94495	19.54361	30.11637	
##### 5.71863	84.32452	123.6486	33206.03	30.46414	30067.98	18.94556	19.54419	30.11501	
##### 5.712055	84.22948	123.5089	33207.52	30.46505	30068.86	18.94617	19.54476	30.11366	
##### 5.70548	84.13445	123.3691	33209.02	30.46596	30069.74	18.94679	19.54533	30.1123	
##### 5.650755	83.32309	122.1807	33201	30.47063	30060.05	18.94007	19.53904	30.11957	
##### 5.646465	83.26015	122.0883	33200.91	30.47109	30059.73	18.93985	19.53883	30.11966	
##### 5.642176	83.1972	121.996	33200.81	30.47154	30059.41	18.93962	19.53862	30.11975	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009594	-0.15991	0.267627	7.586613	-70.9058	92.31149	1016.421	33.0306	
1.009595	-0.16477	0.256409	7.585562	-70.8469	92.3466	1016.42	33.02998	
1.009596	-0.16964	0.245192	7.584512	-70.788	92.38171	1016.418	33.02937	
1.009597	-0.1745	0.233974	7.583461	-70.729	92.41682	1016.416	33.02875	
1.009592	-0.11585	0.369254	7.575231	-70.2666	92.44721	1016.429	33.03021	
1.009592	-0.11521	0.370723	7.574439	-70.2221	92.46281	1016.429	33.03003	
1.009592	-0.11458	0.372192	7.573647	-70.1776	92.4784	1016.429	33.02984	
1.009593	-0.11394	0.373661	7.572854	-70.1331	92.494	1016.428	33.02966	
1.009586	-0.10869	0.385769	7.564154	-69.6444	92.56825	1016.438	33.03	
1.009586	-0.10768	0.388111	7.563539	-69.6098	92.57457	1016.439	33.03	
1.009585	-0.10666	0.390454	7.562923	-69.5753	92.58088	1016.439	33.03	

Location Properties

T3-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:56:21

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.676648	85.67313	125.3216	36600.31	31.32512	32662.59	20.79499	21.23068	222.7911	
##### 5.631362	85.16064	124.5787	37205.39	31.29415	33213.13	21.14705	21.58854	22.11817	
##### 5.586078	84.64816	123.8357	37810.47	31.26317	33763.68	21.49911	21.94639	0	
##### 5.185652	78.36628	114.6667	37382.87	31.17593	33438.91	21.30671	21.73529	26.75051	
##### 5.155147	77.90326	113.9916	37398.29	31.15879	33462.24	21.3231	21.75046	26.73933	
##### 5.124641	77.44025	113.3165	37413.72	31.14164	33485.57	21.33949	21.76562	26.72815	
##### 4.846184	73.12087	107.0349	37510.53	31.06561	33616.08	21.43134	21.85045	26.65927	
##### 4.825879	72.80796	106.5793	37518.17	31.06027	33625.97	21.4383	21.85688	26.65381	
##### 4.805573	72.49506	106.1237	37525.8	31.05494	33635.86	21.44526	21.86331	26.64835	
##### 4.785268	72.18214	105.6681	37533.44	31.0496	33645.76	21.45222	21.86974	26.6429	
##### 4.582124	69.08239	101.1373	37508.57	30.96602	33671.67	21.47027	21.88659	26.66058	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010682	-0.07129	0.47205	7.383926	-59.6408	99.69099	1016.13	33.38805	
1.010954	-0.07129	0.472052	7.383239	-59.5979	99.74471	1016.13	33.38882	
1.011225	-0.07128	0.472053	7.382553	-59.555	99.79842	1016.13	33.38958	
1.011112	-0.06133	0.495024	7.376549	-59.2029	99.9151	1016.112	33.40686	
1.01113	-0.06082	0.496191	7.376092	-59.1756	99.93203	1016.112	33.40794	
1.011148	-0.06031	0.497357	7.375637	-59.1482	99.94896	1016.111	33.40901	
1.011241	-0.06063	0.496638	7.370318	-58.8402	100.0026	1016.153	33.43488	
1.011248	-0.06047	0.497001	7.369961	-58.8194	100.0079	1016.155	33.43637	
1.011255	-0.06031	0.497364	7.369604	-58.7986	100.0132	1016.156	33.43786	
1.011262	-0.06015	0.497727	7.369247	-58.7779	100.0185	1016.158	33.43935	
1.011304	-0.05806	0.502564	7.365789	-58.5592	99.98724	1016.123	33.44789	

Location Properties

T3-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 17:53:52

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.359616	80.22509	116.9099	28064.59	32.69941	24466.57	15.10362	15.90327	35.63209
#####	5.321812	79.62756	116.0566	28150.12	32.60275	24580.72	15.18102	15.97747	35.52388
#####	5.318798	79.57845	115.9865	28153.56	32.59745	24585.9	15.18453	15.98083	35.51952
#####	5.315783	79.52935	115.9164	28157.01	32.59214	24591.08	15.18804	15.9842	35.51516
#####	5.291298	79.1183	115.3252	28123.64	32.55749	24576.13	15.17794	15.97449	35.55729
#####	5.289427	79.08763	115.2812	28123.59	32.55418	24577.45	15.17883	15.97534	35.55735
#####	5.287557	79.05696	115.2372	28123.54	32.55087	24578.76	15.17972	15.97619	35.55741
#####	5.285686	79.02629	115.1931	28123.49	32.54755	24580.06	15.18061	15.97704	35.55747
#####	5.274745	78.75286	114.8289	28106.05	32.4995	24584.55	15.18368	15.97996	35.57953
#####	5.273772	78.73236	114.8007	28104.59	32.49662	24584.45	15.18362	15.97989	35.58138
#####	5.272799	78.71186	114.7726	28103.13	32.49375	24584.36	15.18356	15.97983	35.58323

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.005997	-0.07885	0.454594	7.55064	-69.3761	89.37376	1016.14	33.33	
1.006087	-0.09563	0.415888	7.539261	-68.7128	89.50744	1016.148	33.33	
1.006091	-0.09643	0.41405	7.538452	-68.6659	89.51785	1016.149	33.33	
1.006096	-0.09723	0.412211	7.537643	-68.619	89.52827	1016.149	33.33	
1.0061	-0.0704	0.474087	7.526659	-67.9858	89.65697	1016.124	33.31318	
1.006102	-0.06947	0.476238	7.525941	-67.9443	89.66556	1016.123	33.31241	
1.006104	-0.06854	0.478389	7.525223	-67.9028	89.67415	1016.122	33.31163	
1.006106	-0.06761	0.48054	7.524504	-67.8612	89.68275	1016.121	33.31086	
1.006124	-0.07089	0.472957	7.512265	-67.1603	89.87045	1016.181	33.32795	
1.006125	-0.07053	0.473794	7.511489	-67.1158	89.88158	1016.184	33.32841	
1.006126	-0.07017	0.474631	7.510714	-67.0714	89.89272	1016.186	33.32888	

Location Properties

T4-1HB

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 14:53:09

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.034313	61.4935	89.88477	37615.63	31.75154	33318.99	21.22343	21.65734	26.5847	
##### 4.021118	61.14336	89.41434	37598.86	31.68471	33341.85	21.23942	21.6722	26.59655	
##### 4.020186	61.12132	89.3843	37597.84	31.68049	33343.32	21.24044	21.67315	26.59728	
##### 4.019254	61.09927	89.35426	37596.8	31.67628	33344.78	21.24147	21.67411	26.59801	
##### 3.988461	60.60448	88.64246	37629.22	31.54197	33449.69	21.31515	21.7423	26.57509	
##### 3.986786	60.57486	88.6005	37630.39	31.53447	33454.97	21.31886	21.74573	26.57427	
##### 3.985111	60.54525	88.55855	37631.56	31.52696	33460.26	21.32257	21.74917	26.57344	
##### 3.983436	60.51563	88.51659	37632.73	31.51946	33465.54	21.32629	21.7526	26.57261	
##### 3.9581	60.10938	87.92915	37646.23	31.48844	33495.22	21.34714	21.77189	26.56308	
##### 3.956367	60.08143	87.88884	37647.45	31.48436	33498.61	21.34953	21.7741	26.56223	
##### 3.954634	60.05348	87.84853	37648.66	31.48027	33502.01	21.35192	21.77631	26.56137	

Density (g/cm³)	Pressure (ft)	Depth (ft)	pH (pH)	pH (mV)	ORP (mV)	Barometric	Temperature	Marked
1.010856	-0.06758	0.480591	7.355424	-58.1276	142.4897	1016.649	40.23978	
1.010891	-0.0632	0.490692	7.350543	-57.836	142.2499	1016.694	40.23115	
1.010893	-0.06323	0.490642	7.350225	-57.8171	142.2346	1016.696	40.23074	
1.010895	-0.06325	0.490592	7.349907	-57.7982	142.2193	1016.698	40.23034	
1.010995	-0.06953	0.476097	7.34584	-57.5524	142.0153	1016.69	40.2303	
1.011001	-0.06972	0.475656	7.345558	-57.5354	142.0012	1016.69	40.23013	
1.011006	-0.06991	0.475215	7.345276	-57.5184	141.9872	1016.69	40.22996	
1.011011	-0.07011	0.474774	7.344994	-57.5014	141.9731	1016.691	40.22978	
1.011037	-0.06567	0.48501	7.340018	-57.2133	141.7656	1016.69	40.22139	
1.01104	-0.06559	0.485184	7.339715	-57.1955	141.7522	1016.69	40.22101	
1.011043	-0.06552	0.485358	7.339411	-57.1777	141.7388	1016.69	40.22063	

Location Properties

T4-1HS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 14:43:16

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.197385	87.27917	124.9206	40039.52	38.30245	31928.97	20.23737	20.75383	24.97554
#####	5.196559	87.2569	124.8946	40052.16	38.27283	31952.9	20.25424	20.76939	24.96759
#####	5.195734	87.23464	124.8686	40064.8	38.24321	31976.83	20.27112	20.78494	24.95965
#####	5.194909	87.21239	124.8427	40077.43	38.21359	32000.77	20.288	20.8005	24.9517
#####	5.225177	87.45518	125.2934	40168.82	38.15613	32102.15	20.35941	20.8664	24.89499
#####	5.22594	87.4573	125.301	40176.19	38.15351	32109.32	20.36445	20.87106	24.8904
#####	5.226703	87.45942	125.3085	40183.57	38.15088	32116.5	20.3695	20.87572	24.88581
#####	5.227467	87.46153	125.3161	40190.94	38.14825	32123.67	20.37454	20.88039	24.88122
#####	5.245555	87.56407	125.5465	40150.54	37.80537	32260.37	20.47178	20.96924	24.90627
#####	5.246926	87.57304	125.565	40150.63	37.7889	32268.56	20.47759	20.97457	24.90621
#####	5.248296	87.58201	125.5836	40150.73	37.77243	32276.76	20.4834	20.97989	24.90615

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.007752	-0.06293	0.491321	6.951802	-36.0799	255.2545	1016.759	41.44199	
1.007776	-0.06252	0.492275	6.954195	-36.2163	254.8555	1016.759	41.44146	
1.0078	-0.0621	0.493229	6.956586	-36.3527	254.4565	1016.759	41.44093	
1.007824	-0.06169	0.494183	6.958979	-36.4891	254.0576	1016.759	41.4404	
1.007899	-0.06053	0.496868	6.989211	-38.2142	248.4291	1016.742	41.44033	
1.007904	-0.06045	0.497053	6.991218	-38.3289	248.0623	1016.742	41.44017	
1.007908	-0.06037	0.497237	6.993224	-38.4437	247.6954	1016.741	41.44001	
1.007913	-0.06029	0.497422	6.995231	-38.5584	247.3286	1016.74	41.43985	
1.008116	-0.06111	0.49553	7.023227	-40.1316	241.975	1016.723	41.43126	
1.008126	-0.06112	0.495506	7.025069	-40.2356	241.6263	1016.722	41.43087	
1.008137	-0.06113	0.495482	7.02691	-40.3396	241.2777	1016.721	41.43049	

Location Properties

T4-2HB

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:15:37

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.587692	54.1633	79.33567	38174.99	31.0113	34243.32	21.87428	22.25816	26.19516
#####	3.584656	54.11164	79.26158	38175.68	31.00727	34246.3	21.87637	22.26009	26.19468
#####	3.556258	53.61324	78.55323	38103.44	30.85463	34271.14	21.89346	22.27624	26.24436
#####	3.554166	53.57646	78.50085	38100.18	30.84673	34272.85	21.89464	22.27736	26.2466
#####	3.552074	53.53969	78.44848	38096.92	30.83883	34274.57	21.89583	22.27847	26.24884
#####	3.520643	53.03193	77.71233	38111.64	30.7855	34319.27	21.92728	22.30753	26.23871
#####	3.518686	52.99954	77.66565	38110.95	30.78025	34321.74	21.92901	22.30913	26.23918
#####	3.516729	52.96715	77.61897	38110.25	30.775	34324.21	21.93074	22.31074	26.23966
#####	3.514773	52.93476	77.5723	38109.56	30.76975	34326.68	21.93247	22.31234	26.24013
#####	3.505829	52.69146	77.24108	38125.01	30.72242	34368.59	21.96196	22.33959	26.2295
#####	3.50483	52.67076	77.21207	38125.93	30.71919	34371.33	21.96389	22.34137	26.22887



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011589	-0.06486	0.486868	7.401896	-60.6051	116.9008	1016.55	36.18052	
1.011592	-0.06483	0.486936	7.40076	-60.5403	116.8951	1016.55	36.17996	
1.011656	-0.07296	0.468198	7.394924	-60.1839	116.7834	1016.612	36.16256	
1.011659	-0.07337	0.46725	7.39426	-60.145	116.7766	1016.614	36.16161	
1.011663	-0.07378	0.466302	7.393596	-60.1061	116.7697	1016.617	36.16067	
1.011704	-0.06433	0.488093	7.390864	-59.943	116.6454	1016.584	36.15227	
1.011707	-0.06407	0.488696	7.390616	-59.9281	116.6378	1016.583	36.15157	
1.01171	-0.06381	0.489299	7.390368	-59.9132	116.6302	1016.583	36.15087	
1.011713	-0.06355	0.489903	7.390121	-59.8983	116.6226	1016.583	36.15017	
1.011751	-0.07073	0.473324	7.378376	-59.2198	116.5022	1016.555	36.12402	
1.011753	-0.0709	0.472939	7.377781	-59.1853	116.4944	1016.553	36.12266	

Location Properties

T4-2HS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:09:12

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.497194	100.552	146.6197	38635.75	32.59207	33742.76	21.52368	21.93279	25.88277	
##### 6.492029	100.522	146.5714	38705.9	32.61312	33792.16	21.5586	21.9649	25.83586	
##### 6.491697	100.5201	146.5683	38710.42	32.61448	33795.34	21.56085	21.96697	25.83284	
##### 6.491364	100.5181	146.5652	38714.93	32.61584	33798.52	21.5631	21.96904	25.82982	
##### 6.491033	100.5162	146.5621	38719.45	32.61719	33801.7	21.56534	21.9711	25.8268	
##### 6.492444	100.5319	146.5895	38725.78	32.62241	33804.27	21.56717	21.97278	25.8226	
##### 6.492372	100.5318	146.5894	38727.88	32.62319	33805.67	21.56816	21.97368	25.8212	
##### 6.4923	100.5317	146.5894	38729.97	32.62397	33807.06	21.56914	21.97459	25.8198	
##### 6.492228	100.5316	146.5893	38732.07	32.62474	33808.46	21.57013	21.9755	25.81839	
##### 6.514012	100.8447	147.045	38711.13	32.59843	33805	21.56767	21.97325	25.83237	
##### 6.515014	100.8592	147.0661	38710.59	32.59742	33805.11	21.56774	21.97332	25.83273	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010791	-0.05536	0.508778	7.503412	-66.693	119.7756	1016.57	37.37	
1.01081	-0.06492	0.486742	7.497863	-66.3806	120.8947	1016.598	37.35126	
1.010811	-0.06553	0.485324	7.497506	-66.3605	120.9667	1016.6	37.35005	
1.010812	-0.06615	0.483906	7.497149	-66.3404	121.0387	1016.601	37.34885	
1.010813	-0.06676	0.482488	7.496792	-66.3203	121.1107	1016.603	37.34764	
1.010813	-0.04254	0.538365	7.495508	-66.2454	121.0233	1016.625	37.32468	
1.010813	-0.04172	0.540249	7.495308	-66.2341	121.0485	1016.626	37.32318	
1.010814	-0.0409	0.542134	7.495108	-66.2227	121.0736	1016.628	37.32169	
1.010814	-0.04009	0.544018	7.494907	-66.2113	121.0988	1016.63	37.32019	
1.010821	-0.05651	0.506124	7.491545	-66.0147	121.0509	1016.575	37.30269	
1.010822	-0.05686	0.505332	7.491343	-66.003	121.0519	1016.573	37.30138	

Location Properties

T4-3HB

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:37:34

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.775655	56.45497	82.85493	38627.64	30.11527	35189.57	22.54131	22.87322	25.8882
#####	3.774983	56.44358	82.83875	38628.8	30.11246	35192.35	22.54327	22.87502	25.88742
#####	3.774311	56.43219	82.82256	38629.96	30.10965	35195.13	22.54523	22.87683	25.88664
#####	3.770671	56.34723	82.70048	38639.85	30.09645	35212.21	22.5573	22.88794	25.88002
#####	3.77032	56.34032	82.69059	38641.08	30.09526	35214.07	22.55861	22.88914	25.87919
#####	3.769969	56.3334	82.6807	38642.32	30.09407	35215.92	22.55992	22.89035	25.87837
#####	3.767166	56.26462	82.58469	38551.83	30.05405	35157.95	22.51859	22.85267	25.93913
#####	3.766961	56.25972	82.57779	38547.89	30.05193	35155.65	22.51694	22.85118	25.94178
#####	3.766755	56.25483	82.57088	38543.95	30.04981	35153.36	22.5153	22.84968	25.94443
#####	3.766549	56.24993	82.56397	38540	30.04769	35151.06	22.51366	22.84819	25.94707
#####	3.764532	56.21432	82.51704	38577.71	30.03255	35194.74	22.5446	22.87658	25.92171

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012382	-0.07523	0.462948	7.34401	-57.1851	106.4135	1016.407	34.08014	
1.012385	-0.07493	0.463636	7.343792	-57.1725	106.4095	1016.408	34.07997	
1.012387	-0.07464	0.464323	7.343575	-57.16	106.4055	1016.41	34.0798	
1.0124	-0.07535	0.462681	7.339824	-56.9443	106.3289	1016.339	34.07119	
1.012402	-0.07528	0.462839	7.339593	-56.931	106.3242	1016.336	34.07079	
1.012403	-0.07521	0.462996	7.339363	-56.9178	106.3195	1016.333	34.0704	
1.012385	-0.07521	0.462991	7.33673	-56.7644	106.25	1016.358	34.06176	
1.012385	-0.07522	0.462968	7.336536	-56.7532	106.2453	1016.358	34.06121	
1.012384	-0.07523	0.462944	7.336342	-56.7419	106.2407	1016.358	34.06065	
1.012384	-0.07524	0.462921	7.336149	-56.7307	106.236	1016.357	34.06009	
1.012412	-0.07771	0.457229	7.33425	-56.6194	106.1561	1016.385	34.06028	

Location Properties

T4-3HS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:29:23

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.319431	96.45768	140.8202	36466.36	32.11836	32094.85	20.47702	20.86165	639581.5	
##### 6.142983	94.13289	137.3835	37227.02	32.19315	32727.66	20.88485	21.27298	340439.5	
##### 6.118117	93.95824	137.1264	37841.91	32.1972	33267.17	21.22925	21.62366	181720.4	
##### 6.09325	93.7836	136.8694	38456.8	32.20125	33806.68	21.57366	21.97435	23001.39	
##### 6.068384	93.60896	136.6122	39071.69	32.2053	34346.2	21.91807	22.32503	0	
##### 6.020576	92.70773	135.2927	38524.41	32.24169	33843.32	21.59428	21.99816	25.95758	
##### 6.014787	92.62206	135.1666	38525.44	32.24461	33842.58	21.59376	21.99767	25.95687	
##### 6.008997	92.53637	135.0406	38526.48	32.24753	33841.83	21.59324	21.99719	25.95617	
##### 5.975344	92.03808	134.317	38610.07	32.24497	33916.71	21.64615	22.04586	25.9	
##### 5.972587	91.99673	134.2567	38613.39	32.24558	33919.28	21.64797	22.04753	25.89777	
##### 5.969829	91.95538	134.1964	38616.71	32.24619	33921.85	21.64978	22.0492	25.89553	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010178	-0.07071	0.473381	7.535839	-68.4377	105.7362	1016.457	34.73051	
1.010455	-0.07803	0.456502	7.518459	-67.4596	106.0883	1016.406	34.73034	
1.010709	-0.07862	0.455137	7.517963	-67.432	106.1013	1016.404	34.73018	
1.010963	-0.07921	0.453773	7.517468	-67.4044	106.1142	1016.403	34.73002	
1.011217	-0.0798	0.452408	7.516973	-67.3769	106.1272	1016.402	34.72986	
1.010964	-0.07041	0.474077	7.512137	-67.1059	106.199	1016.41	34.72124	
1.010963	-0.07014	0.474698	7.511796	-67.0869	106.2053	1016.409	34.72086	
1.010961	-0.06987	0.475319	7.511456	-67.0679	106.2115	1016.409	34.72047	
1.011002	-0.07803	0.456484	7.506765	-66.8001	106.2442	1016.426	34.7288	
1.011003	-0.07823	0.456024	7.50646	-66.7828	106.2472	1016.427	34.72902	
1.011004	-0.07843	0.455563	7.506154	-66.7654	106.2501	1016.428	34.72923	

Location Properties

T4-4HB

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:56:48

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
#####	4.94838	75.41523	110.4013	40329.39	31.04364	36155.82	23.23252	23.50128	24.79579	
#####	4.833828	73.38275	107.5005	40312.55	30.88836	36237.1	23.28988	23.55411	24.80617	
#####	4.824427	73.2237	107.2718	40310.85	30.87894	36241.42	23.29292	23.55692	24.80722	
#####	4.815026	73.06464	107.043	40309.16	30.86952	36245.73	23.29597	23.55973	24.80826	
#####	4.805624	72.90559	106.8143	40307.46	30.86011	36250.05	23.29901	23.56254	24.80931	
#####	4.705796	71.36239	104.5564	40220.35	30.7224	36257.5	23.30375	23.56737	24.86305	
#####	4.698852	71.24994	104.3933	40216.02	30.71314	36259.36	23.30504	23.56859	24.86572	
#####	4.691907	71.13749	104.2302	40211.7	30.70389	36261.23	23.30634	23.5698	24.86839	
#####	4.629267	70.14288	102.7903	40233.27	30.65364	36312.14	23.34243	23.60289	24.85506	
#####	4.624473	70.06744	102.6806	40232.51	30.64867	36314.56	23.34413	23.60446	24.85552	
#####	4.619678	69.992	102.571	40231.75	30.64371	36316.98	23.34583	23.60603	24.85599	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012589	-0.07424	0.465236	7.516936	-67.0726	101.3613	1016.269	33.36985	
1.012683	-0.066	0.484245	7.506253	-66.4485	101.3898	1016.287	33.37862	
1.012689	-0.06573	0.484867	7.505558	-66.4076	101.3933	1016.288	33.37901	
1.012694	-0.06546	0.485489	7.504861	-66.3667	101.3968	1016.288	33.37939	
1.012699	-0.06519	0.486111	7.504166	-66.3258	101.4003	1016.289	33.37977	
1.012749	-0.06205	0.493365	7.495472	-65.8181	101.4061	1016.245	33.3709	
1.012753	-0.06175	0.494039	7.494866	-65.7827	101.407	1016.243	33.37067	
1.012757	-0.06146	0.494714	7.494261	-65.7473	101.408	1016.242	33.37043	
1.012801	-0.05525	0.50905	7.486758	-65.3145	101.3878	1016.284	33.37877	
1.012804	-0.05491	0.509819	7.486254	-65.2853	101.3871	1016.284	33.37897	
1.012807	-0.05458	0.510587	7.48575	-65.2561	101.3864	1016.286	33.37917	

Location Properties

T4-4HS

Location Name = Device Location

Report Properties

Start Time = 2022-06-07 15:51:58

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 6.590887	99.50237	145.5623	36221.94	31.3437	32324.45	20.71335	21.01089	1144.485	
##### 6.563735	99.5704	145.6657	37762.26	31.32772	33699.05	21.59469	21.90439	605.0217	
##### 6.366935	96.79195	141.5662	38129.68	31.40468	33979.26	21.77078	22.08652	487.157	
##### 6.349409	96.73586	141.4831	38789.39	31.40224	34565.85	22.14672	22.4678	264.1908	
##### 6.331883	96.67977	141.4	39449.11	31.39981	35152.43	22.52267	22.84908	41.22462	
##### 6.314358	96.62368	141.3169	40108.83	31.39737	35739.02	22.89861	23.23036	0	
##### 6.241485	95.38297	139.484	39487.72	31.43318	35166.67	22.52997	22.85834	25.32433	
##### 6.2342	95.2766	139.327	39487.21	31.43603	35164.5	22.52844	22.85693	25.32466	
##### 6.226914	95.17025	139.17	39486.69	31.43888	35162.34	22.52691	22.85552	25.32499	
##### 6.219628	95.06389	139.013	39486.18	31.44172	35160.18	22.52538	22.85411	25.32532	
##### 6.171394	94.3167	137.9223	39444.19	31.46846	35106.83	22.48758	22.81944	25.35228	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010617	-0.08587	0.438404	7.545807	-68.8222	99.83382	1016.318	33.45	
1.011276	-0.08716	0.435439	7.558482	-69.5375	99.63398	1016.319	33.45	
1.011381	-0.0782	0.456095	7.544314	-68.7447	99.9801	1016.293	33.45	
1.011661	-0.07846	0.45551	7.543266	-68.6859	99.99426	1016.293	33.45	
1.011941	-0.07871	0.454924	7.542217	-68.6271	100.0084	1016.292	33.45	
1.012221	-0.07896	0.454338	7.541168	-68.5683	100.0226	1016.291	33.45	
1.011935	-0.06539	0.485657	7.537743	-68.3788	100.1457	1016.291	33.44144	
1.011933	-0.06464	0.487384	7.53743	-68.3614	100.1559	1016.29	33.44106	
1.01193	-0.06389	0.489111	7.537117	-68.344	100.1662	1016.29	33.44069	
1.011928	-0.06314	0.490838	7.536803	-68.3267	100.1764	1016.289	33.44031	
1.011891	-0.07789	0.456807	7.533189	-68.1247	100.2828	1016.325	33.44917	

Location Properties

BG-1LT

Location Name = Device Location

Report Properties

Start Time = 2022-06-08 10:19:58

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.045473	44.35597	65.3381	33790.14	29.65368	31031.88	19.614	20.17072	29.59447
#####	3.045323	44.35361	65.33492	33795.55	29.65152	31038.01	19.61827	20.17471	29.58971
#####	3.045174	44.35125	65.33173	33800.96	29.64936	31044.14	19.62254	20.17869	29.58496
#####	3.041358	44.26036	65.2021	33671.89	29.62611	30938.22	19.5486	20.10985	29.69842
#####	3.041135	44.25565	65.19543	33668.32	29.62431	30935.93	19.54699	20.10835	29.70155
#####	3.040912	44.25094	65.18876	33664.76	29.6225	30933.63	19.54538	20.10686	29.70469
#####	3.042795	44.26184	65.21004	33702.52	29.60384	30978.48	19.57658	20.13601	29.67138
#####	3.042813	44.26068	65.20867	33702.05	29.60253	30978.77	19.57677	20.1362	29.67179
#####	3.04283	44.25954	65.2073	33701.58	29.60122	30979.05	19.57696	20.13638	29.6722
#####	3.042847	44.25838	65.20592	33701.11	29.59991	30979.33	19.57715	20.13656	29.67261
#####	3.040952	44.24755	65.18742	33808.23	29.58004	31088.65	19.65331	20.20762	29.57865

Density (g/cm³)	Pressure (kPa)	Depth (ft)	pH (pH)	pH mV (mV)	ORP (mV)	Barometric (kPa)	Temperature (°C)	Marked
1.010352	-0.09319	0.421528	6.523682	-11.0641	181.9326	1018.878	29.87472	
1.010356	-0.09392	0.419837	6.524871	-11.1308	181.9182	1018.878	29.8772	
1.01036	-0.09466	0.418146	6.526061	-11.1974	181.9038	1018.879	29.87967	
1.010313	-0.07003	0.474951	6.542793	-12.1356	181.7093	1018.888	29.92227	
1.010312	-0.06947	0.476244	6.543898	-12.1975	181.6962	1018.889	29.92502	
1.010311	-0.06891	0.477538	6.545003	-12.2595	181.683	1018.889	29.92776	
1.01034	-0.06366	0.48964	6.562715	-13.2527	181.4821	1018.889	29.9539	
1.010341	-0.06298	0.491201	6.563853	-13.3165	181.469	1018.89	29.95591	
1.010342	-0.06231	0.492763	6.564991	-13.3803	181.456	1018.89	29.95792	
1.010342	-0.06163	0.494324	6.56613	-13.4442	181.443	1018.89	29.95993	
1.010405	-0.0595	0.499239	6.581314	-14.2941	181.2518	1018.838	29.99361	

EQUIPMENT CALIBRATION LOG

Field Technician: <b>William Laaker</b>	Date: <b>9/22/22</b>	Time (Calibration): <b>5:50</b>	Time (Mid-day Check):
Site ID: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>4453-4417</b>	
Project: <b>Sept. 2022 Surface Water</b>	Water Conditions: <b>96°/71° sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt. 100% water saturated air cal)				<b>99.09</b>	
Specific Conductance (µS/cm)	<b>21470032 04/23</b>	<b>23.31</b>	<b>4490</b>	<del>4509</del> <b>4509</b>	
pH (4)	<b>21470032 04/23</b>	<b>23.29</b>	<b>4</b>	<b>4.01</b>	
pH (7)	<b>21380102 04/23</b>	<b>23.73</b>	<b>7</b>	<b>7.00</b>	
pH (10)	<b>20080056 04/23</b>	<b>23.97</b>	<b>10</b>	<b>10.01</b>	
ORP (mV)	<b>21140143 04/23</b>	<b>24.02</b>	<b>228</b>	<b>226.2</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	<b>0</b>	<b>0.00</b>	<b>±0.1 NTU</b>	Yes	No	
Turbidity 1 NTU	<b>1</b>	<b>0.91</b>	<b>±0.1 NTU</b>	Yes	No	
Turbidity 10 NTU	<b>10</b>	<b>9.73</b>	<b>±0.5 NTU</b>	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		<b>4</b>		<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (7) check		<b>7</b>		<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (10) check		<b>10</b>		<b>±0.1 SU</b>	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician <b>William Laaker</b>	Date <b>9/27/22</b>	Time (Calibration) <b>13:05</b>	Time (Mid-day Check)
AquaTroll SN <b>789301</b>	Turbidity Meter Type <b>LaMotte 2020</b>	SN <b>9453-4417</b>	
Project <b>Sept. 2022 Surface Water</b>	Weather Conditions <b>85°/65° sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<b>98.14</b>	
Specific Conductance (µS/cm)	21470032 04/23	<b>28.57</b>	4490	<b>44535</b>	
pH (4)	21470032 04/23	<b>28.75</b>	4	<b>3.92</b>	
pH (7)	21380102 04/23	<b>28.12</b>	7	<b>6.90</b>	
pH (10)	20080056 04/23	<b>28.01</b>	10	<b>9.88</b>	
ORP (mV)	21140143 04/23	<b>27.75</b>	228	<b>226.8</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	<b>0.00</b>	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	<b>0.98</b>	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	<b>9.72</b>	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		±0.1 SU	Yes	No	
Mid-Day pH (7) check		7		±0.1 SU	Yes	No	
Mid-Day pH (10) check		10		±0.1 SU	Yes	No	

Location Properties

BG-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:23:41

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.014091	72.81639	108.3021	39265.38	27.74743	37307.61	24.03334	24.24994	25.4679	
##### 5.004027	72.67829	108.0958	39277.79	27.74947	37318.02	24.0408	24.25672	25.45977	
##### 4.993963	72.5402	107.8896	39290.2	27.75151	37328.44	24.04826	24.26349	25.45164	
##### 4.983899	72.40211	107.6833	39302.61	27.75355	37338.86	24.05572	24.27026	25.44352	
##### 4.90472	71.23643	105.9473	39251.78	27.80049	37258.84	23.99899	24.21824	25.47656	
##### 4.898294	71.14491	105.8108	39252.46	27.80318	37257.66	23.99818	24.21748	25.47612	
##### 4.891868	71.05339	105.6742	39253.14	27.80587	37256.49	23.99737	24.21672	25.47567	
##### 4.826149	70.15262	104.3303	39399.96	27.8216	37385.16	24.08949	24.30036	25.3808	
##### 4.821659	70.08964	104.2363	39405.75	27.82317	37389.61	24.09268	24.30324	25.37705	
##### 4.817169	70.02666	104.1424	39411.55	27.82474	37394.05	24.09586	24.30613	25.37331	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014254	-0.06555	0.485274	7.109405	-84.5577	98.53972	1015.227	24.85838	
1.014259	-0.06566	0.485037	7.109751	-84.5776	98.54918	1015.228	24.85893	
1.014264	-0.06576	0.484801	7.110098	-84.5976	98.55864	1015.229	24.85949	
1.014269	-0.06586	0.484565	7.110445	-84.6176	98.5681	1015.229	24.86004	
1.014211	-0.04556	0.53139	7.115657	-84.9138	98.71684	1015.22	24.85103	
1.01421	-0.04468	0.533422	7.115993	-84.9329	98.72631	1015.22	24.85082	
1.014209	-0.0438	0.535454	7.116328	-84.9521	98.73577	1015.22	24.85061	
1.014273	-0.04218	0.539194	7.120778	-85.204	98.8911	1015.212	24.86723	
1.014274	-0.04174	0.540192	7.121073	-85.2207	98.90078	1015.211	24.86781	
1.014276	-0.04131	0.541189	7.121368	-85.2375	98.91045	1015.211	24.86839	

Location Properties

T1-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:48:23

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 2.693023	39.32501	58.26426	33870.71	29.57545	31148.6	19.69512	20.24659	29.52403	
##### 2.684791	39.13324	57.99527	33876.36	29.53508	31175.91	19.71401	20.26434	29.51911	
##### 2.683995	39.11782	57.97325	33876.45	29.53242	31177.44	19.71507	20.26534	29.51904	
##### 2.683199	39.10241	57.95123	33876.52	29.52977	31178.97	19.71612	20.26633	29.51897	
##### 2.682404	39.087	57.92921	33876.6	29.52711	31180.49	19.71718	20.26732	29.5189	
##### 2.678895	39.00798	57.82297	33848.95	29.40044	31224.6	19.74744	20.29599	29.54301	
##### 2.678572	39.00062	57.81285	33847.8	29.39386	31227.15	19.7492	20.29765	29.54402	
##### 2.67825	38.99325	57.80272	33846.64	29.38728	31229.69	19.75094	20.2993	29.54503	
##### 2.677927	38.98589	57.7926	33845.48	29.3807	31232.24	19.7527	20.30096	29.54604	
##### 2.676404	38.92418	57.70932	33849.53	29.30608	31277.12	19.78371	20.33013	29.54251	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010438	-0.0642	0.488405	6.983061	-77.9766	98.28383	1015.54	27.71949	
1.010465	-0.06561	0.48514	6.980627	-77.8203	98.42057	1015.514	27.73641	
1.010467	-0.06587	0.484533	6.98048	-77.811	98.42822	1015.513	27.73735	
1.010468	-0.06614	0.483926	6.980332	-77.8016	98.43587	1015.512	27.7383	
1.01047	-0.0664	0.483319	6.980186	-77.7923	98.44351	1015.511	27.73924	
1.010533	-0.05497	0.509682	6.979393	-77.7161	98.43099	1015.579	27.7651	
1.010536	-0.05448	0.510826	6.979309	-77.7096	98.43308	1015.582	27.76661	
1.01054	-0.05398	0.511971	6.979226	-77.7031	98.43517	1015.585	27.76812	
1.010543	-0.05348	0.513116	6.979142	-77.6966	98.43726	1015.587	27.76963	
1.01059	-0.04571	0.531035	6.977899	-77.6089	98.5463	1015.553	27.77782	

Location Properties

T1-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:43:21

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.314582	64.73016	95.49058	34643.53	31.26336	30941.97	19.55567	20.11228	28.86544	
##### 4.295183	64.43226	95.05349	34651.71	31.25443	30953.96	19.56402	20.12008	28.8586	
##### 4.275784	64.13437	94.61641	34659.89	31.24551	30965.96	19.57236	20.12787	28.85176	
##### 4.256385	63.83648	94.17932	34668.07	31.23659	30977.94	19.58071	20.13566	28.84493	
##### 4.135727	61.94986	91.41837	34687.49	31.15822	31036.92	19.62173	20.174	28.82886	
##### 4.122612	61.74699	91.12102	34691.63	31.15118	31044.34	19.62689	20.17882	28.8254	
##### 4.109498	61.54411	90.82366	34695.78	31.14414	31051.76	19.63205	20.18365	28.82194	
##### 4.096383	61.34123	90.52631	34699.93	31.1371	31059.18	19.63722	20.18847	28.81848	
##### 3.987827	59.69517	88.10354	34684.72	31.10195	31064.28	19.64071	20.19178	28.83114	
##### 3.979466	59.56707	87.91539	34684.94	31.09833	31066.39	19.64217	20.19315	28.83096	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009782	-0.0632	0.490694	7.042068	-81.7122	103.0825	1015.53	27.35	
1.009791	-0.06399	0.48887	7.04138	-81.6716	102.9969	1015.53	27.35	
1.0098	-0.06479	0.487046	7.040691	-81.6309	102.9113	1015.529	27.35	
1.009809	-0.06558	0.485222	7.040003	-81.5903	102.8257	1015.529	27.35	
1.009866	-0.05112	0.518562	7.033668	-81.235	102.5433	1015.538	27.37568	
1.009872	-0.0508	0.519293	7.033112	-81.203	102.4964	1015.539	27.3768	
1.009878	-0.05049	0.520024	7.032557	-81.171	102.4496	1015.539	27.37793	
1.009884	-0.05017	0.520756	7.032001	-81.139	102.4027	1015.539	27.37906	
1.009899	-0.05922	0.499891	7.025525	-80.7445	102.1199	1015.557	27.37042	
1.009901	-0.0594	0.499459	7.025073	-80.7177	102.0965	1015.558	27.37051	

Location Properties

T2-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:40:49

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.900459	69.17257	102.8454	31292.56	27.97304	29619.28	18.67311	19.25253	259.4892	
##### 4.836341	68.42775	101.7408	31819.7	27.95763	30121.28	18.98993	19.57883	111.9663	
##### 4.772222	67.68294	100.6362	32346.85	27.94221	30623.29	19.30676	19.90514	0	
##### 4.433913	62.8088	93.39102	32114.31	27.93159	30411.48	19.17395	19.76746	31.13877	
##### 4.406031	62.41453	92.80465	32113.36	27.92725	30412.96	19.17495	19.76842	31.13969	
##### 4.378148	62.02025	92.21828	32112.41	27.92292	30414.44	19.17595	19.76939	31.14061	
##### 4.350265	61.62598	91.6319	32111.46	27.91858	30415.92	19.17695	19.77035	31.14153	
##### 4.119516	58.31261	86.71425	32072.13	27.89817	30389.9	19.15875	19.75343	31.17972	
##### 4.102582	58.07053	86.35477	32070.44	27.89696	30388.96	19.1581	19.75282	31.18137	
##### 4.085647	57.82845	85.9953	32068.75	27.89574	30388.03	19.15744	19.75222	31.18301	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.01018	-0.06797	0.479689	7.321848	-96.4173	88.63152	1015.23	24.93974	
1.01042	-0.06829	0.478969	7.320133	-96.3206	88.70763	1015.227	24.93991	
1.010661	-0.0686	0.47825	7.318417	-96.2239	88.78374	1015.224	24.94007	
1.010566	-0.05645	0.50627	7.299805	-95.1822	89.43439	1015.24	24.94834	
1.010568	-0.05607	0.507152	7.298538	-95.1115	89.48073	1015.239	24.9487	
1.01057	-0.05569	0.508034	7.297272	-95.0409	89.52706	1015.238	24.94906	
1.010572	-0.0553	0.508915	7.296005	-94.9702	89.57339	1015.238	24.94943	
1.010564	-0.05166	0.51732	7.279769	-94.0616	90.11501	1015.256	24.94964	
1.010564	-0.05128	0.518194	7.278687	-94.0011	90.15174	1015.257	24.9498	
1.010564	-0.0509	0.519068	7.277606	-93.9406	90.18847	1015.258	24.94996	

Location Properties

T2-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:50:02

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 3.012727	43.02077	63.96915	34221.73	27.94018	32402.11	20.56301	21.06137	29.2212	
##### 2.999069	42.82737	63.6811	34221.6	27.94252	32400.62	20.56198	21.0604	29.22131	
##### 2.919243	41.69954	62.00449	34259.51	27.95571	32428.78	20.5818	21.0787	29.18898	
##### 2.91237	41.60225	61.85977	34261.31	27.95683	32429.82	20.58254	21.07938	29.18745	
##### 2.905498	41.50497	61.71504	34263.11	27.95796	32430.87	20.58328	21.08006	29.18591	
##### 2.898625	41.40769	61.57032	34264.91	27.95908	32431.91	20.58402	21.08074	29.18437	
##### 2.860163	40.87205	60.76889	34233.71	27.98176	32389.1	20.55418	21.05292	29.21097	
##### 2.856828	40.82527	60.69912	34233.04	27.98304	32387.71	20.55322	21.05201	29.21155	
##### 2.853494	40.7785	60.62936	34232.36	27.98431	32386.32	20.55225	21.05111	29.21213	
##### 2.827883	40.41917	60.0948	34233.53	28.0038	32376.03	20.54516	21.04442	29.21113	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.0116	0.003829	0.645314	6.997625	-78.3821	98.29912	1015.302	25.22917	
1.011599	0.004933	0.647861	6.997409	-78.3705	98.26865	1015.3	25.22956	
1.011609	-0.01725	0.596696	6.995605	-78.2761	97.91496	1015.334	25.23811	
1.011609	-0.01787	0.59526	6.995462	-78.2685	97.89046	1015.335	25.23865	
1.01161	-0.01849	0.593825	6.995318	-78.261	97.86597	1015.337	25.23919	
1.01161	-0.01912	0.592389	6.995175	-78.2534	97.84148	1015.338	25.23972	
1.011581	-0.04671	0.52874	6.994184	-78.1998	97.62658	1015.321	25.24829	
1.011579	-0.04832	0.525022	6.994105	-78.1955	97.61022	1015.321	25.24883	
1.011578	-0.04993	0.521304	6.994025	-78.1913	97.59386	1015.321	25.24937	
1.011567	-0.04313	0.536993	6.992393	-78.1089	97.40322	1015.346	25.25808	

Location Properties

T2-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:44:43

Time Offset = -04:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.508553	76.68767	114.2351	30864.25	27.06708	29691.96	18.71931	19.29977	173.9073	
#####	5.447143	76.0002	113.2099	31357.88	27.06938	30165.58	19.01789	19.60763	88.584	
#####	5.385733	75.31272	112.1847	31851.51	27.07168	30639.2	19.31646	19.91548	3.26066	
#####	4.862586	67.99625	101.2801	31758.69	27.14048	30511.31	19.23821	19.83236	31.4875	
#####	4.8187	67.38669	100.3712	31757.75	27.14507	30507.83	19.23582	19.83009	31.48841	
#####	4.774814	66.77713	99.46233	31756.81	27.14965	30504.35	19.23343	19.82783	31.48932	
#####	4.730927	66.16757	98.55348	31755.87	27.15423	30500.87	19.23104	19.82557	31.49023	
#####	4.450835	62.2241	92.68134	31658.2	27.15213	30408.25	19.16671	19.76537	31.58743	
#####	4.427866	61.90288	92.2028	31655.34	27.15342	30404.79	19.16431	19.76311	31.59028	
#####	4.404898	61.58166	91.72427	31652.49	27.15471	30401.32	19.16191	19.76086	31.59312	
#####	4.204552	58.7884	87.56178	31685.54	27.15393	30433.5	19.18425	19.78178	31.56015	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010488	-0.02696	0.574298	7.072785	-82.3326	96.42971	1015.251	25.10876	
1.010711	-0.02741	0.573252	7.074155	-82.4094	96.27917	1015.25	25.10915	
1.010933	-0.02787	0.572205	7.075525	-82.4862	96.12862	1015.249	25.10953	
1.010854	-0.04362	0.53587	7.068301	-82.0947	96.65881	1015.267	25.11824	
1.010851	-0.04444	0.533975	7.067847	-82.0701	96.69486	1015.268	25.1188	
1.010848	-0.04526	0.532081	7.067393	-82.0455	96.73091	1015.268	25.11935	
1.010845	-0.04608	0.530187	7.066939	-82.0209	96.76696	1015.269	25.1199	
1.010797	-0.01373	0.604818	7.061886	-81.7401	97.04993	1015.278	25.11971	
1.010795	-0.01264	0.607315	7.061533	-81.7207	97.07174	1015.278	25.11988	
1.010793	-0.01156	0.609813	7.06118	-81.7013	97.09354	1015.279	25.12005	
1.01081	-0.02043	0.58936	7.056637	-81.4489	97.35205	1015.254	25.12	

Location Properties

T2-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:04:52

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.285815	47.48842	70.50017	34473.85	28.68416	32207.49	20.43122	20.93487	29.0075
#####	3.170094	45.77102	67.95893	34468.59	28.64172	32226.99	20.44464	20.94754	29.01192
#####	3.16004	45.62458	67.74175	34468.24	28.6406	32227.3	20.44485	20.94775	29.01221
#####	3.149985	45.47815	67.52457	34467.89	28.63948	32227.62	20.44506	20.94795	29.01251
#####	3.055733	44.14649	65.54097	34507.93	28.67425	32245.04	20.45746	20.95927	28.97885
#####	3.049137	44.05167	65.40005	34509.58	28.67497	32246.16	20.45825	20.96	28.97746
#####	3.042541	43.95684	65.25914	34511.23	28.6757	32247.28	20.45905	20.96073	28.97608
#####	3.035945	43.86201	65.11823	34512.88	28.67642	32248.41	20.45984	20.96146	28.97469
#####	2.970995	42.86889	63.65714	34528.61	28.59799	32308.35	20.50139	21.00043	28.96149
#####	2.966202	42.79769	63.55192	34530.04	28.59505	32311.38	20.5035	21.00239	28.96029

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.01127	-0.042	0.539593	6.976623	-77.4068	97.56483	1015.469	25.65012	
1.011293	-0.03705	0.551014	6.975573	-77.3408	97.20199	1015.442	25.64978	
1.011294	-0.03645	0.552412	6.975506	-77.3369	97.17865	1015.442	25.64995	
1.011294	-0.03584	0.553811	6.97544	-77.333	97.15532	1015.441	25.65011	
1.011292	-0.05268	0.514965	6.974943	-77.2853	96.73559	1015.424	25.67536	
1.011293	-0.05332	0.513498	6.9749	-77.2819	96.70995	1015.422	25.67647	
1.011293	-0.05395	0.512031	6.974857	-77.2786	96.68431	1015.421	25.67758	
1.011294	-0.05459	0.510565	6.974815	-77.2752	96.65868	1015.42	25.67868	
1.011349	-0.00729	0.619658	6.974354	-77.2462	96.29179	1015.42	25.67035	
1.011352	-0.00545	0.623903	6.974323	-77.2439	96.26727	1015.42	25.67043	

Location Properties

T2-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:00:02

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.412595	63.59805	94.35188	32535.48	29.00182	30225.22	19.04994	19.6464	30.73567	
##### 4.390782	63.28325	93.8848	32535.63	29.00124	30225.67	19.05025	19.64669	30.73553	
##### 4.252374	61.18729	90.79353	32512.03	28.95251	30229.89	19.05296	19.64943	30.75785	
##### 4.23736	60.96613	90.46623	32511.01	28.95006	30230.26	19.05321	19.64967	30.75881	
##### 4.222347	60.74496	90.13893	32510	28.94761	30230.63	19.05346	19.64991	30.75977	
##### 4.207334	60.5238	89.81164	32508.98	28.94516	30231	19.05371	19.65015	30.76073	
##### 4.091939	58.8555	87.34419	32584.54	28.8536	30350.64	19.13643	19.72792	30.68942	
##### 4.08256	58.71802	87.14094	32587.44	28.8485	30356.09	19.1402	19.73146	30.68668	
##### 4.07318	58.58054	86.93768	32590.35	28.8434	30361.54	19.14396	19.735	30.68394	
##### 3.998353	57.47873	85.30595	32547.54	28.82201	30333.21	19.12417	19.71659	30.7243	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.01014	-0.05032	0.520418	7.044108	-81.2345	98.41113	1015.478		25.5
1.01014	-0.05127	0.518226	7.043558	-81.2029	98.28	1015.477		25.5
1.010158	-0.02977	0.567809	7.038706	-80.9195	97.82686	1015.437		25.5
1.010159	-0.02917	0.569195	7.038266	-80.894	97.75388	1015.434		25.5
1.01016	-0.02857	0.570581	7.037825	-80.8684	97.68091	1015.432		25.5
1.010161	-0.02797	0.571967	7.037385	-80.8429	97.60793	1015.429		25.5
1.010251	-0.0435	0.536148	7.031732	-80.5115	97.22689	1015.439	25.50894	
1.010255	-0.04382	0.535402	7.031346	-80.4889	97.19207	1015.439	25.50934	
1.01026	-0.04414	0.534656	7.03096	-80.4663	97.15725	1015.439	25.50974	
1.010252	-0.03435	0.557261	7.026601	-80.2053	96.91045	1015.431	25.50967	

Location Properties

T2-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:35:12

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.566074	53.00209	78.27784	33927.38	30.85939	30512.58	19.25565	19.83318	29.47476
#####	3.540075	52.60994	77.69991	33922.43	30.85802	30508.85	19.25305	19.83075	29.47905
#####	3.514076	52.21778	77.12196	33917.48	30.85665	30505.12	19.25045	19.82833	29.48333
#####	3.271048	48.53195	71.70128	33948.27	30.65492	30639.06	19.34326	19.91539	29.45659
#####	3.253169	48.26051	71.30191	33947.89	30.64503	30643.92	19.34663	19.91855	29.45692
#####	3.235291	47.98906	70.90255	33947.5	30.63514	30648.79	19.34999	19.92171	29.45725
#####	3.217412	47.71761	70.50319	33947.12	30.62525	30653.65	19.35336	19.92487	29.45758
#####	3.073987	45.48132	67.22648	33856.25	30.47902	30648.89	19.34967	19.92178	29.53668
#####	3.06276	45.3084	66.97269	33852.81	30.46875	30651.21	19.35126	19.92328	29.53967
#####	3.051533	45.13548	66.71889	33849.38	30.45848	30653.53	19.35285	19.92479	29.54266



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009693	-0.03376	0.558621	7.026767	-80.7537	96.75356	1015.398	26.98973	
1.009691	-0.03383	0.558442	7.026269	-80.7246	96.76664	1015.399	26.98989	
1.00969	-0.03391	0.558263	7.025771	-80.6955	96.77972	1015.4	26.99005	
1.009825	-0.07292	0.468281	7.02204	-80.4141	96.892	1015.4	27.00705	
1.009831	-0.07477	0.464019	7.021717	-80.3923	96.9009	1015.4	27.00781	
1.009837	-0.07662	0.459758	7.021394	-80.3705	96.9098	1015.4	27.00858	
1.009843	-0.07846	0.455496	7.02107	-80.3487	96.9187	1015.4	27.00935	
1.009888	-0.06308	0.490981	7.015386	-80.0242	97.08659	1015.443	27.01796	
1.009892	-0.06316	0.490792	7.01506	-80.0042	97.09622	1015.444	27.01867	
1.009897	-0.06324	0.490603	7.014734	-79.9843	97.10585	1015.446	27.01937	

Location Properties

T2-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:29:10

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.934051	73.64016	108.647	33546.2	31.4095	29898.86	18.87367	19.43426	18.02945	
##### 4.497957	67.12674	99.03609	33572.74	31.19705	30035.53	18.96909	19.52309	75.96484	
##### 4.452531	66.57166	98.22506	34126.19	31.16934	30533.96	19.28518	19.84707	43.67699	
##### 4.407105	66.01659	97.41404	34679.65	31.14163	31032.39	19.60127	20.17105	11.38913	
##### 4.19916	62.81457	92.6935	34427.57	31.11231	30828.54	19.47629	20.03855	29.0465	
##### 4.180788	62.53924	92.28767	34430.19	31.10652	30833.92	19.48002	20.04205	29.04429	
##### 4.162416	62.26391	91.88184	34432.81	31.10073	30839.29	19.48376	20.04554	29.04208	
##### 4.144044	61.98858	91.47601	34435.43	31.09495	30844.67	19.4875	20.04904	29.03987	
##### 4.017867	60.01647	88.58674	34430.02	31.05656	30860.12	19.4982	20.05908	29.04442	
##### 4.007831	59.86214	88.36011	34430.72	31.05396	30862.12	19.49958	20.06038	29.04383	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009227	-0.05403	0.511848	7.065283	-83.0111	93.05272	1015.411	26.53946	
1.009369	-0.06644	0.483217	7.054486	-82.4006	93.17705	1015.428	26.5486	
1.009612	-0.06684	0.482316	7.053938	-82.3682	93.17551	1015.428	26.54915	
1.009856	-0.06723	0.481414	7.05339	-82.3358	93.17397	1015.429	26.54971	
1.009773	-0.0374	0.550224	7.046587	-81.9428	93.15982	1015.42	26.55811	
1.009778	-0.03633	0.552679	7.046125	-81.9161	93.15834	1015.42	26.55865	
1.009782	-0.03527	0.555134	7.045663	-81.8894	93.15686	1015.42	26.55919	
1.009787	-0.0342	0.557588	7.045201	-81.8627	93.15538	1015.42	26.55973	
1.009808	-0.04014	0.54389	7.039466	-81.5274	93.19537	1015.42	26.56836	
1.00981	-0.03987	0.544513	7.039077	-81.5047	93.19688	1015.42	26.56891	

Location Properties

T3-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:21:31

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.916856	56.66277	84.11301	34661.96	28.72659	32358.73	20.53741	21.03318	28.84991
#####	3.587476	51.937	77.09052	34727.77	28.76423	32398.41	20.56546	21.05897	28.79543
#####	3.561177	51.55923	76.5294	34732.5	28.76698	32401.24	20.56745	21.06081	28.7915
#####	3.534877	51.18145	75.96827	34737.23	28.76973	32404.07	20.56945	21.06264	28.78757
#####	3.290868	47.6381	70.71069	34767.13	28.75882	32438.27	20.59336	21.08488	28.76282
#####	3.273259	47.38347	70.33271	34769.85	28.75898	32440.72	20.59509	21.08647	28.76056
#####	3.25565	47.12885	69.95473	34772.57	28.75914	32443.17	20.59681	21.08806	28.7583
#####	3.238041	46.87423	69.57674	34775.3	28.75929	32445.63	20.59853	21.08966	28.75604
#####	3.071109	44.43905	65.96519	34705.65	28.73479	32394.78	20.56274	21.0566	28.81377
#####	3.058714	44.25856	65.69746	34703.09	28.73348	32393.15	20.56159	21.05555	28.81589

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011336	-0.03264	0.56119	6.990026	-78.1703	91.05012	1015.428	26.29994	
1.011345	-0.05364	0.512746	6.987873	-78.0467	91.10892	1015.419	26.29951	
1.011345	-0.0543	0.511227	6.987716	-78.0383	91.11407	1015.42	26.29985	
1.011346	-0.05496	0.509709	6.98756	-78.0298	91.11924	1015.421	26.30019	
1.011367	-0.05609	0.50711	6.9862	-77.9505	91.2355	1015.395	26.3085	
1.011368	-0.05648	0.506197	6.986096	-77.9446	91.24206	1015.393	26.30889	
1.01137	-0.05688	0.505284	6.985993	-77.9386	91.24861	1015.392	26.30929	
1.011371	-0.05727	0.504371	6.98589	-77.9326	91.25517	1015.391	26.30968	
1.011352	-0.07681	0.45931	6.983835	-77.815	91.33852	1015.408	26.30972	
1.011351	-0.07771	0.457233	6.983715	-77.8081	91.34457	1015.408	26.30988	

Location Properties

T3-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 09:17:29

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.808892	69.86639	103.4081	30830.69	29.95408	28169.79	17.64163	18.31037	58075.4	
##### 4.763237	69.31746	102.6042	31344.78	29.92724	28640.68	17.93657	18.61644	0	
##### 4.482571	65.01876	96.26661	31040.5	29.86633	28400.77	17.79027	18.4605	32.21598	
##### 4.460733	64.69306	95.78639	31041.46	29.86135	28404.11	17.79256	18.46267	32.21498	
##### 4.438894	64.36736	95.30618	31042.41	29.85637	28407.45	17.79485	18.46484	32.21399	
##### 4.417056	64.04166	94.82597	31043.37	29.85139	28410.79	17.79714	18.46701	32.213	
##### 4.220464	61.16689	90.58678	31145.21	29.71641	28571.47	17.90759	18.57146	32.10773	
##### 4.206041	60.95387	90.27275	31150.41	29.70885	28580	17.91345	18.577	32.10234	
##### 4.191618	60.74086	89.95872	31155.62	29.7013	28588.53	17.91932	18.58254	32.09696	
##### 4.060499	58.77847	87.05927	31023.06	29.65743	28488.79	17.85039	18.51771	32.23417	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.008788	-0.07745	0.457822	7.132617	-86.4399	81.65682	1015.455	26.0481	
1.009016	-0.07841	0.45562	7.131444	-86.3668	81.74549	1015.456	26.049	
1.008927	-0.10867	0.385808	7.118281	-85.6122	82.66949	1015.398	26.04077	
1.00893	-0.11025	0.382168	7.117382	-85.5604	82.7325	1015.397	26.04071	
1.008934	-0.11183	0.378527	7.116481	-85.5087	82.7955	1015.395	26.04065	
1.008937	-0.11341	0.374887	7.115581	-85.4569	82.85851	1015.393	26.04059	
1.009062	-0.07085	0.473063	7.104186	-84.7905	83.66853	1015.444	26.04906	
1.009069	-0.06946	0.476258	7.10342	-84.7459	83.7229	1015.446	26.0493	
1.009076	-0.06808	0.479452	7.102653	-84.7013	83.77726	1015.447	26.04955	
1.009039	-0.00914	0.615395	7.092171	-84.0974	84.47182	1015.422	26.05812	

Location Properties

T4-1HB

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:19:42

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
#####	2.089197	29.34175	43.75791	35773.65	26.37704	34856.87	22.27725	22.65697	27.95355
#####	2.088014	29.32574	43.73396	35775.51	26.37887	34857.49	22.27771	22.65737	27.95209
#####	2.086831	29.30974	43.71001	35777.37	26.3807	34858.11	22.27817	22.65777	27.95064
#####	2.085647	29.29373	43.68606	35779.23	26.38254	34858.73	22.27863	22.65818	27.94918
#####	2.07195	29.11407	43.41478	35746.65	26.38812	34823.38	22.2537	22.63519	27.97465
#####	2.070975	29.10114	43.39534	35746.17	26.38858	34822.61	22.25316	22.6347	27.97503
#####	2.07	29.08821	43.37589	35745.68	26.38903	34821.84	22.25262	22.6342	27.97541
#####	2.062259	28.97512	43.20785	35722.34	26.41648	34781.35	22.22429	22.60788	27.99369
#####	2.061634	28.96639	43.1948	35720.62	26.41788	34778.77	22.22248	22.6062	27.99504
#####	2.06101	28.95766	43.18174	35718.89	26.41927	34776.18	22.22067	22.60452	27.99639



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013357	-0.03755	0.549857	6.847608	-69.6674	168.8192	1014.888	24.18964	
1.013357	-0.03723	0.550607	6.847646	-69.6698	168.7534	1014.889	24.1898	
1.013357	-0.0369	0.551356	6.847684	-69.6722	168.6876	1014.889	24.18997	
1.013356	-0.03658	0.552106	6.847723	-69.6746	168.6217	1014.889	24.19013	
1.013336	-0.04302	0.53726	6.848094	-69.7013	167.5739	1014.881	24.19878	
1.013335	-0.04342	0.536335	6.848121	-69.7031	167.5062	1014.88	24.19918	
1.013335	-0.04382	0.535409	6.848147	-69.7049	167.4386	1014.88	24.19958	
1.013306	-0.05392	0.512097	6.848313	-69.7215	166.4119	1014.897	24.19966	
1.013304	-0.0545	0.510759	6.848328	-69.7228	166.3442	1014.898	24.19984	
1.013302	-0.05508	0.509422	6.848343	-69.7241	166.2764	1014.898	24.20001	

Location Properties

T4-1HS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:11:53

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.839882	52.51189	78.56156	35172.04	24.7371	35349.53	22.60477	22.97719	28.43168
#####	3.651535	50.02979	74.83358	35162.99	24.77763	35312.98	22.57951	22.95344	28.43899
#####	3.639232	49.86621	74.58807	35162.13	24.78024	35310.34	22.57768	22.95172	28.43969
#####	3.62693	49.70264	74.34255	35161.26	24.78284	35307.71	22.57586	22.95001	28.4404
#####	3.614628	49.53906	74.09704	35160.39	24.78545	35305.07	22.57403	22.94829	28.4411
#####	3.448074	47.27383	70.70314	35159.88	24.90154	35226.15	22.5199	22.897	28.44151
#####	3.436866	47.12294	70.47689	35159.66	24.90751	35221.9	22.51698	22.89423	28.44168
#####	3.425658	46.97205	70.25063	35159.45	24.91349	35217.65	22.51406	22.89147	28.44185
#####	3.282603	45.02955	67.34003	35124.23	24.95294	35155.85	22.47093	22.8513	28.47038
#####	3.273011	44.89928	67.14484	35122.66	24.95688	35151.62	22.46799	22.84855	28.47165

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014081	-0.03335	0.559567	6.550745	-52.9466	236.2366	1014.821	23.79983	
1.014051	0.006366	0.651167	6.562526	-53.6087	235.8851	1014.846	23.81703	
1.014049	0.008144	0.655268	6.563324	-53.6534	235.8659	1014.847	23.81795	
1.014047	0.009922	0.659369	6.564123	-53.6981	235.8466	1014.848	23.81888	
1.014045	0.0117	0.66347	6.564921	-53.7428	235.8274	1014.849	23.81981	
1.013971	-0.06519	0.486103	6.576167	-54.3769	235.3833	1014.84	23.8284	
1.013967	-0.06783	0.480027	6.576904	-54.4184	235.3569	1014.84	23.82911	
1.013963	-0.07046	0.473952	6.577642	-54.4599	235.3305	1014.84	23.82983	
1.013919	-0.04407	0.534836	6.588412	-55.064	234.8214	1014.832	23.83816	
1.013916	-0.04431	0.534266	6.589108	-55.1032	234.7904	1014.831	23.8387	

Location Properties

T4-2HB

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:35:12

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 2.800129	39.3196	58.65243	36072.71	26.28287	35209.97	22.526	22.88648	27.72179	
##### 2.796416	39.26853	58.57608	36074.96	26.28363	35211.67	22.52721	22.88758	27.72005	
##### 2.758945	38.76724	57.82095	35998.07	26.35734	35088.43	22.44081	22.80748	27.77928	
##### 2.756189	38.72985	57.76482	35995.09	26.3607	35083.31	22.43723	22.80416	27.78158	
##### 2.753433	38.69247	57.7087	35992.11	26.36406	35078.2	22.43365	22.80083	27.78387	
##### 2.73164	38.42372	57.30053	36064.73	26.40931	35119.4	22.4633	22.82761	27.72794	
##### 2.7299	38.40148	57.26688	36066.65	26.41278	35118.99	22.46305	22.82735	27.72646	
##### 2.72816	38.37924	57.23323	36068.57	26.41626	35118.59	22.4628	22.82708	27.72498	
##### 2.72642	38.35699	57.19958	36070.49	26.41973	35118.18	22.46255	22.82682	27.7235	
##### 2.705786	38.10182	56.81262	36072.2	26.45221	35098.66	22.44909	22.81413	27.72218	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013571	-0.04738	0.527195	6.98973	-77.5117	122.5925	1014.95	24.34933	
1.013572	-0.04602	0.530334	6.989488	-77.4985	122.5686	1014.95	24.34971	
1.013485	-0.05571	0.507981	6.985679	-77.3166	122.1102	1014.959	24.34096	
1.013482	-0.05537	0.508763	6.985433	-77.3043	122.0818	1014.959	24.34072	
1.013478	-0.05503	0.509546	6.985188	-77.2921	122.0534	1014.959	24.34049	
1.013487	-0.05262	0.515115	6.981571	-77.1008	121.6334	1014.925	24.34033	
1.013485	-0.05268	0.514968	6.981331	-77.0885	121.6053	1014.924	24.34016	
1.013484	-0.05274	0.514821	6.981091	-77.0761	121.5771	1014.922	24.33999	
1.013483	-0.05281	0.514675	6.98085	-77.0638	121.549	1014.921	24.33982	
1.013463	-0.03371	0.558721	6.978326	-76.9301	121.0506	1014.929	24.35725	

Location Properties

T4-2HS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:29:05

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	3.930597	55.24804	82.39688	35944.31	26.39475	35011.61	22.38687	22.75755	27.82084
#####	3.92227	55.13254	82.22449	35946.92	26.39639	35013.08	22.38793	22.7585	27.81881
#####	3.913942	55.01704	82.05209	35949.53	26.39804	35014.55	22.38899	22.75946	27.81679
#####	3.785498	53.22001	79.36685	35909.61	26.4168	34963.46	22.35306	22.72625	27.84771
#####	3.777282	53.10551	79.19585	35909.25	26.41805	34962.31	22.35226	22.7255	27.84798
#####	3.769067	52.99102	79.02484	35908.9	26.41929	34961.16	22.35146	22.72475	27.84825
#####	3.656755	51.41552	76.67497	35865.5	26.43855	34906.4	22.31294	22.68916	27.88197
#####	3.649235	51.31009	76.51762	35862.68	26.43978	34902.86	22.31045	22.68686	27.88415
#####	3.641714	51.20466	76.36028	35859.86	26.44101	34899.31	22.30795	22.68455	27.88634
#####	3.634193	51.09923	76.20293	35857.04	26.44225	34895.77	22.30546	22.68225	27.88853

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013434	0.022071	0.687392	6.960722	-75.938	144.6682	1014.974	24.28872	
1.013434	0.022775	0.689017	6.960625	-75.933	144.6791	1014.975	24.28907	
1.013434	0.023479	0.690641	6.960526	-75.928	144.69	1014.976	24.28943	
1.013402	0.009824	0.659143	6.959287	-75.8594	144.5825	1014.952	24.28094	
1.013401	0.00998	0.659503	6.959201	-75.8548	144.5786	1014.951	24.2807	
1.0134	0.010136	0.659863	6.959116	-75.8502	144.5748	1014.951	24.28045	
1.013365	-0.04159	0.540547	6.958148	-75.8055	144.3397	1014.984	24.29711	
1.013363	-0.04426	0.534391	6.958081	-75.8022	144.3271	1014.985	24.29769	
1.013361	-0.04693	0.528235	6.958014	-75.7988	144.3145	1014.986	24.29828	
1.013359	-0.0496	0.52208	6.957946	-75.7955	144.3019	1014.987	24.29887	

Location Properties

T4-3HB

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:49:28

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
#####	2.726359	38.65081	57.58637	36136.35	26.9384	34846.23	22.27551	22.65005	27.67297
#####	2.702573	38.34186	57.11996	36217.24	26.96488	34907.2	22.31889	22.68968	27.61118
#####	2.700875	38.31915	57.08582	36219.59	26.9671	34908.04	22.31951	22.69022	27.60939
#####	2.699177	38.29645	57.05169	36221.94	26.96932	34908.87	22.32012	22.69077	27.60759
#####	2.697479	38.27374	57.01754	36224.29	26.97154	34909.71	22.32073	22.69131	27.6058
#####	2.677866	38.01225	56.62453	36194.95	26.99153	34868.61	22.29185	22.6646	27.62817
#####	2.676522	37.99448	56.59778	36195.19	26.99295	34867.93	22.29139	22.66415	27.62798
#####	2.675178	37.97671	56.57103	36195.43	26.99437	34867.25	22.29092	22.66371	27.6278
#####	2.673834	37.95893	56.54428	36195.68	26.99579	34866.57	22.29045	22.66327	27.62761
#####	2.657134	37.72665	56.19446	36144.17	27.03615	34791.14	22.23749	22.61424	27.66699



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013187	-0.04568	0.531108	6.97193	-76.6996	109.186	1015.118	24.42005	
1.013211	-0.04828	0.525124	6.970452	-76.6231	109.0584	1015.067	24.42849	
1.013211	-0.04846	0.524696	6.97035	-76.618	109.0499	1015.065	24.42887	
1.013211	-0.04865	0.524267	6.970247	-76.6128	109.0414	1015.064	24.42926	
1.013211	-0.04883	0.523838	6.970145	-76.6076	109.0329	1015.063	24.42965	
1.013183	-0.04882	0.523863	6.968955	-76.5455	108.9126	1015.079	24.42968	
1.013182	-0.04888	0.523745	6.968873	-76.5412	108.9048	1015.078	24.42985	
1.013181	-0.04893	0.523627	6.968791	-76.537	108.8969	1015.078	24.43002	
1.013181	-0.04898	0.523509	6.968709	-76.5327	108.8891	1015.078	24.43018	
1.013129	-0.04386	0.535309	6.967138	-76.4562	108.7604	1015.062	24.43	

Location Properties

T4-3HS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 07:43:49

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.631177	65.1198	97.10365	35636.27	26.50666	34639.44	22.12497	22.51563	28.06131	
##### 4.613324	64.87321	96.73542	35643.6	26.50911	34644.99	22.12892	22.51925	28.05551	
##### 4.595471	64.62662	96.3672	35650.93	26.51155	34650.55	22.13287	22.52286	28.04972	
##### 4.438326	62.42178	93.07565	35601.55	26.51095	34602.94	22.09924	22.49191	28.08867	
##### 4.424029	62.22272	92.77846	35602.2	26.51189	34602.96	22.09926	22.49192	28.08816	
##### 4.409732	62.02368	92.48126	35602.84	26.51283	34602.98	22.09929	22.49194	28.08765	
##### 4.395434	61.82463	92.18407	35603.48	26.51378	34603	22.09931	22.49195	28.08714	
##### 4.247554	59.74989	89.08588	35570.22	26.54768	34548.94	22.06149	22.45681	28.11341	
##### 4.236732	59.59832	88.85954	35568.23	26.54932	34545.95	22.05939	22.45487	28.11498	
##### 4.225911	59.44674	88.63321	35566.24	26.55096	34542.96	22.0573	22.45293	28.11655	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013204	-0.05127	0.518219	7.019355	-79.21	115.8	1015.04	24.32018	
1.013206	-0.04902	0.523412	7.019126	-79.1974	115.8246	1015.04	24.31958	
1.013209	-0.04677	0.528606	7.018898	-79.1849	115.8492	1015.04	24.31898	
1.013184	-0.09466	0.418126	7.017194	-79.0947	115.7255	1015.031	24.33756	
1.013183	-0.09597	0.415117	7.017025	-79.0855	115.7296	1015.031	24.33818	
1.013183	-0.09727	0.412107	7.016856	-79.0764	115.7337	1015.03	24.33879	
1.013183	-0.09858	0.409098	7.016687	-79.0673	115.7378	1015.03	24.33941	
1.013144	-0.08064	0.450476	7.014791	-78.9679	115.6399	1015.012	24.32202	
1.013142	-0.08066	0.450421	7.014658	-78.9609	115.6347	1015.011	24.32159	
1.01314	-0.08069	0.450367	7.014526	-78.9539	115.6295	1015.01	24.32116	

Location Properties

T4-4HB

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:07:48

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.548446	65.73203	97.71119	37119.11	28.00809	35102.31	22.46625	22.8165	26.94028	
##### 4.237306	61.23452	91.02556	37065.93	28.02906	35038.76	22.4214	22.7752	26.97896	
##### 4.213572	60.89217	90.51659	37065.5	28.03002	35037.76	22.4207	22.77454	26.97927	
##### 4.189838	60.5498	90.00763	37065.08	28.03097	35036.75	22.41999	22.77389	26.97958	
##### 3.989283	57.67844	85.73724	37186.74	28.03069	35151.93	22.5016	22.84875	26.89136	
##### 3.974216	57.46188	85.41522	37191.19	28.03106	35155.9	22.50442	22.85133	26.88813	
##### 3.959148	57.24532	85.09321	37195.64	28.03144	35159.87	22.50723	22.85391	26.8849	
##### 3.94408	57.02876	84.7712	37200.09	28.03182	35163.83	22.51005	22.85649	26.88168	
##### 3.821747	55.28489	82.17231	37186.64	28.07182	35125.75	22.48337	22.83174	26.89139	
##### 3.812305	55.15002	81.97149	37188.23	28.07364	35126.1	22.48363	22.83196	26.89024	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013001	-0.05795	0.502808	7.065817	-82.1934	98.16884	1015.18	24.71023	
1.012961	-0.06253	0.492245	7.063597	-82.0739	98.51836	1015.215	24.71	
1.01296	-0.0629	0.491391	7.063422	-82.0644	98.54173	1015.216	24.71	
1.012959	-0.06327	0.490536	7.063247	-82.0548	98.56511	1015.218	24.71	
1.01302	0.059094	0.772793	7.06137	-81.9611	98.85397	1015.193	24.71839	
1.013022	0.06443	0.785102	7.061243	-81.9545	98.87364	1015.193	24.71876	
1.013024	0.069767	0.797411	7.061115	-81.948	98.89331	1015.192	24.71913	
1.013026	0.075103	0.80972	7.060988	-81.9415	98.91298	1015.192	24.71951	
1.012994	-0.07088	0.472995	7.059825	-81.8757	99.19434	1015.191	24.71966	
1.012993	-0.07525	0.462905	7.059736	-81.8709	99.21258	1015.19	24.71982	

Location Properties

T4-4HS

Location Name = Device Location

Report Properties

Start Time = 2022-09-22 08:00:57

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.630388	67.61343	100.3527	37159.17	28.73492	34684.86	22.17589	22.54515	26.91126	
##### 4.476393	65.34661	96.99216	37189.74	28.7056	34731.54	22.20874	22.5755	26.88914	
##### 4.466335	65.19856	96.77267	37191.73	28.70369	34734.59	22.21089	22.57749	26.8877	
##### 4.456277	65.05051	96.55318	37193.73	28.70177	34737.64	22.21304	22.57947	26.88625	
##### 4.44622	64.90246	96.3337	37195.73	28.69986	34740.69	22.21518	22.58145	26.88481	
##### 4.378353	63.86362	94.80473	37213.86	28.66659	34778.28	22.24157	22.60588	26.87171	
##### 4.371302	63.75804	94.6487	37215.46	28.66433	34781.18	22.24361	22.60777	26.87055	
##### 4.364252	63.65247	94.49268	37217.07	28.66207	34784.09	22.24565	22.60966	26.86939	
##### 4.357201	63.54689	94.33667	37218.68	28.65981	34786.99	22.24769	22.61154	26.86823	
##### 4.296789	62.62413	92.97218	37169.63	28.59936	34778.67	22.24139	22.60614	26.90369	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012555	-0.06548	0.485434	7.030744	-80.4245	111.1339	1015.29	24.55	
1.012589	-0.09263	0.42281	7.028333	-80.2793	110.5613	1015.262	24.55	
1.012591	-0.09441	0.41872	7.028175	-80.2698	110.5239	1015.26	24.55	
1.012594	-0.09618	0.41463	7.028018	-80.2603	110.4865	1015.258	24.55	
1.012596	-0.09795	0.41054	7.027861	-80.2508	110.4491	1015.257	24.55	
1.012626	-0.07488	0.46376	7.026937	-80.1955	110.1618	1015.269	24.55857	
1.012628	-0.07455	0.46453	7.026834	-80.1892	110.134	1015.269	24.55896	
1.01263	-0.07421	0.465299	7.02673	-80.183	110.1062	1015.269	24.55934	
1.012633	-0.07388	0.466069	7.026625	-80.1767	110.0784	1015.269	24.55973	
1.012647	-0.06474	0.487158	7.026165	-80.1298	109.7914	1015.235	24.55973	

Location Properties

T4-4L

Location Name = Device Location

Report Properties

Start Time = 2022-09-27 17:35:48

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 6.791981	100.8287	146.8341	36940.04	30.0727	33677.12	21.47096	21.89013	27.07095	
##### 6.793422	100.8492	146.8644	36944.15	30.07006	33682.42	21.47469	21.89357	27.06793	
##### 6.794863	100.8698	146.8948	36948.27	30.06742	33687.72	21.47842	21.89702	27.0649	
##### 6.828688	101.302	147.5414	36962.22	30.05157	33709.74	21.49389	21.91133	27.05468	
##### 6.830612	101.3276	147.5795	36965.3	30.05038	33713.25	21.49636	21.91361	27.05241	
##### 6.832536	101.3531	147.6176	36968.38	30.0492	33716.75	21.49882	21.91589	27.05015	
##### 6.83446	101.3787	147.6558	36971.47	30.04801	33720.26	21.50129	21.91817	27.04788	
##### 6.854484	101.6294	148.0305	36904.07	29.99774	33688.29	21.47853	21.89739	27.09729	
##### 6.856062	101.6493	148.0603	36901.3	29.99517	33687.27	21.47779	21.89672	27.09933	
##### 6.85764	101.6692	148.0901	36898.54	29.99261	33686.25	21.47706	21.89606	27.10135	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011599	-0.04545	0.531637	7.115935	-81.0344	234.8952	1016.987	30.77969	
1.011603	-0.04547	0.531608	7.116732	-81.0787	234.8243	1016.985	30.77986	
1.011606	-0.04548	0.531579	7.11753	-81.123	234.7534	1016.983	30.78003	
1.011623	-0.02596	0.576607	7.129471	-81.7856	233.6792	1016.982	30.78	
1.011625	-0.02495	0.578932	7.130249	-81.8289	233.6093	1016.981	30.78	
1.011627	-0.02394	0.581258	7.131027	-81.8721	233.5394	1016.98	30.78	
1.01163	-0.02293	0.583583	7.131805	-81.9154	233.4695	1016.979	30.78	
1.011629	-0.00454	0.626019	7.142786	-82.5209	232.4696	1016.997	30.78853	
1.01163	-0.00332	0.628823	7.143516	-82.5612	232.4033	1016.997	30.78891	
1.01163	-0.0021	0.631628	7.144247	-82.6016	232.3371	1016.998	30.78929	

Location Properties

BG-1LT

Location Name = Device Location

Report Properties

Start Time = 2022-09-28 07:48:22

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.846069	62.85397	93.22719	34213.14	21.52393	36646.29	23.4603	23.82009	29.22854	
##### 4.833436	62.71263	93.0145	34213.79	21.53542	36638.33	23.45495	23.81491	29.22798	
##### 4.820803	62.57129	92.8018	34214.44	21.54691	36630.37	23.4496	23.80974	29.22743	
##### 4.703361	61.24258	90.80173	34380.56	21.92578	36525.43	23.38426	23.74153	29.08632	
##### 4.694145	61.13967	90.6467	34388.52	21.94622	36518.67	23.37996	23.73713	29.07957	
##### 4.684929	61.03676	90.49167	34396.47	21.96667	36511.91	23.37567	23.73274	29.07281	
##### 4.675714	60.93385	90.33664	34404.43	21.98711	36505.15	23.37137	23.72835	29.06605	
##### 4.589792	59.93928	88.83957	34309.23	22.15853	36278.38	23.21472	23.58095	29.14671	
##### 4.583611	59.86847	88.73297	34308.46	22.17345	36266.55	23.20669	23.57326	29.14736	
##### 4.57743	59.79765	88.62637	34307.7	22.18838	36254.73	23.19866	23.56557	29.148	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.015601	-0.0512	0.518374	5.836219	-8.86145	138.6279	1018.398	19.31799	
1.015594	-0.05135	0.518029	5.840035	-9.07017	138.6457	1018.399	19.31887	
1.015587	-0.0515	0.517684	5.84385	-9.27889	138.6635	1018.4	19.31975	
1.015439	-0.04163	0.540458	5.891808	-11.9164	138.7831	1018.391	19.3453	
1.01543	-0.04125	0.541328	5.895152	-12.1	138.7938	1018.391	19.34664	
1.015422	-0.04088	0.542197	5.898495	-12.2836	138.8046	1018.39	19.34799	
1.015413	-0.0405	0.543067	5.901839	-12.4672	138.8153	1018.39	19.34933	
1.01525	-0.06387	0.489162	5.945986	-14.8907	138.7855	1018.407	19.37441	
1.01524	-0.06467	0.487306	5.948872	-15.0492	138.7868	1018.407	19.37599	
1.01523	-0.06548	0.485451	5.951758	-15.2077	138.7882	1018.408	19.37757	

Location Properties

T1-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-09-28 07:59:29

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.972258	92.4078	136.7198	33633.1	23.33856	34732.31	22.16413	22.576	74739.81	
##### 6.951404	92.37425	136.6663	34186.11	23.34858	35303.34	22.52787	22.94717	0	
##### 6.932509	92.06187	136.1881	33767.76	23.37935	34846.44	22.22775	22.65018	29.61433	
##### 6.930899	92.04155	136.1572	33756.48	23.38106	34833.61	22.21874	22.64185	29.62411	
##### 6.929289	92.02123	136.1263	33745.21	23.38278	34820.79	22.20973	22.63351	29.63389	
##### 6.927679	92.00092	136.0954	33733.93	23.3845	34807.97	22.20071	22.62518	29.64367	
##### 6.912446	91.90071	135.9392	33888.23	23.4628	34913.29	22.27632	22.69364	29.50885	
##### 6.911175	91.88982	135.9224	33892.84	23.46695	34915.18	22.27773	22.69487	29.50482	
##### 6.909905	91.87893	135.9056	33897.45	23.4711	34917.09	22.27914	22.69611	29.50079	
##### 6.91025	91.89815	135.9206	33793.84	23.50924	34784.29	22.1862	22.60979	29.59124	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.01414	-0.04908	0.523264	6.650852	-53.6863	118.8627	1018.61	20.16897	
1.014412	-0.04898	0.523499	6.65174	-53.7383	118.8959	1018.61	20.16951	
1.014177	-0.04454	0.533749	6.665268	-54.4878	119.1921	1018.61	20.16964	
1.01417	-0.0442	0.534537	6.666139	-54.5361	119.2134	1018.61	20.1698	
1.014163	-0.04385	0.535325	6.66701	-54.5844	119.2348	1018.61	20.16995	
1.014155	-0.04351	0.536113	6.667881	-54.6328	119.2561	1018.61	20.17011	
1.014191	-0.04979	0.521632	6.68011	-55.3193	119.4602	1018.618	20.17864	
1.014191	-0.04998	0.521199	6.68092	-55.3646	119.4753	1018.619	20.17902	
1.014191	-0.05017	0.520766	6.68173	-55.4099	119.4903	1018.619	20.1794	
1.01411	-0.03813	0.548526	6.694252	-56.1027	119.6404	1018.586	20.18794	

Location Properties

T2-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-09-28 08:07:09

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.591003	74.15443	109.701	33464.92	23.43037	34499.21	21.98408	22.42448	29.88206	
##### 5.580324	74.01266	109.491	33464.16	23.43035	34498.44	21.98354	22.42399	29.88273	
##### 5.569644	73.8709	109.2811	33463.4	23.43032	34497.67	21.983	22.42349	29.88341	
##### 5.558965	73.72913	109.0711	33462.64	23.4303	34496.91	21.98246	22.42299	29.88408	
##### 5.400288	71.67248	106.0225	33463.42	23.4545	34481.28	21.97188	22.41283	29.88338	
##### 5.390138	71.53976	105.8257	33462.28	23.45562	34479.34	21.97053	22.41157	29.8844	
##### 5.379987	71.40704	105.629	33461.13	23.45674	34477.4	21.96919	22.41031	29.88542	
##### 5.369836	71.27433	105.4322	33459.99	23.45786	34475.46	21.96784	22.40905	29.88644	
##### 5.216704	69.26571	102.4634	33505.9	23.49275	34499.07	21.98505	22.4244	29.8455	
##### 5.206697	69.13491	102.2699	33507.98	23.49477	34499.84	21.98562	22.4249	29.84364	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.01398	-0.05438	0.511052	7.054446	-75.8902	113.7178	1018.661	20.3176	
1.013979	-0.05376	0.512472	7.054547	-75.896	113.7184	1018.659	20.31831	
1.013979	-0.05315	0.513892	7.054647	-75.9018	113.719	1018.657	20.31902	
1.013978	-0.05253	0.515311	7.054748	-75.9075	113.7196	1018.654	20.31973	
1.013964	-0.05583	0.507713	7.055459	-75.9513	113.6961	1018.67	20.31105	
1.013963	-0.05579	0.507803	7.055522	-75.9551	113.695	1018.669	20.31082	
1.013961	-0.05575	0.507893	7.055585	-75.9589	113.6938	1018.669	20.31059	
1.01396	-0.05571	0.507983	7.055648	-75.9627	113.6926	1018.668	20.31036	
1.013963	-0.0565	0.506163	7.05683	-76.0352	113.653	1018.722	20.32774	
1.013963	-0.05659	0.505945	7.056897	-76.0393	113.6508	1018.724	20.32835	

Location Properties

T3-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-09-28 08:14:02

Time Offset = -04:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.163816	68.49979	101.3271	33412.7	23.42883	34446.41	21.9469	22.39017	29.92874	
##### 5.153924	68.37019	101.135	33410.99	23.42983	34443.98	21.9452	22.38858	29.93027	
##### 5.027138	66.72388	98.6935	33466.61	23.46984	34474.16	21.96712	22.4082	29.88054	
##### 5.018328	66.60913	98.52341	33468.56	23.47184	34474.8	21.96761	22.40862	29.87879	
##### 5.009517	66.49437	98.35332	33470.51	23.47385	34475.45	21.9681	22.40904	29.87705	
##### 4.892922	64.95627	96.07812	33455.8	23.48971	34449.55	21.95015	22.39221	29.89019	
##### 4.885253	64.85561	95.92909	33456.13	23.49116	34448.91	21.94972	22.39179	29.88989	
##### 4.877585	64.75494	95.78007	33456.46	23.49261	34448.27	21.94929	22.39138	29.88959	
##### 4.869917	64.65429	95.63105	33456.8	23.49406	34447.63	21.94887	22.39096	29.88929	
##### 4.750738	63.09277	93.31362	33441.86	23.51669	34416.94	21.92765	22.37101	29.90264	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013952	-0.0611	0.49554	7.165581	-81.9991	99.5844	1018.608	20.52949	
1.01395	-0.06117	0.495379	7.165525	-81.9963	99.6133	1018.609	20.52989	
1.013956	-0.06406	0.488722	7.164731	-81.9631	100.0126	1018.583	20.52979	
1.013956	-0.06427	0.488226	7.164681	-81.961	100.0391	1018.582	20.52996	
1.013956	-0.06449	0.487731	7.164632	-81.9588	100.0656	1018.581	20.53013	
1.013938	-0.06248	0.492364	7.163778	-81.9181	100.4061	1018.606	20.53	
1.013937	-0.06244	0.492444	7.163724	-81.9156	100.429	1018.607	20.53	
1.013936	-0.06241	0.492524	7.163671	-81.9131	100.4519	1018.607	20.53	
1.013936	-0.06238	0.492605	7.163618	-81.9107	100.4748	1018.608	20.53	
1.013914	-0.05338	0.513352	7.163222	-81.8889	100.7834	1018.565	20.53	

**EQUIPMENT CALIBRATION LOG**

Field Technician: <b>William Laaker</b>	Date: <b>12/20/22</b>	Time (Calibration): <b>5:45</b>	Time (Mid-day Check):
AquaTroll SN: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>7042-3818</b>	
Project: <b>Dec 2022 Surface Water</b>	Weather Conditions: <b>59°/51° rain</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air sat)				103.98	
Specific Conductance (µS/cm)	21470032 04/23	10.47	4490	4524.7	
pH (4)	21470032 04/23	10.55	4	4.04	
pH (7)	21380102 04/23	10.77	7	7.14	
pH (10)	20080056 04/23	10.89	10	10.24	
ORP (mV)	21140143 04/23	10.88	228	228.1	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.01	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	1.18	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.80	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		±0.1 SU	Yes	No	
Mid-Day pH (7) check		7		±0.1 SU	Yes	No	
Mid-Day pH (10) check		10		±0.1 SU	Yes	No	

Location Properties

T1-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:51:27

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	8.221761	92.10469	140.704	36757.97	12.21243	43180.79	31.53222	28.06752	27.20499
#####	8.219218	92.07533	140.6592	36756.15	12.21241	43178.67	31.53049	28.06614	27.20633
#####	8.216675	92.04596	140.6145	36754.33	12.21239	43176.55	31.52877	28.06476	27.20768
#####	8.188657	91.76146	140.1763	36784.05	12.22307	43201.11	31.54869	28.08072	27.1857
#####	8.186681	91.74013	140.1436	36784.4	12.22354	43201.07	31.54866	28.08069	27.18544
#####	8.184704	91.71879	140.1109	36784.75	12.22401	43201.02	31.54862	28.08066	27.18518
#####	8.182728	91.69746	140.0783	36785.1	12.22448	43200.98	31.54858	28.08064	27.18492
#####	8.159908	91.47021	139.7325	36821.85	12.23121	43237.61	31.57831	28.10444	27.15779
#####	8.158302	91.45399	139.7078	36823.94	12.23171	43239.58	31.57992	28.10573	27.15625
#####	8.156697	91.43777	139.683	36826.04	12.23221	43241.56	31.58152	28.10701	27.1547
#####	8.140204	91.22976	139.3604	36745.56	12.23768	43141.77	31.50051	28.04215	27.21419

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.023859	-0.06095	0.495887	7.559844	-119.574	86.13451	1027.738	12.10975	
1.023857	-0.06045	0.497038	7.559922	-119.578	86.16199	1027.738	12.10991	
1.023856	-0.05995	0.49819	7.559999	-119.583	86.18948	1027.739	12.11006	
1.02387	-0.06371	0.489524	7.560566	-119.618	86.56452	1027.722	12.11	
1.023869	-0.06369	0.489564	7.56062	-119.621	86.59032	1027.721	12.11	
1.023869	-0.06368	0.489603	7.560674	-119.625	86.61611	1027.721	12.11	
1.023869	-0.06366	0.489642	7.560728	-119.628	86.64191	1027.721	12.11	
1.023891	-0.08272	0.445673	7.561689	-119.68	87.00282	1027.737	12.11865	
1.023892	-0.08361	0.44363	7.561745	-119.683	87.02663	1027.738	12.11903	
1.023893	-0.08449	0.441588	7.5618	-119.686	87.05044	1027.738	12.11941	
1.023829	-0.06821	0.479138	7.562669	-119.734	87.37173	1027.714	12.11959	

Location Properties

T1-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 08:01:48

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 7.546166	86.72131	132.3663	39199.19	12.84432	45404.84	33.344	29.51314	25.51074	
##### 7.535288	86.60738	132.1919	39202.73	12.84876	45404.47	33.34369	29.51291	25.50843	
##### 7.524411	86.49343	132.0174	39206.27	12.85321	45404.11	33.34338	29.51267	25.50612	
##### 7.419534	85.3022	130.1885	39154.19	12.93189	45265.06	33.22932	29.42229	25.54006	
##### 7.411674	85.21641	130.0569	39152.71	12.9369	45258.33	33.2238	29.41792	25.54102	
##### 7.403814	85.13062	129.9252	39151.24	12.94191	45251.6	33.21828	29.41354	25.54198	
##### 7.300854	84.0668	128.2946	39227.94	13.00737	45274.81	33.23703	29.42863	25.49205	
##### 7.294167	83.99578	128.1857	39230.57	13.0118	45273.43	33.23588	29.42773	25.49034	
##### 7.287478	83.92477	128.0768	39233.2	13.01622	45272.04	33.23473	29.42683	25.48863	
##### 7.280791	83.85376	127.9679	39235.82	13.02064	45270.66	33.23359	29.42593	25.48692	
##### 7.206857	83.09631	126.8018	39246.15	13.04527	45258.01	33.22313	29.41771	25.48021	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.025142	-0.07763	0.457418	7.548974	-119.291	86.47002	1027.506	12.17906	
1.025141	-0.07777	0.457091	7.548903	-119.289	86.4928	1027.507	12.17946	
1.02514	-0.07791	0.456763	7.548832	-119.286	86.51556	1027.509	12.17986	
1.025036	-0.07832	0.455833	7.548074	-119.291	86.82922	1027.465	12.17109	
1.02503	-0.07829	0.455904	7.548018	-119.291	86.85023	1027.464	12.17088	
1.025025	-0.07825	0.455976	7.547963	-119.29	86.87125	1027.463	12.17068	
1.025027	-0.07158	0.471366	7.547431	-119.273	87.14732	1027.47	12.17885	
1.025025	-0.07129	0.472042	7.547392	-119.273	87.16572	1027.47	12.17908	
1.025023	-0.071	0.472718	7.547353	-119.272	87.18411	1027.469	12.1793	
1.025022	-0.0707	0.473393	7.547315	-119.271	87.20251	1027.469	12.17952	
1.025009	-0.0684	0.478716	7.547068	-119.271	87.47727	1027.443	12.171	

Location Properties

T1-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:56:25

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 8.747651	98.10844	149.8419	36741.88	12.29662	43070.49	31.54253	27.99582	278.6884	
##### 8.704507	98.02278	149.7097	37380.47	12.3043	43817.7	32.08982	28.4815	126.1896	
##### 8.661362	97.93712	149.5775	38019.06	12.31199	44564.91	32.6371	28.96719	0	
##### 8.49619	95.95551	146.5466	37792.65	12.32581	44283.63	32.42918	28.78436	26.46019	
##### 8.483662	95.81541	146.3322	37790.57	12.32745	44279.57	32.42587	28.78172	26.46163	
##### 8.471133	95.67531	146.1179	37788.5	12.32908	44275.51	32.42256	28.77908	26.46308	
##### 8.458605	95.53521	145.9035	37786.42	12.33072	44271.45	32.41925	28.77644	26.46453	
##### 8.358096	94.38645	144.1437	37722.97	12.34324	44184.73	32.34856	28.72008	26.50906	
##### 8.350164	94.29671	144.0063	37720.14	12.34408	44180.59	32.34518	28.71738	26.51105	
##### 8.342234	94.20698	143.8689	37717.32	12.34492	44176.45	32.3418	28.71469	26.51303	
##### 8.334302	94.11724	143.7316	37714.49	12.34576	44172.3	32.33842	28.712	26.51501	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.023852	-0.06499	0.486582	7.567797	-120.03	86.70358	1027.584	12.15	
1.024274	-0.06519	0.486115	7.567778	-120.033	86.73561	1027.583	12.15	
1.024696	-0.06539	0.485648	7.567758	-120.036	86.76765	1027.582	12.15	
1.024533	-0.07883	0.45465	7.568428	-120.069	87.19173	1027.564	12.15	
1.02453	-0.07962	0.452836	7.568464	-120.071	87.21977	1027.563	12.15	
1.024527	-0.0804	0.451023	7.5685	-120.073	87.24781	1027.561	12.15	
1.024524	-0.08119	0.449209	7.568536	-120.075	87.27585	1027.56	12.15	
1.024467	-0.07289	0.468354	7.56872	-120.092	87.6318	1027.535	12.15	
1.024464	-0.07279	0.468589	7.568742	-120.094	87.65616	1027.533	12.15	
1.024461	-0.07268	0.468824	7.568764	-120.095	87.68051	1027.531	12.15	
1.024459	-0.07258	0.469058	7.568785	-120.097	87.70486	1027.53	12.15	



Location Properties

T1-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 08:17:17

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 7.113561	82.04784	125.2536	39283.79	13.11751	45229.48	33.1995	29.39917	25.4558	
##### 7.106313	81.96778	125.1311	39283.01	13.12185	45224.27	33.19521	29.39577	25.4563	
##### 7.099066	81.88772	125.0085	39282.23	13.12619	45219.05	33.19092	29.39238	25.4568	
##### 7.047255	81.32716	124.15	39340.97	13.13442	45278.45	33.23949	29.43099	25.4188	
##### 7.042963	81.27982	124.0775	39343.13	13.13635	45279.02	33.23995	29.43136	25.4174	
##### 7.038671	81.23248	124.0051	39345.29	13.13828	45279.59	33.24041	29.43173	25.41601	
##### 7.03438	81.18513	123.9326	39347.46	13.14021	45280.16	33.24086	29.4321	25.41461	
##### 6.962854	80.46575	122.8253	39364.48	13.17211	45268	33.23077	29.4242	25.40362	
##### 6.958624	80.42237	122.7586	39366.33	13.17372	45268.52	33.23119	29.42454	25.40242	
##### 6.954393	80.379	122.6919	39368.18	13.17534	45269.04	33.23161	29.42488	25.40123	
##### 6.950162	80.33562	122.6253	39370.02	13.17695	45269.57	33.23203	29.42522	25.40003	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.024976	-0.05636	0.506484	7.533452	-118.581	88.5703	1027.907	12.32967	
1.024972	-0.05551	0.508435	7.533375	-118.578	88.58049	1027.908	12.33004	
1.024968	-0.05467	0.510386	7.533298	-118.575	88.59068	1027.909	12.3304	
1.025004	-0.05328	0.513574	7.532783	-118.562	88.73701	1027.892	12.33	
1.025004	-0.05262	0.515103	7.532734	-118.56	88.74638	1027.892	12.33	
1.025003	-0.05196	0.516633	7.532686	-118.559	88.75575	1027.891	12.33	
1.025003	-0.0513	0.518162	7.532638	-118.557	88.76512	1027.891	12.33	
1.024989	-0.06034	0.497293	7.532115	-118.544	88.8909	1027.882	12.33	
1.024989	-0.06072	0.496433	7.532081	-118.543	88.89934	1027.881	12.33	
1.024989	-0.06109	0.495574	7.532047	-118.542	88.90777	1027.88	12.33	
1.024989	-0.06146	0.494714	7.532013	-118.541	88.91621	1027.88	12.33	

Location Properties

T1-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 08:12:35

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 8.566224	98.06674	149.7047	38451.98	12.92673	44454.31	32.63244	28.8953	226.8681	
##### 8.523359	97.92038	149.4801	39020.66	12.9386	45103.6	33.10812	29.31734	58.62241	
##### 8.216475	94.56924	144.351	39117.1	12.97383	45180.52	33.16002	29.36734	25.56431	
##### 8.194599	94.32361	143.9751	39112.9	12.9805	45168.93	33.15051	29.35981	25.56704	
##### 8.172723	94.07798	143.5991	39108.7	12.98717	45157.35	33.14101	29.35228	25.56977	
##### 8.150846	93.83235	143.2231	39104.5	12.99383	45145.76	33.1315	29.34475	25.57249	
##### 8.00201	92.02986	140.4786	38993.21	13.03089	44980.6	32.9963	29.23739	25.64552	
##### 7.989013	91.87886	140.2481	38988.09	13.03309	44972.5	32.98967	29.23212	25.64888	
##### 7.976016	91.72785	140.0177	38982.97	13.0353	44964.4	32.98304	29.22686	25.65224	
##### 7.878917	90.6328	138.3472	39000.59	13.04697	44973.16	32.99015	29.23256	25.64065	
##### 7.87131	90.54477	138.2129	38999.22	13.04826	44970.3	32.98781	29.2307	25.64154	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.024576	-0.05912	0.50012	7.54336	-119.036	81.31134	1027.71	12.25092	
1.024941	-0.05846	0.50163	7.545537	-119.152	81.16701	1027.71	12.25073	
1.024974	-0.07518	0.463068	7.544726	-119.127	81.7402	1027.683	12.25036	
1.024965	-0.07571	0.461837	7.544643	-119.124	81.77882	1027.682	12.25022	
1.024956	-0.07625	0.460607	7.54456	-119.121	81.81744	1027.68	12.25007	
1.024948	-0.07678	0.459377	7.544477	-119.117	81.85606	1027.679	12.24993	
1.024836	-0.07309	0.467891	7.544112	-119.103	82.3286	1027.724	12.25886	
1.02483	-0.07331	0.467372	7.544068	-119.101	82.36254	1027.726	12.25925	
1.024825	-0.07354	0.466853	7.544025	-119.099	82.39648	1027.727	12.25963	
1.024828	-0.056	0.507306	7.543301	-119.069	82.81281	1027.745	12.25966	
1.024826	-0.0552	0.509148	7.543261	-119.067	82.8409	1027.746	12.25983	

Location Properties

T3-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:08:11

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
#####	7.925611	88.28224	134.9799	37221.53	11.7086	44225.3	32.38146	28.74645	26.86616
#####	7.921393	88.23582	134.9082	37215.37	11.71117	44215.39	32.37339	28.74001	26.87059
#####	7.862292	87.66597	134.0295	37170.13	11.74543	44127.38	32.30177	28.6828	26.90335
#####	7.857997	87.62228	133.962	37165.68	11.74797	44119.54	32.29539	28.6777	26.90656
#####	7.853702	87.57858	133.8946	37161.22	11.75051	44111.7	32.28901	28.67261	26.90977
#####	7.849407	87.53488	133.8272	37156.77	11.75305	44103.86	32.28263	28.66751	26.91299
#####	7.792222	87.01843	133.0317	37306.3	11.83067	44203.55	32.36392	28.73231	26.80517
#####	7.7883	86.98183	132.9753	37311.75	11.83494	44205.74	32.36571	28.73373	26.80125
#####	7.784377	86.94522	132.9188	37317.2	11.83921	44207.93	32.3675	28.73516	26.79732
#####	7.745291	86.48618	132.2199	37223.1	11.86233	44073.42	32.25798	28.64772	26.86507

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.024611	-0.11	0.382749	6.800027	-79.9114	208.7307	1028.138	12.01912	
1.024604	-0.10876	0.385601	6.801308	-79.9787	209.1586	1028.135	12.01794	
1.024542	-0.07488	0.463768	6.815801	-80.7399	209.3036	1028.141	12.03766	
1.024537	-0.07288	0.468365	6.816952	-80.8004	209.48	1028.14	12.03807	
1.024531	-0.07089	0.472962	6.818103	-80.8608	209.6564	1028.139	12.03847	
1.024526	-0.0689	0.47756	6.819254	-80.9213	209.8328	1028.138	12.03887	
1.024575	-0.06489	0.486794	6.834442	-81.7289	210.1618	1028.131	12.03948	
1.024575	-0.064	0.48885	6.835471	-81.7834	210.2054	1028.13	12.03981	
1.024576	-0.06311	0.490906	6.8365	-81.8379	210.249	1028.13	12.04013	
1.024487	-0.07273	0.468726	6.851361	-82.6162	210.5807	1028.173	12.04	

Location Properties  
Location Name = Device Location

T3-2HT

Report Properties  
Start Time = 2022-12-20 07:18:49  
Time Offset = -05:00:00  
Duration = 00:00:20  
Readings = 11

Instrument Properties  
Device Model = Aqua TROLL 400  
Device SN = 789301

Instrument Properties  
Device Model = PowerPack  
Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 7.504777	85.21571	130.215	38754.1	12.33262	45403.26	33.34361	29.51212	25.80375	
##### 7.49137	85.07014	129.9921	38759.36	12.33707	45404.91	33.34496	29.51319	25.80024	
##### 7.477962	84.92459	129.7692	38764.62	12.34152	45406.55	33.3463	29.51426	25.79672	
##### 7.324351	83.35774	127.3588	38751.62	12.3871	45345.09	33.29597	29.4743	25.80538	
##### 7.313748	83.24723	127.1891	38753.11	12.38985	45344.05	33.29512	29.47363	25.80438	
##### 7.303146	83.13671	127.0194	38754.61	12.39259	45343.02	33.29428	29.47296	25.80338	
##### 7.292544	83.0262	126.8496	38756.1	12.39533	45341.99	33.29343	29.47229	25.80239	
##### 7.176921	81.73247	124.8719	38745.43	12.51559	45208.09	33.18374	29.38526	25.80949	
##### 7.168672	81.64314	124.735	38744.84	12.52179	45201.13	33.17804	29.38074	25.80989	
##### 7.160421	81.55382	124.5982	38744.25	12.52798	45194.17	33.17234	29.37621	25.81028	
##### 7.075302	80.67749	123.2548	38835.52	12.56955	45258.7	33.22506	29.41816	25.74965	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.025241	-0.07385	0.466138	7.300544	-106.147	159.9198	1028.122	12.07019	
1.025241	-0.07431	0.465085	7.300819	-106.163	159.8712	1028.122	12.07003	
1.025241	-0.07476	0.464031	7.301095	-106.179	159.8226	1028.121	12.06986	
1.025193	-0.06318	0.490745	7.304821	-106.398	159.0647	1028.103	12.07862	
1.025192	-0.06274	0.491758	7.305075	-106.413	159.0169	1028.102	12.079	
1.025191	-0.0623	0.49277	7.305329	-106.428	158.9691	1028.101	12.07939	
1.02519	-0.06186	0.493782	7.305583	-106.443	158.9212	1028.099	12.07977	
1.025082	-0.05649	0.506191	7.309306	-106.67	158.2008	1028.135	12.08851	
1.025076	-0.05604	0.507221	7.309545	-106.684	158.1539	1028.136	12.08906	
1.02507	-0.05559	0.508252	7.309784	-106.699	158.1071	1028.138	12.0896	
1.025103	-0.05863	0.501245	7.314265	-106.945	157.4648	1028.138	12.08112	



Location Properties

T3-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:12:35

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 7.529408	84.84463	129.6468	37571.06	12.29808	44051.3	32.23991	28.63334	26.61623	
##### 7.524675	84.79326	129.5682	37570.75	12.2997	44049.34	32.23832	28.63207	26.61645	
##### 7.519943	84.74188	129.4897	37570.45	12.30132	44047.38	32.23672	28.6308	26.61666	
##### 7.487342	84.35198	128.888	37515.61	12.30199	43982.43	32.18383	28.58858	26.65558	
##### 7.483965	84.31368	128.8292	37512.98	12.30267	43978.68	32.18077	28.58614	26.65745	
##### 7.480588	84.27538	128.7704	37510.34	12.30334	43974.93	32.17772	28.5837	26.65932	
##### 7.477212	84.23707	128.7115	37507.71	12.30402	43971.17	32.17466	28.58126	26.66119	
##### 7.430978	83.75586	127.9796	37569.83	12.31304	44035.11	32.22671	28.62282	26.61711	
##### 7.427977	83.72349	127.9301	37571.48	12.31356	44036.53	32.22787	28.62374	26.61594	
##### 7.424976	83.69112	127.8807	37573.14	12.31407	44037.96	32.22903	28.62467	26.61477	
##### 7.421975	83.65874	127.8313	37574.79	12.31459	44039.39	32.23019	28.6256	26.61359	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.024391	-0.08681	0.436241	7.132682	-97.3788	199.8482	1028.079	12.00984	
1.02439	-0.08714	0.435469	7.132896	-97.3901	200.298	1028.08	12.01045	
1.024388	-0.08748	0.434697	7.133111	-97.4013	200.7477	1028.082	12.01106	
1.024347	-0.06606	0.484107	7.137157	-97.6119	200.372	1028.036	12.00115	
1.024344	-0.06521	0.486062	7.137428	-97.626	200.5338	1028.035	12.00094	
1.024342	-0.06436	0.488017	7.137699	-97.6401	200.6957	1028.033	12.00073	
1.024339	-0.06352	0.489972	7.13797	-97.6543	200.8575	1028.031	12.00052	
1.024378	-0.06915	0.476986	7.142455	-97.8958	200.6427	1028.066	12.00897	
1.024379	-0.06899	0.477338	7.142748	-97.9115	200.6546	1028.066	12.00919	
1.02438	-0.06884	0.477689	7.143041	-97.9271	200.6665	1028.067	12.00941	
1.024381	-0.06869	0.478041	7.143333	-97.9427	200.6784	1028.068	12.00963	

Location Properties

T3-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:38:28

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 7.356878	83.84686	128.1037	39094.39	12.42521	45707.3	33.59252	29.70975	25.57912	
##### 7.350317	83.77657	127.996	39094.29	12.43135	45700.91	33.58728	29.70559	25.57918	
##### 7.343757	83.70629	127.8884	39094.2	12.43749	45694.52	33.58204	29.70144	25.57924	
##### 7.267574	82.94991	126.7272	39174.84	12.49637	45728.64	33.60994	29.72362	25.52661	
##### 7.262557	82.89781	126.6474	39177.98	12.50124	45727.34	33.60887	29.72278	25.52456	
##### 7.257539	82.84572	126.5676	39181.12	12.5061	45726.04	33.6078	29.72193	25.52251	
##### 7.252521	82.79362	126.4879	39184.26	12.51096	45724.74	33.60673	29.72108	25.52046	
##### 7.185129	82.13304	125.4702	39206.79	12.5287	45732.96	33.61344	29.72643	25.5058	
##### 7.18059	82.08831	125.4014	39209.29	12.53066	45733.89	33.6142	29.72703	25.50417	
##### 7.176052	82.04357	125.3326	39211.79	12.53262	45734.81	33.61495	29.72762	25.50253	
##### 7.171514	81.99884	125.2637	39214.29	12.53458	45735.73	33.6157	29.72822	25.5009	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.025416	-0.08059	0.450593	7.451801	-114.065	110.1312	1028.062	11.96901	
1.025411	-0.08054	0.450702	7.451897	-114.072	110.133	1028.063	11.96923	
1.025406	-0.08049	0.450811	7.451993	-114.08	110.1348	1028.065	11.96945	
1.025416	-0.07312	0.467816	7.454253	-114.205	110.1074	1028.075	11.96964	
1.025414	-0.07279	0.468575	7.454379	-114.212	110.1068	1028.077	11.96981	
1.025412	-0.07246	0.469334	7.454504	-114.22	110.1061	1028.078	11.96997	
1.02541	-0.07213	0.470093	7.45463	-114.228	110.1055	1028.08	11.97014	
1.025412	-0.07024	0.474473	7.457092	-114.372	110.1346	1028.071	11.97	
1.025412	-0.07001	0.474985	7.457246	-114.381	110.1354	1028.07	11.97	
1.025413	-0.06979	0.475498	7.457401	-114.39	110.1363	1028.07	11.97	
1.025413	-0.06957	0.47601	7.457555	-114.399	110.1371	1028.07	11.97	

Location Properties

T3-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-12-20 07:31:30

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	8.455051	95.69411	146.2265	38062	12.39561	44529.65	32.62971	28.94427	26.27293
#####	8.455051	95.69411	146.2265	38062	12.39561	44529.65	32.62971	28.94427	26.27293
#####	8.242694	93.27145	142.5218	38021.93	12.39669	44481.7	32.5906	28.91311	26.30062
#####	8.228765	93.11255	142.2788	38019.3	12.39676	44478.56	32.58803	28.91106	26.30243
#####	8.214836	92.95364	142.0358	38016.67	12.39683	44475.41	32.58546	28.90902	26.30425
#####	8.200908	92.79474	141.7928	38014.04	12.3969	44472.27	32.5829	28.90697	26.30606
#####	8.100548	91.66614	140.0658	37962.36	12.41118	44397.65	32.52202	28.85847	26.34189
#####	8.090442	91.55157	139.8906	37959	12.41184	44393.06	32.51828	28.85549	26.34422
#####	8.080337	91.43701	139.7153	37955.64	12.4125	44388.47	32.51453	28.85251	26.34655
#####	8.07023	91.32245	139.5401	37952.28	12.41317	44383.89	32.51079	28.84953	26.34887
#####	7.973125	90.24139	137.8885	37949.83	12.43806	44356.36	32.48831	28.83164	26.35058

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.024675	-0.07449	0.46465	7.388798	-110.745	136.6895	1028.18	11.89	
1.024675	-0.07449	0.46465	7.388798	-110.745	136.6895	1028.18	11.89	
1.024644	-0.09427	0.419044	7.388866	-110.755	140.6718	1028.161	11.88059	
1.024642	-0.09556	0.416053	7.38887	-110.756	140.933	1028.16	11.87998	
1.02464	-0.09686	0.413061	7.388875	-110.756	141.1942	1028.158	11.87936	
1.024638	-0.09816	0.41007	7.388879	-110.757	141.4554	1028.157	11.87874	
1.024588	-0.07937	0.453401	7.390895	-110.864	141.5474	1028.16	11.88022	
1.024585	-0.07906	0.454109	7.390987	-110.869	141.6575	1028.16	11.88003	
1.024582	-0.07876	0.454817	7.391078	-110.874	141.7676	1028.159	11.87984	
1.024579	-0.07845	0.455525	7.391169	-110.879	141.8777	1028.159	11.87966	
1.024557	-0.06922	0.476826	7.392762	-110.968	141.8666	1028.177	11.88	

EQUIPMENT CALIBRATION LOG

Field Technician <b>William Laaker</b>	Date <b>2/28/23</b>	Time (Calibration) <b>10:38</b>	Time (Mid-day Check) <b>18:00</b>
AquaTroll SN <b>789301</b>	Turbidity Meter Type <b>LaMotte 2020</b>	SN <b>9453-4417</b>	
Project <b>Feb. 2023 McManus Semi</b>	Weather Conditions <b>88°/69° cloudy</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				<b>96.00</b>	
Specific Conductance (µS/cm)	<b>22250153 11/23</b>	<b>24.24</b>	<b>4490</b>	<b>4971.4</b>	
pH (4)	<b>22250153 11/23</b>	<b>24.60</b>	<b>4</b>	<b>3.98</b>	
pH (7)	<b>2216893 11/23</b>	<b>24.20</b>	<b>7</b>	<b>6.99</b>	
pH (10)	<b>21320202 12/23</b>	<b>24.71</b>	<b>10</b>	<b>9.96</b>	
ORP (mV)	<b>21390144 11/23</b>	<b>24.20</b>	<b>228</b>	<b>216.7</b>	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	<b>0</b>	<b>0.00</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 1 NTU	<b>1</b>	<b>0.90</b>	<b>±0.5 NTU</b>	Yes	No	
Turbidity 10 NTU	<b>10</b>	<b>10.03</b>	<b>±0.5 NTU</b>	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	<b>26.25</b>	<b>4</b>	<b>4.14</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (7) check	<b>26.45</b>	<b>7</b>	<b>7.21</b>	<b>±0.1 SU</b>	Yes	No	
Mid-Day pH (10) check	<b>26.54</b>	<b>10</b>	<b>10.25</b>	<b>±0.1 SU</b>	Yes	No	

EQUIPMENT CALIBRATION LOG

Field Technician: <b>William Laker</b>	Date: <b>3/1/23</b>	Time (Calibration): <b>8:27</b>	Time (Mid-day Check): <b>17:30</b>
AquaTroll SN: <b>789301</b>	Turbidity Meter Type: <b>LaMotte 2020</b>	SN: <b>9453-4417</b>	
Project: <b>Feb. 2023 McManus Semi</b>	Weather Conditions: <b>88°/69° partly sunny</b>		

Calibration Log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1 pt, 100% water saturated air cal)				104.27	
Specific Conductance (µS/cm)	22250153 11/23	25.05	4490	4803.4	
pH (4)	22250153 11/23	25.19	4	4.03	
pH (7)	2216893 11/23	23.87	7	7.01	
pH (10)	21320202 12/23	23.48	10	10.03	
ORP (mV)	21390144 11/23	22.80	228	229.2	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.1 NTU	Yes	No	
Turbidity 1 NTU	1	0.87	±0.5 NTU	Yes	No	
Turbidity 10 NTU	10	9.83	±0.5 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check	26.45	4	4.07	±0.1 SU	Yes	No	
Mid-Day pH (7) check	26.24	7	7.14	±0.1 SU	Yes	No	
Mid-Day pH (10) check	26.41	10	10.19	±0.1 SU	Yes	No	



**EQUIPMENT CALIBRATION LOG**

Field Technician <b>William Loaker</b>	Date <b>3/2/23</b>	Time (Calibration) <b>10:40</b>	Time (Mid-day Check)
AquaTroll SN <b>789301</b>	Turbidity Meter Type <b>LaMotte 2020</b>	SN <b>9453-4417</b>	
Project <b>Feb 2023 McManus Semi</b>	Weather Conditions <b>87°/62° partly cloudy</b>		

**Calibration Log**

	Standard Lot #/Date of Expiration	Temp of Standard (°C)	Value of Standard	Instrument Reading at Calibration	Comments
DO (%) (1pt, 100% water saturated air cal)				101.90	
Specific Conductance (µS/cm)	22250153 11/23	22.43	4490	4641.9	
pH (4)	22250153 11/23	22.67	4	4.00	
pH (7)	2216893 11/23	22.25	7	7.02	
pH (10)	21320202 12/23	21.97	10	10.02	
ORP (mV)	21390144 11/23	21.73	228	228.7	

	Value of Standard	Instrument Reading	Acceptable Range	Pass?		Comments
Turbidity 0 NTU	0	0.00	±0.5 NTU	Yes	No	
Turbidity 1 NTU	1	0.90	±0.03 NTU	Yes	No	
Turbidity 10 NTU	10	9.78	±0.1 NTU	Yes	No	

	Temp of Standard (°C)	Value of Standard	Post Calibration Reading	Acceptable Range	Pass?		Comments
Mid-Day pH (4) check		4		±0.1 SU	Yes	No	
Mid-Day pH (7) check		7		±0.1 SU	Yes	No	
Mid-Day pH (10) check		10		±0.1 SU	Yes	No	

Location Properties

BG-2HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:39:03

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.769181	81.92425	115.3394	35393.48	27.10124	34027.87	21.69915	22.11811	28.25385	
##### 5.767823	81.88519	115.2881	35385.52	27.08031	34033.21	21.70273	22.12158	28.26017	
##### 5.786036	81.67669	115.0789	35375.95	26.85474	34165.73	21.79407	22.20772	28.26782	
##### 5.786524	81.65625	115.055	35372.93	26.83999	34172.07	21.79841	22.21185	28.27022	
##### 5.787014	81.63582	115.0311	35369.91	26.82525	34178.42	21.80275	22.21597	28.27262	
##### 5.787502	81.61539	115.0072	35366.89	26.8105	34184.76	21.80709	22.22009	28.27503	
##### 5.813402	81.6953	115.189	35401.98	26.4033	34478.27	22.01006	22.41087	28.24701	
##### 5.81491	81.69435	115.1924	35403.29	26.38044	34494.06	22.02097	22.42114	28.24597	
##### 5.816419	81.6934	115.1959	35404.59	26.35758	34509.85	22.03188	22.4314	28.24492	
##### 5.819715	81.48721	114.9477	35302.67	26.17045	34530.89	22.04469	22.44508	28.32651	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012706	-0.04013	0.543909	7.677992	-92.5022	70.77845	1012.973	31.09081	
1.012715	-0.03981	0.544657	7.678008	-92.4971	70.78044	1012.971	31.0906	
1.012852	-0.0505	0.520004	7.676278	-92.3585	70.78087	1012.927	31.0817	
1.012859	-0.05097	0.518911	7.676188	-92.3502	70.78121	1012.925	31.08114	
1.012867	-0.05144	0.517819	7.676099	-92.342	70.78155	1012.923	31.08058	
1.012875	-0.05192	0.516726	7.676009	-92.3337	70.78189	1012.92	31.08002	
1.013149	-0.05293	0.514399	7.677669	-92.2832	70.86391	1012.965	31.09776	
1.013164	-0.05318	0.513807	7.677708	-92.2781	70.8676	1012.966	31.09837	
1.013179	-0.05344	0.513215	7.677747	-92.2731	70.87128	1012.967	31.09898	
1.013244	-0.04617	0.529986	7.678225	-92.2481	70.88169	1012.959	31.09087	

Location Properties

T2-1HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:14:08

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.821306	96.17062	135.1334	30110.11	27.91464	28623.52	18.2552	18.60529	4616.745		
##### 6.764129	95.75208	134.5619	31434.13	27.8659	29882.2	19.05824	19.42343	3493.378		
##### 6.706951	95.33353	133.9904	32758.15	27.81716	31140.89	19.86128	20.24158	2370.011		
##### 6.649774	94.91499	133.4189	34082.18	27.76842	32399.57	20.66432	21.05972	1246.645		
##### 6.730042	95.41965	134.2971	34614.99	27.29819	33193.04	21.18804	21.57548	956.0015		
##### 6.712193	95.3008	134.1437	35183.73	27.25902	33746.59	21.54199	21.93528	514.1777		
##### 6.694345	95.18195	133.9903	35752.48	27.21985	34300.13	21.89594	22.29509	72.35397		
##### 6.676497	95.0631	133.8369	36321.22	27.18068	34853.68	22.24989	22.65489	0		
##### 6.689126	95.05503	133.8485	35951.02	27.01404	34619.61	22.11602	22.50274	27.8157		
##### 6.690638	95.05965	133.8594	35957.62	26.99722	34636.53	22.12782	22.51374	27.81057		

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.00989	-0.04245	0.538572	7.619018	-89.3673	62.54881	1012.876	30.13841	
1.010503	-0.04294	0.537431	7.613917	-89.0678	62.25903	1012.877	30.13878	
1.011117	-0.04344	0.53629	7.608816	-88.7683	61.96924	1012.878	30.13915	
1.01173	-0.04393	0.535148	7.603715	-88.4688	61.67946	1012.879	30.13952	
1.012266	-0.03464	0.556581	7.610101	-88.8012	62.14153	1012.879	30.13967	
1.012542	-0.03448	0.55696	7.610137	-88.7993	62.14317	1012.879	30.13982	
1.012817	-0.03431	0.557338	7.610172	-88.7973	62.1448	1012.88	30.13998	
1.013093	-0.03415	0.557717	7.610209	-88.7954	62.14643	1012.88	30.14014	
1.013045	-0.04531	0.531975	7.609312	-88.7084	62.41091	1012.931	30.15728	
1.013059	-0.04561	0.531281	7.609289	-88.7049	62.42526	1012.934	30.15802	

Location Properties

T2-2HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:19:24

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.940779	95.54077	135.0743	35408.15	24.97702	35423.7	22.6607	23.0254	28.24209	
##### 6.933954	95.44371	134.9378	35407.3	24.97485	35424.32	22.66111	23.02581	28.24277	
##### 6.927129	95.34664	134.8013	35406.45	24.97267	35424.94	22.66152	23.02621	28.24344	
##### 6.898216	94.86546	134.1259	35316.42	24.93544	35360.01	22.61505	22.98401	28.31547	
##### 6.895255	94.82053	134.0629	35312.73	24.93317	35357.86	22.6135	22.98261	28.31842	
##### 6.892294	94.7756	133.9998	35309.04	24.93089	35355.7	22.61194	22.98121	28.32137	
##### 6.889333	94.73068	133.9368	35305.36	24.92862	35353.55	22.61039	22.97981	28.32433	
##### 6.881862	94.55267	133.6962	35309	24.9139	35367.15	22.61979	22.98865	28.3214	
##### 6.880888	94.53418	133.6707	35307.51	24.9125	35366.61	22.61939	22.9883	28.32259	
##### 6.879914	94.51569	133.6452	35306.02	24.9111	35366.07	22.61899	22.98795	28.32378	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014055	-0.09337	0.421105	7.624978	-88.9844	68.37315	1012.843	30.18119	
1.014056	-0.09406	0.41952	7.624937	-88.9814	68.39001	1012.845	30.18081	
1.014057	-0.09475	0.417934	7.624897	-88.9783	68.40688	1012.847	30.18042	
1.014032	-0.07635	0.460364	7.623597	-88.9022	68.50829	1012.814	30.18035	
1.014032	-0.07599	0.46121	7.623528	-88.8979	68.51704	1012.813	30.18018	
1.014031	-0.07562	0.462057	7.62346	-88.8936	68.52579	1012.813	30.18001	
1.014031	-0.07525	0.462903	7.623392	-88.8893	68.53454	1012.812	30.17985	
1.014042	-0.03303	0.560299	7.623452	-88.8827	68.59821	1012.802	30.18	
1.014042	-0.03073	0.565605	7.623431	-88.881	68.60329	1012.801	30.18	
1.014042	-0.02843	0.57091	7.623409	-88.8792	68.60835	1012.8	30.18	

Location Properties

T2-2HTS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:16:32

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.960416	96.76672	136.6726	35972.36	25.51761	35612.69	22.7518	23.14825	0	
##### 6.909938	95.84732	135.3776	35369.15	25.50735	35029.77	22.38923	22.76935	28.27328	
##### 6.906345	95.78825	135.2964	35373.72	25.49962	35039.37	22.39592	22.77559	28.26962	
##### 6.902752	95.72917	135.2152	35378.29	25.49188	35048.98	22.40262	22.78184	28.26596	
##### 6.880251	95.35217	134.6842	35284.9	25.46858	34971.9	22.34784	22.73173	28.34077	
##### 6.878033	95.31936	134.638	35283.72	25.46724	34971.62	22.34762	22.73155	28.34171	
##### 6.875814	95.28654	134.5918	35282.54	25.46589	34971.34	22.34741	22.73137	28.34265	
##### 6.873596	95.25373	134.5457	35281.36	25.46455	34971.07	22.3472	22.73119	28.34359	
##### 6.86203	95.04538	134.2628	35329.87	25.44082	35034.89	22.392	22.77268	28.30467	
##### 6.861058	95.0285	134.2395	35330.64	25.43925	35036.7	22.39326	22.77386	28.30404	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013966	-0.07628	0.460538	7.620777	-88.9178	69.20367	1012.9	30.18022	
1.013697	-0.04149	0.540772	7.617382	-88.7225	69.2544	1012.917	30.18884	
1.013705	-0.04034	0.543426	7.617327	-88.719	69.24734	1012.918	30.18923	
1.013712	-0.03919	0.54608	7.617272	-88.7155	69.24028	1012.919	30.18962	
1.013678	-0.05111	0.5186	7.616343	-88.6575	69.17239	1012.885	30.18127	
1.013678	-0.05101	0.51881	7.616287	-88.654	69.16702	1012.884	30.18108	
1.013678	-0.05092	0.51902	7.61623	-88.6504	69.16164	1012.883	30.18089	
1.013678	-0.05083	0.51923	7.616174	-88.6468	69.15627	1012.882	30.18069	
1.013719	-0.04295	0.537421	7.615081	-88.5803	69.08366	1012.881	30.18032	
1.01372	-0.04276	0.537854	7.615013	-88.5762	69.07901	1012.88	30.18017	

Location Properties

T2-3HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:28:01

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO	Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	6.728271	92.08633	130.2655	35192.71	24.64971	35429.76	22.66022	23.02934	28.41497	
#####	6.71944	91.96399	130.0925	35192.3	24.64783	35430.63	22.6608	23.02991	28.41531	
#####	6.710609	91.84165	129.9195	35191.89	24.64595	35431.49	22.66139	23.03047	28.41564	
#####	6.701778	91.71932	129.7466	35191.48	24.64407	35432.36	22.66197	23.03103	28.41597	
#####	6.627502	90.61974	128.1987	35109.39	24.60348	35377.32	22.62244	22.99526	28.48243	
#####	6.621716	90.53709	128.0821	35106.09	24.60111	35375.6	22.62118	22.99414	28.48511	
#####	6.615929	90.45444	127.9655	35102.77	24.59874	35373.88	22.61993	22.99302	28.48779	
#####	6.610142	90.3718	127.8489	35099.46	24.59637	35372.15	22.61868	22.9919	28.49047	
#####	6.545783	89.50379	126.6309	35112.3	24.56388	35407.24	22.643	23.01471	28.48005	
#####	6.541417	89.44303	126.5455	35111.32	24.56169	35407.75	22.64332	23.01504	28.48085	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014148	-0.05129	0.518177	7.611033	-88.1153	71.35046	1012.794	30.01	
1.014149	-0.05085	0.519191	7.610736	-88.0981	71.36102	1012.792	30.01	
1.01415	-0.05041	0.520204	7.610438	-88.0809	71.37157	1012.791	30.01	
1.014151	-0.04997	0.521217	7.610141	-88.0637	71.38213	1012.789	30.01	
1.014133	-0.0569	0.505239	7.606575	-87.8573	71.4085	1012.773	30.01	
1.014132	-0.05687	0.505303	7.606327	-87.8429	71.4128	1012.772	30.01	
1.014132	-0.05684	0.505368	7.606078	-87.8285	71.41711	1012.771	30.01	
1.014132	-0.05681	0.505432	7.605829	-87.8141	71.42142	1012.77	30.01	
1.014159	-0.04921	0.522977	7.601695	-87.5973	71.35136	1012.856	30.01	
1.01416	-0.04899	0.523469	7.601444	-87.5837	71.34914	1012.86	30.01	

Location Properties

T2-3HTS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:25:15

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 7.121829	97.69779	138.1647	35187.61	24.80302	35320.49	22.5852	22.95832	28.4191	
##### 7.121829	97.69779	138.1647	35187.61	24.80302	35320.49	22.5852	22.95832	28.4191	
##### 7.121829	97.69779	138.1647	35187.61	24.80302	35320.49	22.5852	22.95832	28.4191	
##### 6.987269	95.84729	135.5527	35198.29	24.79878	35334.09	22.59475	22.96716	28.41047	
##### 6.978411	95.72546	135.3807	35199	24.7985	35334.99	22.59538	22.96774	28.4099	
##### 6.969553	95.60364	135.2088	35199.7	24.79822	35335.89	22.59601	22.96832	28.40933	
##### 6.960694	95.48181	135.0368	35200.41	24.79794	35336.78	22.59664	22.96891	28.40876	
##### 6.917758	94.85764	134.1608	35171.17	24.78599	35315.53	22.58144	22.95509	28.43238	
##### 6.912279	94.78078	134.0525	35170.16	24.78535	35314.95	22.58102	22.95472	28.43319	
##### 6.906798	94.70393	133.9442	35169.16	24.78471	35314.37	22.5806	22.95434	28.43401	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014048	-0.03942	0.54555	7.658129	-90.7755	80.70082	1012.81	30.01	
1.014048	-0.03942	0.54555	7.658129	-90.7755	80.70082	1012.81	30.01	
1.014048	-0.03942	0.54555	7.658129	-90.7755	80.70082	1012.81	30.01	
1.014056	-0.04228	0.538947	7.65224	-90.4459	78.59715	1012.838	30.01	
1.014057	-0.04247	0.538512	7.651853	-90.4242	78.45865	1012.84	30.01	
1.014057	-0.04266	0.538077	7.651465	-90.4025	78.32016	1012.842	30.01	
1.014058	-0.04285	0.537643	7.651077	-90.3808	78.18166	1012.843	30.01	
1.01405	-0.03793	0.548991	7.647851	-90.2023	77.59561	1012.865	30.01858	
1.01405	-0.03779	0.549317	7.647552	-90.1856	77.5137	1012.866	30.01896	
1.01405	-0.03765	0.549644	7.647253	-90.169	77.4318	1012.868	30.01933	

Location Properties

T3-1HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:55:13

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.951399	99.12733	139.2549	32506.78	28.09193	30741.91	19.5999	19.98224	779509.4	
##### 6.916378	99.06814	139.1814	33915.59	28.05449	32074.25	20.44949	20.84826	548039.2	
##### 6.881357	99.00894	139.1078	35324.39	28.01705	33406.58	21.29908	21.71428	316569	
##### 6.842891	98.32037	138.1355	34939.16	28.00999	33053.41	21.07483	21.48472	242813.1	
##### 6.825945	98.27084	138.0691	35543.57	27.99354	33625.49	21.43961	21.85657	74074.23	
##### 6.809	98.22131	138.0028	36147.98	27.97709	34197.56	21.80439	22.22842	0	
##### 6.811391	97.98356	137.701	35836.23	27.91764	33944.62	21.64719	22.064	27.90473	
##### 6.810289	97.96045	137.67	35837.51	27.91442	33947.8	21.64941	22.06607	27.90373	
##### 6.809187	97.93735	137.6389	35838.79	27.91121	33950.99	21.65164	22.06814	27.90273	
##### 6.808085	97.91424	137.6079	35840.07	27.90799	33954.17	21.65386	22.07021	27.90174	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010837	-0.03455	0.556787	7.635509	-90.4994	64.97704	1012.931	30.49014	
1.011482	-0.03486	0.556066	7.650282	-91.3181	64.41343	1012.93	30.48998	
1.012126	-0.03518	0.555345	7.665056	-92.1369	63.84982	1012.93	30.48982	
1.011961	-0.0362	0.552978	7.643969	-90.9383	64.14703	1012.887	30.49	
1.012239	-0.03648	0.552333	7.643629	-90.9152	64.12122	1012.885	30.49	
1.012515	-0.03676	0.551687	7.64329	-90.8922	64.09541	1012.883	30.49	
1.012417	-0.03437	0.557195	7.641259	-90.7663	64.02834	1012.874	30.49821	
1.012419	-0.03429	0.557379	7.641098	-90.7564	64.01967	1012.873	30.49856	
1.012422	-0.03421	0.557563	7.640938	-90.7464	64.01099	1012.871	30.4989	
1.012425	-0.03413	0.557747	7.640777	-90.7364	64.00232	1012.87	30.49925	

Location Properties

T3-2HT

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 17:02:22

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.207368	84.97196	120.1888	34878.94	24.79662	35014.97	22.36917	22.75973	28.6706	
##### 6.209305	84.99039	120.216	34878.23	24.7925	35017.02	22.37056	22.76107	28.67118	
##### 6.211242	85.00883	120.2433	34877.52	24.78837	35019.08	22.37195	22.7624	28.67176	
##### 6.213179	85.02726	120.2706	34876.82	24.78425	35021.14	22.37335	22.76374	28.67234	
##### 6.236419	85.29427	120.6597	34933.43	24.67932	35148.76	22.46199	22.84669	28.62588	
##### 6.238301	85.31448	120.6892	34935.54	24.67293	35155.18	22.46643	22.85087	28.62416	
##### 6.240182	85.33468	120.7187	34937.64	24.66654	35161.6	22.47088	22.85504	28.62243	
##### 6.242064	85.35488	120.7483	34939.75	24.66015	35168.02	22.47532	22.85921	28.6207	
##### 6.255916	85.48344	120.9375	34895.71	24.62399	35148.14	22.46074	22.84629	28.65682	
##### 6.257031	85.49488	120.9543	34895.02	24.62017	35150.02	22.46201	22.84752	28.65739	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013887	-0.05682	0.505415	7.617198	-88.4978	64.78067	1012.895	30.4504	
1.01389	-0.05737	0.504157	7.616982	-88.4849	64.77876	1012.894	30.45024	
1.013892	-0.05791	0.502898	7.616765	-88.472	64.77686	1012.893	30.45008	
1.013894	-0.05846	0.50164	7.616549	-88.459	64.77495	1012.891	30.44992	
1.013991	-0.02753	0.572987	7.613493	-88.2592	64.78645	1012.864	30.44124	
1.013996	-0.02643	0.575518	7.613304	-88.2471	64.78632	1012.863	30.44083	
1.014001	-0.02533	0.57805	7.613115	-88.2349	64.78619	1012.861	30.44042	
1.014006	-0.02423	0.580581	7.612926	-88.2228	64.78606	1012.859	30.44001	
1.014005	-0.03232	0.561943	7.610319	-88.0739	64.84319	1012.852	30.44022	
1.014007	-0.03202	0.562622	7.610141	-88.0632	64.8458	1012.851	30.44004	

Location Properties

T3-2HTS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:57:31

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 7.139406	99.95609	140.9371	34564.48	26.33745	33709.18	21.53683	21.91097	486204	
##### 7.060377	98.79656	139.3044	34423.74	26.33968	33571.63	21.43188	21.82156	268752.8	
##### 7.04055	98.72119	139.2002	34996.55	26.33312	34130.25	21.78804	22.18466	104852	
##### 7.020724	98.64582	139.096	35569.36	26.32655	34688.87	22.1442	22.54777	0	
##### 6.992268	98.1594	138.4151	35483.83	26.28313	34635.02	22.11947	22.51276	28.18192	
##### 6.989382	98.11647	138.3549	35484.83	26.28106	34637.33	22.12108	22.51426	28.18111	
##### 6.986495	98.07355	138.2947	35485.83	26.279	34639.63	22.12268	22.51576	28.1803	
##### 6.983609	98.03062	138.2345	35486.83	26.27694	34641.94	22.12429	22.51726	28.17949	
##### 6.961827	97.63441	137.691	35384.43	26.24395	34563.23	22.06834	22.4661	28.26105	
##### 6.960173	97.60688	137.653	35382.14	26.24161	34562.49	22.0678	22.46562	28.26288	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012815	-0.03719	0.550695	7.64881	-90.7213	65.88015	1012.869	30.4797	
1.012735	-0.03749	0.549997	7.644886	-90.506	66.00603	1012.887	30.47099	
1.013004	-0.03731	0.550431	7.644758	-90.4988	66.00211	1012.888	30.47077	
1.013272	-0.03712	0.550865	7.644629	-90.4917	65.99819	1012.889	30.47055	
1.013267	-0.04753	0.526855	7.643766	-90.4205	65.94886	1012.838	30.47037	
1.013269	-0.048	0.525755	7.643696	-90.4155	65.94541	1012.836	30.4702	
1.01327	-0.04848	0.524656	7.643626	-90.4106	65.94196	1012.834	30.47003	
1.013272	-0.04896	0.523557	7.643556	-90.4056	65.93851	1012.832	30.46987	
1.01324	-0.02256	0.584439	7.642298	-90.3234	65.86264	1012.875	30.47	
1.01324	-0.02158	0.586699	7.642224	-90.3183	65.85829	1012.875	30.47	

Location Properties

T4-1HB

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:18:29

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.808151	93.93038	132.8451	36498.79	24.84881	36604.52	23.49625	23.79294	27.39817	
##### 6.808806	93.93228	132.8491	36497.86	24.842	36608.36	23.49887	23.79543	27.39887	
##### 6.809462	93.93418	132.8531	36496.93	24.83519	36612.19	23.50149	23.79792	27.39957	
##### 6.810117	93.93608	132.8571	36496	24.82838	36616.02	23.50411	23.80041	27.40027	
##### 6.826503	94.11744	133.126	36513.4	24.79167	36659.28	23.5343	23.82853	27.38721	
##### 6.827319	94.12516	133.1377	36513.65	24.78767	36662.34	23.53642	23.83052	27.38702	
##### 6.828135	94.13287	133.1494	36513.9	24.78366	36665.4	23.53853	23.83251	27.38683	
##### 6.838244	94.27805	133.3517	36510.52	24.78443	36661.47	23.53574	23.82995	27.38937	
##### 6.839014	94.28801	133.3659	36510.67	24.78374	36662.11	23.53618	23.83037	27.38925	
##### 6.839782	94.29798	133.3801	36510.82	24.78306	36662.74	23.53662	23.83078	27.38914	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014719	-0.02174	0.586333	7.607538	-87.9802	66.22472	1012.941	31.93	
1.014723	-0.02007	0.5902	7.607487	-87.9757	66.22466	1012.941	31.93	
1.014727	-0.01839	0.594067	7.607435	-87.9712	66.22461	1012.941	31.93	
1.014731	-0.01671	0.597935	7.607383	-87.9668	66.22455	1012.941	31.93	
1.014764	-0.07114	0.472382	7.605267	-87.8505	66.25352	1012.966	31.93	
1.014767	-0.07237	0.469542	7.605149	-87.8434	66.25466	1012.967	31.93	
1.01477	-0.0736	0.466702	7.605031	-87.8364	66.25581	1012.968	31.93	
1.014768	0.011146	0.662192	7.604689	-87.8186	66.36091	1012.952	31.93	
1.014768	0.014075	0.668948	7.604636	-87.8157	66.36626	1012.951	31.93	
1.014769	0.017004	0.675704	7.604582	-87.8128	66.37163	1012.951	31.93	

Location Properties

T4-1HS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:14:15

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 7.296471	101.7237	143.7059	36862.18	25.42446	36566.24	23.48137	23.76806	47.76489	
##### 7.252207	101.1604	142.9044	36962.66	25.4571	36642.74	23.53236	23.81778	27.05434	
##### 7.249448	101.1223	142.8506	36963.51	25.45783	36643.08	23.53261	23.818	27.05371	
##### 7.246689	101.0842	142.7968	36964.37	25.45856	36643.43	23.53287	23.81823	27.05309	
##### 7.243931	101.0462	142.743	36965.22	25.45929	36643.77	23.53312	23.81845	27.05246	
##### 7.234113	100.8808	142.5093	36938.21	25.44616	36626.09	23.52036	23.80696	27.07224	
##### 7.232843	100.8624	142.4832	36937.8	25.4462	36625.66	23.52006	23.80668	27.07254	
##### 7.231575	100.844	142.4572	36937.39	25.44624	36625.23	23.51975	23.8064	27.07284	
##### 7.230306	100.8256	142.4311	36936.98	25.44628	36624.8	23.51944	23.80612	27.07314	
##### 7.217952	100.6247	142.1546	36980.32	25.42234	36684.41	23.56152	23.84487	27.04141	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014542	-0.03909	0.546313	7.631949	-89.5223	68.33237	1012.996	31.96	
1.01457	-0.02918	0.569184	7.63137	-89.4903	67.92767	1012.98	31.96	
1.01457	-0.02838	0.571014	7.631321	-89.4877	67.90092	1012.981	31.96	
1.01457	-0.02759	0.572844	7.631272	-89.4851	67.87416	1012.981	31.96	
1.01457	-0.0268	0.574674	7.631223	-89.4825	67.8474	1012.981	31.96	
1.014564	-0.04456	0.5337	7.629819	-89.3976	67.43074	1012.955	31.96	
1.014564	-0.04519	0.532252	7.629744	-89.3931	67.40382	1012.953	31.96	
1.014564	-0.04581	0.530803	7.629668	-89.3886	67.37691	1012.951	31.96	
1.014564	-0.04644	0.529355	7.629592	-89.3841	67.34999	1012.95	31.96	
1.014602	-0.04673	0.528682	7.629048	-89.3518	67.10869	1012.942	31.9515	

Location Properties

T4-2HB

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 16:04:58

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.938108	95.52402	135.1324	36401.12	24.72795	36591.26	23.48495	23.78432	27.47169	
##### 6.928538	95.34437	134.8913	36392.59	24.69879	36603.18	23.49297	23.79206	27.47812	
##### 6.927872	95.33316	134.876	36392.89	24.69711	36604.65	23.49399	23.79302	27.4779	
##### 6.927206	95.32196	134.8606	36393.18	24.69543	36606.13	23.49502	23.79399	27.47768	
##### 6.926539	95.31075	134.8453	36393.48	24.69374	36607.61	23.49604	23.79495	27.47745	
##### 6.92119	95.15925	134.6354	36344.57	24.67939	36568.5	23.46802	23.76953	27.51444	
##### 6.920766	95.14897	134.6213	36342.19	24.67818	36566.95	23.4669	23.76852	27.51624	
##### 6.920341	95.13869	134.6072	36339.81	24.67698	36565.41	23.46579	23.76752	27.51803	
##### 6.919917	95.12841	134.5931	36337.43	24.67577	36563.86	23.46467	23.76651	27.51983	
##### 6.91207	95.01256	134.4395	36374.13	24.63221	36631.46	23.51202	23.81045	27.49207	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014746	-0.0136	0.605117	7.590014	-86.9811	65.96563	1012.973	32.22941	
1.01476	-0.02722	0.573693	7.588982	-86.9198	65.9854	1013.014	32.2296	
1.014761	-0.02879	0.570079	7.588931	-86.9166	65.98714	1013.015	32.22976	
1.014762	-0.03035	0.566465	7.588879	-86.9133	65.98888	1013.016	32.22992	
1.014764	-0.03192	0.562852	7.588828	-86.9101	65.99061	1013.017	32.23009	
1.014747	-0.02588	0.576777	7.588274	-86.8722	66.04196	1012.975	32.23	
1.014746	-0.02586	0.576828	7.58823	-86.8693	66.04466	1012.974	32.23	
1.014746	-0.02584	0.576878	7.588185	-86.8664	66.04736	1012.973	32.23	
1.014745	-0.02582	0.576929	7.588141	-86.8636	66.05006	1012.972	32.23	
1.014793	-0.12908	0.338728	7.587228	-86.8076	66.09597	1013.015	32.23872	

Location Properties

T4-2HS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 15:59:14

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 6.957941	97.46804	137.6054	36686.02	25.83916	36107.33	23.15692	23.46976	27.25836	
##### 6.956205	97.43463	137.5604	36678.13	25.81853	36113.45	23.16102	23.47374	27.26416	
##### 6.942832	97.15881	137.1817	36766.27	25.79056	36219.39	23.2359	23.54261	27.19886	
##### 6.941727	97.13695	137.1519	36769.7	25.78733	36224.96	23.23981	23.54623	27.19632	
##### 6.940622	97.11509	137.1221	36773.13	25.78409	36230.54	23.24373	23.54985	27.19378	
##### 6.939517	97.09323	137.0923	36776.55	25.78085	36236.11	23.24765	23.55347	27.19125	
##### 6.935468	96.99718	136.9794	36866.19	25.68041	36393.29	23.35803	23.65563	27.12516	
##### 6.935015	96.98728	136.9666	36871.8	25.67518	36402.4	23.36443	23.66156	27.12102	
##### 6.934561	96.97738	136.9539	36877.41	25.66994	36411.51	23.37084	23.66748	27.11687	
##### 6.930031	96.81	136.7324	36804.73	25.61494	36377.47	23.34591	23.64536	27.17044	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014176	-0.04598	0.530426	7.587609	-87.1665	66.8533	1013.123	32.19807	
1.014185	-0.04592	0.530557	7.587621	-87.1653	66.83384	1013.125	32.19862	
1.01425	-0.02494	0.578963	7.586953	-87.1164	66.59389	1013.041	32.18202	
1.014254	-0.02398	0.581171	7.586914	-87.1134	66.57748	1013.038	32.18153	
1.014257	-0.02302	0.583379	7.586874	-87.1104	66.56108	1013.035	32.18105	
1.014261	-0.02207	0.585586	7.586834	-87.1074	66.54467	1013.032	32.18056	
1.014374	-0.02466	0.579601	7.586544	-87.0585	66.33952	1013.084	32.18917	
1.01438	-0.02435	0.580319	7.586518	-87.0553	66.32561	1013.085	32.18921	
1.014387	-0.02404	0.581036	7.586493	-87.0522	66.31168	1013.085	32.18925	
1.014384	-0.05278	0.514729	7.585783	-86.9976	66.15226	1013.087	32.19796	

Location Properties

T4-3HB

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 15:46:36

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.613135	90.43176	128.0211	36031.23	24.3749	36466.62	23.39076	23.7033	27.75374	
##### 6.613265	90.4309	128.0201	36027.53	24.37341	36463.92	23.38882	23.70155	27.75659	
##### 6.613394	90.43005	128.0191	36023.82	24.37192	36461.23	23.38688	23.6998	27.75944	
##### 6.613524	90.4292	128.0181	36020.12	24.37042	36458.53	23.38494	23.69804	27.76228	
##### 6.630307	90.60993	128.282	36017.97	24.34665	36473.12	23.39491	23.70753	27.76393	
##### 6.631156	90.61832	128.2943	36015.86	24.34536	36471.89	23.39401	23.70673	27.76555	
##### 6.632005	90.62669	128.3066	36013.75	24.34407	36470.66	23.39312	23.70593	27.76717	
##### 6.632854	90.63508	128.3188	36011.63	24.34279	36469.43	23.39222	23.70513	27.7688	
##### 6.638519	90.71268	128.4415	36154.23	24.29361	36648.72	23.51876	23.82167	27.65934	
##### 6.639108	90.71973	128.4522	36160.41	24.29094	36656.87	23.5245	23.82697	27.6546	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014775	-0.04087	0.542206	7.624553	-88.7859	65.56152	1013.031	32.52196	
1.014774	-0.04049	0.543097	7.624496	-88.7822	65.56055	1013.03	32.52141	
1.014773	-0.0401	0.543989	7.624439	-88.7784	65.55959	1013.03	32.52086	
1.014772	-0.03971	0.54488	7.624382	-88.7747	65.55863	1013.029	32.52031	
1.014786	-0.04698	0.528116	7.623114	-88.702	65.52565	1013.03	32.52899	
1.014786	-0.04713	0.527772	7.623029	-88.697	65.52366	1013.03	32.52922	
1.014786	-0.04728	0.527428	7.622944	-88.6921	65.52166	1013.03	32.52946	
1.014786	-0.04743	0.527084	7.62286	-88.6871	65.51967	1013.03	32.52969	
1.014895	-0.03673	0.551764	7.623425	-88.7009	65.49181	1013.056	32.52102	
1.0149	-0.0364	0.552525	7.623423	-88.7	65.4899	1013.057	32.52081	

Location Properties

T4-3HS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 15:41:05

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.6262	94.28413	132.8035	36658	26.90965	35367.98	22.64462	22.98919	27.27917	
##### 6.607924	93.89139	132.2705	36653.57	26.80949	35429.09	22.68691	23.02891	27.28247	
##### 6.606789	93.86701	132.2375	36653.29	26.80327	35432.89	22.68953	23.03138	27.28268	
##### 6.605655	93.84264	132.2044	36653.02	26.79706	35436.68	22.69216	23.03384	27.28288	
##### 6.617057	93.75556	132.1331	36637.12	26.7157	35474.64	22.71821	23.05852	27.29473	
##### 6.617123	93.74204	132.1169	36636.29	26.7096	35477.84	22.72042	23.0606	27.29534	
##### 6.617188	93.72853	132.1006	36635.47	26.70349	35481.04	22.72262	23.06268	27.29595	
##### 6.617254	93.71501	132.0844	36634.65	26.69739	35484.24	22.72483	23.06476	27.29656	
##### 6.627562	93.81841	132.2474	36763.43	26.53461	35716.67	22.88791	23.21584	27.201	
##### 6.628172	93.81998	132.2514	36768.88	26.52543	35728.01	22.89585	23.22321	27.19695	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013472	-0.02942	0.568624	7.614686	-88.9705	80.76311	1013.04	32.42	
1.013534	-0.04659	0.529014	7.613102	-88.8502	78.95641	1012.981	32.42	
1.013538	-0.04766	0.526555	7.613004	-88.8428	78.84427	1012.977	32.42	
1.013542	-0.04872	0.524097	7.612906	-88.8353	78.73212	1012.974	32.42	
1.013586	-0.04218	0.539186	7.612684	-88.8036	78.1284	1013.024	32.42	
1.013589	-0.04231	0.538896	7.612635	-88.7993	78.05709	1013.025	32.42	
1.013593	-0.04243	0.538605	7.612586	-88.7949	77.98579	1013.025	32.42	
1.013596	-0.04256	0.538315	7.612538	-88.7905	77.91448	1013.026	32.42	
1.013767	-0.01009	0.613219	7.611475	-88.6855	77.30006	1012.985	32.42865	
1.013776	-0.00857	0.616714	7.611417	-88.6798	77.25468	1012.984	32.42904	

Location Properties

T4-4HB

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 15:29:08

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Co	Salinity (PS	Total Dissc	Resistivity
##### 6.405145	88.26475	124.8122	35684.35	24.99983	35684.58	22.84572	23.19498	28.02352	
##### 6.405265	88.25763	124.8039	35687.76	24.98972	35694.85	22.85285	23.20165	28.02084	
##### 6.405384	88.25051	124.7957	35691.17	24.97961	35705.12	22.85998	23.20833	28.01815	
##### 6.405504	88.24339	124.7874	35694.58	24.96949	35715.38	22.86711	23.215	28.01547	
##### 6.421631	88.35456	124.958	35649.96	24.89437	35722.07	22.87075	23.21935	28.05053	
##### 6.422307	88.35741	124.9629	35650.25	24.88739	35727.11	22.87422	23.22262	28.0503	
##### 6.422981	88.36024	124.9678	35650.53	24.8804	35732.14	22.87768	23.22589	28.05008	
##### 6.454382	88.59742	125.3378	35620.84	24.81229	35749.02	22.88864	23.23686	28.07346	
##### 6.456113	88.61015	125.3577	35618.8	24.8077	35750.12	22.88935	23.23758	28.07507	
##### 6.457845	88.62289	125.3775	35616.76	24.80309	35751.22	22.89006	23.23829	28.07667	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.014187	-0.05103	0.518776	7.651264	-90.4285	60.96448	1013.067	32.09972	
1.014196	-0.05199	0.516562	7.651103	-90.4165	60.97837	1013.066	32.09988	
1.014204	-0.05295	0.514349	7.650941	-90.4044	60.99227	1013.065	32.10006	
1.014212	-0.05391	0.512135	7.650779	-90.3924	61.00616	1013.064	32.10022	
1.014236	-0.04335	0.536493	7.650373	-90.3514	61.2029	1013.028	32.1	
1.014241	-0.04318	0.536881	7.650311	-90.346	61.21536	1013.025	32.1	
1.014246	-0.04301	0.53727	7.650249	-90.3406	61.22782	1013.022	32.1	
1.014273	-0.0295	0.568441	7.648234	-90.2117	61.4789	1013.055	32.10852	
1.014275	-0.02872	0.570245	7.64813	-90.2048	61.49409	1013.056	32.10892	
1.014277	-0.02793	0.57205	7.648026	-90.1978	61.50929	1013.057	32.10932	

Location Properties

T4-4HS

Location Name = Device Location

Report Properties

Start Time = 2023-02-28 15:24:37

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.866317	86.29623	120.8331	35412.59	29.48908	32642.2	20.82006	21.21743	358507.9
#####	5.853477	86.24644	120.771	36010.25	29.46684	33194.11	21.17235	21.57617	196658
#####	5.840638	86.19665	120.7089	36607.92	29.44459	33746.03	21.52463	21.93492	34808.09
#####	5.827798	86.14686	120.6468	37205.59	29.42234	34297.95	21.87692	22.29366	0
#####	5.830778	85.7849	120.2045	36746.55	29.19924	34018.26	21.70749	22.11187	27.21345
#####	5.829678	85.75275	120.1633	36749	29.18806	34027.22	21.71376	22.11769	27.21163
#####	5.828578	85.7206	120.1221	36751.46	29.17688	34036.19	21.72002	22.12352	27.2098
#####	5.827478	85.68845	120.0809	36753.92	29.1657	34045.15	21.72629	22.12935	27.20797
#####	5.887887	85.97368	120.6085	36726.73	28.91405	34172.22	21.81456	22.21195	27.22812
#####	5.890521	85.9796	120.6239	36725.71	28.89841	34180.72	21.82048	22.21747	27.22888

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011305	-0.04174	0.540193	7.649129	-91.6165	39.5248	1013.032	31.84857	
1.011574	-0.04195	0.539725	7.648921	-91.5998	39.6232	1013.032	31.84896	
1.011843	-0.04215	0.539256	7.648713	-91.583	39.72159	1013.031	31.84936	
1.012112	-0.04235	0.538788	7.648506	-91.5663	39.81999	1013.03	31.84976	
1.012058	-0.01428	0.603547	7.64525	-91.3136	41.1589	1013.03	31.85809	
1.012066	-0.01329	0.605817	7.645059	-91.2975	41.24661	1013.03	31.85862	
1.012074	-0.01231	0.608087	7.644868	-91.2813	41.33432	1013.03	31.85914	
1.012083	-0.01133	0.610357	7.644677	-91.2652	41.42203	1013.029	31.85966	
1.012229	-0.02944	0.568567	7.642113	-91.0626	42.81894	1013.03	31.87741	
1.012238	-0.02981	0.567716	7.641937	-91.0486	42.90781	1013.03	31.87838	

Location Properties

T1-1HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 15:33:05

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.162753	91.77948	133.8187	34240.9	30.99664	30722.07	19.40185	19.96935	29.20485	
##### 6.249315	92.56319	135.0893	34269.58	30.76273	30871.72	19.50565	20.06662	29.1804	
##### 6.253985	92.60498	135.1572	34269.46	30.7485	30879.15	19.51079	20.07145	29.1805	
##### 6.258655	92.64677	135.2251	34269.35	30.73426	30886.57	19.51594	20.07627	29.1806	
##### 6.263325	92.68855	135.293	34269.23	30.72002	30893.99	19.52108	20.08109	29.18069	
##### 6.296865	93.07474	135.9015	34352.66	30.47126	31102.62	19.66598	20.2167	29.10986	
##### 6.300064	93.10736	135.9536	34356.85	30.45554	31114.79	19.67443	20.22461	29.1063	
##### 6.303263	93.13999	136.0058	34361.04	30.43982	31126.96	19.68288	20.23252	29.10274	
##### 6.329799	93.42506	136.444	34302.61	30.37073	31111.25	19.67172	20.22231	29.15231	
##### 6.331634	93.44514	136.4752	34301.57	30.36296	31114.47	19.67394	20.2244	29.15319	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009756	-0.03969	0.544934	5.803087	13.74905	96.4185	1017.699	32.62965	
1.009911	-0.03526	0.555159	5.857376	10.58382	97.19056	1017.691	32.64691	
1.009919	-0.03512	0.555477	5.861104	10.3663	97.24649	1017.691	32.64785	
1.009928	-0.03498	0.555794	5.864832	10.14878	97.30242	1017.69	32.64879	
1.009936	-0.03484	0.556112	5.868559	9.931255	97.35835	1017.69	32.64972	
1.010126	-0.03633	0.552673	5.885352	7.175837	97.94765	1017.716	32.65825	
1.010137	-0.03631	0.552718	5.887203	6.98978	97.98954	1017.717	32.65896	
1.010149	-0.0363	0.552762	5.889055	6.803725	98.03143	1017.718	32.65968	
1.010163	-0.04354	0.536058	5.929693	4.483222	98.48637	1017.71	32.66796	
1.010167	-0.04388	0.535266	5.931831	4.328181	98.51785	1017.71	32.66849	

Location Properties

T1-2HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 15:40:45

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.942182	81.42647	120.1687	32586.51	25.76345	32118.28	20.34594	20.87688	30.6876	
##### 5.941515	81.40901	120.1449	32590.81	25.75342	32128.55	20.35301	20.88356	30.68354	
##### 5.940848	81.39156	120.1211	32595.12	25.74338	32138.82	20.36008	20.89024	30.67947	
##### 5.911107	80.87959	119.3741	32478.42	25.68253	32060.49	20.30472	20.83932	30.78972	
##### 5.909564	80.85252	119.3351	32475.56	25.67616	32061.5	20.30536	20.83998	30.79243	
##### 5.908058	80.82544	119.2961	32472.7	25.6698	32062.51	20.306	20.84063	30.79513	
##### 5.923986	80.85331	119.376	32453.61	25.60856	32080.72	20.31807	20.85247	30.81324	
##### 5.924146	80.845	119.3657	32450.61	25.60466	32080.11	20.3176	20.85207	30.81608	
##### 5.924306	80.83669	119.3553	32447.6	25.60077	32079.5	20.31713	20.85167	30.81892	
##### 5.924466	80.82837	119.3449	32444.6	25.59687	32078.89	20.31667	20.85128	30.82177	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012091	-0.03031	0.566562	7.563282	-86.6368	86.5601	1017.739	32.98097	
1.012099	-0.02963	0.568138	7.563878	-86.6673	86.54709	1017.739	32.98077	
1.012107	-0.02895	0.569714	7.564475	-86.6979	86.53409	1017.739	32.98056	
1.012083	-0.03733	0.550385	7.569949	-86.9845	86.36929	1017.696	32.98029	
1.012086	-0.03739	0.550247	7.570368	-87.006	86.35825	1017.694	32.98013	
1.012088	-0.03745	0.55011	7.570786	-87.0276	86.34723	1017.692	32.97996	
1.012115	-0.03884	0.546903	7.574683	-87.2229	86.21563	1017.75	32.98837	
1.012115	-0.03905	0.546407	7.574962	-87.2372	86.20662	1017.752	32.98874	
1.012116	-0.03927	0.54591	7.575241	-87.2514	86.19761	1017.754	32.98912	
1.012117	-0.03948	0.545413	7.575521	-87.2657	86.1886	1017.756	32.98949	

Location Properties

T1-2HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 15:35:41

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	6.83372	97.39961	143.0023	33436.18	28.32014	31447.81	19.92839	20.44108	46.48552
#####	6.917825	98.50812	144.6396	33212.04	28.16813	31327.82	19.86091	20.36308	111.0422
#####	6.91357	98.61008	144.7942	33781.28	28.15032	31867.19	20.20379	20.71367	52.87863
#####	6.909314	98.71205	144.9488	34350.51	28.13251	32406.56	20.54667	21.06426	0
#####	6.96066	99.26837	145.7666	33901.39	28.10715	32002.18	20.28408	20.80142	29.49736
#####	6.964103	99.31387	145.8338	33897.47	28.10292	32000.91	20.28317	20.80059	29.50076
#####	6.967546	99.35938	145.901	33893.55	28.0987	31999.64	20.28226	20.79977	29.50417
#####	6.970988	99.40488	145.9682	33889.63	28.09447	31998.38	20.28134	20.79895	29.50757
#####	6.996924	99.69493	146.4142	33920.73	28.06749	32043.34	20.31263	20.82817	29.48051
#####	6.998972	99.71909	146.4506	33920.08	28.06566	32043.79	20.31293	20.82846	29.48107



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011009	-0.03561	0.554335	6.485084	-26.8132	94.93121	1017.748	32.80017	
1.011006	-0.06198	0.493517	6.502061	-27.7611	94.89442	1017.748	32.80871	
1.011267	-0.06252	0.492269	6.503424	-27.8371	94.8827	1017.749	32.80909	
1.011528	-0.06306	0.491021	6.504786	-27.9131	94.87099	1017.75	32.80947	
1.01134	-0.038	0.548835	6.520332	-28.7832	94.74757	1017.708	32.80962	
1.011341	-0.03734	0.550342	6.521385	-28.8421	94.73911	1017.706	32.80978	
1.011341	-0.03669	0.55185	6.522438	-28.9009	94.73065	1017.704	32.80994	
1.011342	-0.03604	0.553357	6.52349	-28.9598	94.72219	1017.702	32.8101	
1.011374	-0.04326	0.536702	6.536901	-29.7097	94.5865	1017.71	32.81863	
1.011374	-0.04312	0.537028	6.5378	-29.7601	94.57804	1017.71	32.81902	

Location Properties

T1-3HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 15:56:38

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.170168	84.60046	124.8295	32523.67	25.8912	31979.3	20.25015	20.78655	30.74689	
##### 6.16835	84.56197	124.7751	32518.98	25.88579	31977.95	20.24915	20.78567	30.7513	
##### 6.166533	84.52348	124.7206	32514.3	25.88038	31976.6	20.24816	20.78479	30.75571	
##### 6.164714	84.48499	124.6661	32509.62	25.87497	31975.25	20.24716	20.78391	30.76012	
##### 6.143105	84.08961	124.1141	32638.82	25.67519	32223.42	20.41848	20.94522	30.63842	
##### 6.14179	84.06268	124.0766	32643.65	25.66444	32234.67	20.42624	20.95254	30.63388	
##### 6.140475	84.03574	124.039	32648.47	25.65369	32245.92	20.43399	20.95985	30.62933	
##### 6.139161	84.0088	124.0015	32653.3	25.64295	32257.18	20.44174	20.96717	30.62479	
##### 6.132393	83.74424	123.6358	32551.71	25.53199	32224.31	20.41757	20.9458	30.72039	
##### 6.131636	83.72429	123.6081	32549.96	25.52304	32228	20.42005	20.9482	30.72204	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011981	-0.04438	0.534105	7.369057	-75.8483	81.1091	1017.676	33.22799	
1.011982	-0.04434	0.534212	7.36956	-75.8751	81.09002	1017.677	33.22853	
1.011983	-0.04429	0.53432	7.370062	-75.9018	81.07094	1017.678	33.22906	
1.011984	-0.04424	0.534428	7.370565	-75.9286	81.05186	1017.679	33.22961	
1.012171	-0.05058	0.519816	7.377638	-76.2619	80.79169	1017.688	33.23838	
1.012179	-0.05076	0.519404	7.378106	-76.2847	80.77416	1017.688	33.23895	
1.012188	-0.05094	0.518992	7.378573	-76.3076	80.75663	1017.689	33.23951	
1.012197	-0.05111	0.51858	7.37904	-76.3304	80.7391	1017.69	33.24007	
1.012211	-0.04325	0.53673	7.384768	-76.6297	80.51965	1017.672	33.23978	
1.012216	-0.04304	0.537208	7.385165	-76.6497	80.50465	1017.672	33.23995	

Location Properties

T1-3HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 15:52:05

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	6.965787	96.61449	142.4093	33454.97	26.3685	32602.79	20.6909	21.19182	29.89094
#####	6.96654	96.62099	142.4196	33455.07	26.36724	32603.65	20.69149	21.19238	29.89084
#####	6.967292	96.6275	142.43	33455.17	26.36598	32604.51	20.69208	21.19293	29.89075
#####	6.97188	96.7249	142.5777	33583.11	26.32129	32756.47	20.79813	21.2917	29.77695
#####	6.972307	96.73141	142.5878	33590.02	26.31897	32764.62	20.80382	21.297	29.7708
#####	6.972733	96.73792	142.5978	33596.93	26.31665	32772.77	20.80951	21.3023	29.76464
#####	6.996885	96.98199	142.9664	33456.37	26.2902	32651.73	20.72444	21.22363	29.88976
#####	6.998046	96.99467	142.9856	33452.54	26.28816	32649.23	20.72266	21.222	29.89317
#####	6.999207	97.00736	143.0047	33448.7	26.28613	32646.72	20.72089	21.22037	29.89658
#####	7.000369	97.02004	143.0239	33444.87	26.2841	32644.22	20.71912	21.21875	29.9

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012171	-0.02834	0.5711111	7.100568	-61	81.73209	1017.701	33.07	
1.012172	-0.02776	0.572454	7.101001	-61.0239	81.71829	1017.7	33.07	
1.012173	-0.02718	0.573798	7.101434	-61.0477	81.70448	1017.7	33.07	
1.012266	-0.02245	0.584704	7.108055	-61.4086	81.54564	1017.7	33.07	
1.012271	-0.02232	0.584993	7.108481	-61.4319	81.53454	1017.7	33.07	
1.012275	-0.0222	0.585282	7.108908	-61.4552	81.52344	1017.7	33.07	
1.01222	-0.03429	0.557379	7.114673	-61.7754	81.40138	1017.708	33.07838	
1.012219	-0.03472	0.556391	7.115057	-61.7966	81.39285	1017.708	33.07875	
1.012218	-0.03515	0.555404	7.115442	-61.8178	81.38432	1017.709	33.07912	
1.012218	-0.03558	0.554417	7.115826	-61.839	81.37578	1017.709	33.07949	

Location Properties

T1-4HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:08:35

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.563099	87.89114	130.0674	32495.05	24.2555	32963.78	20.91905	21.42646	30.77398	
##### 6.561111	87.85781	130.0191	32489.96	24.25103	32961.48	20.91738	21.42496	30.77878	
##### 6.545923	87.53912	129.5641	32500.15	24.20675	33000.14	20.94382	21.45009	30.76911	
##### 6.544554	87.51321	129.5269	32498.55	24.20363	33000.51	20.94404	21.45033	30.77062	
##### 6.543185	87.48731	129.4896	32496.94	24.2005	33000.88	20.94425	21.45057	30.77213	
##### 6.541816	87.46141	129.4523	32495.34	24.19738	33001.25	20.94447	21.45081	30.77364	
##### 6.5288	87.23377	129.134	32554.53	24.09766	33125.48	21.03004	21.53156	30.71771	
##### 6.52793	87.21747	129.1111	32557.38	24.09238	33131.77	21.03437	21.53565	30.71502	
##### 6.527061	87.20116	129.0881	32560.23	24.08711	33138.05	21.03869	21.53973	30.71232	
##### 6.526191	87.18487	129.0651	32563.08	24.08184	33144.32	21.04301	21.54381	30.70963	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012951	-0.03819	0.5484	7.473804	-81.2475	78.79989	1017.627	33.23204	
1.01295	-0.03915	0.546187	7.473876	-81.2503	78.79392	1017.628	33.23149	
1.012983	-0.0322	0.562218	7.475471	-81.3279	78.73882	1017.603	33.23079	
1.012984	-0.03222	0.562174	7.475555	-81.3319	78.73446	1017.602	33.23048	
1.012985	-0.03223	0.56213	7.47564	-81.3358	78.7301	1017.601	33.23018	
1.012986	-0.03225	0.562086	7.475724	-81.3398	78.72575	1017.6	33.22986	
1.013078	-0.03913	0.546225	7.477781	-81.4246	78.65888	1017.635	33.21288	
1.013083	-0.03928	0.545873	7.477904	-81.4299	78.65485	1017.636	33.21214	
1.013087	-0.03943	0.545521	7.478027	-81.4352	78.65081	1017.637	33.21138	
1.013092	-0.03959	0.545169	7.47815	-81.4405	78.64678	1017.638	33.21064	

Location Properties

T1-4HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:05:08

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.363138	86.92757	128.3546	33164.03	25.39177	32917.75	20.9013	21.39654	30.15319	
##### 6.353159	86.64925	127.9656	33071.11	25.30538	32879.37	20.87339	21.37159	30.23791	
##### 6.352176	86.62786	127.9355	33069.49	25.29817	32882.24	20.87532	21.37346	30.23939	
##### 6.351193	86.60647	127.9054	33067.87	25.29096	32885.11	20.87725	21.37532	30.24086	
##### 6.35021	86.58507	127.8753	33066.25	25.28375	32887.98	20.87917	21.37719	30.24234	
##### 6.371697	86.69926	128.0742	33028.89	25.21892	32891.35	20.88077	21.37938	30.27655	
##### 6.372439	86.69866	128.0751	33025.52	25.21432	32890.88	20.88038	21.37907	30.27963	
##### 6.373181	86.69806	128.076	33022.14	25.20972	32890.4	20.88	21.37876	30.28271	
##### 6.373923	86.69746	128.0769	33018.77	25.20511	32889.93	20.87961	21.37845	30.28579	
##### 6.367708	86.59406	127.9383	33165.66	25.08952	33109.11	21.03183	21.52092	30.15173	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012615	-0.0415	0.540749	7.403433	-77.6316	83.53239	1017.541	33.37049	
1.012619	-0.03401	0.558042	7.404363	-77.6656	83.21848	1017.549	33.37884	
1.012622	-0.03387	0.558354	7.404428	-77.6675	83.19749	1017.549	33.37906	
1.012626	-0.03374	0.558665	7.404494	-77.6694	83.17651	1017.549	33.37928	
1.012629	-0.0336	0.558977	7.40456	-77.6713	83.15552	1017.549	33.3795	
1.012649	-0.04006	0.54408	7.405529	-77.7124	82.89339	1017.558	33.37109	
1.01265	-0.04021	0.543738	7.405591	-77.7149	82.87553	1017.558	33.37088	
1.012651	-0.04036	0.543395	7.405652	-77.7174	82.85768	1017.559	33.37066	
1.012652	-0.0405	0.543053	7.405714	-77.7199	82.83984	1017.56	33.37044	
1.012799	-0.03361	0.558952	7.407059	-77.7633	82.59685	1017.55	33.37914	

Location Properties

T2-4HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:23:16

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	6.332223	84.63012	125.2591	32420.42	24.18274	32934.5	20.89753	21.40743	30.84479
#####	6.32855	84.56979	125.1714	32414.86	24.17743	32932.26	20.89588	21.40597	30.85005
#####	6.293192	84.07029	124.4476	32555.36	24.0805	33137.41	21.03815	21.53932	30.71699
#####	6.290635	84.03095	124.3907	32560.2	24.07423	33146.35	21.04433	21.54513	30.71241
#####	6.288078	83.99162	124.3337	32565.04	24.06797	33155.29	21.0505	21.55094	30.70783
#####	6.285521	83.95228	124.2768	32569.88	24.0617	33164.23	21.05667	21.55675	30.70325
#####	6.263415	83.55269	123.691	32439.74	24.01112	33064.24	20.98589	21.49176	30.82645
#####	6.261704	83.52453	123.6499	32436.59	24.00693	33063.73	20.98548	21.49143	30.82943
#####	6.259994	83.49637	123.6088	32433.44	24.00273	33063.22	20.98506	21.49109	30.83241
#####	6.239962	83.19128	123.163	32423.59	23.97804	33069.07	20.9888	21.4949	30.84177

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012954	-0.09249	0.423143	7.502484	-82.8183	76.8499	1017.569	32.2602	
1.012955	-0.09426	0.419052	7.502522	-82.8195	76.84827	1017.569	32.25987	
1.013089	-0.03387	0.558354	7.502357	-82.779	76.74207	1017.578	32.26	
1.013095	-0.03172	0.563322	7.502359	-82.7775	76.73589	1017.578	32.26	
1.013101	-0.02956	0.56829	7.502361	-82.776	76.72972	1017.579	32.26	
1.013108	-0.02741	0.573258	7.502363	-82.7745	76.72354	1017.58	32.26	
1.013069	-0.07067	0.473473	7.502883	-82.7963	76.61009	1017.536	32.2513	
1.01307	-0.07145	0.471673	7.502903	-82.7965	76.60294	1017.534	32.25092	
1.01307	-0.07223	0.469873	7.502923	-82.7967	76.59578	1017.532	32.25053	
1.01308	-0.06585	0.484588	7.503101	-82.8061	76.49539	1017.532	32.25037	

Location Properties

T2-4HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:17:12

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.822952	91.46456	135.348	32690.21	24.29572	33133.54	21.02522	21.5368	0	
##### 6.711688	89.94373	133.0962	32597.98	24.27392	33056.41	20.98417	21.48667	30.67682	
##### 6.702777	89.82024	132.9141	32598.31	24.27033	33059.05	20.98597	21.48838	30.67648	
##### 6.693867	89.69675	132.7321	32598.65	24.26674	33061.69	20.98777	21.4901	30.67615	
##### 6.684957	89.57326	132.55	32598.98	24.26314	33064.33	20.98957	21.49182	30.67581	
##### 6.62505	88.71284	131.2901	32503.02	24.25049	32975.08	20.92689	21.4338	30.76641	
##### 6.61991	88.64193	131.1858	32500.74	24.24931	32973.52	20.92578	21.43279	30.76856	
##### 6.614769	88.57102	131.0815	32498.45	24.24812	32971.96	20.92467	21.43177	30.77072	
##### 6.57035	87.93945	130.1555	32583.21	24.23846	33064.14	20.98909	21.49169	30.69069	
##### 6.567155	87.89389	130.0888	32585.18	24.23773	33066.61	20.99081	21.4933	30.68883	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.013019	-0.04187	0.539912	7.497505	-82.5792	76.10806	1017.6	32.6302	
1.012994	-0.03966	0.54501	7.49719	-82.5567	75.93298	1017.592	32.61295	
1.012997	-0.03959	0.545166	7.497163	-82.5549	75.92344	1017.591	32.61201	
1.012999	-0.03952	0.545322	7.497137	-82.553	75.91391	1017.59	32.61106	
1.013001	-0.03945	0.545478	7.49711	-82.5512	75.90437	1017.589	32.61012	
1.012958	-0.04324	0.536736	7.496532	-82.5166	75.74123	1017.668	32.61048	
1.012957	-0.04337	0.536449	7.4965	-82.5146	75.73068	1017.672	32.61015	
1.012957	-0.04349	0.536162	7.496468	-82.5126	75.72013	1017.675	32.60982	
1.013008	-0.03765	0.549647	7.496218	-82.4889	75.59715	1017.659	32.61	
1.013009	-0.03745	0.550088	7.496196	-82.4872	75.58865	1017.66	32.61	

Location Properties

T3-3HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:40:30

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.098807	82.28655	121.6682	32551.04	24.74326	32711.5	20.74898	21.26248	30.721	
##### 6.097136	82.25986	121.6298	32553.32	24.73735	32717.5	20.7531	21.26637	30.71884	
##### 6.095464	82.23316	121.5914	32555.61	24.73143	32723.49	20.75722	21.27027	30.71668	
##### 6.093792	82.20647	121.553	32557.89	24.72552	32729.49	20.76134	21.27417	30.71452	
##### 6.07701	81.91918	121.1306	32456.34	24.70024	32643.23	20.70067	21.2181	30.81067	
##### 6.075672	81.8974	121.0988	32452.71	24.6966	32641.86	20.69967	21.21721	30.8141	
##### 6.074334	81.87562	121.0671	32449.08	24.69296	32640.5	20.69867	21.21632	30.81754	
##### 6.082644	81.84335	121.0434	32479.35	24.63546	32707.09	20.74451	21.25961	30.78881	
##### 6.082726	81.83671	121.0347	32479	24.63234	32708.7	20.7456	21.26066	30.78913	
##### 6.082808	81.83006	121.0261	32478.66	24.62922	32710.32	20.74669	21.26171	30.78945	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012686	-0.06331	0.490459	7.505926	-83.1687	74.2856	1017.655	31.72179	
1.01269	-0.06341	0.49022	7.505781	-83.1592	74.27622	1017.656	31.72124	
1.012695	-0.06351	0.48998	7.505636	-83.1497	74.26684	1017.658	31.72068	
1.0127	-0.06362	0.489741	7.505491	-83.1401	74.25746	1017.659	31.72013	
1.012661	-0.04686	0.528384	7.505392	-83.1187	74.14287	1017.633	31.72029	
1.012662	-0.04619	0.529927	7.505341	-83.1146	74.13495	1017.632	31.72013	
1.012662	-0.04553	0.531471	7.505289	-83.1106	74.12702	1017.632	31.71996	
1.012713	-0.05368	0.512666	7.503324	-82.9851	74.01528	1017.614	31.7116	
1.012714	-0.05376	0.512466	7.503231	-82.9789	74.00807	1017.613	31.71122	
1.012716	-0.05385	0.512267	7.503137	-82.9727	74.00086	1017.612	31.71083	

Location Properties

T3-3HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:36:35

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.853527	94.00989	138.7319	32888	25.73389	32433.37	20.56592	21.08169	30.40623	
##### 6.851026	93.97455	138.6797	32885.38	25.7337	32430.91	20.56419	21.08009	30.40865	
##### 6.829334	93.72121	138.3049	33009.79	25.73449	32553.11	20.64972	21.15952	30.2941	
##### 6.827569	93.69859	138.2715	33014.45	25.73442	32557.75	20.65297	21.16254	30.28981	
##### 6.825803	93.67596	138.238	33019.12	25.73435	32562.4	20.65622	21.16556	30.28551	
##### 6.815069	93.49589	137.978	32966.39	25.72655	32515.17	20.62309	21.13486	30.33394	
##### 6.814157	93.48268	137.9588	32966.19	25.72621	32515.19	20.62309	21.13487	30.33412	
##### 6.813246	93.46947	137.9395	32965.99	25.72587	32515.2	20.62309	21.13488	30.3343	
##### 6.812335	93.45625	137.9202	32965.79	25.72552	32515.21	20.6231	21.13488	30.33448	
##### 6.80129	93.26785	137.649	32950.47	25.71464	32506.77	20.61707	21.1294	30.34858	



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012264	-0.05997	0.498141	7.489243	-82.5262	73.98696	1017.651	31.79	
1.012263	-0.06043	0.497102	7.489257	-82.527	73.99176	1017.65	31.79	
1.012327	-0.06926	0.476713	7.489474	-82.5365	74.0759	1017.641	31.78131	
1.012329	-0.07018	0.474612	7.489488	-82.5372	74.08116	1017.641	31.78093	
1.012332	-0.07109	0.472511	7.489502	-82.5378	74.08642	1017.64	31.78055	
1.012309	-0.13904	0.315763	7.489741	-82.5482	74.20421	1017.665	31.78883	
1.012309	-0.14227	0.308318	7.489756	-82.5488	74.21111	1017.666	31.78905	
1.012309	-0.1455	0.300873	7.48977	-82.5495	74.21799	1017.667	31.78926	
1.012309	-0.14872	0.293428	7.489785	-82.5501	74.22489	1017.668	31.78948	
1.012308	0.076545	0.813047	7.489872	-82.5523	74.33752	1017.677	31.78107	

Location Properties

T3-4HT

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:52:40

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.369963	85.45861	126.4415	32466.73	24.38909	32850.07	20.84129	21.35255	30.80076	
##### 6.366152	85.40331	126.3606	32468.47	24.38425	32854.89	20.8446	21.35568	30.79911	
##### 6.36234	85.34801	126.2797	32470.21	24.37941	32859.71	20.84791	21.35882	30.79746	
##### 6.358529	85.2927	126.1988	32471.94	24.37456	32864.54	20.85122	21.36195	30.79582	
##### 6.331777	84.84287	125.5406	32372.36	24.32797	32793.28	20.80072	21.31563	30.89059	
##### 6.329608	84.80907	125.4911	32368.53	24.32436	32791.69	20.79956	21.3146	30.89424	
##### 6.327439	84.77528	125.4417	32364.71	24.32076	32790.1	20.7984	21.31357	30.89788	
##### 6.322668	84.58909	125.1895	32396.33	24.25615	32863.25	20.84869	21.36111	30.86771	
##### 6.321942	84.57209	125.1656	32396.05	24.25233	32865.39	20.85013	21.3625	30.86797	
##### 6.321216	84.55509	125.1416	32395.76	24.24851	32867.53	20.85158	21.3639	30.86824	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012855	-0.05385	0.512264	7.532089	-84.5142	73.89899	1017.658	31.80887	
1.012858	-0.05423	0.511398	7.532102	-84.5136	73.8932	1017.658	31.80909	
1.012862	-0.0546	0.510533	7.532115	-84.5131	73.88741	1017.658	31.8093	
1.012866	-0.05498	0.509668	7.532128	-84.5125	73.88161	1017.658	31.80952	
1.012841	-0.05047	0.520071	7.530857	-84.4237	73.80068	1017.633	31.80109	
1.012841	-0.0506	0.519774	7.530817	-84.4202	73.7955	1017.632	31.80088	
1.012841	-0.05073	0.519476	7.530776	-84.4167	73.79031	1017.632	31.80067	
1.012897	-0.05135	0.518032	7.530385	-84.3855	73.72621	1017.639	31.80041	
1.012899	-0.0513	0.51816	7.530345	-84.3825	73.7218	1017.639	31.80025	
1.012902	-0.05124	0.518287	7.530304	-84.3794	73.71738	1017.639	31.80009	

Location Properties

T3-4HTS

Location Name = Device Location

Report Properties

Start Time = 2023-03-01 16:49:11

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.481426	88.26799	130.3749	32872.99	25.26097	32709.96	20.75423	21.26147	30.42013	
##### 6.476604	88.19833	130.2729	32874.2	25.25585	32714.32	20.75722	21.26431	30.419	
##### 6.471781	88.12868	130.1709	32875.4	25.25073	32718.68	20.76022	21.26715	30.41787	
##### 6.453031	87.70799	129.5786	32809.53	25.19926	32685.13	20.73612	21.24533	30.47898	
##### 6.451046	87.67167	129.5266	32805.8	25.19564	32683.67	20.73506	21.24438	30.48243	
##### 6.44906	87.63535	129.4745	32802.07	25.19202	32682.21	20.73399	21.24343	30.48588	
##### 6.447074	87.59902	129.4225	32798.35	25.18841	32680.74	20.73293	21.24248	30.48933	
##### 6.428983	87.32216	129.0256	32945.9	25.07067	32901.56	20.88614	21.38601	30.35285	
##### 6.427711	87.3002	128.9943	32951.13	25.06439	32910.7	20.89247	21.39196	30.34802	
##### 6.426439	87.27824	128.963	32956.36	25.05811	32919.85	20.8988	21.3979	30.34319	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.012542	-0.04056	0.542921	7.512952	-83.6957	77.22447	1017.609	31.769	
1.012546	-0.04016	0.543859	7.512918	-83.6926	77.20063	1017.609	31.7692	
1.012549	-0.03975	0.544797	7.512885	-83.6895	77.17678	1017.609	31.7694	
1.012546	-0.04166	0.540393	7.512309	-83.6459	76.87475	1017.644	31.77844	
1.012546	-0.04166	0.540381	7.512269	-83.6428	76.85407	1017.646	31.77899	
1.012547	-0.04167	0.540368	7.512229	-83.6398	76.8334	1017.648	31.77954	
1.012547	-0.04167	0.540356	7.512189	-83.6367	76.81274	1017.649	31.78009	
1.012695	-0.05418	0.511506	7.511804	-83.5832	76.52783	1017.604	31.77093	
1.012702	-0.05476	0.510179	7.511775	-83.5799	76.50893	1017.603	31.7707	
1.012709	-0.05533	0.508852	7.511746	-83.5767	76.49002	1017.602	31.77048	

Location Properties

BG-1LT

Location Name = Device Location

Report Properties

Start Time = 2023-03-02 11:22:03

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 4.951989	67.18221	100.9087	30876.26	25.41907	30631.08	19.30669	19.9102	32.38736	
##### 4.952002	67.17088	100.8933	30868.34	25.40978	30628.62	19.30489	19.9086	32.39564	
##### 4.952015	67.15955	100.878	30860.42	25.4005	30626.16	19.30309	19.907	32.40391	
##### 4.970609	67.16528	100.9286	30820.57	25.26538	30665.15	19.32877	19.93235	32.44591	
##### 4.971453	67.16112	100.9249	30815.69	25.25567	30665.95	19.32923	19.93287	32.45102	
##### 4.972297	67.15696	100.9212	30810.81	25.24596	30666.75	19.32968	19.93339	32.45614	
##### 4.973141	67.15281	100.9175	30805.93	25.23625	30667.55	19.33014	19.93391	32.46126	
##### 4.969041	67.02778	100.7543	30943.29	25.03895	30920.45	19.50365	20.0983	32.31725	
##### 4.969215	67.02163	100.7471	30948.27	25.02695	30932.45	19.51185	20.10609	32.31204	
##### 4.96939	67.01549	100.7399	30953.24	25.01496	30944.44	19.52006	20.11389	32.30682	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011411	0.022469	0.688311	7.07016	-59.2699	216.0845	1016.021	27.57969	
1.011412	0.024492	0.692978	7.071164	-59.323	216.3066	1016.019	27.58027	
1.011414	0.026515	0.697644	7.072167	-59.3762	216.5288	1016.017	27.58084	
1.011472	-0.02004	0.590255	7.084445	-60.0387	216.2537	1016.012	27.5797	
1.011475	-0.02135	0.587229	7.08539	-60.0893	216.3279	1016.011	27.57987	
1.011478	-0.02267	0.584202	7.086334	-60.1399	216.402	1016.01	27.58005	
1.011481	-0.02398	0.581176	7.087279	-60.1905	216.4761	1016.009	27.58022	
1.011667	-0.03288	0.560648	7.104503	-61.094	216.3004	1016.036	27.59761	
1.011677	-0.03406	0.557912	7.10557	-61.1504	216.2995	1016.037	27.59841	
1.011686	-0.03525	0.555176	7.106637	-61.2068	216.2986	1016.038	27.5992	

Location Properties

T1-4LT

Location Name = Device Location

Report Properties

Start Time = 2023-03-02 13:31:27

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.385127	79.08276	117.2454	32380.93	30.19251	29459.26	18.5226	19.14852	30.8824
#####	5.382596	79.02208	117.1609	32372.78	30.17419	29461.21	18.5239	19.14979	30.89014
#####	5.380066	78.9614	117.0763	32364.62	30.15588	29463.15	18.52521	19.15105	30.89788
#####	5.450565	79.35188	117.807	32356.11	29.84036	29618.13	18.63169	19.25179	30.90609
#####	5.452652	79.34545	117.8062	32352.6	29.8196	29625.61	18.63682	19.25665	30.90944
#####	5.454738	79.33902	117.8053	32349.09	29.79883	29633.09	18.64195	19.26151	30.91278
#####	5.456824	79.33259	117.8045	32345.57	29.77807	29640.57	18.64707	19.26637	30.91612
#####	5.457352	79.18024	117.6327	32513.89	29.35395	30018.09	18.90751	19.51176	30.75618
#####	5.458512	79.17721	117.6337	32521.15	29.32775	30038.47	18.92156	19.52501	30.74927
#####	5.459673	79.17417	117.6347	32528.42	29.30155	30058.85	18.93561	19.53825	30.74237



Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009366	-0.02355	0.582154	7.946155	-109.069	81.34234	1013.71	30.36	
1.009373	-0.02309	0.583222	7.947964	-109.162	81.33203	1013.709	30.36	
1.00938	-0.02263	0.58429	7.949773	-109.255	81.32172	1013.708	30.36	
1.009561	-0.02349	0.582292	7.958528	-109.684	81.1499	1013.702	30.36849	
1.009572	-0.02335	0.582617	7.959606	-109.739	81.13847	1013.701	30.36886	
1.009582	-0.02321	0.582942	7.960683	-109.793	81.12704	1013.701	30.36923	
1.009593	-0.02307	0.583267	7.961761	-109.848	81.1156	1013.7	30.3696	
1.009922	-0.03285	0.56071	7.970169	-110.171	80.94276	1013.655	30.37868	
1.009941	-0.0333	0.559679	7.970802	-110.199	80.93118	1013.653	30.37925	
1.00996	-0.03374	0.558649	7.971437	-110.226	80.91959	1013.651	30.37982	

Location Properties

T2-4LT

Location Name = Device Location

Report Properties

Start Time = 2023-03-02 13:43:22

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
#####	5.853609	81.70048	121.9945	31110.09	27.06272	29930.88	18.83493	19.45507	32.14391
#####	5.723317	79.77964	119.1428	31027.78	26.99804	29887.2	18.80422	19.42668	32.22919
#####	5.715172	79.65957	118.9645	31022.63	26.994	29884.47	18.8023	19.42491	32.23452
#####	5.707028	79.53949	118.7863	31017.49	26.98996	29881.74	18.80038	19.42313	32.23985
#####	5.666439	78.74903	117.6489	31010.16	26.91851	29914.02	18.82223	19.44411	32.24751
#####	5.661404	78.66634	117.5278	31007.79	26.91375	29914.35	18.82243	19.44433	32.24997
#####	5.656369	78.58366	117.4066	31005.42	26.90899	29914.68	18.82262	19.44454	32.25243
#####	5.651334	78.50098	117.2854	31003.04	26.90423	29915.01	18.82282	19.44476	32.25489
#####	5.621574	77.99327	116.5564	31150.59	26.66696	30189.59	19.0114	19.62323	32.10221
#####	5.618985	77.94847	116.4916	31156.88	26.65459	30202.53	19.02028	19.63165	32.09571

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.010576	-0.04441	0.534049	7.915339	-106.362	83.09042	1013.55	30.55	
1.010572	-0.02388	0.581409	7.920908	-106.637	82.32664	1013.55	30.55	
1.010572	-0.02259	0.58437	7.921256	-106.654	82.2789	1013.55	30.55	
1.010572	-0.02131	0.58733	7.921604	-106.671	82.23116	1013.55	30.55	
1.01061	-0.03177	0.563189	7.924238	-106.785	81.89293	1013.55	30.55	
1.010611	-0.03172	0.563307	7.924493	-106.797	81.859	1013.55	30.55	
1.010613	-0.03167	0.563425	7.924748	-106.809	81.82507	1013.55	30.55	
1.010614	-0.03162	0.563543	7.925003	-106.821	81.79114	1013.55	30.55	
1.010826	-0.02444	0.580115	7.927123	-106.856	81.35768	1013.523	30.55874	
1.010836	-0.02422	0.580614	7.927288	-106.861	81.32887	1013.522	30.55914	

Location Properties

T3-4LT

Location Name = Device Location

Report Properties

Start Time = 2023-03-02 13:57:08

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 6.280743	85.93396	128.6215	30644.34	25.85947	30149.41	18.97682	19.59711	32.63245	
##### 6.194632	84.70878	126.7961	30629.92	25.82676	30153.76	18.97954	19.59995	32.64782	
##### 6.189149	84.63078	126.6798	30629.01	25.82468	30154.04	18.97971	19.60012	32.64879	
##### 6.183667	84.55277	126.5636	30628.09	25.8226	30154.31	18.97989	19.60031	32.64977	
##### 6.178184	84.47477	126.4474	30627.17	25.82051	30154.59	18.98006	19.60048	32.65075	
##### 6.146517	83.93009	125.655	30641.29	25.78819	30186.85	19.00212	19.62145	32.6357	
##### 6.142921	83.87482	125.5735	30641.54	25.78593	30188.38	19.00316	19.62244	32.63543	
##### 6.139325	83.81953	125.4919	30641.79	25.78368	30189.9	19.00419	19.62343	32.63517	
##### 6.11483	83.44427	124.9452	30756.58	25.66608	30370.28	19.12816	19.74068	32.51345	
##### 6.112834	83.41298	124.8995	30762.25	25.6598	30379.46	19.13447	19.74665	32.50743	

Density (g/	Pressure (f	Depth (ft)	pH (pH) (2:	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.011037	-0.04693	0.528242	7.906774	-105.475	82.32294	1013.43	30.44	
1.011048	-0.05118	0.518419	7.899784	-105.076	81.26332	1013.43	30.44	
1.011049	-0.05145	0.517794	7.899339	-105.05	81.19585	1013.43	30.44	
1.01105	-0.05173	0.517169	7.898894	-105.025	81.1284	1013.43	30.44	
1.011051	-0.052	0.516543	7.898448	-104.999	81.06093	1013.43	30.44	
1.011076	-0.03036	0.566459	7.897482	-104.931	80.61845	1013.447	30.44	
1.011078	-0.02952	0.568389	7.89726	-104.917	80.57189	1013.448	30.44	
1.011079	-0.02868	0.570319	7.897038	-104.904	80.52533	1013.448	30.44	
1.011206	-0.04512	0.532406	7.895503	-104.782	80.0074	1013.432	30.44	
1.011213	-0.04554	0.531429	7.89539	-104.773	79.9716	1013.431	30.44	

Location Properties

T4-4L

Location Name = Device Location

Report Properties

Start Time = 2023-03-02 12:59:48

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

Date Time	RDO Conc	RDO Satur	Oxygen Pa	Actual Con	Temperatu	Specific Cc	Salinity (PS	Total Dissc	Resistivity
##### 5.837795	86.84164	128.6243	33732.61	30.8	30368.4	19.15518	19.73946	29.6449	
##### 5.92239	87.60587	129.8829	33642.68	30.43453	30478.99	19.23127	19.81134	29.72416	
##### 5.927638	87.65328	129.961	33637.09	30.41185	30485.85	19.23599	19.8158	29.72907	
##### 5.932886	87.70069	130.0391	33631.52	30.38918	30492.71	19.24071	19.82026	29.73399	
##### 5.938134	87.74811	130.1172	33625.94	30.36651	30499.57	19.24543	19.82472	29.73891	
##### 6.0376	88.55953	131.4775	33664.14	30.13271	30658.67	19.35552	19.92814	29.7052	
##### 6.044116	88.61464	131.5693	33663.43	30.11302	30668.45	19.36227	19.93449	29.70582	
##### 6.050633	88.66974	131.6611	33662.73	30.09333	30678.22	19.36903	19.94085	29.70644	
##### 6.057149	88.72485	131.7529	33662.02	30.07365	30688	19.37578	19.9472	29.70706	
##### 6.078877	88.99147	132.1731	33705.61	29.74153	30906.96	19.52721	20.08952	29.66866	

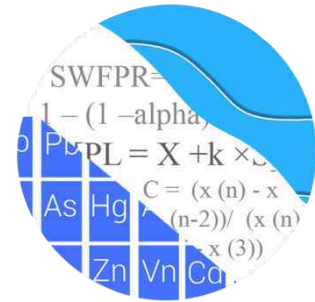
Density (g/	Pressure (f	Depth (ft)	pH (pH) (2	pH mV (m\	ORP (mV)	Barometri	Temperatu	Marked
1.009638	-0.06136	0.494946	7.307042	-73.5509	81.0215	1014.29	29.8	
1.009814	-0.04783	0.526149	7.318527	-74.1132	81.27089	1014.319	29.80981	
1.009825	-0.04699	0.528085	7.319239	-74.1481	81.28636	1014.321	29.81042	
1.009836	-0.04615	0.530021	7.319952	-74.183	81.30183	1014.323	29.81103	
1.009847	-0.04531	0.531957	7.320664	-74.2179	81.31731	1014.325	29.81163	
1.010005	-0.0568	0.505468	7.332874	-74.8205	81.39997	1014.302	29.81883	
1.010017	-0.05694	0.505141	7.333703	-74.8613	81.41008	1014.301	29.8194	
1.010028	-0.05708	0.504814	7.334532	-74.9021	81.42019	1014.301	29.81997	
1.010039	-0.05722	0.504487	7.335361	-74.9429	81.4303	1014.301	29.82054	
1.01026	-0.04238	0.538721	7.345372	-75.4685	81.45676	1014.275	29.82825	

# APPENDIX D

## STATISTICAL ANALYSES



## GROUNDWATER STATS CONSULTING



February 28, 2023

Resolute Environmental & Water Resources Consulting  
Attn: Mr. Stephen Wilson  
1003 Weatherstone Parkway, Ste. 320  
Woodstock, GA 30188

Re: Plant McManus Ash Pond (AP)  
Statistical Analysis – September 2022 Sample Event

Dear Mr. Wilson,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the September 2022 sample event for Georgia Power Company's Plant McManus Ash Pond. 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 (EPD) for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

The groundwater monitoring well network consists of the following:

- **Upgradient Wells:** MCM-01, MCM-02, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, and MCM-20
- **Downgradient Wells:** MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- **Assessment Well:** DPZ-2

Note that upgradient wells MCM-18, MCM-19, and MCM-20 were installed late in 2019. Assessment well DPZ-2 is evaluated with confidence intervals for Appendix IV constituents when four or more samples are available. A minimum of 8 samples have been collected at each upgradient and downgradient well and data from these wells are included in this analysis.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager for Groundwater Stats Consulting.

The statistical analysis provided in this report was performed according to the background screening conducted by MacStat Consulting in April 2019. Interwell prediction limits, combined with a 1-of-2 resample plan, for Appendix III parameters were recommended as the primary statistical method.

The CCR program monitors the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient and assessment well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. However, varying reporting limits were identified for antimony, cobalt, cadmium, chromium, fluoride, and lead. Therefore, historical reporting limits were substituted for all non-detects for these constituents to maintain more conservative limits. Note that the reporting limit for cobalt decreased from 0.02 mg/L to 0.0025 mg/L and the reporting limit for lithium decreased from 0.05 mg/L to 0.025 mg/L during this event.

Note that Resolute Environmental & Water Resources Consulting had the September 2022 lithium observations at MCM-06 and MCM-20 re-analyzed with a lower detection limit and the re-analyzed values are evaluated in this report.

Some constituents exist in higher concentrations in upgradient wells compared to those reported in one or more downgradient wells which is reflective of natural variation in groundwater quality. In other cases, concentrations exist higher in downgradient wells relative to observations reported upgradient of the facility, as seen in the majority of the Appendix III parameters. This may be reflective of natural variation or a result of practices at the facility. A separate study and hydrogeological investigation would be required to fully understand the geochemical conditions and expected groundwater quality for the

region. That study and assessment is beyond the scope of services provided by Groundwater Stats Consulting.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs.

As a result of the previous background screening, the following non-detect values were flagged due to elevated reporting limits: 0.025 mg/L for lead in upgradient well MCM-19; and 0.1 mg/L, 0.15 mg/L and 0.3 mg/L for lithium in upgradient well MCM-18. Additionally, a high value for combined radium 226 + 228 in upgradient well MCM-20 was flagged as an outlier as well as a high value for fluoride in downgradient well MCM-06. This step results in construction of background limits that are conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

Based on the 2019 screening, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the 2019 screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. 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:**

Based on the evaluation for state and federal regulatory requirements, the following methods were selected for Appendix III and IV constituents:

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Groundwater Protection Standards (GWPS) for each detected Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) 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 following approaches are used for handling non-detects (USEPA, 2009):

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

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting 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.

### **Statistical Analysis of Appendix III Parameters – September 2022**

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. The most recent value for fluoride at upgradient well MCM-20 (4.3 mg/L) was flagged in order

to maintain statistical limits that are more conservative (i.e., lower) from a regulatory perspective. 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).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2022 sample 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 and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MCM-17
- Calcium: MCM-07
- pH: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Trends identified in upgradient wells are an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of trend test results follows this letter including a list of statistically significant trends. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: MCM-07
- pH: MCM-18 (upgradient)

Decreasing:

- Calcium: MCM-02, MCM-18, and MCM-20 (all upgradient)
- pH: MCM-07, MCM14, and MCM-20 (upgradient)

## **Statistical Analysis of Appendix IV Parameters – September 2022**

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and assessment well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. The most recent values for cadmium at upgradient well MCM-19 (0.0083 mg/L) and fluoride at upgradient well MCM-20 (4.3 mg/L) were flagged in order to maintain more conservative (i.e., lower) limits. A summary of all flagged outliers follows this report (Figure C).

### Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2022 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

### Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 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 G).

### Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient and assessment well using all available data through September 2022. Note that confidence intervals require a minimum of 4 samples and, in some cases, assessment well DPZ-2 had insufficient samples at this time.

The Sanitas software was used to calculate both the tolerance limits and the confidence intervals. Confidence intervals were compared to the GWPS prepared as described above (Figure H). 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 and no exceedances were identified.

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. Summaries of the confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: MCM-06
- Lithium: DPZ-02 and MCM-06

### Trend Test Evaluation – Appendix IV

The Sen's Slope/Mann Kendall trend test was conducted to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A

summary of the Appendix IV trend test results follows this letter and no statistically significant trends were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Plant McManus Ash Pond. 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



# 100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 12/8/2022 4:24 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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Antimony (mg/L)

DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12

Beryllium (mg/L)

DPZ-02, MCM-06

Cadmium (mg/L)

DPZ-02, MCM-05, MCM-06, MCM-12, MCM-14

Chromium (mg/L)

DPZ-02

Cobalt (mg/L)

DPZ-02

Lead (mg/L)

DPZ-02, MCM-04

Mercury (mg/L)

DPZ-02, MCM-12

Molybdenum (mg/L)

DPZ-02, MCM-12, MCM-14

Selenium (mg/L)

DPZ-02

Thallium (mg/L)

DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

# Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 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)	MCM-17	1.3	n/a	9/21/2022	1.8	Yes	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	169	n/a	9/21/2022	190	Yes	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/21/2022	6.93	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/20/2022	7.29	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/21/2022	6.27	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/21/2022	6.3	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/21/2022	6.61	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/21/2022	6.72	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/8/2022, 4:15 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)	MCM-04	1.3	n/a	9/21/2022	0.19J	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/21/2022	0.61	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/20/2022	1.1	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/21/2022	1	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>MCM-17</b>	<b>1.3</b>	<b>n/a</b>	<b>9/21/2022</b>	<b>1.8</b>	<b>Yes</b>	<b>122</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>8.197</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001314</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-04	169	n/a	9/21/2022	7.8	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	9/21/2022	28	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	9/20/2022	47	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>169</b>	<b>n/a</b>	<b>9/21/2022</b>	<b>190</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.813</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001296</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-12	169	n/a	9/21/2022	4.7	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	9/21/2022	74	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	9/21/2022	110	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	9/21/2022	47	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	9/21/2022	1100	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	9/20/2022	2800	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	9/21/2022	6400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	9/21/2022	400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	1.5	n/a	9/21/2022	0.1ND	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	1.5	n/a	9/21/2022	0.48	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	1.5	n/a	9/20/2022	1.1J	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	1.5	n/a	9/21/2022	0.18	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	1.5	n/a	9/21/2022	1.3	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	1.5	n/a	9/21/2022	0.12	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	1.5	n/a	9/21/2022	0.78	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/21/2022	5.34	No	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-05</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.93</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>9/20/2022</b>	<b>7.29</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.27</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-12</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.3</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.61</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-17</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.72</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-04	1140	n/a	9/21/2022	52	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	9/21/2022	100	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	9/20/2022	320	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	9/21/2022	660	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	9/21/2022	0.5ND	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	9/21/2022	270	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1140	n/a	9/21/2022	330	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	9/21/2022	180	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	9/21/2022	2100	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	9/20/2022	3900	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	9/21/2022	9400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	9/21/2022	1300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	9/21/2022	7400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	9/21/2022	6200	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2

# Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MCM-02 (bg)	-0.203	-59	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-07	22.69	65	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-18 (bg)	-12.22	-69	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-20 (bg)	-34.13	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.05609	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.1164	-118	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.09133	51	43	Yes	13	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.0637	-49	-43	Yes	13	0	n/a	n/a	0.01	NP

# Trend Tests - Prediction Limit Exceedances - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.004651	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.01071	-19	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.00389	26	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.007093	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004349	-25	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04944	-27	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01812	-39	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.007503	3	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01501	-13	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.2923	-18	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-02 (bg)</b>	<b>-0.203</b>	<b>-59</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>22.69</b>	<b>65</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-11 (bg)	-1.082	-32	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	0	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	0.02199	7	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-12.22</b>	<b>-69</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-19 (bg)	-30.04	-42	-48	No	14	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-20 (bg)</b>	<b>-34.13</b>	<b>-65</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-01 (bg)	-0.004468	-4	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02274	65	68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.0466	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.05477	-28	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>-0.05609</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-11 (bg)	-0.04429	-60	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.0342	-51	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>-0.1164</b>	<b>-118</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-15 (bg)	-0.04201	-34	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.001213	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.09481	-64	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-18 (bg)</b>	<b>0.09133</b>	<b>51</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-19 (bg)	0	2	43	No	13	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-20 (bg)</b>	<b>-0.0637</b>	<b>-49</b>	<b>-43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Upper Tolerance Limit Summary Table

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/22/2022, 1:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	107	n/a	n/a	95.33	n/a	n/a	0.004135	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a	126	n/a	n/a	14.29	n/a	n/a	0.00156	NP Inter(normality)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.021	n/a	n/a	n/a	n/a	122	n/a	n/a	27.05	n/a	n/a	0.001915	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0043	n/a	n/a	n/a	n/a	100	n/a	n/a	92	n/a	n/a	0.005921	NP Inter(NDs)
Chromium (mg/L)	n/a	0.011	n/a	n/a	n/a	n/a	107	n/a	n/a	50.47	n/a	n/a	0.004135	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.036	n/a	n/a	n/a	n/a	122	n/a	n/a	72.95	n/a	n/a	0.001915	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	55.8	n/a	n/a	n/a	n/a	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	n/a	1.5	n/a	n/a	n/a	n/a	126	n/a	n/a	50	n/a	n/a	0.00156	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	122	n/a	n/a	83.61	n/a	n/a	0.001915	NP Inter(NDs)
Lithium (mg/L)	n/a	0.029	n/a	n/a	n/a	n/a	119	n/a	n/a	55.46	n/a	n/a	0.002234	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	101	n/a	n/a	95.05	n/a	n/a	0.005625	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	106	n/a	n/a	90.57	n/a	n/a	0.004352	NP Inter(NDs)
Selenium (mg/L)	n/a	0.15	n/a	n/a	n/a	n/a	123	n/a	n/a	61.79	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	106	n/a	n/a	92.45	n/a	n/a	0.004352	NP Inter(NDs)

<b>MCMANUS ASH POND GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.419	0.2642	0.032	Yes	20	0.3416	0.1364	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09839	0.06881	0.04	Yes	7	0.07907	0.02995	14.29	None	x^4	0.01	Param.
Lithium (mg/L)	MCM-06	0.09647	0.0557	0.04	Yes	17	0.07608	0.03253	0	None	No	0.01	Param.



# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	15	0.002719	0.0007228	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	14	0.002814	0.0006949	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	14	0.002841	0.0005933	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.1	0.015	0.032	No	6	0.03267	0.0331	16.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	MCM-04	0.007099	0.002848	0.032	No	17	0.005459	0.004106	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01548	0.004029	0.032	No	19	0.01484	0.01165	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.419</b>	<b>0.2642</b>	<b>0.032</b>	<b>Yes</b>	<b>20</b>	<b>0.3416</b>	<b>0.1364</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	MCM-07	0.01945	0.01054	0.032	No	19	0.01559	0.007958	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-12	0.0063	0.001	0.032	No	16	0.004331	0.002576	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0067	0.0014	0.032	No	16	0.004863	0.002306	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	17	0.004518	0.002169	47.06	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09686	0.05994	2	No	5	0.0784	0.01101	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07989	0.03217	2	No	16	0.06769	0.07126	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.04117	0.01055	2	No	17	0.04808	0.1054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-06	0.1371	0.06635	2	No	17	0.1017	0.05647	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	16	0.1589	0.09263	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1257	0.09678	2	No	16	0.1113	0.02224	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1267	0.05881	2	No	16	0.09276	0.05218	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1326	0.0663	2	No	16	0.09943	0.05093	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0025	0.00021	0.021	No	16	0.001129	0.001106	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.0025	0.000054	0.021	No	17	0.002356	0.0005932	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0025	0.00012	0.021	No	16	0.002048	0.0009713	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001226	0.0005293	0.021	No	16	0.0009425	0.0006676	12.5	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0025	0.0001	0.021	No	16	0.001753	0.001145	68.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	16	0.0009081	0.0008755	37.5	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	13	0.002341	0.0005741	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	13	0.002323	0.0006379	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	13	0.002315	0.0006676	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.00085	0.1	No	14	0.005025	0.004479	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	14	0.005503	0.004676	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	15	0.00701	0.00438	66.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.002	0.1	No	14	0.005064	0.003825	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	14	0.007221	0.002319	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	14	0.005198	0.00434	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01225	0.007354	0.1	No	14	0.01063	0.003069	28.57	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	17	0.004518	0.002316	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	17	0.002333	0.0005536	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	17	0.002276	0.0006399	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	16	0.002276	0.0006298	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00053	0.036	No	16	0.001762	0.0009856	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	16	0.002381	0.000475	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.00052	0.036	No	16	0.001992	0.0009129	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.978	5.787	55.8	No	4	7.883	0.9229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.506	2.866	55.8	No	16	4.316	2.278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	55.8	No	17	2.718	2.163	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.58	1.83	55.8	No	16	5.191	3.243	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.295	5.783	55.8	No	17	7.539	2.802	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.079	2.126	55.8	No	16	2.603	0.7328	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.329	3.467	55.8	No	17	5.398	3.082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	55.8	No	17	5.269	3.011	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	5	0.102	0.004472	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	17	0.1331	0.1219	52.94	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.4419	0.2033	4	No	19	0.4058	0.2315	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MCM-06	0.3	0.1	4	No	17	0.244	0.2623	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.42	0.1	4	No	18	0.2748	0.2796	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-12	1.28	0.987	4	No	17	1.1	0.3205	5.882	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	18	0.218	0.1922	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	18	0.5285	0.4963	38.89	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	17	0.004718	0.001164	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	17	0.004713	0.001184	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	16	0.004086	0.001965	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.0001	0.015	No	16	0.003518	0.002276	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	16	0.004692	0.00123	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00027	0.015	No	16	0.003809	0.00213	75	None	No	0.01	NP (NDs)
<b>Lithium (mg/L)</b>	<b>DPZ-02</b>	<b>0.09839</b>	<b>0.06881</b>	<b>0.04</b>	<b>Yes</b>	<b>7</b>	<b>0.07907</b>	<b>0.02995</b>	<b>14.29</b>	<b>None</b>	<b>x^4</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-04	0.025	0.0015	0.04	No	16	0.01347	0.01192	50	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	17	0.05995	0.1317	0	None	No	0.01	NP (normality)
<b>Lithium (mg/L)</b>	<b>MCM-06</b>	<b>0.09647</b>	<b>0.0557</b>	<b>0.04</b>	<b>Yes</b>	<b>17</b>	<b>0.07608</b>	<b>0.03253</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-07	0.04934	0.02023	0.04	No	17	0.04114	0.0352	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0102	0.04	No	16	0.01369	0.005744	18.75	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04813	0.02964	0.04	No	17	0.03614	0.01761	5.882	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02516	0.01509	0.04	No	16	0.02013	0.007746	6.25	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	13	0.0002392	0.0001414	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	13	0.0001878	0.00004382	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	14	0.0001971	0.00001069	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	13	0.0002362	0.0001304	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	13	0.0002354	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	13	0.0002212	0.0001337	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	14	0.009296	0.002633	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0099	0.1	No	14	0.008718	0.003238	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	15	0.007307	0.003952	66.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.00095	0.1	No	14	0.009354	0.002419	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	14	0.009421	0.002165	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.15	No	16	0.00425	0.001681	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.15	No	17	0.004359	0.001203	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.15	No	17	0.004353	0.001779	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.0023	0.15	No	16	0.004175	0.001255	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	16	0.003637	0.001615	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0019	0.15	No	16	0.004144	0.001456	62.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.0021	0.15	No	16	0.004262	0.001976	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.001	0.000076	0.002	No	15	0.0009384	0.0002386	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.001	0.00014	0.002	No	14	0.0009386	0.0002298	92.86	None	No	0.01	NP (NDs)

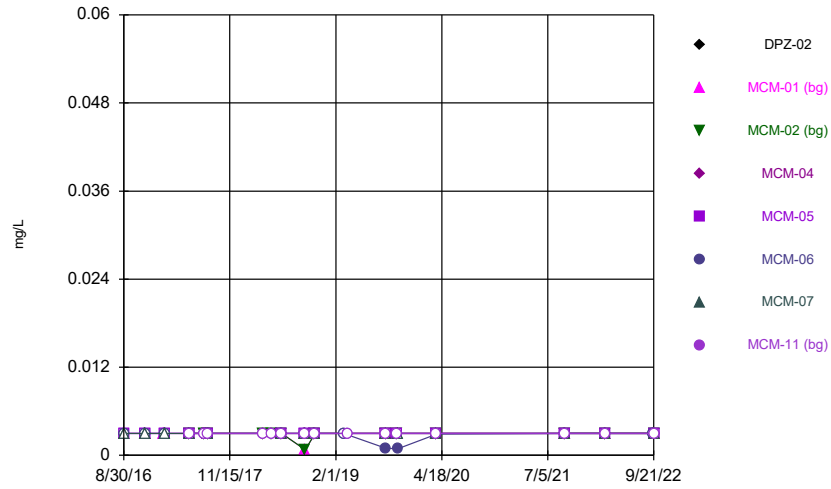
# Appendix IV Trend Tests - All Results (No Significant)

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/22/2022, 2:04 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	0.0008066	39	63	No	17	5.882	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	3	63	No	17	41.18	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	0.02021	26	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	-0.00233	-49	-68	No	18	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.0001728	23	58	No	16	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-7	-58	No	16	50	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.001407	-37	-48	No	14	14.29	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	-0.0005489	-7	-48	No	14	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.003763	-9	-18	No	7	14.29	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	3	58	No	16	93.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	0.008391	38	63	No	17	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	13	58	No	16	43.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	17	58	No	16	56.25	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0.007745	22	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0007766	-13	-48	No	14	7.143	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP

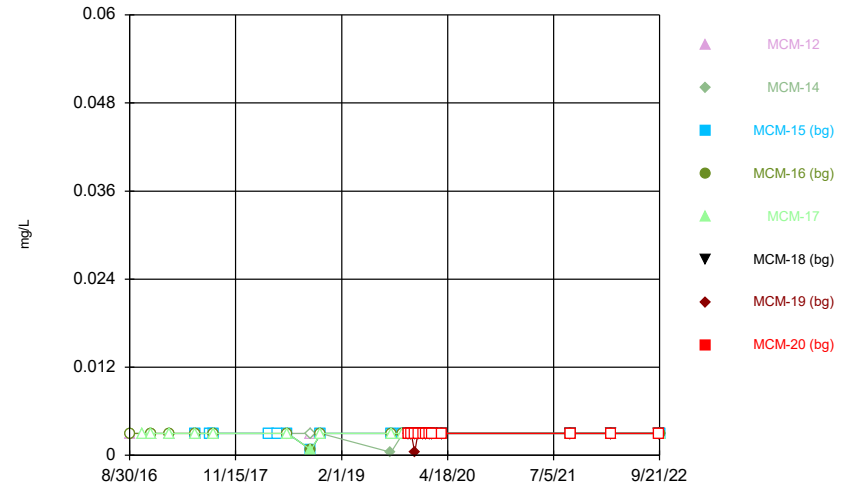
FIGURE A.

Time Series



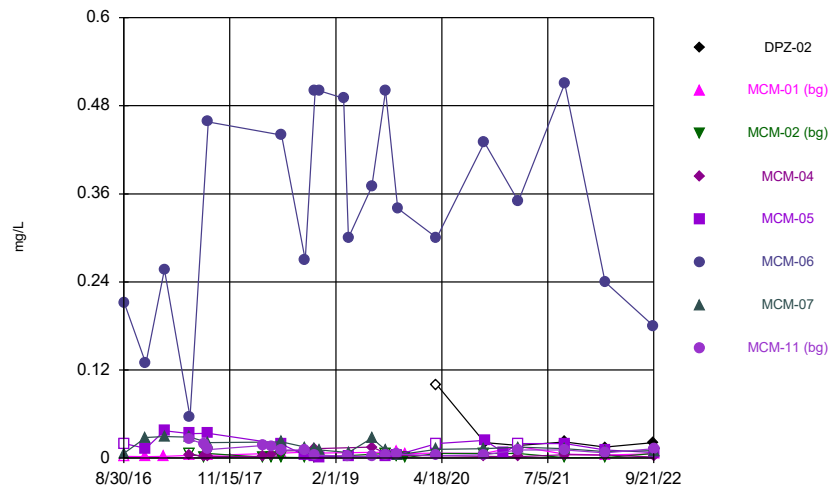
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



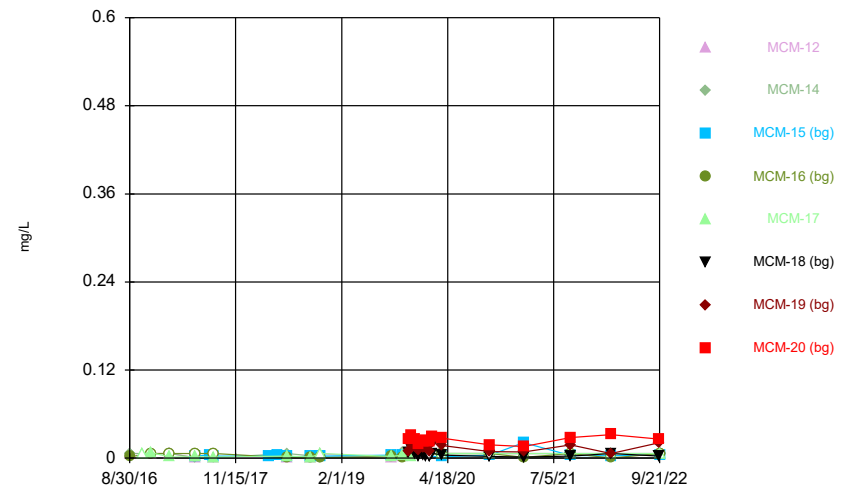
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Time Series



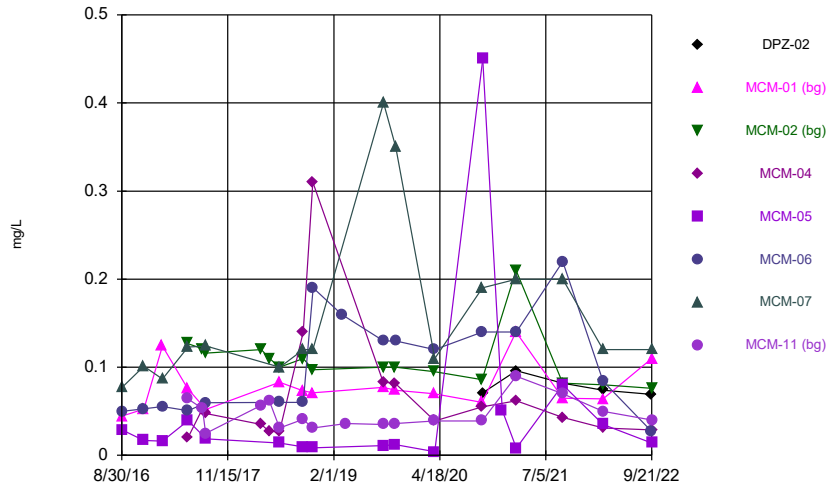
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



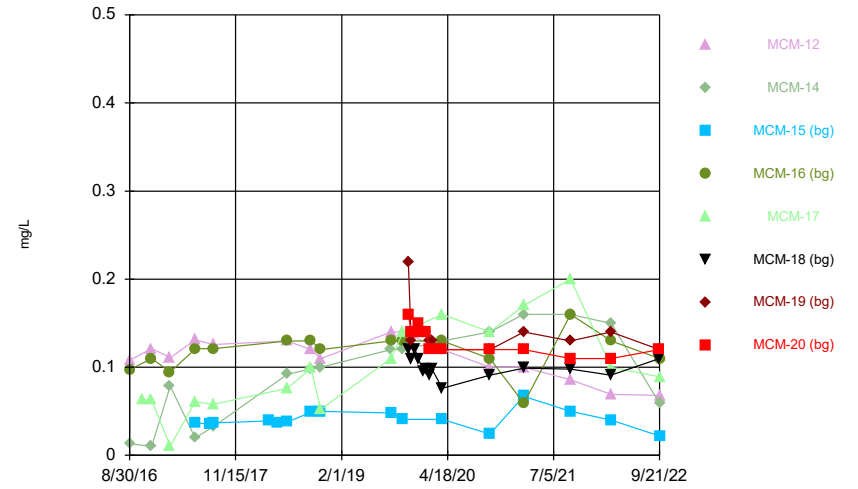
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### Time Series



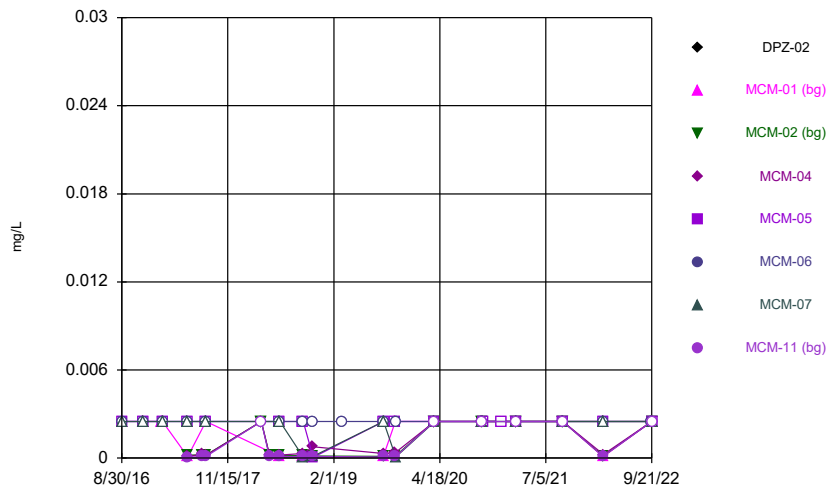
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



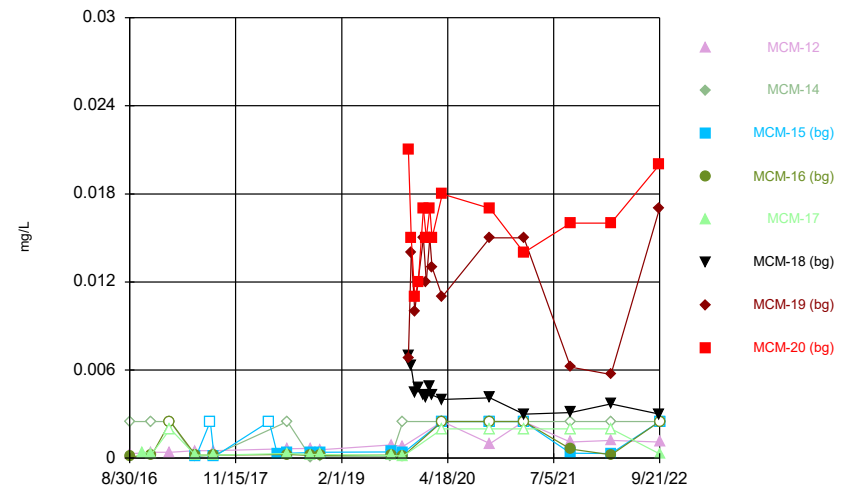
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### Time Series



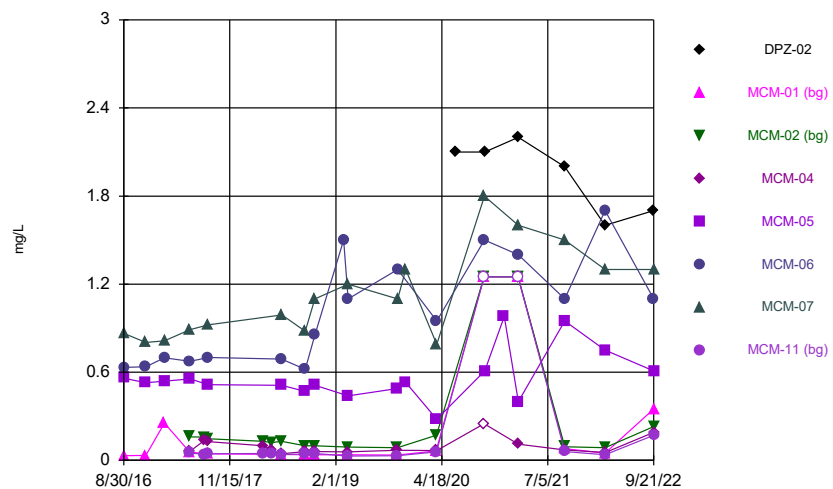
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### Time Series



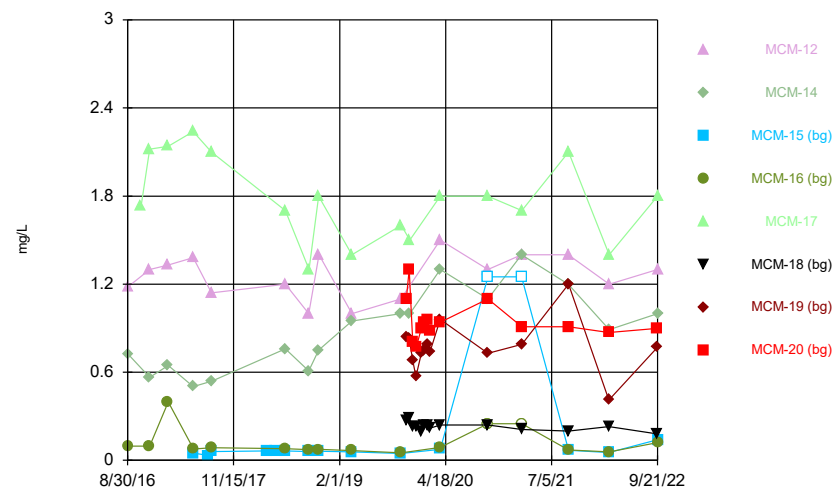
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



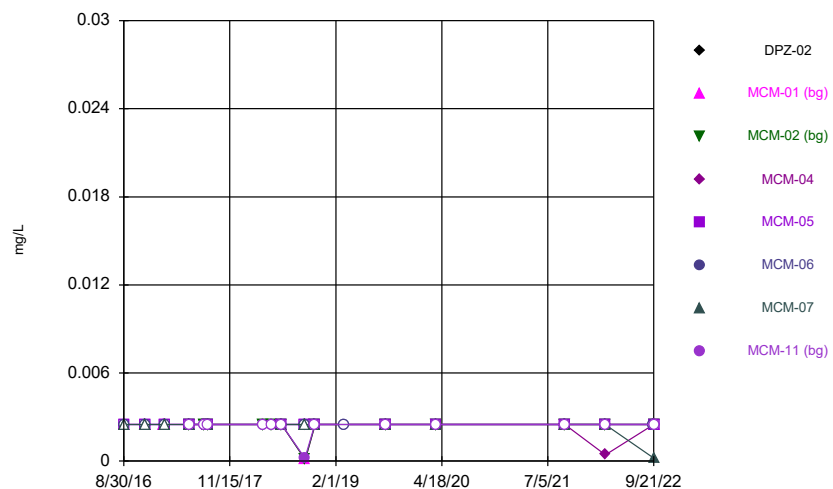
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



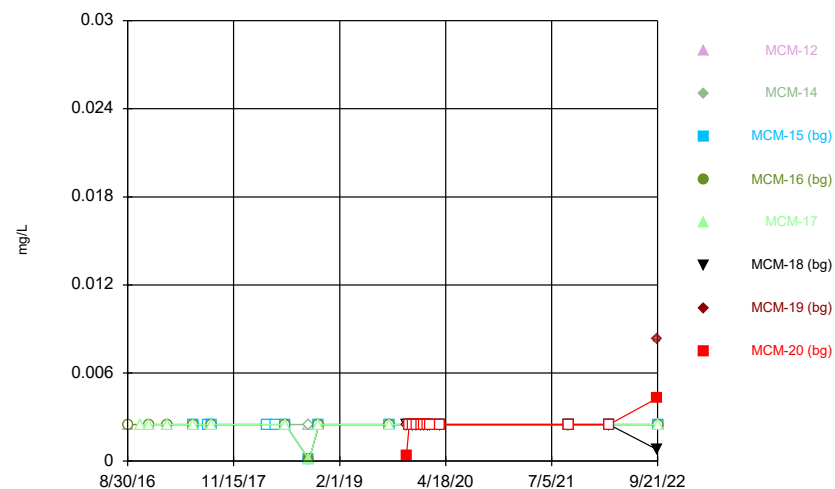
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



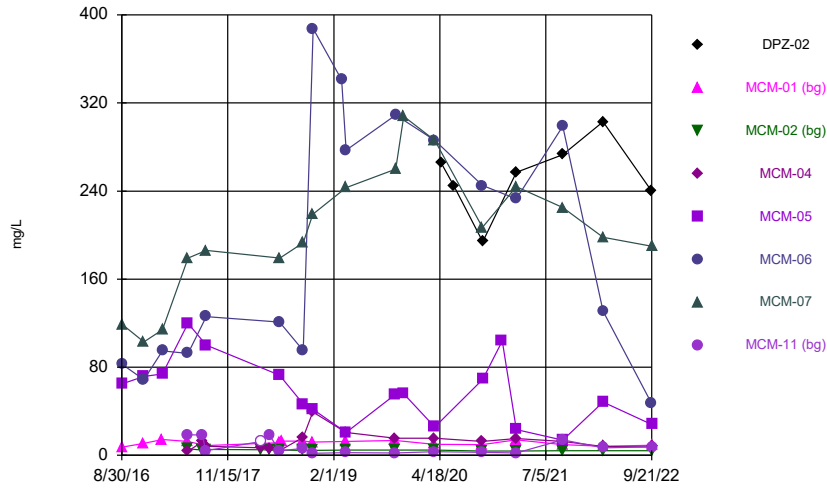
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



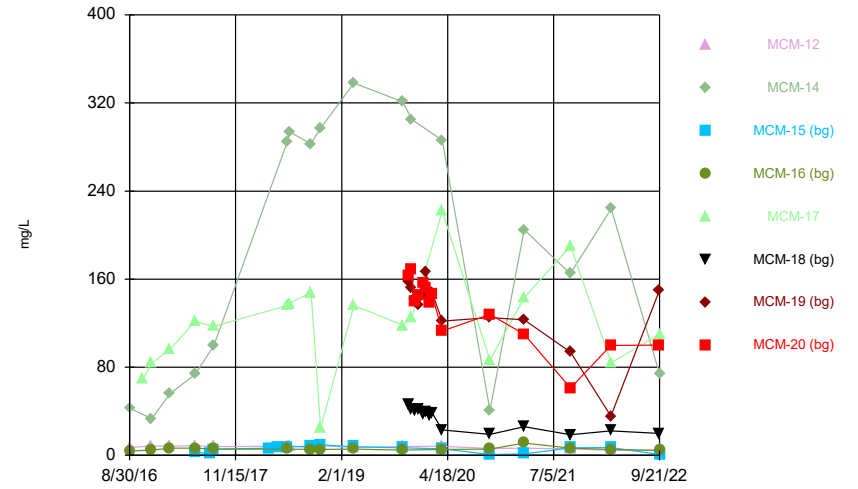
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Time Series



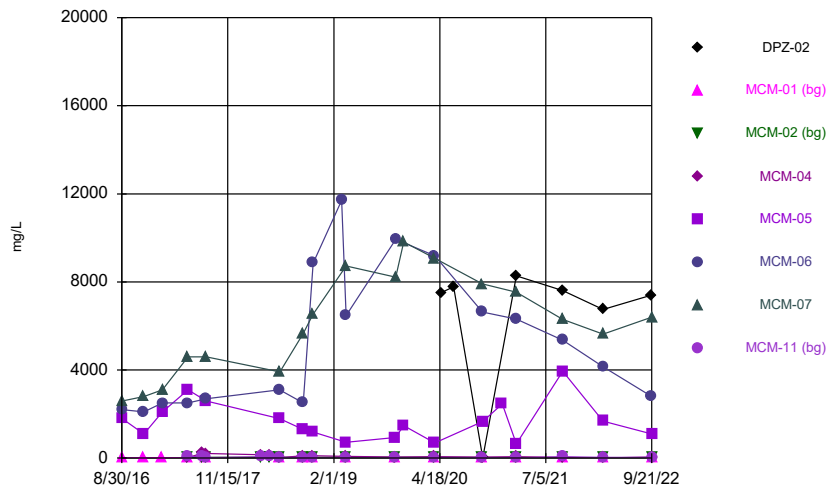
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Time Series



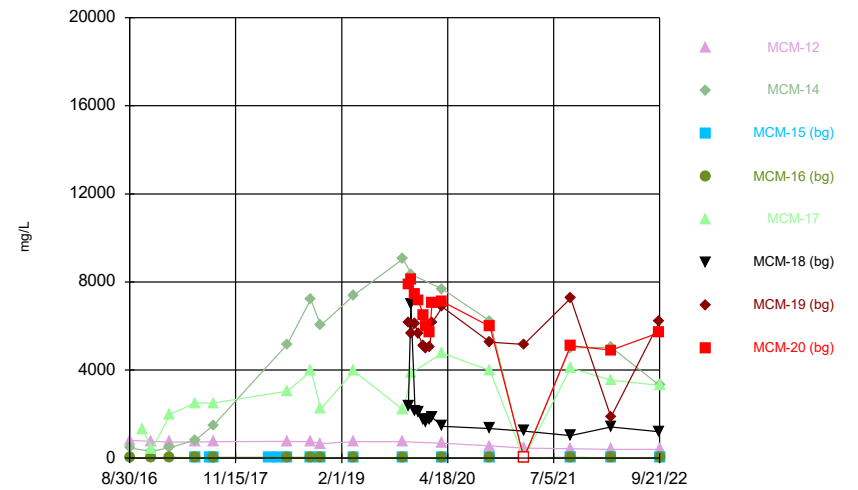
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Chloride Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

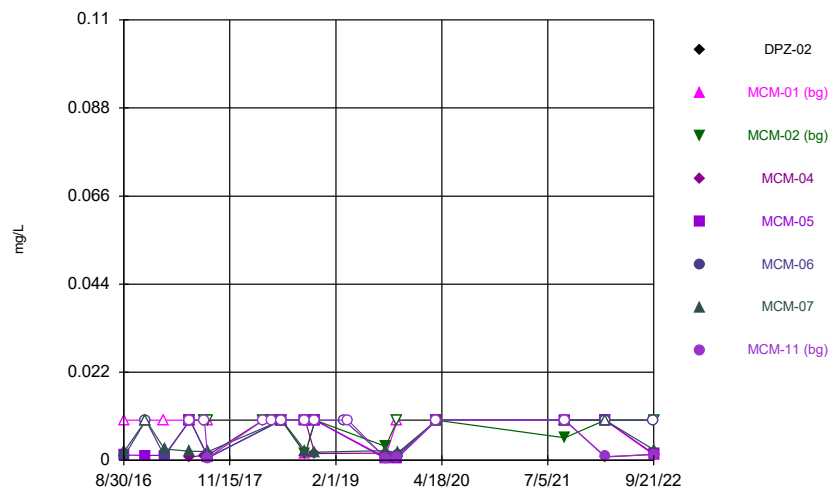
Time Series



Constituent: Chloride Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

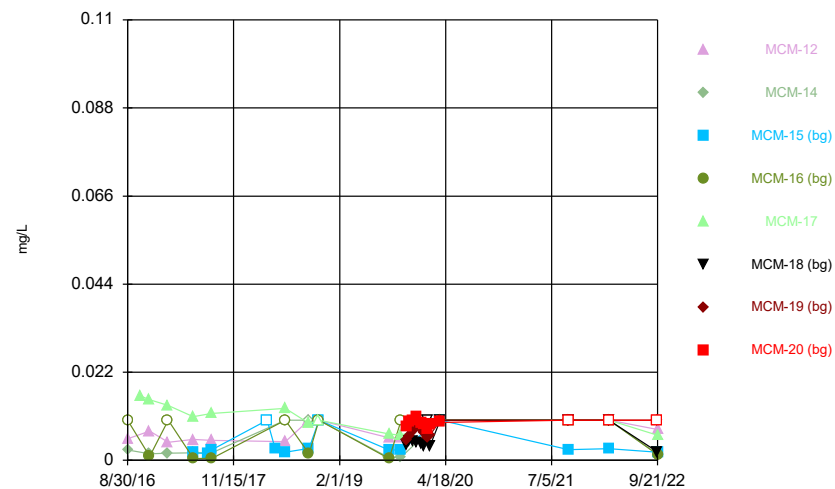


### Time Series



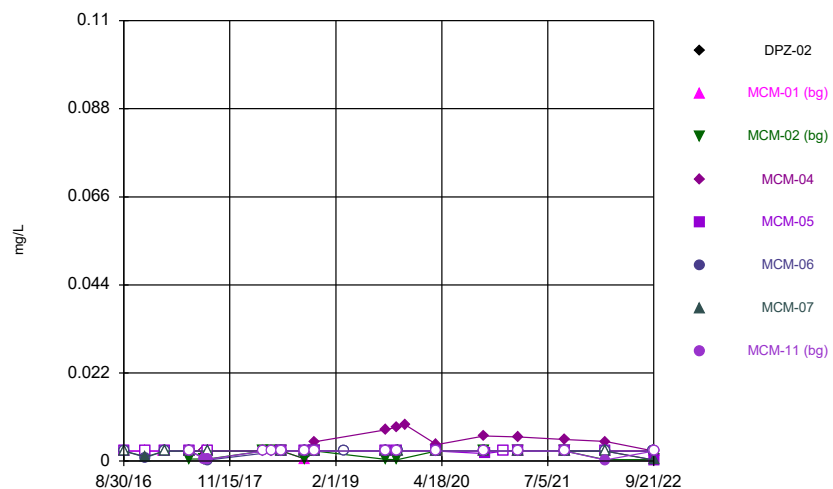
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



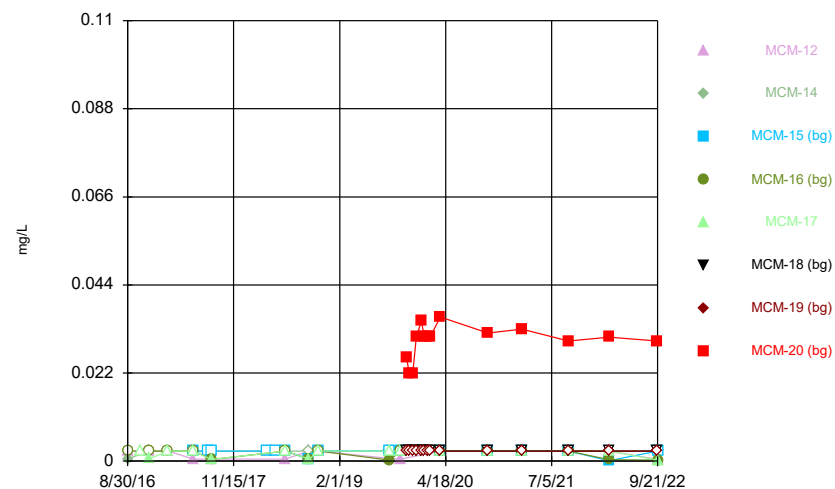
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



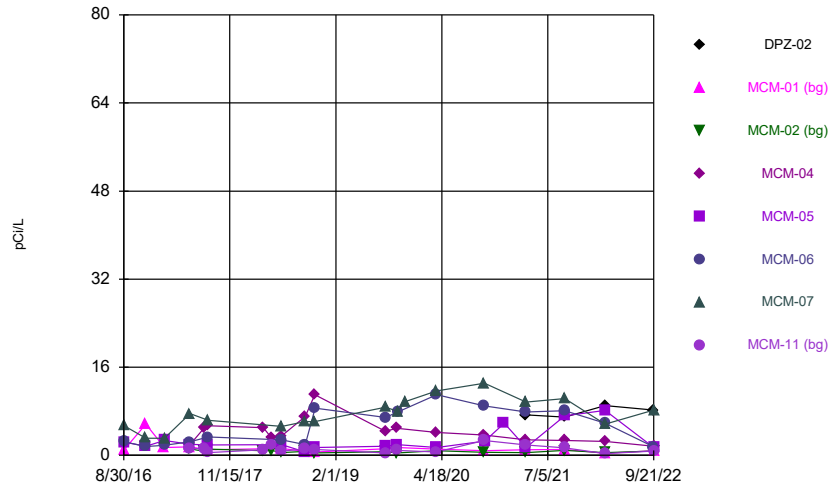
Constituent: Cobalt Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



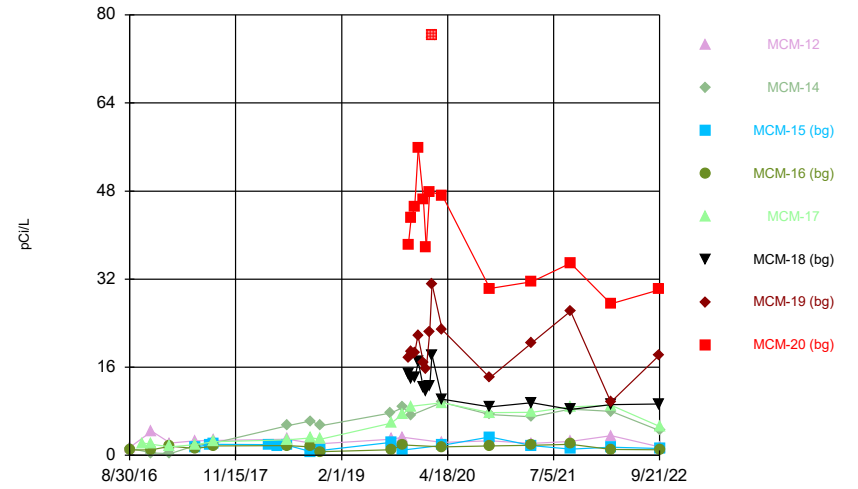
Constituent: Cobalt Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



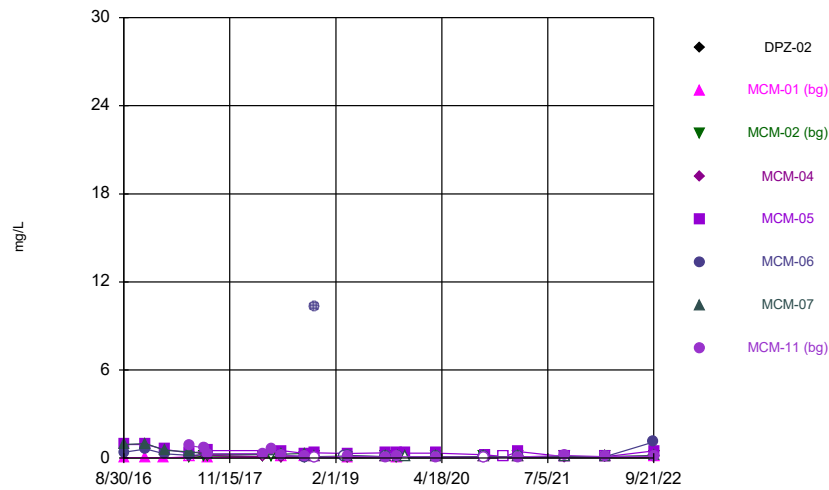
Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:03 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



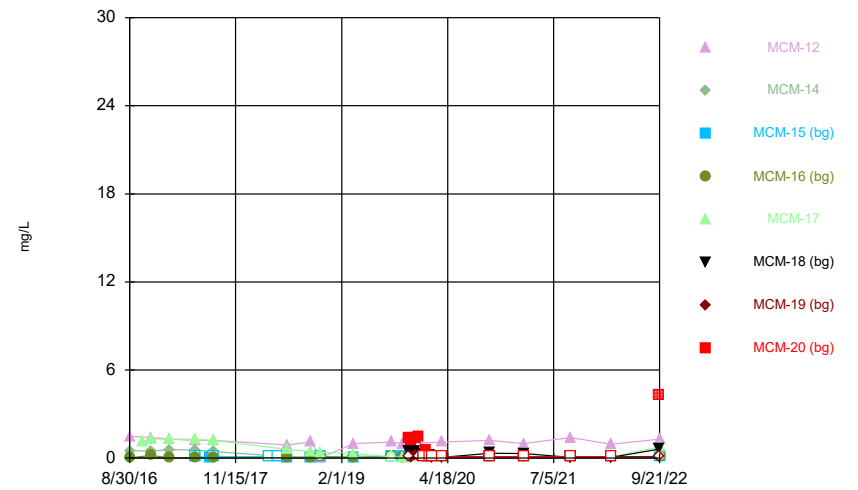
Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:03 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



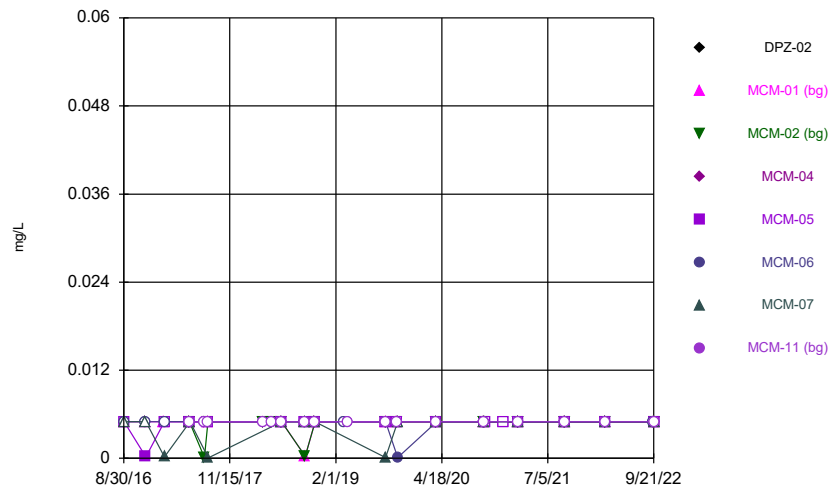
Constituent: Fluoride Analysis Run 12/22/2022 12:03 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



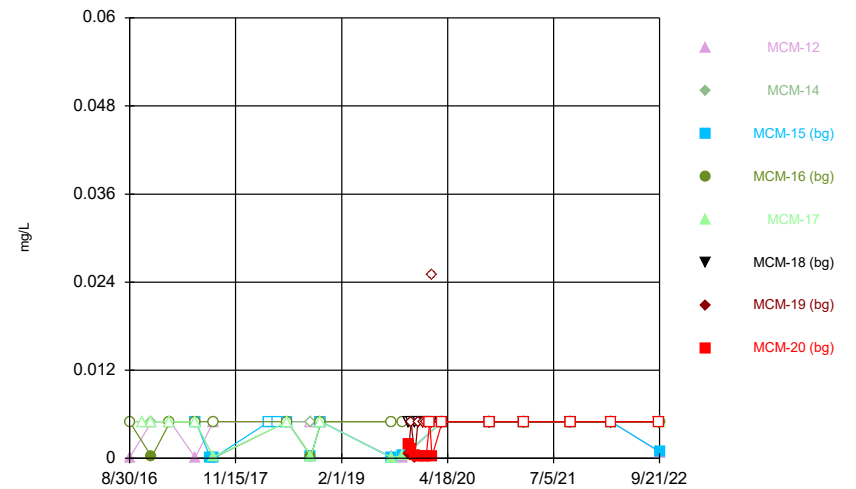
Constituent: Fluoride Analysis Run 12/22/2022 12:03 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



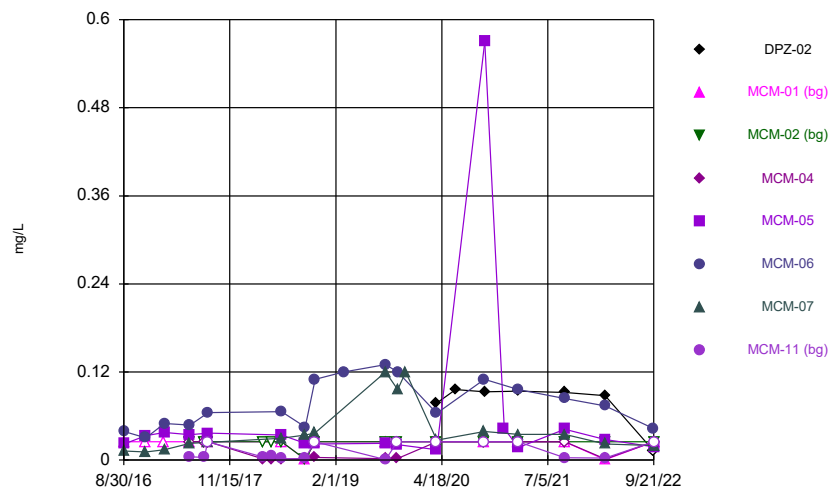
Constituent: Lead Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



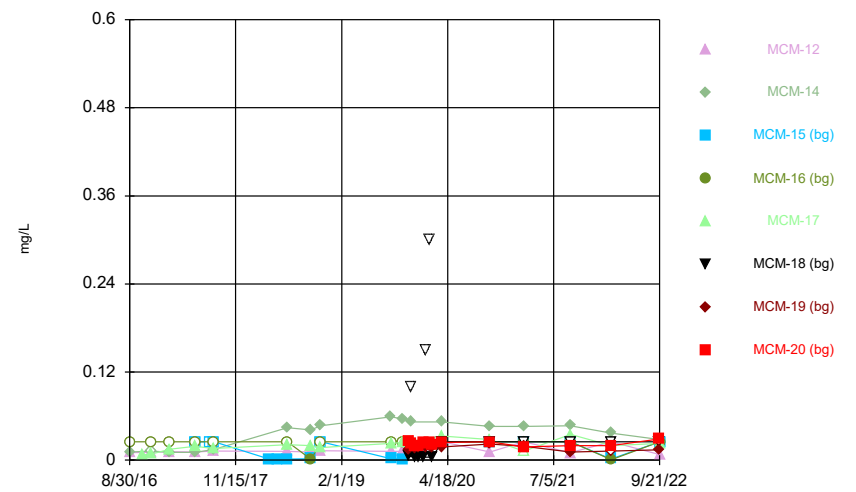
Constituent: Lead Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



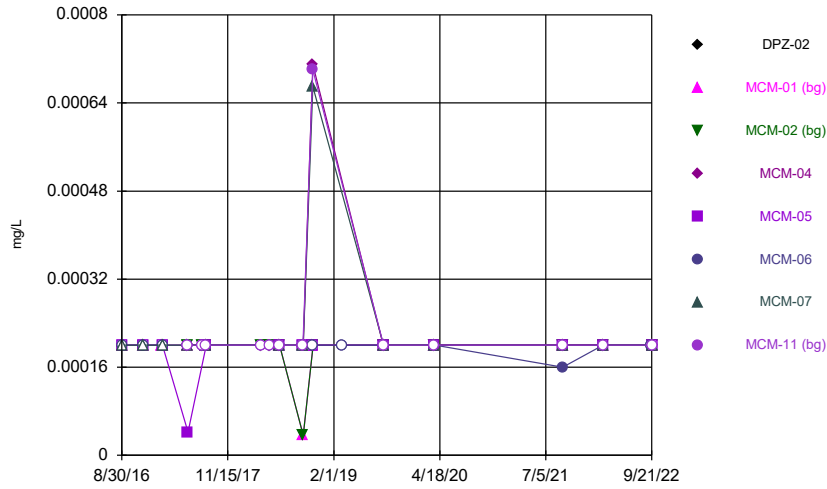
Constituent: Lithium Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



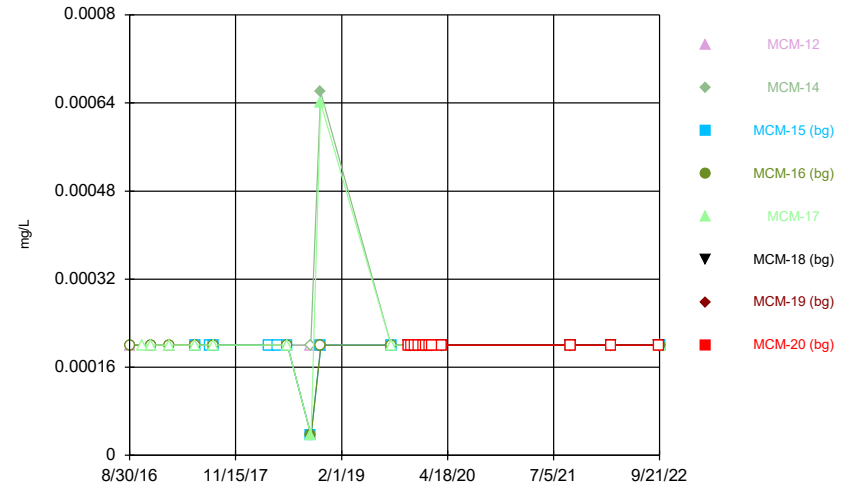
Constituent: Lithium Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



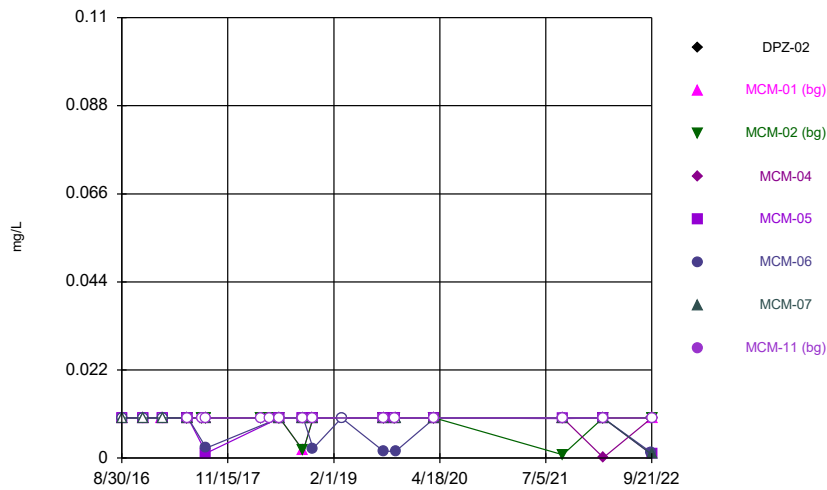
Constituent: Mercury Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



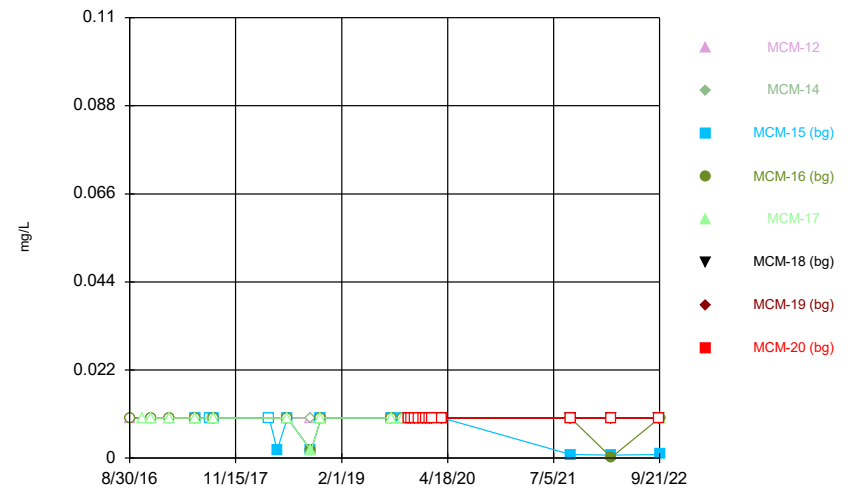
Constituent: Mercury Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



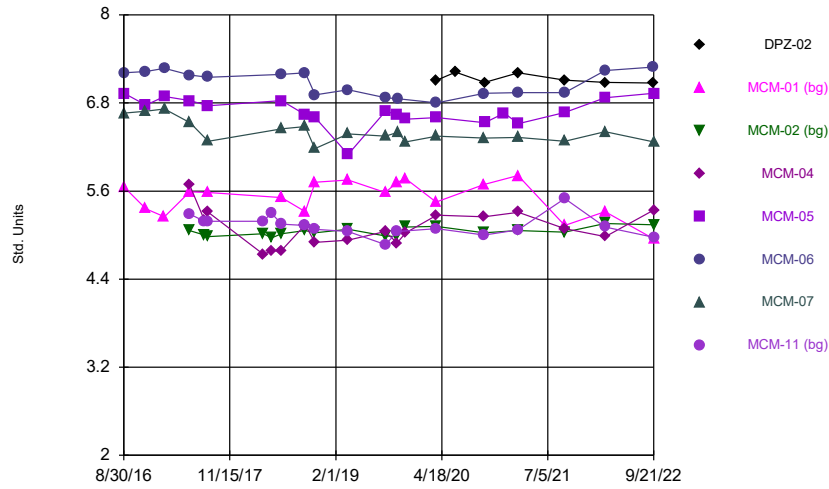
Constituent: Molybdenum Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



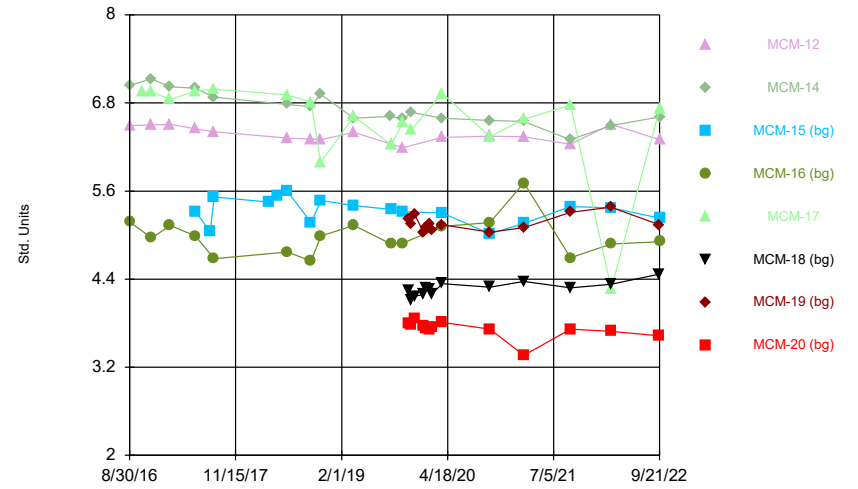
Constituent: Molybdenum Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



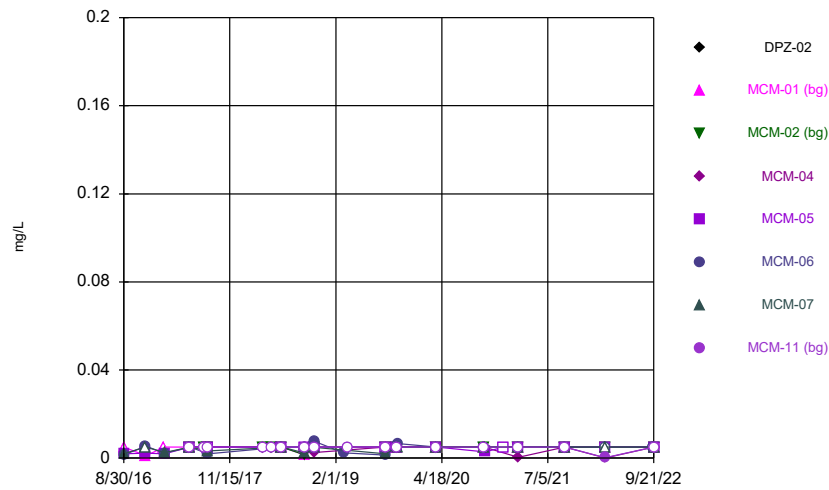
Constituent: pH, field Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



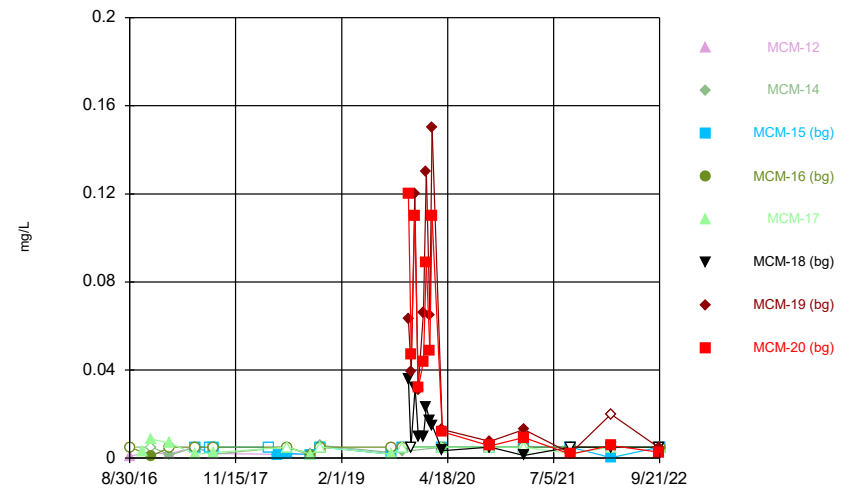
Constituent: pH, field Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



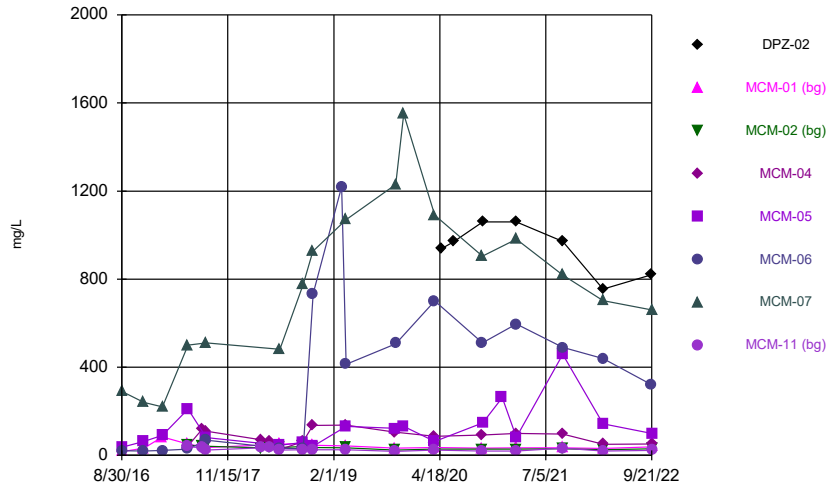
Constituent: Selenium Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



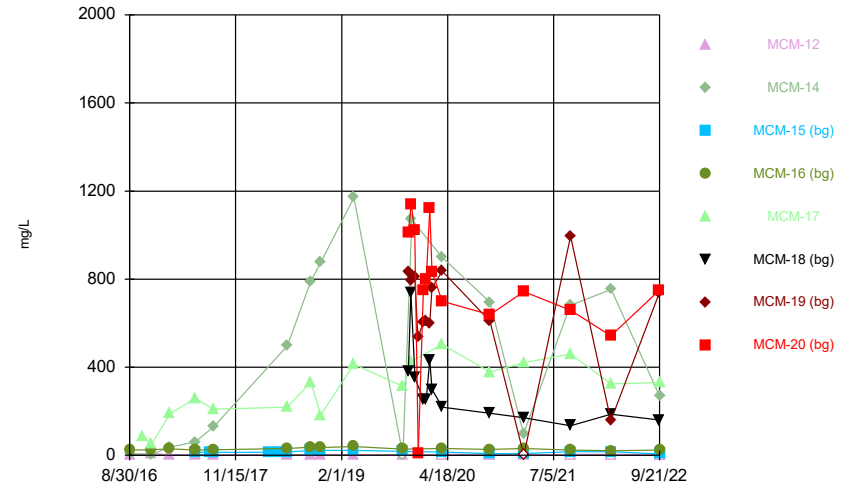
Constituent: Selenium Analysis Run 12/22/2022 12:03 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



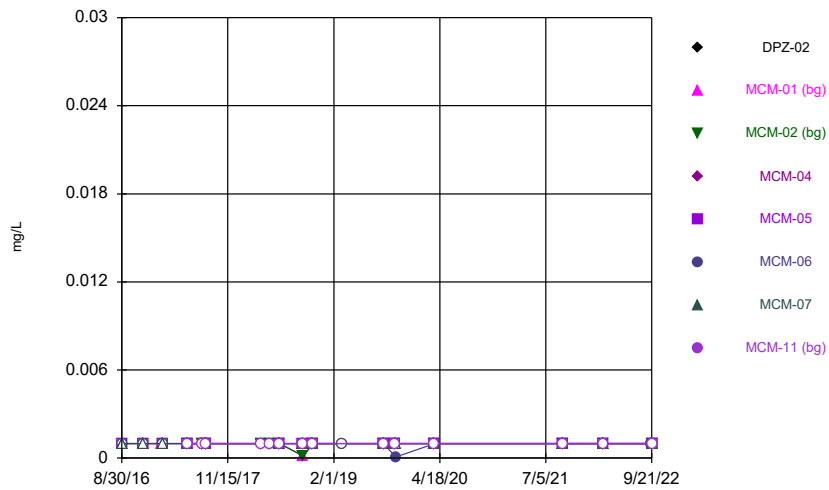
Constituent: Sulfate Analysis Run 12/22/2022 12:04 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



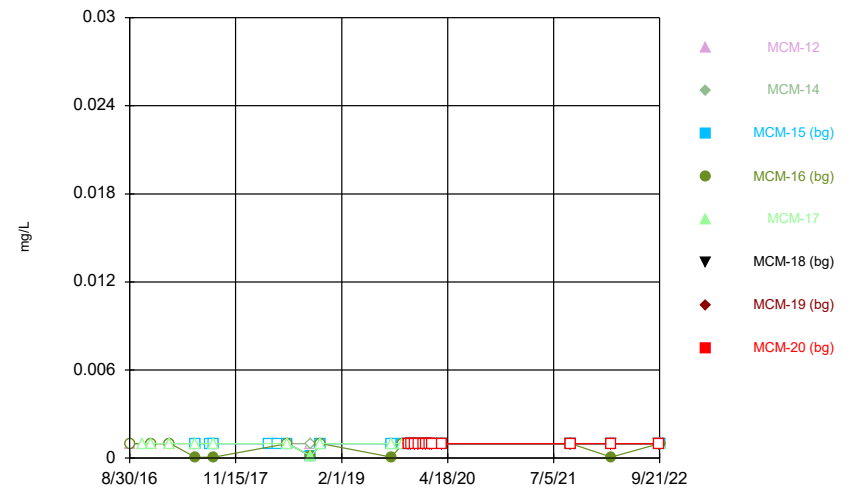
Constituent: Sulfate Analysis Run 12/22/2022 12:04 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



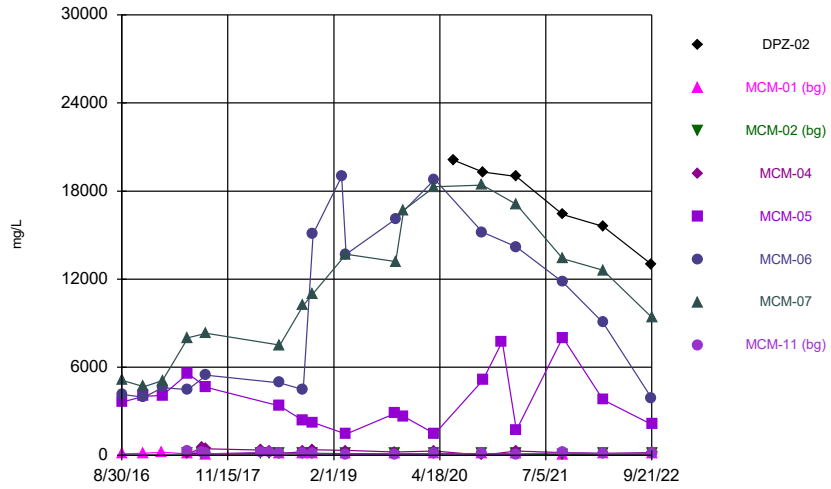
Constituent: Thallium Analysis Run 12/22/2022 12:04 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



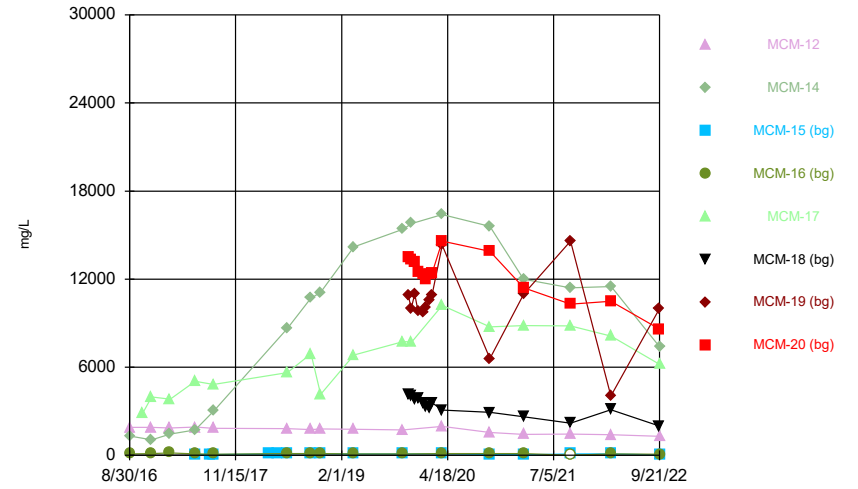
Constituent: Thallium Analysis Run 12/22/2022 12:04 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:04 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:04 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.003						
8/31/2016					<0.003	<0.003	<0.003	
11/30/2016		<0.003			<0.003	<0.003	<0.003	
2/15/2017		<0.003						
2/16/2017					<0.003	<0.003	<0.003	
5/31/2017			<0.003					<0.003
6/1/2017		<0.003		<0.003				
6/2/2017					<0.003	<0.003	<0.003	
8/2/2017			<0.003	<0.003				<0.003
8/15/2017								<0.003
8/16/2017		<0.003	<0.003					
8/17/2017				<0.003	<0.003	<0.003	<0.003	
4/4/2018				<0.003				<0.003
4/5/2018			<0.003					
5/8/2018				<0.003				<0.003
5/9/2018			<0.003					
6/19/2018		<0.003	<0.003					<0.003
6/20/2018				<0.003	<0.003	<0.003		
6/21/2018							<0.003	
9/25/2018								<0.003
9/26/2018		0.00078	0.00078					
9/27/2018				<0.003	<0.003	<0.003	<0.003	
11/6/2018				<0.003			<0.003	<0.003
11/7/2018		<0.003	<0.003		<0.003	<0.003		
3/6/2019						<0.003		
3/25/2019								<0.003
8/27/2019		<0.003		<0.003				
8/28/2019			<0.003		<0.003	0.00098 (J)	<0.003	<0.003
10/15/2019				<0.003				
10/16/2019		<0.003	<0.003		<0.003			<0.003
10/17/2019						0.0009 (J)	<0.003	
3/26/2020		<0.003						
3/27/2020			<0.003					<0.003
3/28/2020				<0.003	<0.003	0.0029 (J)	<0.003	
9/14/2021	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022	<0.003				<0.003	<0.003		
3/2/2022		<0.003	<0.003				<0.003	<0.003
3/3/2022				<0.003				
9/20/2022	<0.003					<0.003		
9/21/2022		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003



# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.003	<0.003		<0.003				
10/25/2016					<0.003			
11/30/2016	<0.003	<0.003		<0.003	<0.003			
2/15/2017	<0.003	<0.003		<0.003	<0.003			
5/31/2017	<0.003	<0.003			<0.003			
6/1/2017				<0.003				
6/2/2017			<0.003					
8/2/2017			<0.003					
8/15/2017	<0.003				<0.003			
8/16/2017		<0.003						
8/17/2017			<0.003	<0.003				
4/4/2018			<0.003					
5/8/2018			<0.003					
6/19/2018	<0.003	<0.003	<0.003		<0.003			
6/20/2018				<0.003				
9/25/2018	<0.003	<0.003						
9/26/2018			0.00078	0.00078	0.00078			
11/6/2018		<0.003			<0.003			
11/7/2018	<0.003		<0.003	<0.003				
8/26/2019		0.0004 (J)						
8/27/2019	<0.003		<0.003	<0.003	<0.003			
10/15/2019	<0.003	<0.003	<0.003					
10/16/2019				<0.003	<0.003			
11/7/2019						<0.003	<0.003	<0.003
11/18/2019						<0.003		
11/19/2019							<0.003	<0.003
12/4/2019							0.00041 (J)	<0.003
12/5/2019						<0.003		
12/17/2019							<0.003	
12/18/2019						<0.003		<0.003
1/8/2020							<0.003	<0.003
1/9/2020						<0.003		
1/21/2020						<0.003	<0.003	<0.003
2/4/2020						<0.003	<0.003	<0.003
2/13/2020						<0.003	<0.003	<0.003
3/27/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/13/2021	<0.003	<0.003						
9/14/2021			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022							<0.003	<0.003
3/2/2022			<0.003			<0.003		
3/3/2022	<0.003	<0.003		<0.003	<0.003			
9/20/2022						<0.003	<0.003	<0.003
9/21/2022	<0.003	<0.003	<0.003	<0.003	<0.003			

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.02	0.212	0.0066	
11/30/2016		0.0018 (J)			0.0132	0.129	0.0281	
2/15/2017		0.0022 (J)						
2/16/2017					0.0372	0.257	0.0295	
5/31/2017			<0.0063					0.0259
6/1/2017		0.0036 (J)		0.004 (J)				
6/2/2017					0.0335	0.0559	0.0286	
8/2/2017			0.0011 (J)	0.0028 (J)				0.0188
8/15/2017								0.0117
8/16/2017		0.0038 (J)	<0.0063					
8/17/2017				0.0021 (J)	0.0336	0.458	0.0211	
4/4/2018				0.0023 (J)				0.017
4/5/2018			0.00098 (J)					
5/8/2018				0.0048 (J)				0.016
5/9/2018			0.0014 (J)					
6/19/2018		0.0069	0.0011 (J)					0.011
6/20/2018				0.0099	0.019	0.44		
6/21/2018							0.022 (J)	
9/25/2018								0.011
9/26/2018		0.0081	0.00057					
9/27/2018				0.01	0.0035 (J)	0.27	0.015	
11/6/2018				0.013			0.012	0.0043 (J)
11/7/2018		0.0069	0.00059 (J)		0.002 (J)	0.5		
11/27/2018					0.0016 (J)	0.5	0.011	
3/6/2019						0.49		
3/25/2019								0.0029 (J)
3/26/2019					0.0018 (J)	0.3	0.0078	
7/2/2019				0.015 (J)		0.37	0.027	0.0024 (J)
8/27/2019		0.0079		0.0072				
8/28/2019			<0.0063		0.0019 (J)	0.5	0.011	0.005 (J)
10/15/2019				0.0038 (J)				
10/16/2019		0.01	0.003 (J)		0.0047 (J)			0.0054
10/17/2019						0.34	0.0046 (J)	
11/19/2019			0.00057 (J)					
11/20/2019		0.0064						
3/26/2020		0.0069						
3/27/2020			<0.0063					0.0034 (J)
3/28/2020	<0.1			0.0034 (J)	<0.02	0.3	0.012	
10/12/2020								0.0047 (J)
10/13/2020		0.0061	<0.0063	0.0022 (J)				
10/14/2020						0.43	0.013	
10/15/2020	0.021				0.024			
1/4/2021					0.0072			
3/3/2021		0.016 (J)	<0.0063					0.011 (J)
3/4/2021	0.017 (J)			0.0018 (J)	<0.02	0.35	0.015 (J)	
9/14/2021	0.022	0.0055	0.00067 (J)	0.0047 (J)	0.02 (J)	0.51	0.013 (J)	0.011
3/1/2022	0.015 (J)				0.011 (J)	0.24		
3/2/2022		0.0043	0.00077 (J)				0.009 (J)	0.0071
3/3/2022				0.0041				
9/20/2022	0.021					0.18		
9/21/2022		0.0057 (J)	<0.0063	0.0017 (J)	0.0077		0.01	0.013

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0063	<0.0063		0.0018 (J)				
10/25/2016					<0.0063			
11/30/2016	<0.0063	<0.0063		<0.0063	0.0072			
2/15/2017	<0.0063	<0.0063		<0.0063	0.0017 (J)			
5/31/2017	0.0007 (J)	0.0008 (J)			0.0018 (J)			
6/1/2017				<0.0063				
6/2/2017			0.0026 (J)					
8/2/2017			0.0047 (J)					
8/15/2017	0.0006 (J)				0.0015 (J)			
8/16/2017		0.0007 (J)						
8/17/2017			0.0028 (J)	<0.0063				
4/4/2018			0.0029 (J)					
5/8/2018			0.0048 (J)					
6/19/2018	0.001 (J)	0.0062 (J)	0.0019 (J)		0.0029 (J)			
6/20/2018				0.00058 (J)				
9/25/2018	0.0011 (J)	0.0031 (J)						
9/26/2018			0.0023 (J)	0.00057	0.0015 (J)			
11/6/2018		0.0014 (J)			<0.0063			
11/7/2018	0.0057		0.0028	0.00057				
8/26/2019		0.0022 (J)						
8/27/2019	0.0011 (J)		0.0041 (J)	0.0019 (J)	0.0024 (J)			
10/15/2019	0.0024 (J)	0.0067	0.0038 (J)					
10/16/2019				0.001 (J)	0.0043 (J)			
11/7/2019						0.0067	0.0094 (J)	0.026
11/18/2019						0.012 (J)		
11/19/2019							0.019 (J)	0.031 (J)
11/21/2019					0.0031 (J)			
12/4/2019							0.016	0.026
12/5/2019						0.0055		
12/17/2019							0.011 (J)	
12/18/2019						0.0031 (J)		0.019 (J)
1/8/2020							0.015 (J)	0.022 (J)
1/9/2020						0.0034 (J)		
1/21/2020						0.0031 (J)	0.015 (J)	0.024 (J)
2/4/2020						<0.005	0.0092 (J)	0.022 (J)
2/13/2020						0.0066	0.021 (J)	0.029
3/27/2020	<0.0063	<0.0063	0.0018 (J)	<0.0063	<0.0063	0.0043 (J)	0.017	0.027
10/12/2020	<0.0063					<0.005		
10/13/2020		<0.0063	0.0042 (J)	<0.0063	<0.0063		0.0089	0.018
3/2/2021	<0.0063	<0.0063	0.021 (J)					
3/3/2021				0.0012 (J)	<0.0063	0.0014 (J)	0.0086 (J)	0.016 (J)
9/13/2021	<0.0063	<0.0063						
9/14/2021			0.0035 (J)	<0.0063	<0.0063	0.0029 (J)	0.018 (J)	0.028
3/1/2022							0.0061 (J)	0.032
3/2/2022			0.0032			0.0064 (J)		
3/3/2022	<0.0063	<0.0063		0.00024 (J)	<0.0063			
9/20/2022						0.0026 (J)	0.021	0.026
9/21/2022	<0.0063	<0.0063	0.0044 (J)	<0.0063	<0.0063			

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0443						
8/31/2016					0.0289	0.0498	0.0771	
11/30/2016		0.0524			0.0168	0.0528	0.101	
2/15/2017		0.124						
2/16/2017					0.016	0.0555	0.0865	
5/31/2017			0.127					0.0646
6/1/2017		0.0757		0.0195				
6/2/2017					0.0393 (J)	0.0508	0.123	
8/2/2017			0.121	0.053				0.0533
8/15/2017								0.0247
8/16/2017		0.0522	0.116					
8/17/2017				0.0475	0.0188	0.0596	0.124	
4/4/2018				0.035				0.057
4/5/2018			0.12					
5/8/2018				0.027				0.062
5/9/2018			0.11					
6/19/2018		0.083	0.1					0.031
6/20/2018				0.027	0.014	0.06		
6/21/2018							0.1	
9/25/2018								0.041
9/26/2018		0.073	0.11					
9/27/2018				0.14	0.0097 (J)	0.06	0.12	
11/6/2018				0.31			0.12	0.031
11/7/2018		0.071	0.097		0.0085 (J)	0.19		
3/6/2019						0.16		
3/25/2019								0.036
8/27/2019		0.077		0.083				
8/28/2019			0.1		0.011	0.13	0.4	0.035
10/15/2019				0.082				
10/16/2019		0.074	0.1		0.012			0.036
10/17/2019						0.13	0.35	
3/26/2020		0.07						
3/27/2020			0.095					0.039
3/28/2020				0.039	0.0041 (J)	0.12	0.11	
10/12/2020								0.039
10/13/2020		0.06	0.086	0.055				
10/14/2020						0.14	0.19	
10/15/2020	0.071				0.45			
1/4/2021					0.051			
3/3/2021		0.14	0.21					0.09
3/4/2021	0.096			0.062	0.0082 (J)	0.14	0.2	
9/14/2021	0.082	0.065	0.082	0.043	0.08	0.22	0.2	0.07
3/1/2022	0.074				0.035	0.084		
3/2/2022		0.064	0.08				0.12	0.05
3/3/2022				0.031				
9/20/2022	0.069					0.027		
9/21/2022		0.11	0.076	0.029	0.014		0.12	0.04

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.108	0.0131		0.0973				
10/25/2016					0.063			
11/30/2016	0.121	0.0105		0.11	0.0628			
2/15/2017	0.111	0.0786		0.0945	0.0102			
5/31/2017	0.131	0.0199			0.061			
6/1/2017				0.121				
6/2/2017			0.0368 (J)					
8/2/2017			0.0355					
8/15/2017	0.126				0.0579			
8/16/2017		0.033						
8/17/2017			0.037	0.121				
4/4/2018			0.039					
5/8/2018			0.037					
6/19/2018	0.13	0.092	0.038		0.076			
6/20/2018				0.13				
9/25/2018	0.12	0.098						
9/26/2018			0.049	0.13	0.099			
11/6/2018		0.1			0.052			
11/7/2018	0.11		0.05	0.12				
8/26/2019		0.12						
8/27/2019	0.14		0.048	0.13	0.11			
10/15/2019	0.14	0.12	0.041					
10/16/2019				0.13	0.14			
11/7/2019						0.12	0.22	0.16
11/18/2019						0.11		
11/19/2019							0.13	0.14
12/4/2019							0.14	0.14
12/5/2019						0.12		
12/17/2019							0.14	
12/18/2019						0.11		0.15
1/8/2020							0.14	0.14
1/9/2020						0.096		
1/21/2020						0.098	0.14	0.14
2/4/2020						0.091	0.13	0.12
2/13/2020						0.098	0.13	0.12
3/27/2020	0.12	0.13	0.041	0.13	0.16	0.076	0.12	0.12
10/12/2020	0.1					0.091		
10/13/2020		0.14	0.024	0.11	0.14		0.12	0.12
3/2/2021	0.1	0.16	0.067					
3/3/2021				0.059	0.17	0.099	0.14	0.12
9/13/2021	0.086	0.16						
9/14/2021			0.05	0.16	0.2 (M1)	0.098	0.13	0.11
3/1/2022							0.14	0.11
3/2/2022			0.04			0.091		
3/3/2022	0.069	0.15		0.13	0.1			
9/20/2022						0.11	0.12	0.12
9/21/2022	0.068	0.059	0.022	0.11	0.089			

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	<0.0025	<0.0025	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			0.0002 (J)					7E-05 (J)
6/1/2017		9E-05 (J)		0.0001 (J)				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			0.0002 (J)	0.0003 (J)				0.0001 (J)
8/15/2017								9E-05 (J)
8/16/2017		<0.0025	0.0002 (J)					
8/17/2017				0.0002 (J)	<0.0025	<0.0025	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				0.00025 (J)				0.0001 (J)
5/9/2018			0.00017 (J)					
6/19/2018		0.00011 (J)	0.00017 (J)					0.00011 (J)
6/20/2018				0.00021 (J)	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								0.0001 (J)
9/26/2018		9.2E-05 (J)	0.00017 (J)					
9/27/2018				0.00031 (J)	<0.0025	<0.0025	7.4E-05 (J)	
11/6/2018				0.00077 (J)			0.00012 (J)	0.00012 (J)
11/7/2018		0.0001 (J)	0.00015 (J)		5.4E-05 (J)	<0.0025		
3/6/2019						<0.0025		
8/27/2019		9E-05 (J)		0.00032 (J)				
8/28/2019			0.00011 (J)		<0.0025	<0.0025	<0.0025	8.4E-05 (J)
10/15/2019				0.00035 (J)				
10/16/2019		<0.0025	0.00013 (J)		<0.0025			9E-05 (J)
10/17/2019						<0.0025	7.8E-05 (J)	
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				<0.0025	<0.0025	<0.0025	<0.0025	
10/12/2020								<0.0025
10/13/2020		<0.0025	<0.0025	<0.0025				
10/14/2020						<0.0025	<0.0025	
10/15/2020	<0.0025				<0.0025			
1/4/2021					<0.0025			
3/3/2021		<0.0025	<0.0025					<0.0025
3/4/2021	<0.0025			<0.0025	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		9.6E-05 (J)	0.00015				<0.0025	0.00011
3/3/2022				0.00025				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0003 (J)	<0.0025		0.0001 (J)				
10/25/2016					0.0004 (J)			
11/30/2016	0.0004 (J)	<0.0025		0.0002 (J)	0.0003 (J)			
2/15/2017	0.0004 (J)	<0.0025		<0.0025	<0.002			
5/31/2017	0.0005 (J)	0.0001 (J)			0.0002 (J)			
6/1/2017				0.0002 (J)				
6/2/2017			0.0001 (J)					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0002 (J)			
8/16/2017		0.0002 (J)						
8/17/2017			0.0001 (J)	0.0002 (J)				
4/4/2018			<0.0025					
5/8/2018			0.00031 (J)					
6/19/2018	0.00065 (J)	<0.0025	0.00034 (J)		0.00032 (J)			
6/20/2018				0.00024 (J)				
9/25/2018	0.00066 (J)	5E-05 (J)						
9/26/2018			0.00039 (J)	0.00019 (J)	0.00024 (J)			
11/6/2018		9.7E-05 (J)			0.00026 (J)			
11/7/2018	0.00058 (J)		0.00041 (J)	0.00019 (J)				
8/26/2019		0.0001 (J)						
8/27/2019	0.0009 (J)		0.00042 (J)	0.00021 (J)	0.00018 (J)			
10/15/2019	0.00079 (J)	<0.0025	0.00034 (J)					
10/16/2019				0.00014 (J)	0.00014 (J)			
11/7/2019						0.007	0.0068 (J)	0.021
11/18/2019						0.0063 (J)		
11/19/2019							0.014 (J)	0.015 (J)
12/4/2019							0.01	0.011
12/5/2019						0.0045		
12/17/2019							0.012	
12/18/2019						0.0048		0.012
1/8/2020							0.015 (J)	0.017
1/9/2020						0.0043		
1/21/2020						0.0041 (J)	0.012 (J)	0.015
2/4/2020						0.0049 (J)	0.015 (J)	0.017 (J)
2/13/2020						0.0043	0.013 (J)	0.015 (J)
3/27/2020	<0.005	<0.0025	<0.0025	<0.0025	<0.002	0.004	0.011	0.018
10/12/2020	0.001 (J)					0.0041		
10/13/2020		<0.0025	<0.0025	<0.0025	<0.002		0.015	0.017
3/2/2021	<0.005	<0.0025	<0.0025					
3/3/2021				<0.0025	<0.002	0.003	0.015	0.014
9/13/2021	0.0011	<0.0025						
9/14/2021			0.00034 (J)	0.00062	<0.002	0.0031	0.0062	0.016
3/1/2022							0.0057	0.016
3/2/2022			0.00032			0.0037		
3/3/2022	0.0012 (J)	<0.0025		0.00023	<0.002			
9/20/2022						0.003	0.017	0.02
9/21/2022	0.0011 (J)	<0.0025	<0.0025	<0.0025	0.00029 (J)			

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0325 (J)						
8/31/2016					0.56	0.632	0.863	
11/30/2016		0.0334 (J)			0.529	0.637	0.804	
2/15/2017		0.254						
2/16/2017					0.539	0.698	0.815	
5/31/2017			0.161					0.0521
6/1/2017		0.0564		0.0608				
6/2/2017					0.555	0.674	0.891	
8/2/2017			0.158	0.137				0.0392 (J)
8/15/2017								0.0448
8/16/2017		0.0435	0.148					
8/17/2017				0.128	0.516	0.7	0.922	
4/4/2018				0.1				0.046
4/5/2018			0.13					
5/8/2018				0.074				0.048
5/9/2018			0.12					
6/19/2018		0.04 (J)	0.13					0.04
6/20/2018				0.045	0.51	0.69		
6/21/2018							0.99	
9/25/2018								0.043
9/26/2018		0.038 (J)	0.1					
9/27/2018				0.06	0.47	0.62	0.88	
11/6/2018				0.06			1.1	0.046
11/7/2018		0.037 (J)	0.1		0.51	0.86		
3/6/2019						1.5		
3/24/2019					0.44	1.1	1.2	
3/25/2019		0.038 (J)	0.091	0.058				0.03 (J)
10/15/2019				0.068				
10/16/2019		0.036 (J)	0.085		0.49			0.032 (J)
10/17/2019						1.3	1.1	
11/20/2019					0.53		1.3	
3/26/2020		0.064 (J)						
3/27/2020			0.17 (J)					0.058 (J)
3/28/2020				0.067 (J)	0.28 (J)	0.95	0.79	
6/16/2020	2.1							
10/12/2020								<2.5
10/13/2020		<2.5	<2.5	<0.5				
10/14/2020						1.5	1.8	
10/15/2020	2.1				0.61			
1/4/2021					0.98			
3/3/2021		<2.5	<2.5					<2.5
3/4/2021	2.2 (J)			0.11 (J)	0.4 (J)	1.4 (J)	1.6 (J)	
9/14/2021	2	0.079 (J)	0.093 (J)	0.07 (J)	0.95 (J)	1.1	1.5	0.06 (J)
3/1/2022	1.6 (J)				0.75 (J)	1.7		
3/2/2022		0.048 (J)	0.086				1.3	0.038 (J)
3/3/2022				0.053				
9/20/2022	1.7					1.1		
9/21/2022		0.35 (J)	0.23 (J)	0.19 (J)	0.61		1.3	0.17 (J)



# Time Series

Constituent: Boron (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.18	0.726		0.0972 (J)				
10/25/2016					1.73			
11/30/2016	1.3	0.565		0.0964	2.12			
2/15/2017	1.33	0.647		0.398	2.14			
5/31/2017	1.38	0.503			2.24			
6/1/2017				0.0776				
6/2/2017			0.0495					
8/2/2017			0.0333 (J)					
8/15/2017	1.14				2.1			
8/16/2017		0.539						
8/17/2017			0.0593	0.0853				
4/4/2018			0.065					
5/8/2018			0.062					
6/19/2018	1.2	0.76	0.064		1.7			
6/20/2018				0.079				
9/25/2018	1	0.61						
9/26/2018			0.06	0.072	1.3			
11/6/2018		0.75			1.8			
11/7/2018	1.4		0.062 (J)	0.074				
3/24/2019	1	0.95			1.4			
3/25/2019			0.057	0.067				
10/15/2019	1.1	1	0.046					
10/16/2019				0.051	1.6			
11/7/2019						0.27	0.84	1.1
11/18/2019						0.29 (J)		
11/19/2019							0.83	1.3
11/21/2019		1			1.5			
12/4/2019							0.68	0.81
12/5/2019						0.23		
12/17/2019							0.57	
12/18/2019						0.23		0.77
1/8/2020							0.73	0.9
1/9/2020						0.2		
1/21/2020						0.24 (J)	0.75	0.94
2/4/2020						0.24 (J)	0.79 (J)	0.96 (J)
2/13/2020						0.22	0.74	0.88
3/27/2020	1.5	1.3	0.076 (J)	0.088 (J)	1.8	0.24 (J)	0.96	0.94
10/12/2020	1.3					0.24 (J)		
10/13/2020		1.1	<2.5	<0.5	1.8		0.73	1.1
3/2/2021	1.4 (J)	1.4 (J)	<2.5					
3/3/2021				<0.5	1.7 (J)	0.21 (J)	0.79 (J)	0.91 (J)
9/13/2021	1.4 (M1)	1.2						
9/14/2021			0.068 (J)	0.071 (J)	2.1 (M1)	0.2 (J)	1.2	0.91 (J)
3/1/2022							0.41 (J)	0.87 (J)
3/2/2022			0.054			0.23 (J)		
3/3/2022	1.2	0.89 (J)		0.057	1.4			
9/20/2022						0.18 (J)	0.77	0.9
9/21/2022	1.3	1	0.14 (J)	0.12 (J)	1.8			

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	<0.0025	<0.0025	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			<0.0025					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			<0.0025	<0.0025				<0.0025
8/15/2017								<0.0025
8/16/2017		<0.0025	<0.0025					
8/17/2017				<0.0025	<0.0025	<0.0025	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								0.0002 (J)
9/26/2018		9.3E-05	9.3E-05					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				<0.0025			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		<0.0025				
8/28/2019			<0.0025		<0.0025	<0.0025	<0.0025	<0.0025
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				<0.0025	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	<0.0025				<0.0025	<0.0025
3/3/2022				0.00043				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	<0.0025	<0.0025	<0.0025		0.0002 (J)	<0.0025

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	<0.0025		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	<0.0025			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	<0.0025	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	<0.0025				<0.0025			
8/16/2017		<0.0025						
8/17/2017			<0.0025	<0.0025				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	<0.0025	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			9.3E-05	9.3E-05	9.3E-05			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	<0.0025		<0.0025	<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.00034 (J)
11/18/2019						<0.0025		
11/19/2019							<0.0025	<0.0025
12/4/2019							<0.0025	<0.0025
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		<0.0025
1/8/2020							<0.0025	<0.0025
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	<0.0025
2/4/2020						<0.0025	<0.0025	<0.0025
2/13/2020						<0.0025	<0.0025	<0.0025
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022							<0.0025	<0.0025
3/2/2022			<0.0025			<0.0025		
3/3/2022	<0.0025	<0.0025		<0.0025	<0.0025			
9/20/2022						0.00078 (J)	0.0083 (o)	0.0043
9/21/2022	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		7.3						
8/31/2016					65	82.8	119	
11/30/2016		10.8			71.7	68.7	103	
2/15/2017		14.3						
2/16/2017					74	94.8	114	
5/31/2017			5.9					18.6
6/1/2017		12.7 (J)		3.65				
6/2/2017					120	92.5	179	
8/2/2017			4.69	12.4				18.5
8/15/2017								4.09
8/16/2017		8.7	5.25					
8/17/2017				8.17	100	126	186	
4/4/2018				6.8				<25
4/5/2018			5					
5/8/2018				5.7				18.4 (J)
5/9/2018			4.7					
6/19/2018		11.6 (J)	4.8					4.3
6/20/2018				4.3	72.8	121		
6/21/2018							179	
6/28/2018		13						
9/25/2018								6.2 (D)
9/26/2018		12.8 (J)	4.6					
9/27/2018				16.4 (J)	46.6	95.1	193	
11/6/2018				39.5			219	1.8
11/7/2018		11.9	4.6		41.8	387.5 (D)		
3/6/2019						341		
3/24/2019					20.9 (J)	277	243	
3/25/2019		12.6 (J)	4.7	20.8 (J)				2.5 (D)
10/15/2019				15.5				
10/16/2019		13.6	4.9		55.2			2.2
10/17/2019						309	260	
11/20/2019					55.8		308	
3/26/2020		10.1						
3/27/2020			4.9					3.3
3/28/2020				15.5	25.8	286	286	
4/23/2020	266							
6/16/2020	245							
10/12/2020								2.8
10/13/2020		9.8	3.8	12.5				
10/14/2020						245	207	
10/15/2020	194				69.1			
1/4/2021					104			
3/3/2021		14	4					
3/4/2021	257			15.1	23.4	233	244	2.1
9/14/2021	273	9.6	4.2	12.5	13.9	299	225	14
3/1/2022	303				48.4	131		
3/2/2022		8.2	4.1				198	6.8
3/3/2022				8				
9/20/2022	240					47		
9/21/2022		9.2	4.3	7.8	28		190	7.6

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	7.05	42.8		4.02				
10/25/2016					69.4			
11/30/2016	8.69	33.2		4.87	83.9			
2/15/2017	8.34	56.1		6.61	96.3			
5/31/2017	8.85	73.6			122			
6/1/2017				6.42				
6/2/2017			2.77					
8/2/2017			1.27					
8/15/2017	8.05				117			
8/16/2017		99.6						
8/17/2017			5.53	5.62				
4/4/2018			6.5					
5/8/2018			6.7					
6/19/2018	8.3	285	7.4		136			
6/20/2018				5.7				
6/28/2018	8.9	294			138			
9/25/2018	6.8	283						
9/26/2018			8.5 (J)	5.3	148			
11/6/2018		297			24.7			
11/7/2018	8.5		9.8	5.3				
3/24/2019	7.4	338			136			
3/25/2019			7.8	5.7				
10/15/2019	7.9	321	6.7					
10/16/2019				4.8	118			
11/7/2019						46.2	158	163
11/18/2019						41.8		
11/19/2019							152	169
11/21/2019		305			125			
12/4/2019							142	140
12/5/2019						40.5		
12/17/2019							136	
12/18/2019						42		145
1/8/2020							147	157
1/9/2020						37.1		
1/21/2020						40.1	167	152
2/4/2020						36.2	142	139
2/13/2020						38.9	148	146
3/27/2020	8.3	286	5.9	5.4	222	23.2	122	113
10/12/2020	6.1					19.1		
10/13/2020		40.9	0.83	5.7	86.4		125	128
3/4/2021	6.5	205	1.4	11.2	143	26	123	110
9/13/2021	6	165						
9/14/2021			6.7	6.5	190	18.8	93.6	61.1
3/1/2022							35.5	99.8
3/2/2022			7.2			22.3		
3/3/2022	4.6	224		5.4	84			
9/20/2022						20	150	100
9/21/2022	4.7	74	0.83	4.6	110			

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		9.7						
8/31/2016					1800	2200	2600	
11/30/2016		19			1100	2100	2800	
2/15/2017		21						
2/16/2017					2100	2500	3100	
5/31/2017			39					98
6/1/2017		12		22				
6/2/2017					3100	2500	4600	
8/2/2017			42	230				57
8/15/2017								15
8/16/2017		14	41					
8/17/2017				210	2600	2700	4600	
4/4/2018				156				69
4/5/2018			40.2					
5/8/2018				140				72.3
5/9/2018			40.6					
6/19/2018		24.4	37.7					17.3
6/20/2018				27.5	1800	3100		
6/21/2018							3920	
9/25/2018								31.3
9/26/2018		23.4	33.4					
9/27/2018				101	1300	2510 (D)	5660 (D)	
11/6/2018				107			6520	9.8
11/7/2018		21.8	30.7		1180	8860		
3/6/2019						11700		
3/24/2019					717	6470	8720	
3/25/2019		19.4	33.5	78.5				12.9
10/15/2019				46				
10/16/2019		21.4	33.1		941 (D)			12.2
10/17/2019						9930	8210	
11/20/2019					1480		9810	
3/26/2020		23						
3/27/2020			32.9					14.5
3/28/2020				71.4	693	9190	9070	
4/23/2020	7500							
6/16/2020	7780							
10/12/2020								13.9
10/13/2020		13.5	25.7	54.4				
10/14/2020						6630	7910	
10/15/2020	<1				1660			
1/4/2021					2460			
3/3/2021		13.6	20.5					9.4
3/4/2021	8280			69.6	652	6310	7540	
9/14/2021	7610	16.7	21.8	28.5	3940	5360	6300	62.8
3/1/2022	6750				1680	4150		
3/2/2022		13.4	20.6				5630	28.4
3/3/2022				12.2				
9/20/2022	7400					2800		
9/21/2022		17	23	47	1100		6400	32

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	800	450		26				
10/25/2016					1300			
11/30/2016	760	310		27	400			
2/15/2017	740	490		30	2000			
5/31/2017	740	820			2500			
6/1/2017				27				
6/2/2017			11					
8/2/2017			3.2					
8/15/2017	750				2500			
8/16/2017		1500						
8/17/2017			12	32				
4/4/2018			13.4					
5/8/2018			13.2					
6/19/2018	760	5180	13.7		3050			
6/20/2018				30				
9/25/2018	752 (D)	7220						
9/26/2018			18.5	28.4	3965 (D)			
11/6/2018		6020			2230			
11/7/2018	665		20.2	25.1				
3/24/2019	744	7400			3960			
3/25/2019			19.7	21.8				
10/15/2019	744	9050	17.1					
10/16/2019				20	2181.5 (D)			
11/7/2019						2360	6170	7880
11/18/2019						6970		
11/19/2019							5650	8130
11/21/2019		8330			3890			
12/4/2019							6100	7410
12/5/2019						2130		
12/17/2019							5660	
12/18/2019						2090		7170
1/8/2020							5070	6480
1/9/2020						1750		
1/21/2020						1630	5010	6000
2/4/2020						1760	5030	5700
2/13/2020						1850	6140	7060
3/27/2020	675	7680	14.1	23.6	4770	1450	6870	7110
10/12/2020	552					1340		
10/13/2020		6230	3.8	23.3	3980		5260	5980
3/2/2021	459	<1	4.2					
3/3/2021				27.6	<1	1230	5170	<1
9/13/2021	433	5010						
9/14/2021			13.6	30	4090	1020	7250	5100
3/1/2022							1870	4900
3/2/2022			14.3			1420		
3/3/2022	394	5040		26.5	3540			
9/20/2022						1200	6200	5700
9/21/2022	400	3300	3.3	17	3300			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					0.0013 (J)	0.001 (J)	0.0022 (J)	
11/30/2016		<0.01			0.0012 (J)	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					0.0012 (J)	0.0011 (J)	0.0028 (J)	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		0.0008 (J)				
6/2/2017					<0.01	<0.01	0.0023 (J)	
8/2/2017			<0.01	0.0012 (J)				<0.01
8/15/2017								0.0006 (J)
8/16/2017		<0.01	<0.01					
8/17/2017				0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0016	0.0016					
9/27/2018				<0.01	<0.01	<0.01	0.0024 (J)	
11/6/2018				0.0017 (J)			0.002 (J)	<0.01
11/7/2018		<0.01	<0.01		<0.01	<0.01		
3/6/2019						<0.01		
3/25/2019								<0.01
8/27/2019		0.00079 (J)		0.0018 (J)				
8/28/2019			0.0035 (J)		0.00047 (J)	0.00085 (J)	0.0024 (J)	0.00053 (J)
10/15/2019				0.0012 (J)				
10/16/2019		<0.01	<0.01		0.00057 (J)			0.00072 (J)
10/17/2019						0.0015 (J)	0.0019 (J)	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0056	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	0.00094 (J)
3/3/2022				0.00085 (J)				
9/20/2022	<0.01					<0.01		
9/21/2022		0.0014 (J)	<0.01	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0015 (J)



# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0054 (J)	0.0026 (J)		<0.01				
10/25/2016					0.016			
11/30/2016	0.0073 (J)	0.0016 (J)		0.001 (J)	0.0151 (J)			
2/15/2017	0.0045 (J)	0.0018 (J)		<0.01	0.0137			
5/31/2017	0.0052 (J)	0.0019 (J)			0.0109			
6/1/2017				0.0004 (J)				
6/2/2017			0.0019 (J)					
8/2/2017			0.0017 (J)					
8/15/2017	0.005 (J)				0.0117			
8/16/2017		0.0019 (J)						
8/17/2017			0.0027 (J)	0.0005 (J)				
4/4/2018			<0.01					
5/8/2018			0.0029 (J)					
6/19/2018	0.0047 (J)	<0.01	0.002 (J)		0.013 (J)			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.003 (J)	0.0016	0.0092 (J)			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01		<0.01	<0.01				
8/26/2019		0.00071 (J)						
8/27/2019	0.0056 (J)		0.0026 (J)	0.00043 (J)	0.0066 (J)			
10/15/2019	0.0057 (J)	0.00076 (J)	0.0026 (J)					
10/16/2019				<0.01	0.0063 (J)			
11/7/2019						0.0038 (J)	0.005 (J)	0.0083 (J)
11/18/2019						0.0046 (J)		
11/19/2019							0.0059 (J)	0.0096 (J)
12/4/2019							0.0073 (J)	0.0099 (J)
12/5/2019						0.0046 (J)		
12/17/2019							0.009 (J)	
12/18/2019						0.0045 (J)		0.011 (J)
1/8/2020							0.0077 (J)	0.0092 (J)
1/9/2020						0.004 (J)		
1/21/2020						0.0036 (J)	0.007 (J)	0.009 (J)
2/4/2020						<0.01	0.0057 (J)	0.0078 (J)
2/13/2020						0.0036 (J)	0.0063 (J)	0.0091 (J)
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0095 (J)
9/13/2021	<0.01	<0.01						
9/14/2021			0.0027 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.0029			<0.01		
3/3/2022	<0.01	<0.01		<0.01	<0.01			
9/20/2022						0.0021 (J)	<0.01	<0.01
9/21/2022	0.0077 (J)	0.0015 (J)	0.002 (J)	0.0015 (J)	0.0063 (J)			

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	0.0009 (J)	0.0011 (J)	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			0.0005 (J)					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			0.0005 (J)	<0.0025				0.0006 (J)
8/15/2017								0.0004 (J)
8/16/2017		<0.0025	0.0005 (J)					
8/17/2017				<0.0025	<0.0025	0.0003 (J)	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								<0.0025
9/26/2018		0.00052	0.00052					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				0.0048 (J)			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		0.0078				
8/28/2019			0.00042 (J)		<0.0025	<0.0025	<0.0025	<0.0025
10/15/2019				0.0085				
10/16/2019		<0.0025	0.00037 (J)		<0.0025			<0.0025
10/17/2019						<0.0025	<0.0025	
11/20/2019				0.009				
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				0.0041 (J)	<0.0025	<0.0025	<0.0025	
10/12/2020								<0.0025
10/13/2020		<0.0025	<0.0025	0.0063				
10/14/2020						<0.0025	<0.0025	
10/15/2020	<0.0025				0.0019 (J)			
1/4/2021					<0.0025			
3/3/2021		<0.0025	<0.0025					<0.0025
3/4/2021	<0.0025			0.006	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	0.0054	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	0.00035 (J)				<0.0025	0.00029 (J)
3/3/2022				0.0049				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	0.00032 (J)	0.0025	0.00026 (J)		0.00031 (J)	<0.0025

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	0.0006 (J)		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	0.0007 (J)			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	0.0005 (J)	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0004 (J)			
8/16/2017		<0.0025						
8/17/2017			<0.0025	0.0004 (J)				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	0.00053 (J)	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			0.00052	0.00052	0.00052			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	0.0007 (J)		<0.0025	0.0003 (J)	<0.0025			
10/15/2019	0.00054 (J)	<0.0025	<0.0025					
10/16/2019				<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.026
11/18/2019						<0.0025		
11/19/2019							<0.0025	0.022 (J)
12/4/2019							<0.0025	0.022
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		0.031
1/8/2020							<0.0025	0.035
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	0.031
2/4/2020						<0.0025	<0.0025	0.031 (J)
2/13/2020						<0.0025	<0.0025	0.031
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.036
10/12/2020	<0.0025					<0.0025		
10/13/2020		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	0.032
3/2/2021	<0.0025	<0.0025	<0.0025					
3/3/2021				<0.0025	<0.0025	<0.0025	<0.0025	0.033
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03
3/1/2022							<0.0025	0.031
3/2/2022			7.7E-05 (J)			<0.0025		
3/3/2022	<0.0025	<0.0025		0.00035 (J)	<0.0025			
9/20/2022						<0.0025	<0.0025	0.03
9/21/2022	0.00042 (J)	<0.0025	<0.0025	0.00024 (J)	0.00025 (J)			

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.929						
8/31/2016					2.39 (D)	2.47 (D)	5.4 (D)	
11/30/2016		5.64			1.66	1.6	3.13	
2/15/2017		1.41						
2/16/2017					2.71	1.83	3.09	
5/31/2017			1.17 (U)					1.2
6/1/2017		1.51		1.9				
6/2/2017					1.99	2.45	7.56	
8/2/2017			0.704 (U)	5.01				1.26
8/15/2017								0.511 (U)
8/16/2017		1.01 (U)	1.11 (U)					
8/17/2017				5.35	1.87	3.33	6.38	
4/4/2018				5.05				1.04
4/5/2018			0.868 (U)					
5/8/2018				3.25				1.95
5/9/2018			0.888					
6/19/2018		1.23	0.483 (U)					0.785 (U)
6/20/2018				3.53	1.95	2.84		
6/21/2018							5.24	
9/25/2018								1.15 (U)
9/26/2018		0.72 (U)	0.73 (U)					
9/27/2018				7.07	0.629 (U)	1.94	6.11	
11/6/2018				11			6.1	1.1
11/7/2018		0.616 (U)	0.429 (U)		1.41 (U)	8.58		
8/27/2019		1.2 (U)		4.4				
8/28/2019			0.679 (U)		1.67	6.86	8.73	0.434 (U)
10/15/2019				4.92				
10/16/2019		1.4 (U)	0.422 (U)		1.92			0.923 (U)
10/17/2019						7.85	7.97	
11/20/2019							9.8	
3/26/2020		1.15 (U)						
3/27/2020			0.838 (U)					0.609 (U)
3/28/2020				4.16	1.44 (U)	11 (U)	11.7	
10/12/2020								2.7
10/13/2020		0.855 (U)	0.56 (U)	3.71				
10/14/2020						8.97	13.1	
10/15/2020					2.56			
1/4/2021					5.84			
4/6/2021	7.33	1.01 (U)	0.474 (U)	2.83	1.43 (U)	7.89	9.66	1.88
9/14/2021	6.97	1.06 (U)	0.878 (U)	2.69	7.15	8.11	10.3	1.37 (U)
3/1/2022	9.03				8.16 (U)	5.83 (U)		
3/2/2022		0.379 (U)	0.476 (U)				5.66 (U)	0.313 (U)
3/3/2022				2.51				
9/20/2022	8.2					1.51		
9/21/2022		0.863	0.789	1.67	1.42		8.23	0.797

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.4	1.31		0.977 (U)				
10/25/2016					2.22			
11/30/2016	4.37	0.438 (U)		0.994	2.01			
2/15/2017	2.21	0.3 (U)		1.65	1.56			
5/31/2017	2.62	1.77			1.92			
6/1/2017				1.22				
6/2/2017			1.47					
8/2/2017			1.99					
8/15/2017	2.69				2.47			
8/16/2017		2.26						
8/17/2017			2.03	1.71				
4/4/2018			1.96					
5/8/2018			1.69					
6/19/2018	2.96	5.39	1.83		2.82			
6/20/2018				1.78				
9/25/2018	2.23	6.22						
9/26/2018			0.637 (U)	1.56	3.15 (D)			
11/6/2018		5.38			2.95			
11/7/2018	2.14		0.894 (U)	0.651 (U)				
8/26/2019		7.68						
8/27/2019	2.91		2.33	1.03 (U)	5.82			
10/15/2019	3.28	8.7	0.979 (U)					
10/16/2019				1.86	7.5			
11/7/2019						14.8	17.7	38.2
11/18/2019						13.9		
11/19/2019							18.9	43.1
11/21/2019		7.34			8.89			
12/4/2019							18.6	45.1
12/5/2019						14.2		
12/17/2019							21.8	
12/18/2019						17		55.8
1/8/2020							16.9	46.5
1/9/2020						12.3		
1/21/2020						11.7	15.6	37.7
2/4/2020						12.7	22.38	47.9
2/13/2020						18.2	31.1	76.3 (o)
3/27/2020	2.33	9.63	1.84	1.51	9.54	10.2	22.8	47.2
10/12/2020	2.66					8.83		
10/13/2020		7.43	3.32	1.71	7.75		14.1	30.3
4/6/2021	2.2	7.02	1.74	1.81	7.8	9.57	20.4	31.5
9/13/2021	2.54	8.38						
9/14/2021			1.15 (U)	2.02	8.82	8.31	26.2	34.9
3/1/2022							9.65	27.5
3/2/2022			1.48			9.23		
3/3/2022	3.56 (U)	8		1.1 (U)	9.1			
9/20/2022						9.35	18.2	30.1
9/21/2022	1.54	4.52	1.23	1.02	5.26			

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.03 (J)						
8/31/2016					0.93	0.41	0.92	
11/30/2016		0.04 (J)			0.93	0.61	0.99	
2/15/2017		0.007 (J)						
2/16/2017					0.6	0.3 (J)	0.54	
5/31/2017			0.01 (J)					0.85
6/1/2017		<0.1		<0.1				
6/2/2017					0.34	0.19 (J)	0.42	
8/2/2017			0.14 (J)	0.27 (J)				0.69
8/15/2017								0.29 (J)
8/16/2017		0.03 (J)	0.13 (J)					
8/17/2017				0.18 (J)	0.52	0.26 (J)	0.27 (J)	
4/4/2018				<0.1				0.32
4/5/2018			<0.1					
5/8/2018				0.56				0.63
5/9/2018			<0.1					
6/19/2018		<0.1	0.065 (J)					0.17 (J)
6/20/2018				0.033 (J)	0.5	0.22 (J)		
6/21/2018							0.28 (J)	
9/25/2018								0.15 (J)
9/26/2018		0.12 (J)	0.029					
9/27/2018				0.12 (J)	0.32	0.068 (J)	0.32 (D)	
11/6/2018				<0.1			0.086 (J)	<0.1
11/7/2018		<0.1	<0.1		0.35	10.3 (o)		
3/6/2019						<0.1		
3/24/2019					0.32	0.19 (J)	0.14 (J)	
3/25/2019		0.038 (J)	0.039 (J)	0.055 (J)				0.12 (J)
8/27/2019		<0.1		<0.1				
8/28/2019			<0.1		0.36	<0.1	<0.1	0.068 (J)
10/15/2019				0.095 (J)				
10/16/2019		0.046 (JD)	0.044 (JD)		0.41			0.1 (J)
10/17/2019						<0.1	<0.1	
11/20/2019					0.34		<0.1	
3/26/2020		<0.1						
3/27/2020			<0.1					0.066 (J)
3/28/2020				<0.1	0.34	<0.1	<0.1	
10/12/2020								<0.1
10/13/2020		<0.1	<0.1	<0.1				
10/14/2020						<0.1	<0.1	
10/15/2020	0.11				0.22			
1/4/2021					<0.1			
3/3/2021		<0.1	<0.1					0.082 (J)
3/4/2021	<0.1			<0.1	0.45	<0.1	<0.1	
9/14/2021	<0.1	<0.1	<0.1	0.05	<0.1	<0.1	<0.1	0.18
3/1/2022	<0.1				<0.1	<0.1		
3/2/2022		<0.1	<0.1				<0.1	0.097 (J)
3/3/2022				<0.1				
9/20/2022	<0.1					1.1 (J)		
9/21/2022		<0.1	<0.1	<0.1	0.48		0.18	0.11

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.5	0.5		0.04 (J)				
10/25/2016					1.1			
11/30/2016	1.4	0.49		0.18 (J)	1.3			
2/15/2017	1.3	0.58		0.02 (J)	1.3			
5/31/2017	1.2	0.56			1.3			
6/1/2017				0.005 (J)				
6/2/2017			<0.1					
8/2/2017			0.05 (J)					
8/15/2017	1.2				1.2			
8/16/2017		0.45						
8/17/2017			<0.1	0.04 (J)				
4/4/2018			<0.1					
5/8/2018			<0.1					
6/19/2018	0.91	<0.1	0.057 (J)		0.6			
6/20/2018				0.038 (J)				
9/25/2018	1.1	<0.1						
9/26/2018			0.029	0.029	0.44 (D)			
11/6/2018		0.084 (J)			0.4			
11/7/2018	<0.1		<0.1	<0.1				
3/24/2019	0.99	0.14 (J)			0.31			
3/25/2019			0.036 (J)	0.041 (J)				
8/26/2019		<0.1						
8/27/2019	1.1		<0.1	<0.1	<0.1			
10/15/2019	1	<0.1	0.14 (J)					
10/16/2019				0.044 (J)	0.083 (J)			
11/7/2019						0.49	<0.1	1.4
11/18/2019						0.52		
11/19/2019							0.033 (J)	1.2
11/21/2019		<0.1			<0.1			
12/4/2019							0.22 (J)	1.4
12/5/2019						0.5		
12/17/2019							<0.1	
12/18/2019						0.33		1.5
1/8/2020							<0.1	<0.1
1/9/2020						0.12 (J)		
1/21/2020						0.13 (J)	0.11 (J)	0.53
2/4/2020						0.18 (J)	<0.1	<0.1
2/13/2020						0.077 (J)	<0.1	<0.1
3/27/2020	1.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)	<0.1	<0.1
10/12/2020	1.2					0.34		
10/13/2020		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
3/2/2021	1	<0.1	<0.1					
3/3/2021				<0.1	<0.1	0.32	<0.1	<0.1
9/13/2021	1.4	<0.1						
9/14/2021			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/1/2022							<0.1	<0.1
3/2/2022			<0.1			<0.1		
3/3/2022	0.95	<0.1		<0.1	<0.1			
9/20/2022						0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	1.3	0.12	<0.1	<0.1	0.78			

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.005	<0.005	<0.005	
11/30/2016		<0.005			0.0002 (J)	<0.005	<0.005	
2/15/2017		<0.005						
2/16/2017					<0.005	<0.005	0.0002 (J)	
5/31/2017			<0.005					<0.005
6/1/2017		<0.005		<0.005				
6/2/2017					<0.005	<0.005	<0.005	
8/2/2017			0.0001 (J)	<0.005				<0.005
8/15/2017								<0.005
8/16/2017		<0.005	<0.005					
8/17/2017				<0.005	<0.005	<0.005	8E-05 (J)	
4/4/2018				<0.005				<0.005
4/5/2018			<0.005					
5/8/2018				<0.005				<0.005
5/9/2018			<0.005					
6/19/2018		<0.005	<0.005					<0.005
6/20/2018				<0.005	<0.005	<0.005		
6/21/2018							<0.005	
9/25/2018								<0.005
9/26/2018		0.00027	0.00027					
9/27/2018				<0.005	<0.005	<0.005	<0.005	
11/6/2018				<0.005			<0.005	<0.005
11/7/2018		<0.005	<0.005		<0.005	<0.005		
3/6/2019						<0.005		
3/25/2019								<0.005
8/27/2019		<0.005		<0.005				
8/28/2019			<0.005		<0.005	<0.005	0.0001 (J)	<0.005
10/15/2019				<0.005				
10/16/2019		<0.005	<0.005		<0.005			<0.005
10/17/2019						0.00012 (J)	<0.005	
3/26/2020		<0.005						
3/27/2020			<0.005					<0.005
3/28/2020				<0.005	<0.005	<0.005	<0.005	
10/12/2020								<0.005
10/13/2020		<0.005	<0.005	<0.005				
10/14/2020						<0.005	<0.005	
10/15/2020	<0.005				<0.005			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.005			<0.005	<0.005	<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.005				<0.005	<0.005		
3/2/2022		<0.005	<0.005				<0.005	<0.005
3/3/2022				<0.005				
9/20/2022	<0.005					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005



# Time Series

Constituent: Lead (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0001 (J)	<0.005		<0.005				
10/25/2016					<0.005			
11/30/2016	<0.005	<0.005		0.0002 (J)	<0.005			
2/15/2017	<0.005	<0.005		<0.005	<0.005			
5/31/2017	9E-05 (J)	<0.005			<0.005			
6/1/2017				<0.005				
6/2/2017			<0.005					
8/2/2017			0.0001 (J)					
8/15/2017	<0.005				0.0002 (J)			
8/16/2017		8E-05 (J)						
8/17/2017			0.0001 (J)	<0.005				
4/4/2018			<0.005					
5/8/2018			<0.005					
6/19/2018	<0.005	<0.005	<0.005		<0.005			
6/20/2018				<0.005				
9/25/2018	<0.005	<0.005						
9/26/2018			0.00027	0.00027	0.00027			
11/6/2018		<0.005			<0.005			
11/7/2018	<0.005		<0.005	<0.005				
8/26/2019		<0.005						
8/27/2019	0.00022 (J)		0.00011 (J)	<0.005	0.00014 (J)			
10/15/2019	5.6E-05 (J)	<0.005	0.00038 (J)					
10/16/2019				<0.005	0.00034 (J)			
11/7/2019						<0.005	0.00063 (J)	0.0019 (J)
11/18/2019						<0.005		
11/19/2019							<0.005	0.0013 (J)
12/4/2019							5.3E-05 (J)	0.00045 (J)
12/5/2019						<0.005		
12/17/2019							<0.005	
12/18/2019						<0.005		0.00023 (J)
1/8/2020							<0.005	0.00029 (J)
1/9/2020						<0.005		
1/21/2020						<0.005	<0.005	0.00033 (J)
2/4/2020						<0.005	<0.005	<0.005
2/13/2020						<0.005	<0.025 (o)	0.00023 (J)
3/27/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/12/2020	<0.005					<0.005		
10/13/2020		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
3/2/2021	<0.005	<0.005	<0.005					
3/3/2021				<0.005	<0.005	<0.005	<0.005	<0.005
9/13/2021	<0.005	<0.005						
9/14/2021			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022							<0.005	<0.005
3/2/2022			<0.005			<0.005		
3/3/2022	<0.005	<0.005		<0.005	<0.005			
9/20/2022						<0.005	<0.005	<0.005
9/21/2022	0.00083 (J)	<0.005	0.00092 (J)	<0.005	<0.005			

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.025						
8/31/2016					0.0219 (J)	0.0389 (J)	0.0122 (J)	
11/30/2016		<0.025			0.0333 (J)	0.0303 (J)	0.011 (J)	
2/15/2017		<0.025						
2/16/2017					0.0376 (J)	0.05 (J)	0.0142 (J)	
5/31/2017			<0.025					0.0047 (J)
6/1/2017		<0.025		<0.025				
6/2/2017					0.0346 (J)	0.0477 (J)	0.0229 (J)	
8/2/2017			<0.025	<0.025				0.0036 (J)
8/15/2017								<0.025
8/16/2017		<0.025	<0.025					
8/17/2017				<0.025	0.0367 (J)	0.0645	0.0241 (J)	
4/4/2018				0.0013 (J)				0.0041 (J)
4/5/2018			<0.025					
5/8/2018				0.0012 (J)				0.0052 (J)
5/9/2018			<0.025					
6/19/2018		<0.025	<0.025					0.0017 (J)
6/20/2018				0.0015 (J)	0.034 (J)	0.066 (J)		
6/21/2018							0.03 (J)	
9/25/2018								0.0018 (J)
9/26/2018		0.00097	0.00097					
9/27/2018				0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)	
11/6/2018				0.0038 (J)			0.037 (J)	<0.025
11/7/2018		<0.025	<0.025		0.022 (J)	0.11		
3/6/2019						0.12		
8/27/2019		<0.025		0.002 (J)				
8/28/2019			<0.025		0.023 (J)	0.13	0.12	0.00082 (J)
10/15/2019				0.0019 (J)				
10/16/2019		<0.025	<0.025		0.021 (J)			<0.025
10/17/2019						0.12	0.096	
11/20/2019							0.12	
3/26/2020		<0.025						
3/27/2020			<0.025					<0.025
3/28/2020	0.078 (J)			<0.025	0.014 (J)	0.064	0.027 (J)	
6/16/2020	0.096 (J)							
10/12/2020								<0.025
10/13/2020		<0.025	<0.025	<0.025				
10/14/2020						0.11	0.039 (J)	
10/15/2020	0.093				0.57			
1/4/2021					0.043 (J)			
3/3/2021		<0.025	<0.025					<0.025
3/4/2021	0.094 (J)			<0.025	0.017 (J)	0.096 (J)	0.035 (J)	
9/14/2021	0.092	<0.025	<0.025	<0.025	0.042 (J)	0.084	0.035 (J)	0.0033 (J)
3/1/2022	0.088 (J)				0.028 (J)	0.074		
3/2/2022		0.00064 (J)	<0.025				0.022 (J)	0.0026
3/3/2022				0.0017 (J)				
9/20/2022	<0.025					0.043		
9/21/2022		<0.025	<0.025	<0.025	0.018 (J)		0.02 (J)	<0.025

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0102 (J)	0.0112 (J)		<0.025				
10/25/2016					0.007 (J)			
11/30/2016	0.0106 (J)	<0.025		<0.025	0.0086 (J)			
2/15/2017	0.0115 (J)	0.0105 (J)		<0.025	0.0149 (J)			
5/31/2017	0.011 (J)	0.0106 (J)			0.019 (J)			
6/1/2017				<0.025				
6/2/2017			<0.025					
8/2/2017			<0.025					
8/15/2017	0.0123 (J)				0.016 (J)			
8/16/2017		0.0145 (J)						
8/17/2017			<0.025	<0.025				
4/4/2018			0.0015 (J)					
5/8/2018			0.0014 (J)					
6/19/2018	0.012 (J)	0.044 (J)	0.0016 (J)		0.021 (J)			
6/20/2018				<0.025				
9/25/2018	0.011 (J)	0.041 (J)						
9/26/2018			0.0018 (J)	0.00097	0.02 (J)			
11/6/2018		0.047 (J)			0.017 (J)			
11/7/2018	0.013 (J)		<0.025	<0.025				
8/26/2019		0.059						
8/27/2019	0.012 (J)		0.002 (J)	<0.025	0.023 (J)			
10/15/2019	0.012 (J)	0.056 (J)	0.0016 (J)					
10/16/2019				<0.025	0.024 (J)			
11/7/2019						0.0055 (J)	0.015 (J)	0.026 (J)
11/18/2019						<0.1 (o)		
11/19/2019							0.02 (J)	0.023 (J)
11/21/2019		0.052						
12/4/2019							0.016 (J)	0.019 (J)
12/5/2019						0.0042 (J)		
12/17/2019							0.018 (J)	
12/18/2019						0.0045 (J)		0.02 (J)
1/8/2020							0.022 (J)	0.024 (J)
1/9/2020						0.0041 (J)		
1/21/2020						<0.15 (o)	0.018 (J)	0.022 (J)
2/4/2020						<0.3 (o)	0.02 (J)	0.024 (J)
2/13/2020						0.004 (J)	0.018 (J)	0.021 (J)
3/27/2020	<0.025	0.052	<0.025	<0.025	0.033 (J)	<0.025	0.018 (J)	0.024 (J)
10/12/2020	0.011 (J)					<0.025		
10/13/2020		0.046 (J)	<0.025	<0.025	0.028 (J)		0.022 (J)	0.025 (J)
3/2/2021	<0.025	0.046 (J)	<0.025					
3/3/2021				<0.025	<0.025	<0.025	0.019 (J)	0.018 (J)
9/13/2021	0.01 (J)	0.047						
9/14/2021			<0.025	<0.025	0.035 (J)	<0.025	0.011 (J)	0.02 (J)
3/1/2022							<0.025	0.02 (J)
3/2/2022			0.0017 (J)			<0.025		
3/3/2022	<0.025	0.037 (J)		0.00061 (J)	0.02 (J)			
9/20/2022						<0.025	0.014 (J)	0.029
9/21/2022	0.0075 (J)	0.028	<0.025	<0.025	0.023 (J)			

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0002						
8/31/2016					<0.0002	<0.0002	<0.0002	
11/30/2016		<0.0002			<0.0002	<0.0002	<0.0002	
2/15/2017		<0.0002						
2/16/2017					<0.0002	<0.0002	<0.0002	
5/31/2017			<0.0002					<0.0002
6/1/2017		<0.0002		<0.0002				
6/2/2017					4.2E-05 (J)	<0.0002	<0.0002	
8/2/2017			<0.0002	<0.0002				<0.0002
8/15/2017								<0.0002
8/16/2017		<0.0002	<0.0002					
8/17/2017				<0.0002	<0.0002	<0.0002	<0.0002	
4/4/2018				<0.0002				<0.0002
4/5/2018			<0.0002					
5/8/2018				<0.0002				<0.0002
5/9/2018			<0.0002					
6/19/2018		<0.0002	<0.0002					<0.0002
6/20/2018				<0.0002	<0.0002	<0.0002		
6/21/2018							<0.0002	
9/25/2018								<0.0002
9/26/2018		3.6E-05	3.6E-05					
9/27/2018				<0.0002	<0.0002	<0.0002	<0.0002	
11/6/2018				0.00071			0.00067	0.0007
11/7/2018		<0.0002	<0.0002		<0.0002	<0.0002		
3/6/2019						<0.0002		
8/27/2019		<0.0002		<0.0002				
8/28/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/26/2020		<0.0002						
3/27/2020			<0.0002					<0.0002
3/28/2020				<0.0002	<0.0002	<0.0002	<0.0002	
9/14/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00016 (J)	<0.0002	<0.0002
3/1/2022	<0.0002				<0.0002	<0.0002		
3/2/2022		<0.0002	<0.0002				<0.0002	<0.0002
3/3/2022				<0.0002				
9/20/2022	<0.0002					<0.0002		
9/21/2022		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0002	<0.0002		<0.0002				
10/25/2016					<0.0002			
11/30/2016	<0.0002	<0.0002		<0.0002	<0.0002			
2/15/2017	<0.0002	<0.0002		<0.0002	<0.0002			
5/31/2017	<0.0002	<0.0002			<0.0002			
6/1/2017				<0.0002				
6/2/2017			<0.0002					
8/2/2017			<0.0002					
8/15/2017	<0.0002				<0.0002			
8/16/2017		<0.0002						
8/17/2017			<0.0002	<0.0002				
4/4/2018			<0.0002					
5/8/2018			<0.0002					
6/19/2018	<0.0002	<0.0002	<0.0002		<0.0002			
6/20/2018				<0.0002				
9/25/2018	<0.0002	<0.0002						
9/26/2018			3.6E-05	3.6E-05	3.6E-05			
11/6/2018		0.00066			0.00064			
11/7/2018	<0.0002		<0.0002	<0.0002				
8/26/2019		<0.0002						
8/27/2019	<0.0002		<0.0002	<0.0002	<0.0002			
11/7/2019						<0.0002	<0.0002	<0.0002
11/18/2019						<0.0002		
11/19/2019							<0.0002	<0.0002
12/4/2019							<0.0002	<0.0002
12/5/2019						<0.0002		
12/17/2019							<0.0002	
12/18/2019						<0.0002		<0.0002
1/8/2020							<0.0002	<0.0002
1/9/2020						<0.0002		
1/21/2020						<0.0002	<0.0002	<0.0002
2/4/2020						<0.0002	<0.0002	<0.0002
2/13/2020						<0.0002	<0.0002	<0.0002
3/27/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2021	<0.0002	<0.0002						
9/14/2021			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2022							<0.0002	<0.0002
3/2/2022			<0.0002			<0.0002		
3/3/2022	<0.0002	<0.0002		<0.0002	<0.0002			
9/20/2022						<0.0002	<0.0002	<0.0002
9/21/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					<0.01	<0.01	<0.01	
11/30/2016		<0.01			<0.01	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					<0.01	<0.01	<0.01	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		<0.01				
6/2/2017					<0.01	<0.01	<0.01	
8/2/2017			<0.01	<0.01				<0.01
8/15/2017								<0.01
8/16/2017		<0.01	<0.01					
8/17/2017				<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0019	0.0019					
9/27/2018				<0.01	<0.01	<0.01	<0.01	
11/6/2018				<0.01			<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01	0.0024 (J)		
3/6/2019						<0.01		
8/27/2019		<0.01		<0.01				
8/28/2019			<0.01		<0.01	0.0017 (J)	<0.01	<0.01
10/15/2019				<0.01				
10/16/2019		<0.01	<0.01		<0.01			<0.01
10/17/2019						0.0017 (J)	<0.01	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0008 (J)	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	<0.01
3/3/2022				0.00015 (J)				
9/20/2022	<0.01					0.0013 (J)		
9/21/2022		<0.01	<0.01	<0.01	0.00095 (J)		0.00095 (J)	<0.01

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.01	<0.01		<0.01				
10/25/2016					<0.01			
11/30/2016	<0.01	<0.01		<0.01	<0.01			
2/15/2017	<0.01	<0.01		<0.01	<0.01			
5/31/2017	<0.01	<0.01			<0.01			
6/1/2017				<0.01				
6/2/2017			<0.01					
8/2/2017			<0.01					
8/15/2017	<0.01				<0.01			
8/16/2017		<0.01						
8/17/2017			<0.01	<0.01				
4/4/2018			<0.01					
5/8/2018			0.002 (J)					
6/19/2018	<0.01	<0.01	<0.01		<0.01			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.0019	0.0019	0.0019			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01 (D)		<0.01 (D)	<0.01				
8/26/2019		<0.01						
8/27/2019	<0.01		<0.01	<0.01	<0.01			
10/15/2019	<0.01	<0.01	<0.01					
10/16/2019				<0.01	<0.01			
11/7/2019						<0.01	<0.01	<0.01
11/18/2019						<0.01		
11/19/2019							<0.01	<0.01
12/4/2019							<0.01	<0.01
12/5/2019						<0.01		
12/17/2019							<0.01	
12/18/2019						<0.01		<0.01
1/8/2020							<0.01	<0.01
1/9/2020						<0.01		
1/21/2020						<0.01	<0.01	<0.01
2/4/2020						<0.01	<0.01	<0.01
2/13/2020						<0.01	<0.01	<0.01
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/13/2021	<0.01	<0.01						
9/14/2021			0.0009 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.00078 (J)			<0.01		
3/3/2022	<0.01	<0.01		0.00021 (J)	<0.01			
9/20/2022						<0.01	<0.01	<0.01
9/21/2022	<0.01	<0.01	0.00094 (J)	<0.01	<0.01			

# Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		5.66						
8/31/2016					6.93	7.21	6.66	
11/30/2016		5.36			6.77	7.23	6.69	
2/15/2017		5.25						
2/16/2017					6.89	7.27	6.72	
5/31/2017			5.06					5.29
6/1/2017		5.59		5.68				
6/2/2017					6.83	7.18	6.53	
8/2/2017			5	5.2				5.19
8/15/2017								5.19
8/16/2017		5.58	4.98					
8/17/2017				5.31	6.76	7.15	6.28	
4/4/2018				4.74				5.19
4/5/2018			5.02					
5/8/2018				4.78				5.3
5/9/2018			4.96					
6/19/2018		5.51	5.02					5.15
6/20/2018				4.79	6.83	7.19		
6/21/2018							6.45	
9/25/2018								5.13
9/26/2018		5.32	5.06					
9/27/2018				5.14	6.64	7.21	6.48	
11/6/2018				4.9			6.18	5.08
11/7/2018		5.72	5.03		6.6	6.91		
3/24/2019					6.1	6.98	6.38	
3/25/2019		5.75	5.08	4.93				5.05
8/27/2019		5.58		5.05				
8/28/2019			4.99		6.69	6.87	6.35	4.87
10/15/2019				4.89				
10/16/2019		5.72	4.98		6.64			5.05
10/17/2019						6.86	6.4	
11/19/2019			5.11					
11/20/2019		5.77		5.03	6.58		6.27	
3/26/2020		5.45						
3/27/2020			5.12					5.09
3/28/2020	7.11			5.27	6.6	6.8	6.35	
6/16/2020	7.22							
10/12/2020								5
10/13/2020		5.69	5.03	5.25				
10/14/2020						6.93	6.32	
10/15/2020	7.08				6.53			
1/4/2021					6.66			
3/3/2021		5.81	5.06					5.07
3/4/2021	7.21			5.31	6.52	6.94	6.33	
9/14/2021	7.11	5.13	5.04	5.09	6.67	6.94	6.28	5.5
3/1/2022	7.08				6.87	7.24		
3/2/2022		5.32	5.16				6.41	5.11
3/3/2022				4.98				
9/20/2022	7.07					7.29		
9/21/2022		4.95	5.14	5.34	6.93		6.27	4.97



# Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	6.49	7.04		5.18				
10/25/2016					6.95			
11/30/2016	6.5	7.13		4.96	6.95			
2/15/2017	6.51	7.02		5.13	6.85			
5/31/2017	6.45	7			6.96			
6/1/2017				4.99				
6/2/2017			5.31					
8/2/2017			5.05					
8/15/2017	6.41				6.99			
8/16/2017		6.88						
8/17/2017			5.52	4.68				
4/4/2018			5.45					
5/8/2018			5.54					
6/19/2018	6.32	6.78	5.6		6.91			
6/20/2018				4.77				
9/25/2018	6.31	6.75						
9/26/2018			5.17	4.65	6.81			
11/6/2018		6.92			5.99			
11/7/2018	6.3		5.47	4.99				
3/24/2019	6.4	6.59	5.4		6.62			
3/25/2019				5.13				
8/26/2019		6.62						
8/27/2019	6.24		5.35	4.88	6.23			
10/15/2019	6.19	6.58	5.32					
10/16/2019				4.89	6.54			
11/7/2019						4.25	5.21	3.79
11/18/2019						4.12		
11/19/2019							5.15	3.78
11/21/2019		6.67			6.44			
12/4/2019							5.28 (D)	3.87 (D)
12/5/2019						4.17 (D)		
1/8/2020							5.04	3.77
1/9/2020						4.19		
1/21/2020						4.28	5.1	3.73
2/4/2020						4.26	5.15	3.72
2/13/2020						4.2	5.07	3.75
3/27/2020	6.33	6.59	5.3	5.12	6.93	4.34	5.14	3.81
10/12/2020	6.35					4.29		
10/13/2020		6.56	5.02	5.17	6.34		5.04	3.72
3/2/2021	6.34	6.55	5.16					
3/3/2021				5.71	6.58	4.37	5.1	3.36
9/13/2021	6.24	6.3						
9/14/2021			5.39	4.69	6.77	4.28	5.31	3.72
3/1/2022							5.38	3.69
3/2/2022			5.37			4.33		
3/3/2022	6.51	6.49		4.88	4.27			
9/20/2022						4.47	5.14	3.63
9/21/2022	6.3	6.61	5.23	4.91	6.72			

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					0.002 (J)	0.0015 (J)	0.0021 (J)	
11/30/2016		0.0011 (J)			0.0023 (J)	0.0054 (J)	<0.005	
2/15/2017		<0.005						
2/16/2017					0.002 (J)	0.0022 (J)	0.0025 (J)	
5/31/2017			<0.005					<0.005
6/1/2017		<0.005		<0.005				
6/2/2017					<0.005	<0.005	<0.005	
8/2/2017			<0.005	<0.005				<0.005
8/15/2017								<0.005
8/16/2017		<0.005	<0.005					
8/17/2017				<0.005	<0.005	0.002 (J)	0.0033 (J)	
4/4/2018				<0.005				<0.005
4/5/2018			<0.005					
5/8/2018				<0.005				<0.005
5/9/2018			<0.005					
6/19/2018		<0.005	<0.005					<0.005
6/20/2018				<0.005	<0.005	<0.005		
6/21/2018							<0.005	
9/25/2018								<0.005
9/26/2018		0.0014	0.0014					
9/27/2018				<0.005	<0.005	<0.005	0.0023 (J)	
11/6/2018				0.0025 (J)			0.0048 (J)	<0.005
11/7/2018		<0.005	<0.005		<0.005	0.0075 (J)		
3/6/2019						0.0024 (J)		
3/25/2019								<0.005
8/27/2019		<0.005		<0.005				
8/28/2019			<0.005		<0.005	0.0014 (J)	0.0019 (J)	<0.005
10/15/2019				<0.005				
10/16/2019		<0.005	<0.005		<0.005			<0.005
10/17/2019						0.0066 (J)	0.0049 (J)	
3/26/2020		<0.005						
3/27/2020			<0.005					<0.005
3/28/2020				<0.005	<0.005	<0.005	<0.005	
10/12/2020								<0.005
10/13/2020		<0.005	<0.005	<0.005				
10/14/2020						<0.005	<0.005	
10/15/2020	<0.005				0.0028 (J)			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.005			0.00038 (J)	<0.005	<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.005				<0.005	<0.005		
3/2/2022		<0.005	<0.005				<0.005	0.00022 (J)
3/3/2022				0.00012 (J)				
9/20/2022	<0.005					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 12:05 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0011 (J)	<0.005		<0.005				
10/25/2016					0.003 (J)			
11/30/2016	0.0023 (J)	<0.005		0.0011 (J)	0.0087 (J)			
2/15/2017	0.0021 (J)	0.0014 (J)		<0.005	0.0067 (J)			
5/31/2017	<0.005	<0.005			0.0018 (J)			
6/1/2017				<0.005				
6/2/2017			<0.005					
8/2/2017			<0.005					
8/15/2017	0.0021 (J)				0.0025 (J)			
8/16/2017		0.0018 (J)						
8/17/2017			<0.005	<0.005				
4/4/2018			<0.005					
5/8/2018			0.0016 (J)					
6/19/2018	0.0017 (J)	<0.005	0.0022 (J)		<0.005			
6/20/2018				<0.005				
9/25/2018	0.002 (J)	0.0019 (J)						
9/26/2018			0.0015 (J)	0.0014	0.0016 (J)			
11/6/2018		0.0057 (J)			<0.005			
11/7/2018	<0.005		<0.005	<0.005				
8/26/2019		0.0025 (J)						
8/27/2019	0.0019 (J)		0.0018 (J)	<0.005	0.0018 (J)			
10/15/2019	<0.005	0.003 (J)	<0.005					
10/16/2019				<0.005	<0.005			
11/7/2019						0.036	0.063	0.12
11/18/2019						<0.005		
11/19/2019							0.039 (J)	0.047 (J)
12/4/2019							0.12	0.11
12/5/2019						0.032		
12/17/2019							0.031 (J)	
12/18/2019						0.01		0.032 (J)
1/8/2020							0.066	0.044 (J)
1/9/2020						0.01		
1/21/2020						0.023 (J)	0.13	0.089
2/4/2020						0.017 (J)	0.065 (J)	0.049 (J)
2/13/2020						0.015	0.15	0.11
3/27/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0034 (J)	0.013	0.012
10/12/2020	<0.005					<0.005		
10/13/2020		<0.005	<0.005	<0.005	<0.005		0.0076 (J)	0.0056 (J)
3/2/2021	<0.005	<0.005	<0.005					
3/3/2021				<0.005	<0.005	0.0012 (J)	0.013 (J)	0.0094 (J)
9/13/2021	<0.005	<0.005						
9/14/2021			<0.005	<0.005	0.0021	<0.005	0.0022 (J)	0.0018 (J)
3/1/2022							<0.04	0.0058 (J)
3/2/2022			0.00028 (J)			<0.005		
3/3/2022	<0.005	<0.005		<0.005	<0.005			
9/20/2022						<0.005	0.0046 (J)	0.0027 (J)
9/21/2022	<0.005	<0.005	<0.005	<0.005	<0.005			

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		17						
8/31/2016					37	21	290	
11/30/2016		33			63	19	240	
2/15/2017		83						
2/16/2017					90	22	220	
5/31/2017			46					40
6/1/2017		51		42				
6/2/2017					210	28	500	
8/2/2017			43	120				34
8/15/2017								24
8/16/2017		36	41					
8/17/2017				110	80	69	510	
4/4/2018				70.6				33.9
4/5/2018			33.4					
5/8/2018				61.4				35.7
5/9/2018			36					
6/19/2018		50.3	35.5					23.7
6/20/2018				25.3	46 (J)	33		
6/21/2018							481	
9/25/2018								25.6
9/26/2018		54.1	39.6					
9/27/2018				63.4	58.5 (J)	29.4 (D)	777 (D)	
11/6/2018				136			926	25.2
11/7/2018		45.6	35.8		41.3 (J)	734		
3/6/2019						1220 (J)		
3/24/2019					131	413	1070	
3/25/2019		43	34.2	137				24.9
10/15/2019				105				
10/16/2019		31.9	24.4		122.5 (D)			17.4
10/17/2019						507	1230	
11/20/2019					132		1550	
3/26/2020		36.2						
3/27/2020			28.6					23.4
3/28/2020				86.6	63.8	701	1090	
4/23/2020	936							
6/16/2020	970							
10/12/2020								19.3
10/13/2020		32.3	27.6	92.3				
10/14/2020						510	904	
10/15/2020	1060				147			
1/4/2021					262			
3/3/2021		33.8	27.6					19.9
3/4/2021	1060			99.1	82.2	596	982	
9/14/2021	971	34.2	30.4	96.2 (M1)	459	490	819	33.1
3/1/2022	755				143	440		
3/2/2022		30.8	25.7				702	19.5
3/3/2022				50.6				
9/20/2022	820					320		
9/21/2022		39	29	52	100		660	23

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	4.3	6.4		24				
10/25/2016					84			
11/30/2016	7.6	4.5		26	52			
2/15/2017	3	37		30	190			
5/31/2017	2.5	61			260			
6/1/2017				24				
6/2/2017			13					
8/2/2017			14					
8/15/2017	3.2				210			
8/16/2017		130						
8/17/2017			14	26				
4/4/2018			13.4					
5/8/2018			14.8					
6/19/2018	1.6	498	15.5		218			
6/20/2018				31.2				
9/25/2018	1	790						
9/26/2018			23	36.8	333 (D)			
11/6/2018		875			182			
11/7/2018	0.41 (J)		22.2	35				
3/24/2019	1.5	1170			413			
3/25/2019			22.4	40.1				
10/15/2019	0.54 (J)	<1	17.9					
10/16/2019				28.5	312.5 (D)			
11/7/2019						379	832	1010
11/18/2019						737		
11/19/2019							795	1140
11/21/2019		1070			428			
12/4/2019							810	1020
12/5/2019						351		
12/17/2019							535	
12/18/2019								8.1
1/8/2020							603	747
1/9/2020						254		
1/21/2020						254	611	798
2/4/2020						432	599	1120
2/13/2020						300	761	833
3/27/2020	<5	899	14.6	31.2	504	219	836	700
10/12/2020	<5					191		
10/13/2020		695	7.6	26.8	378		609	638
3/2/2021	1.2	97.5	8					
3/3/2021				30.5	420	171	<1	743
9/13/2021	<5	680						
9/14/2021			16.7	24.4	460	134	995	659
3/1/2022							158	543
3/2/2022			16			186		
3/3/2022	<5	754		20.4	324			
9/20/2022						160	740	750
9/21/2022	<5	270	6.3	24	330			

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.001						
8/31/2016					<0.001	<0.001	<0.001	
11/30/2016		<0.001			<0.001	<0.001	<0.001	
2/15/2017		<0.001						
2/16/2017					<0.001	<0.001	<0.001	
5/31/2017			<0.001					<0.001
6/1/2017		<0.001		<0.001				
6/2/2017					<0.001	<0.001	<0.001	
8/2/2017			<0.001	<0.001				<0.001
8/15/2017								<0.001
8/16/2017		<0.001	<0.001					
8/17/2017				<0.001	<0.001	<0.001	<0.001	
4/4/2018				<0.001				<0.001
4/5/2018			<0.001					
5/8/2018				<0.001				<0.001
5/9/2018			<0.001					
6/19/2018		<0.001	<0.001					<0.001
6/20/2018				<0.001	<0.001	<0.001		
6/21/2018							<0.001	
9/25/2018								<0.001
9/26/2018		0.00014	0.00014					
9/27/2018				<0.001	<0.001	<0.001	<0.001	
11/6/2018				<0.001			<0.001	<0.001
11/7/2018		<0.001	<0.001		<0.001	<0.001		
3/6/2019						<0.001		
8/27/2019		<0.001		<0.001				
8/28/2019			<0.001		<0.001	<0.001	<0.001	<0.001
10/15/2019				<0.001				
10/16/2019		<0.001	<0.001		<0.001			<0.001
10/17/2019						7.6E-05 (J)	<0.001	
3/26/2020		<0.001						
3/27/2020			<0.001					<0.001
3/28/2020				<0.001	<0.001	<0.001	<0.001	
9/14/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/1/2022	<0.001				<0.001	<0.001		
3/2/2022		<0.001	<0.001				<0.001	<0.001
3/3/2022				<0.001				
9/20/2022	<0.001					<0.001		
9/21/2022		<0.001	<0.001	<0.001	<0.001		<0.001	<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.001	<0.001		<0.001				
10/25/2016					<0.001			
11/30/2016	<0.001	<0.001		<0.001	<0.001			
2/15/2017	<0.001	<0.001		<0.001	<0.001			
5/31/2017	<0.001	<0.001			<0.001			
6/1/2017				6E-05 (J)				
6/2/2017			<0.001					
8/2/2017			<0.001					
8/15/2017	<0.001				<0.001			
8/16/2017		<0.001						
8/17/2017			<0.001	7E-05 (J)				
4/4/2018			<0.001					
5/8/2018			<0.001					
6/19/2018	<0.001	<0.001	<0.001		<0.001			
6/20/2018				<0.001				
9/25/2018	<0.001	<0.001						
9/26/2018			0.00014	0.00014	0.00014			
11/6/2018		<0.001			<0.001			
11/7/2018	<0.001		<0.001	<0.001				
8/26/2019		<0.001						
8/27/2019	<0.001		<0.001	6.6E-05 (J)	<0.001			
10/15/2019	<0.001	<0.001	<0.001					
10/16/2019				<0.001	<0.001			
11/7/2019						<0.001	<0.001	<0.001
11/18/2019						<0.001		
11/19/2019							<0.001	<0.001
12/4/2019							<0.001	<0.001
12/5/2019						<0.001		
12/17/2019							<0.001	
12/18/2019						<0.001		<0.001
1/8/2020							<0.001	<0.001
1/9/2020						<0.001		
1/21/2020						<0.001	<0.001	<0.001
2/4/2020						<0.001	<0.001	<0.001
2/13/2020						<0.001	<0.001	<0.001
3/27/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/13/2021	<0.001	<0.001						
9/14/2021			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/1/2022							<0.001	<0.001
3/2/2022			<0.001			<0.001		
3/3/2022	<0.001	<0.001		6.6E-05 (J)	<0.001			
9/20/2022						<0.001	<0.001	<0.001
9/21/2022	<0.001	<0.001	<0.001	<0.001	<0.001			

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		86						
8/31/2016					3620	4160	5100	
11/30/2016		131			4030	3950	4680	
2/15/2017		212						
2/16/2017					4080	4600	5080	
5/31/2017			123					257
6/1/2017		103		97				
6/2/2017					5560	4470	8000	
8/2/2017			136	538				183
8/15/2017								90
8/16/2017		65	124					
8/17/2017				445	4620	5450	8320	
4/4/2018				365				197
4/5/2018			128					
5/8/2018				304				225
5/9/2018			127					
6/19/2018		142	143					112
6/20/2018				114	3370	4940		
6/21/2018							7500	
9/25/2018								137
9/26/2018		133	132					
9/27/2018				255	2360	4480	10200	
11/6/2018				388			11000	89
11/7/2018		121	134		2230	15100		
3/6/2019						19000		
3/24/2019					1450	13700	13700	
3/25/2019		116	111	327				74
10/15/2019				237				
10/16/2019		104	96		2860			82
10/17/2019						16100	13200	
11/20/2019					2640		16700	
3/26/2020		114						
3/27/2020			119					87
3/28/2020				284	1470	18800	18300	
6/16/2020	20100							
10/12/2020								94
10/13/2020		113	118	<25				
10/14/2020						15200	18400	
10/15/2020	19300				5100			
1/4/2021					7750			
3/3/2021		99	84					66
3/4/2021	19000			285	1700	14200	17100	
9/14/2021	16400	66	76	193	8020	11800	13400	191
3/1/2022	15600				3780	9040		
3/2/2022		97	94				12600	124
3/3/2022				146				
9/20/2022	13000					3900		
9/21/2022		100	90	180	2100		9400	110



# Time Series

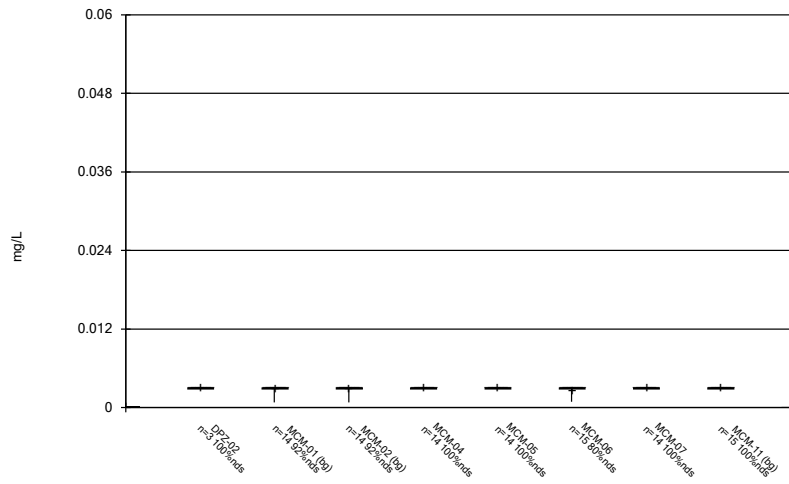
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/22/2022 12:05 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1910	1310		99				
10/25/2016					2900			
11/30/2016	1910	1050		111	3970			
2/15/2017	1870	1440		170	3820			
5/31/2017	1920	1740			5050			
6/1/2017				98				
6/2/2017			69					
8/2/2017			35					
8/15/2017	1840				4820			
8/16/2017		3010						
8/17/2017			51	84				
4/4/2018			90					
5/8/2018			89					
6/19/2018	1820	8630	110		5640			
6/20/2018				123				
9/25/2018	1760	10700						
9/26/2018			124	117	6920			
11/6/2018		11100			4160			
11/7/2018	1800		125	120				
3/24/2019	1770	14200			6840			
3/25/2019			98	101				
10/15/2019	1730	15400	107					
10/16/2019				95	7740			
11/7/2019						4140	10900	13500
11/18/2019						4030		
11/19/2019							10000	13300
11/21/2019		15800			7720			
12/4/2019							11000	13200
12/5/2019						3840		
12/17/2019							9860	
12/18/2019						3880		12500
1/8/2020							9760	12300
1/9/2020						3520		
1/21/2020						3280	10100	12000
2/4/2020						3220	10600	12300
2/13/2020						3580	10900	12400
3/27/2020	1970	16400	110	110	10200	3090	14300	14600
10/12/2020	1560					2920		
10/13/2020		15600	63	115	8750		6600	13900
3/2/2021	1430	12000	40					
3/3/2021				122	8830	2620	11000	11400
9/13/2021	1450	11400						
9/14/2021			96	<25	8820	2190	14600	10300
3/1/2022							4050	10500
3/2/2022			103			3100		
3/3/2022	1400	11500		104	8120			
9/20/2022						2000	10000	8600
9/21/2022	1300	7400	38	78	6200			

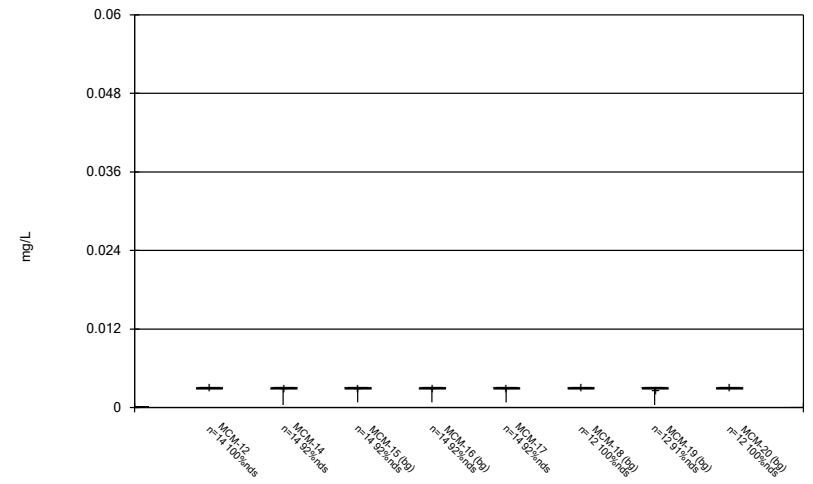
FIGURE B.

### Box & Whiskers Plot



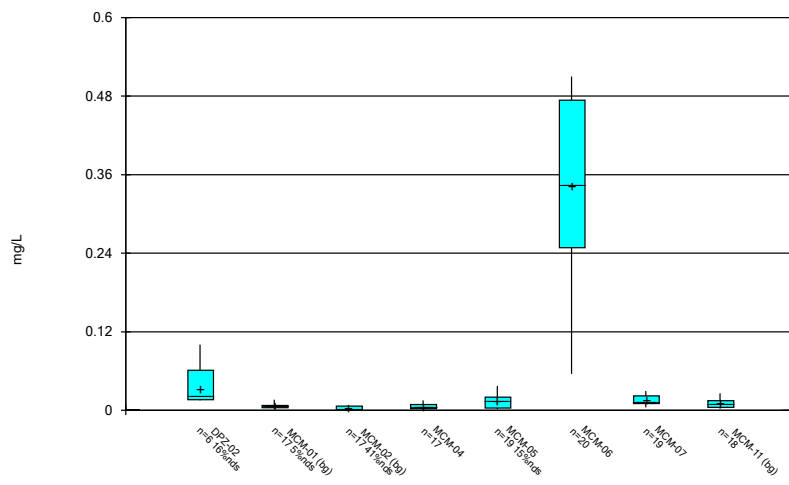
Constituent: Antimony Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



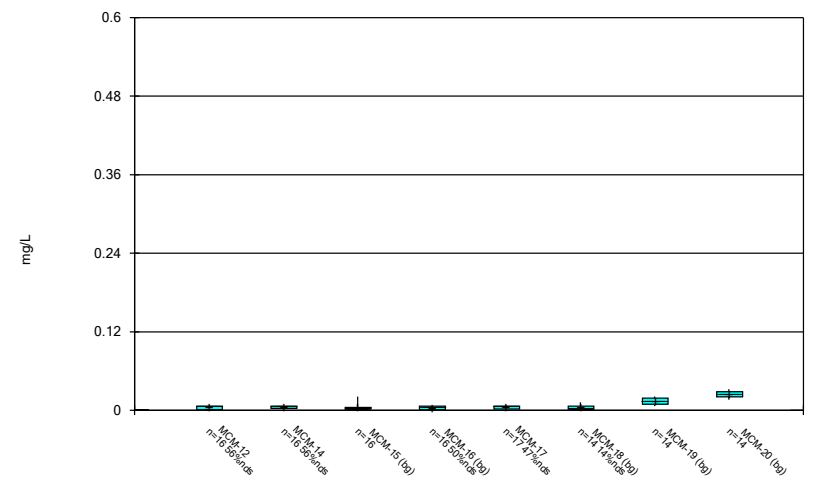
Constituent: Antimony Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



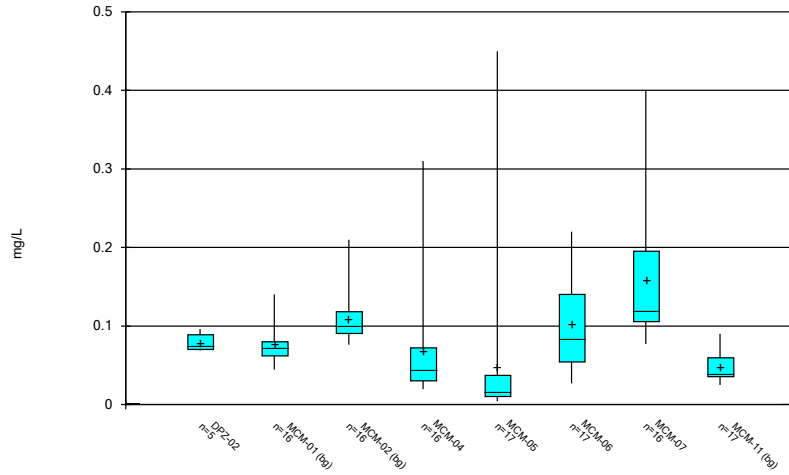
Constituent: Arsenic Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



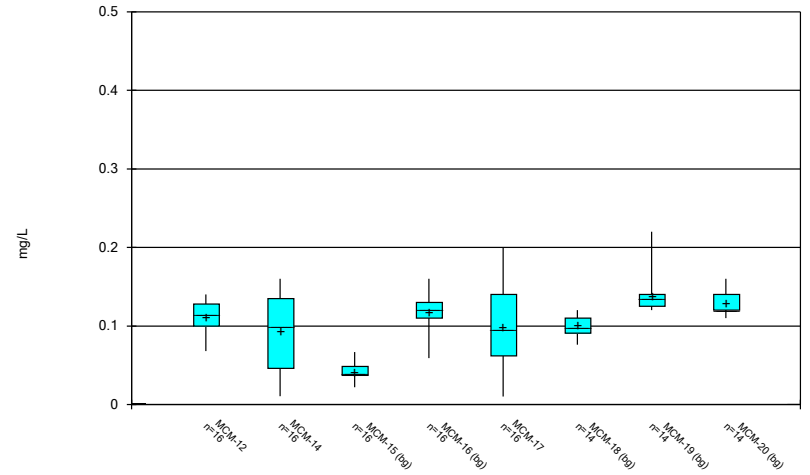
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Box & Whiskers Plot



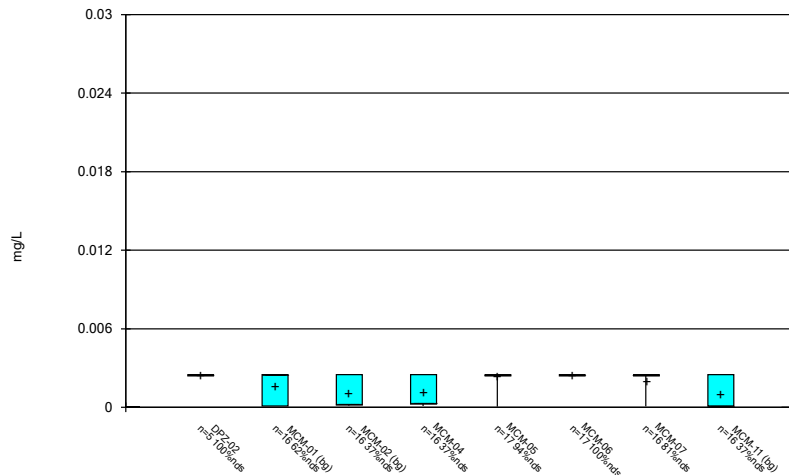
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Box & Whiskers Plot



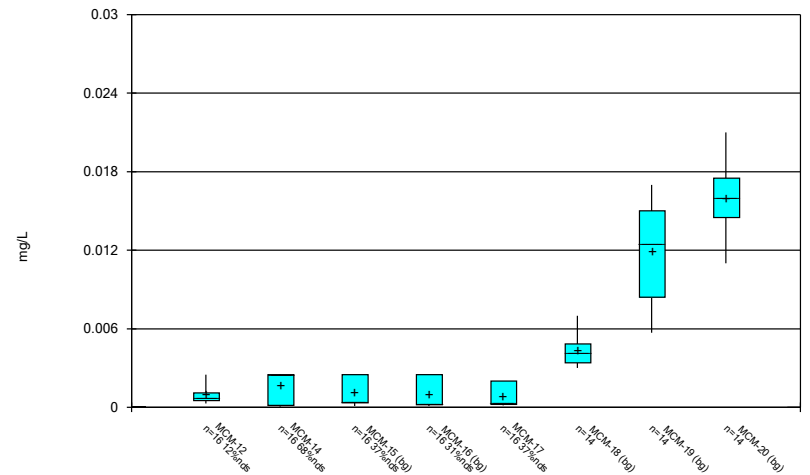
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Box & Whiskers Plot



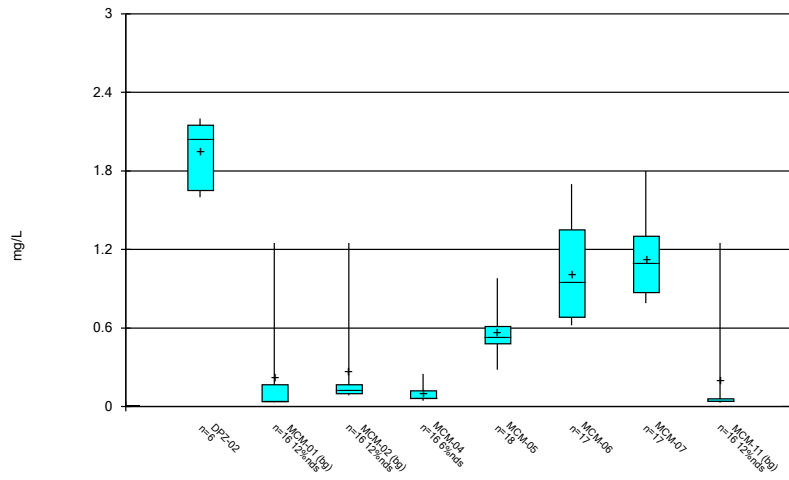
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Box & Whiskers Plot



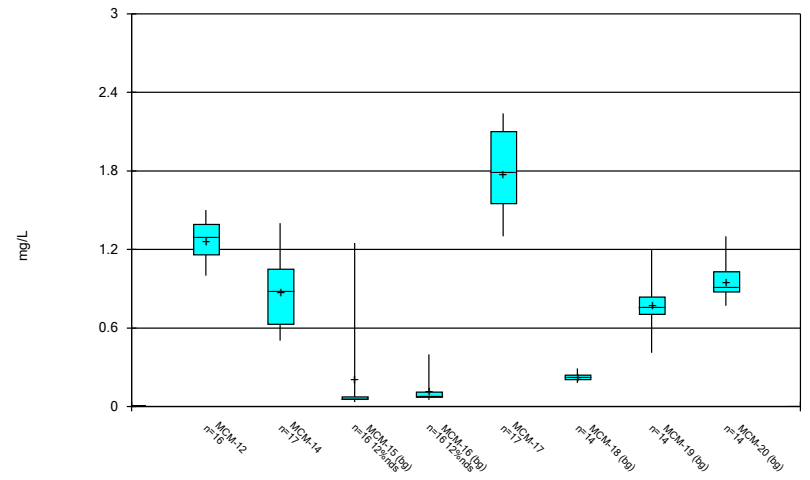
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



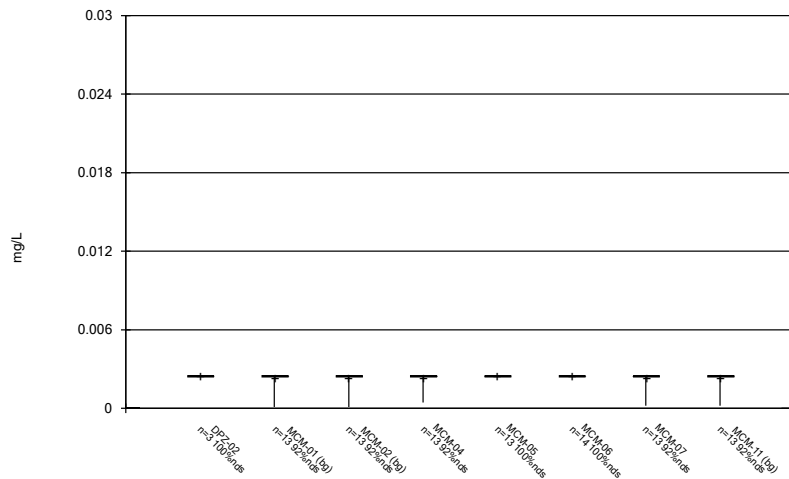
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



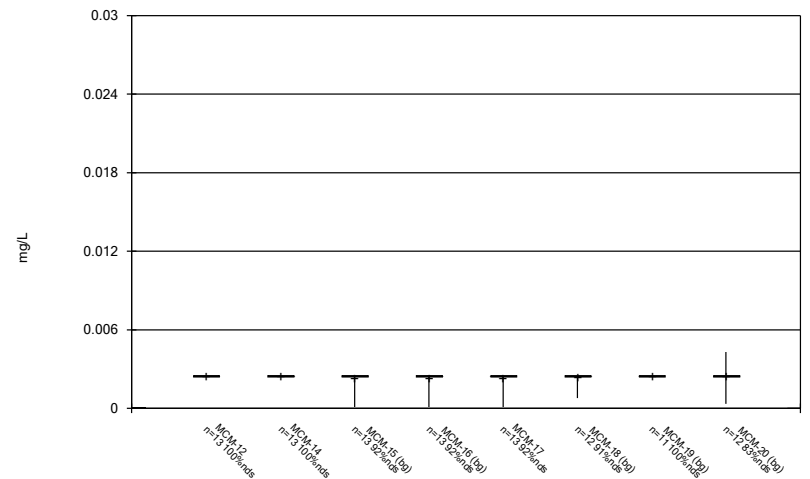
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



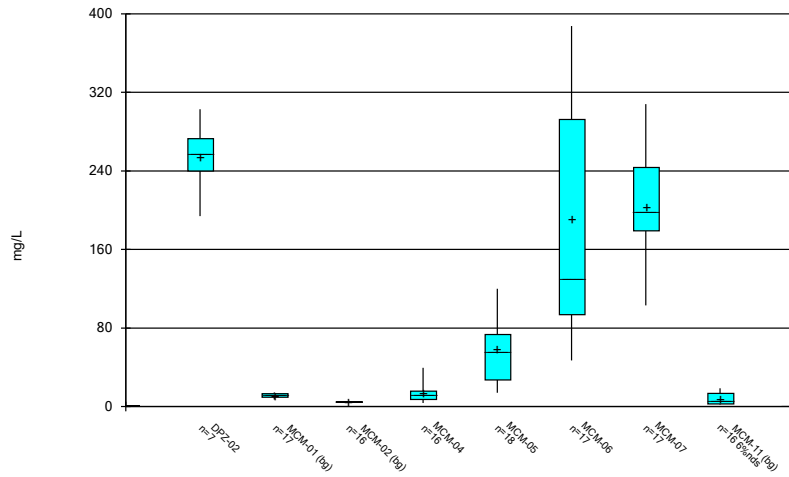
Constituent: Cadmium Analysis Run 12/22/2022 12:06 PM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



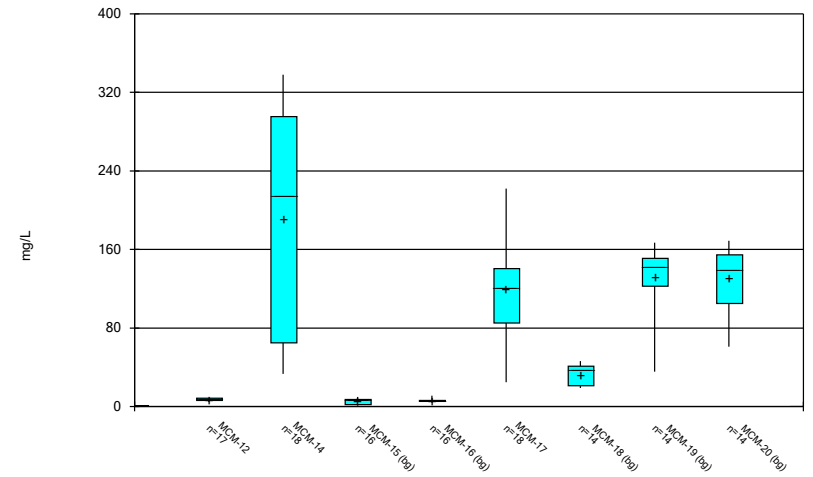
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Box & Whiskers Plot



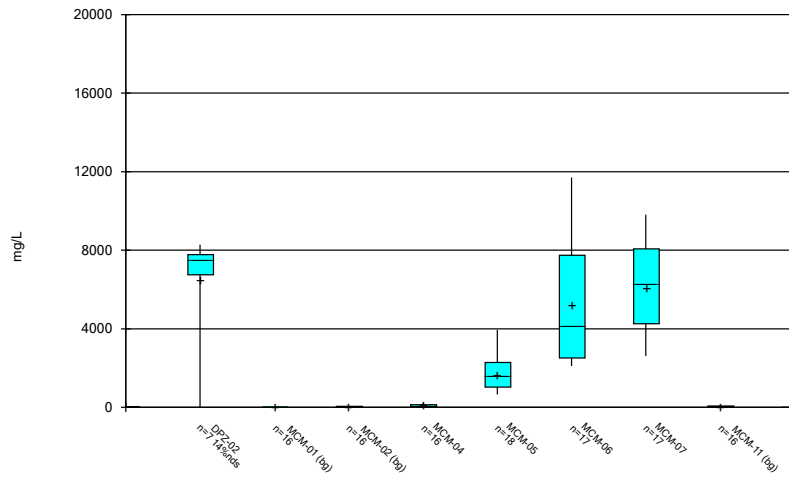
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Box & Whiskers Plot



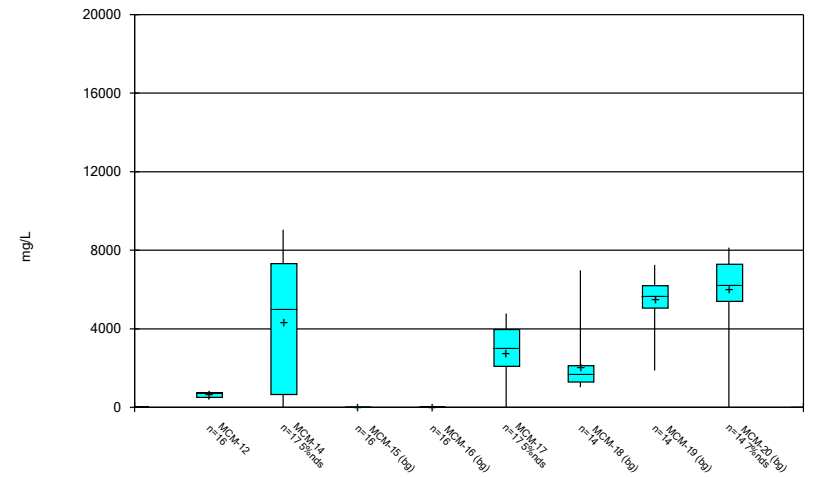
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



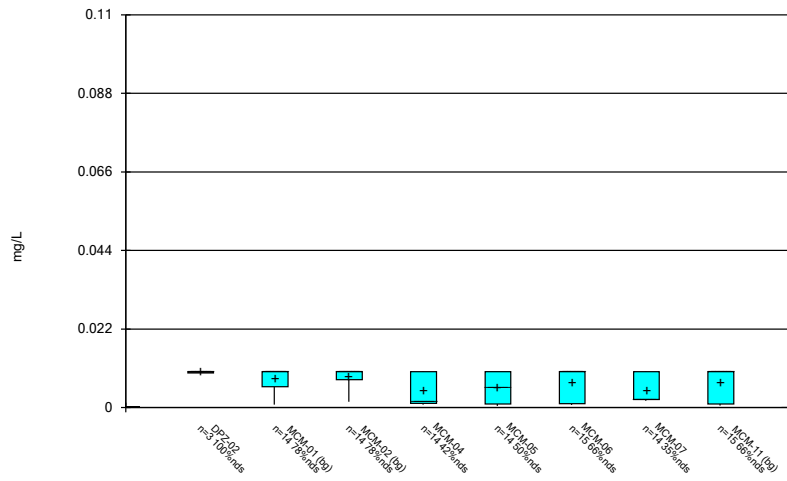
Constituent: Chloride Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



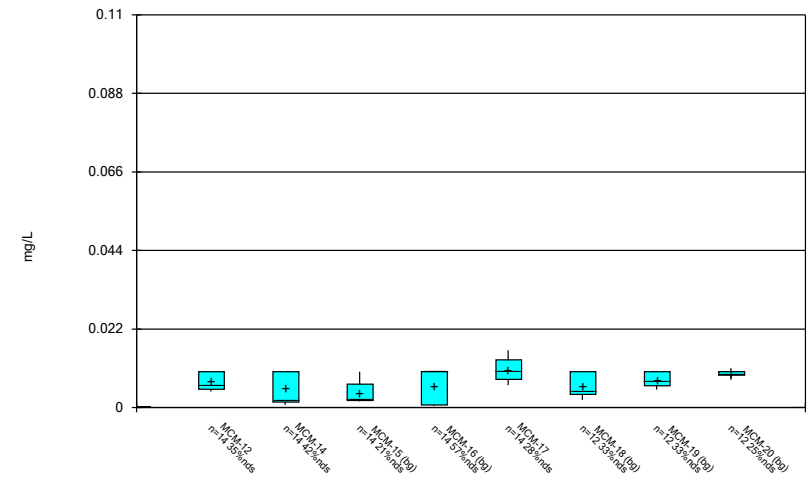
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### Box & Whiskers Plot



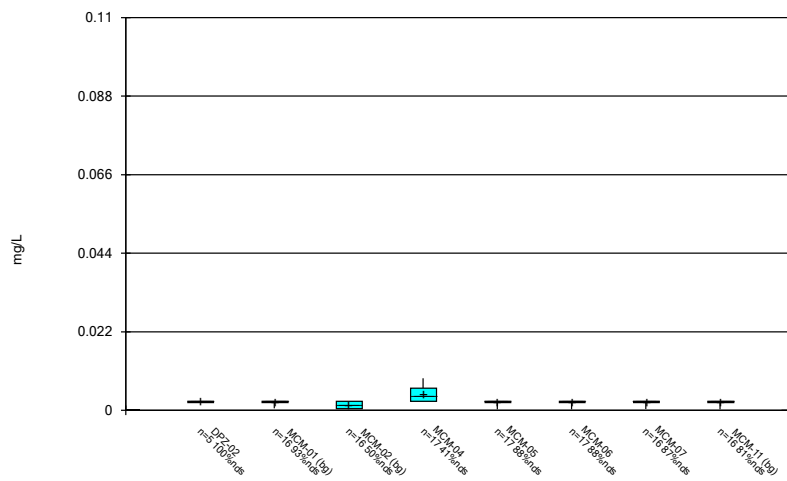
Constituent: Chromium Analysis Run 12/22/2022 12:06 PM  
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### Box & Whiskers Plot



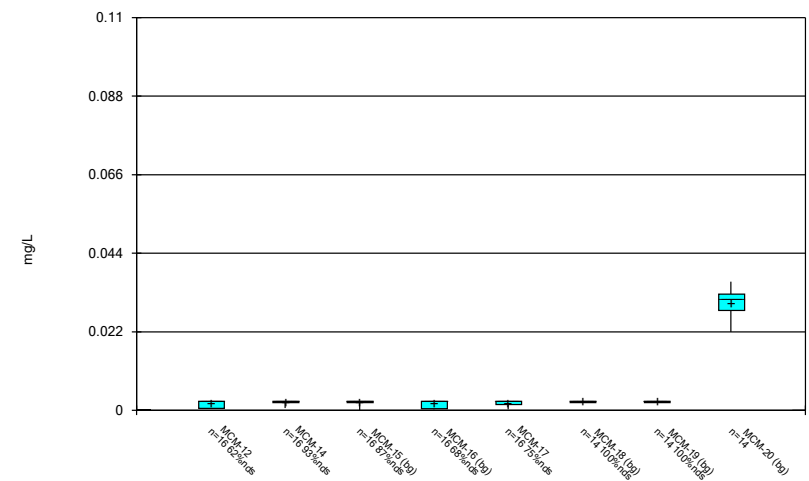
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



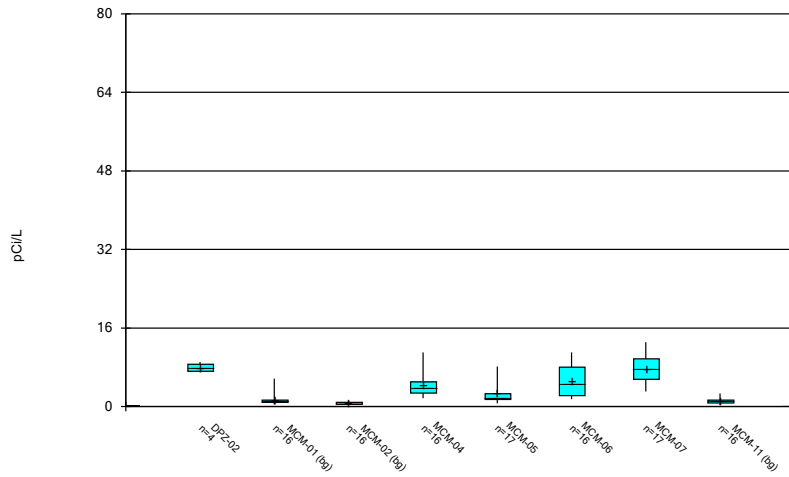
Constituent: Cobalt Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



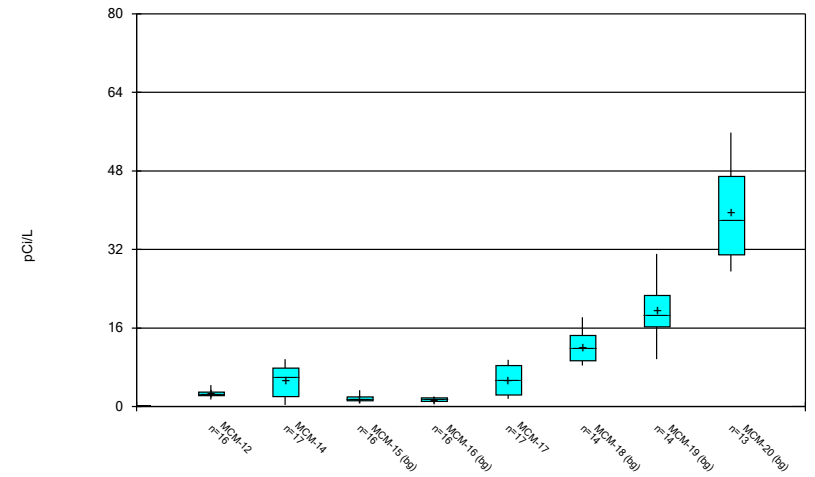
Constituent: Cobalt Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



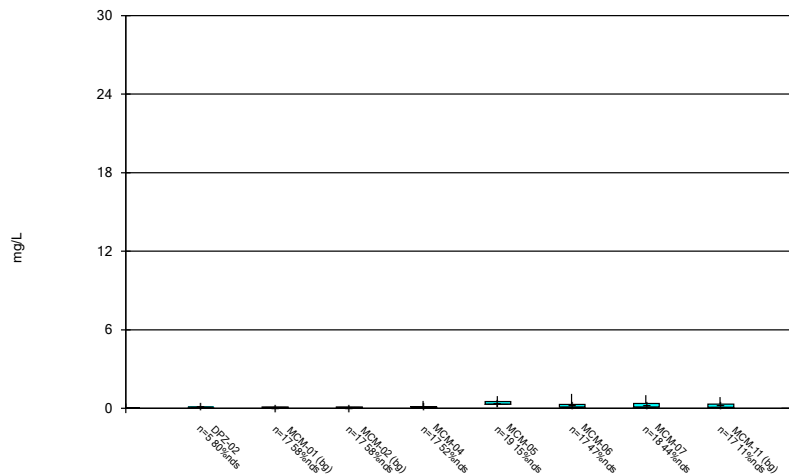
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



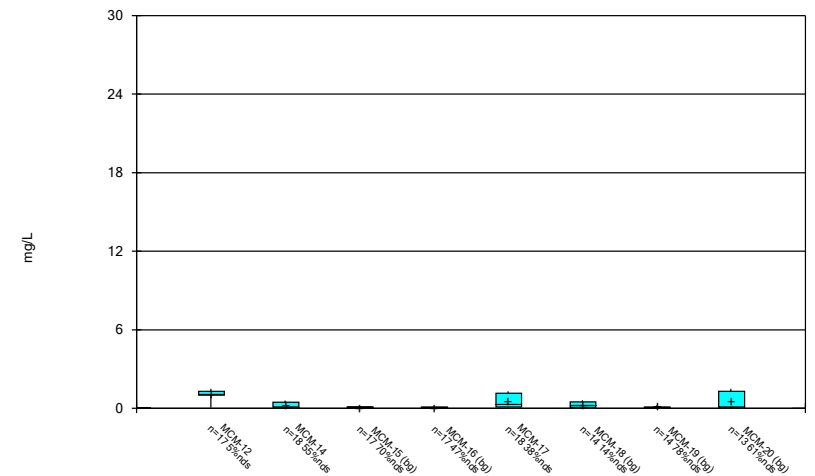
Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

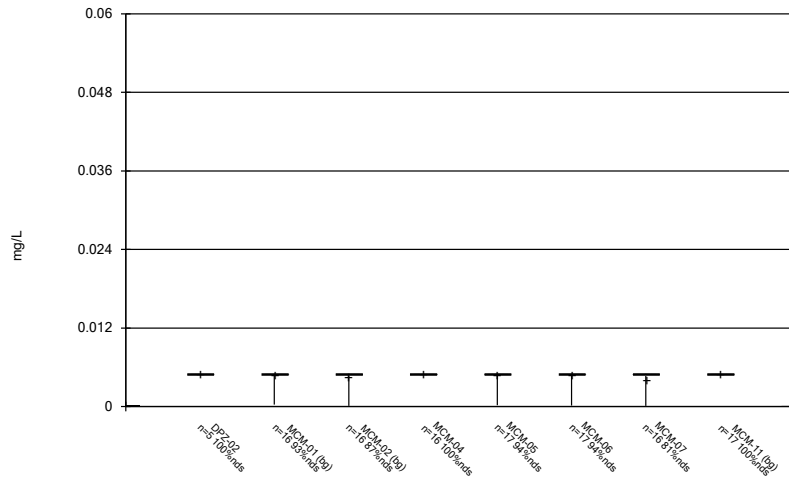
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

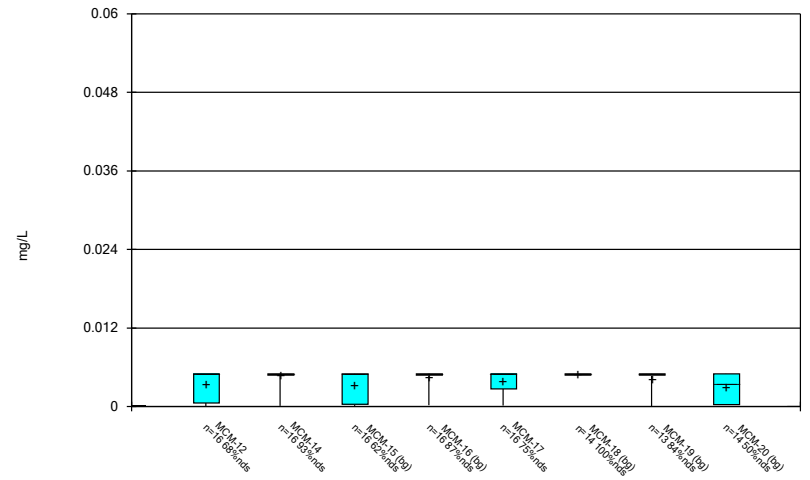


### Box & Whiskers Plot



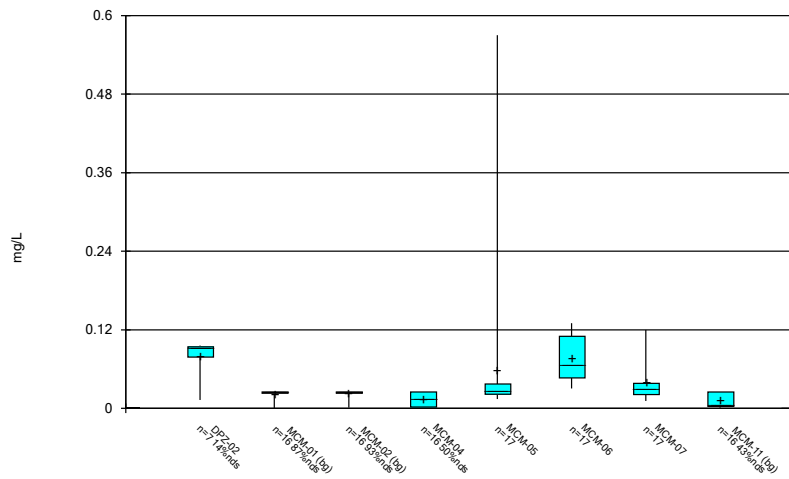
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### Box & Whiskers Plot



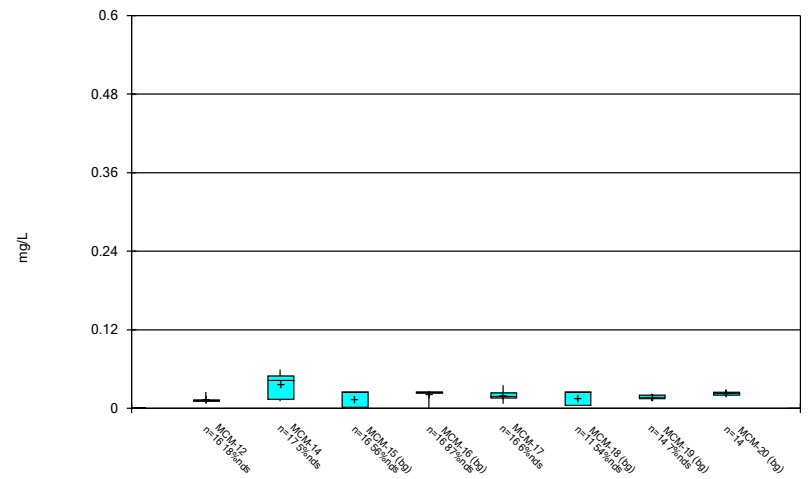
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### Box & Whiskers Plot



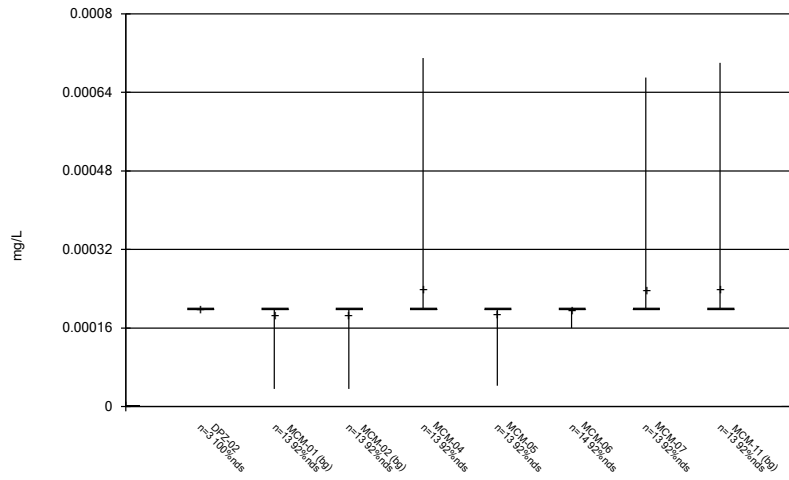
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### Box & Whiskers Plot



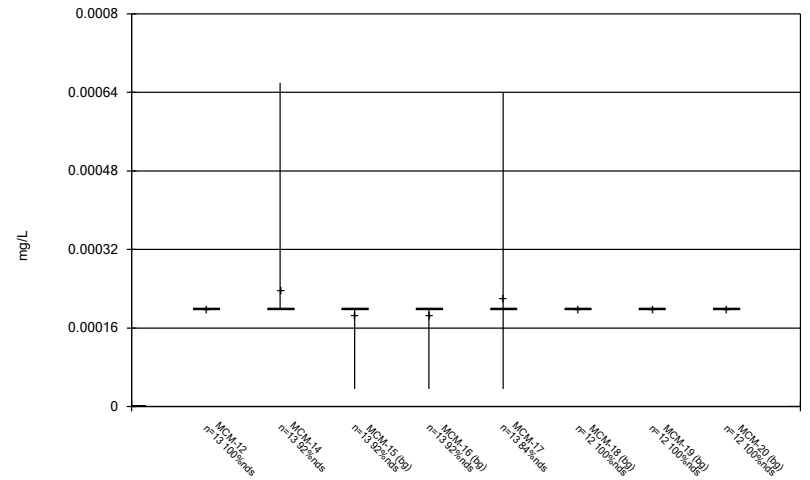
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Box & Whiskers Plot



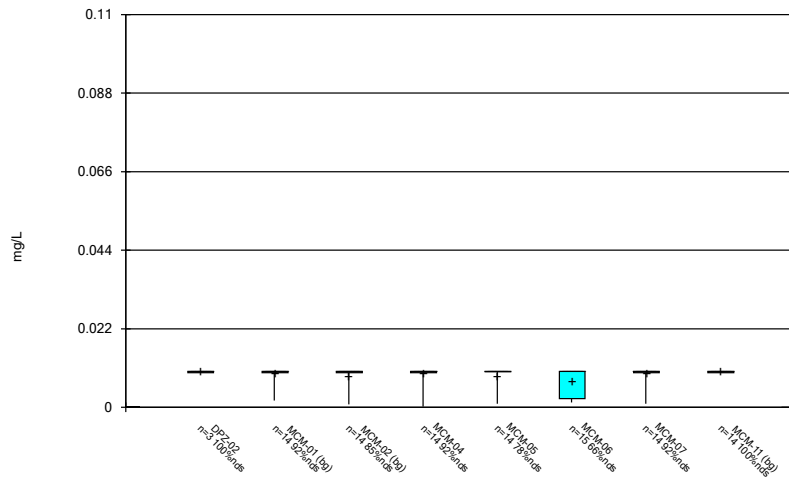
Constituent: Mercury Analysis Run 12/22/2022 12:06 PM  
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Box & Whiskers Plot



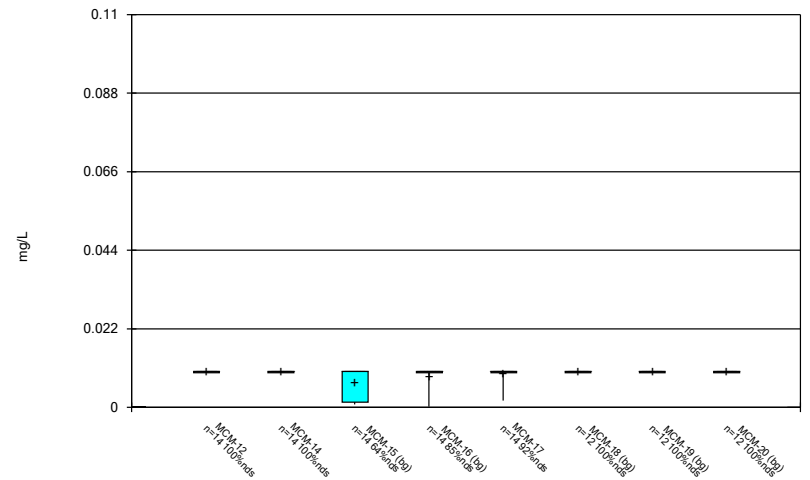
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Box & Whiskers Plot



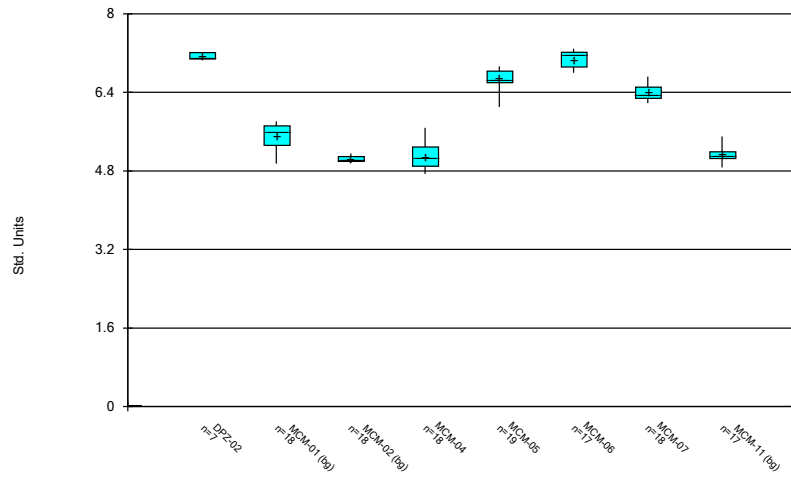
Constituent: Molybdenum Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



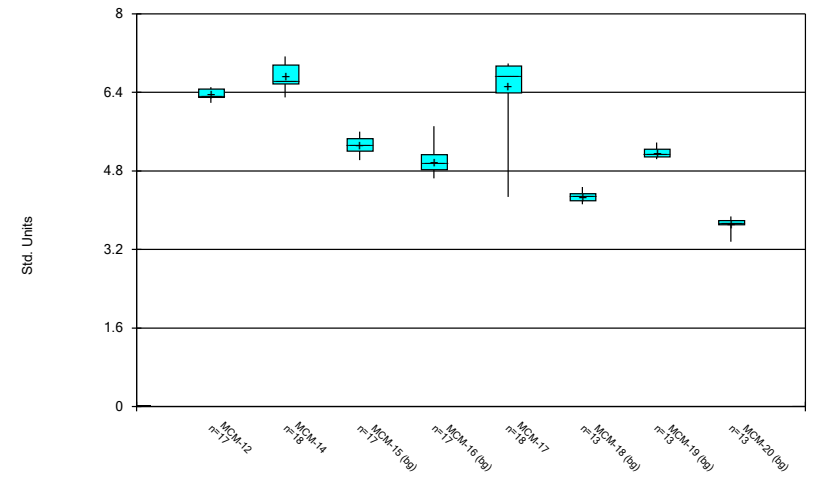
Constituent: Molybdenum Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



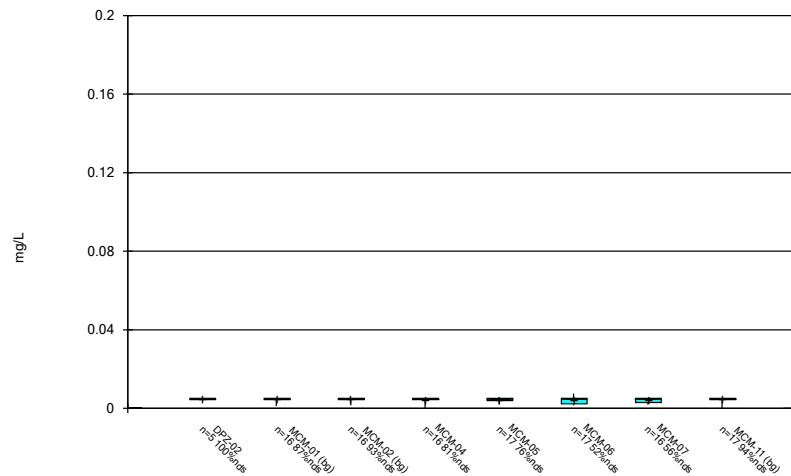
Constituent: pH, field Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



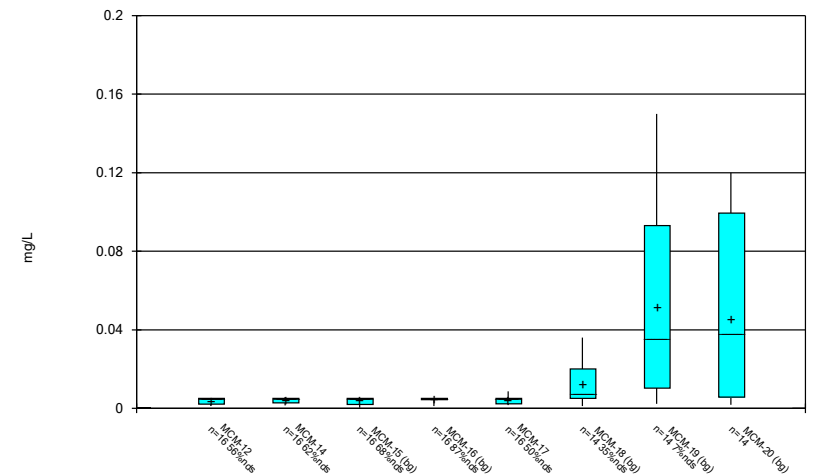
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



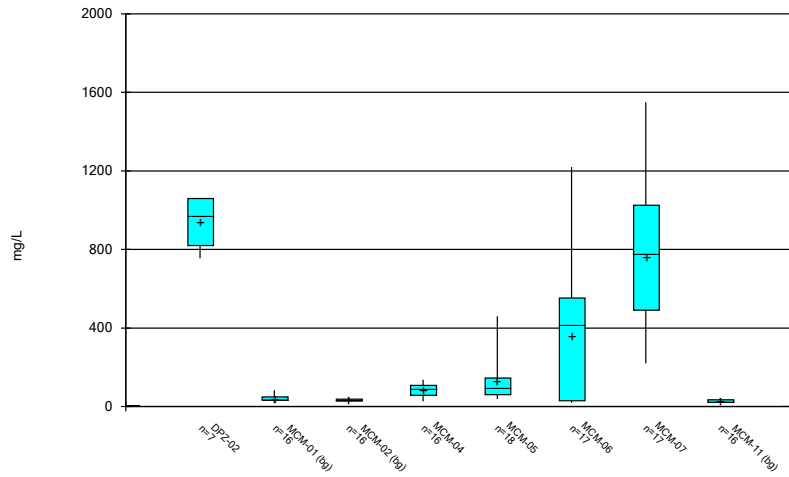
Constituent: Selenium Analysis Run 12/22/2022 12:06 PM  
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Box & Whiskers Plot



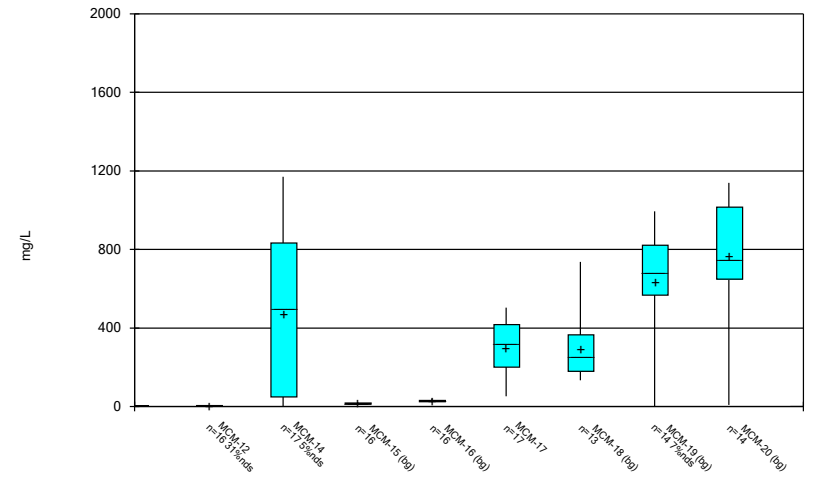
Constituent: Selenium Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



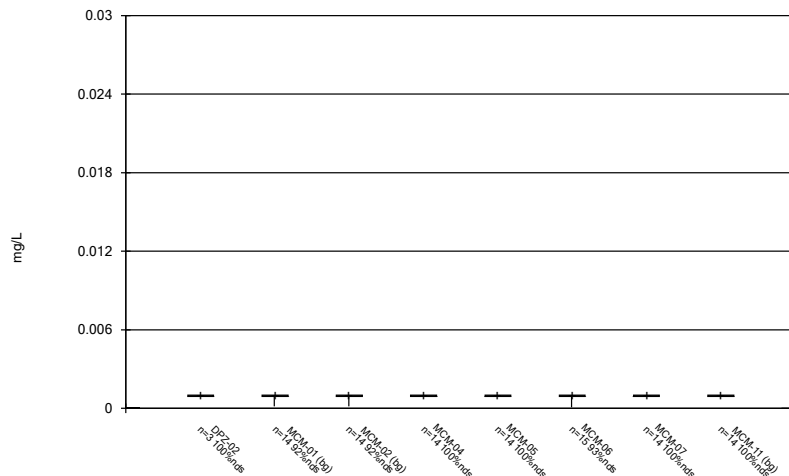
Constituent: Sulfate Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



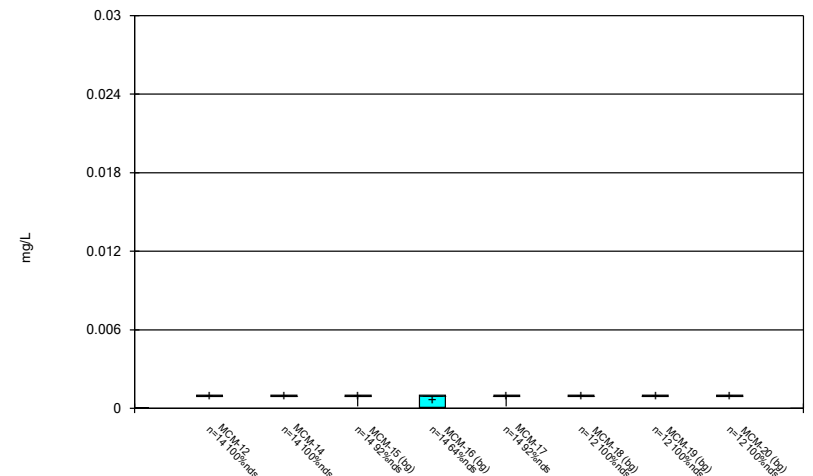
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



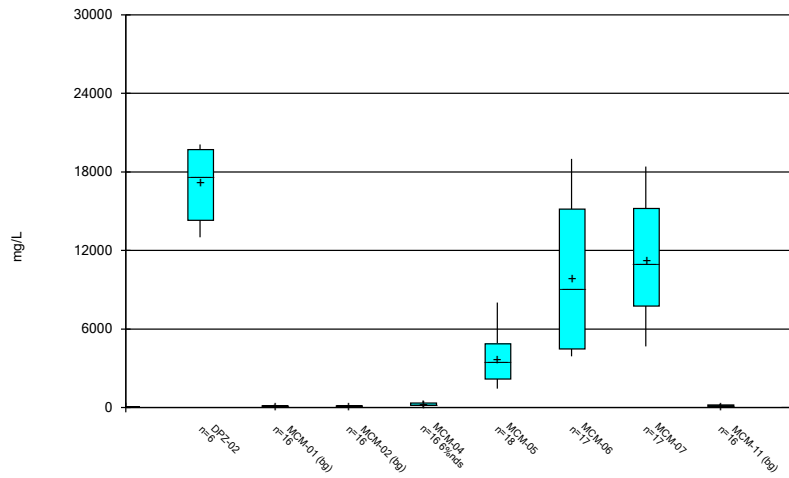
Constituent: Thallium Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



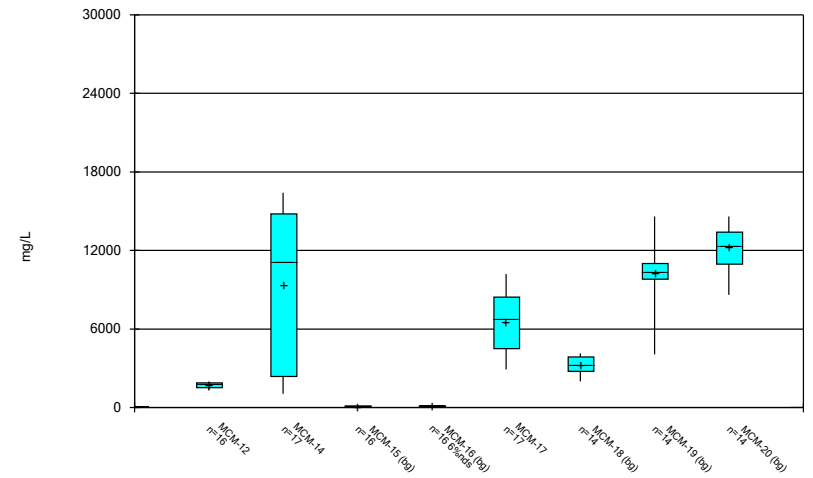
Constituent: Thallium Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/22/2022 12:06 PM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE C.

# Outlier Summary

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/6/2022, 5:07 PM

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	MCM-19 Cadmium (mg/L)	MCM-20 Combined Radium 226 + 228 (pCi/L)	MCM-06 Fluoride (mg/L)	MCM-20 Fluoride (mg/L)	MCM-19 Lead (mg/L)	MCM-18 Lithium (mg/L)
11/7/2018		10.3 (o)				
11/18/2019					<0.025 (o)	
1/21/2020					<0.025 (o)	
2/4/2020					<0.025 (o)	
2/13/2020		76.3 (o)			<0.0063 (o)	
9/20/2022	0.0083 (o)			4.3 (o)		

FIGURE D.



# Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:15 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)	MCM-17	1.3	n/a	9/21/2022	1.8	Yes	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	169	n/a	9/21/2022	190	Yes	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	9/21/2022	6.93	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	9/20/2022	7.29	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	9/21/2022	6.27	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	9/21/2022	6.3	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	9/21/2022	6.61	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	9/21/2022	6.72	Yes	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - All Results

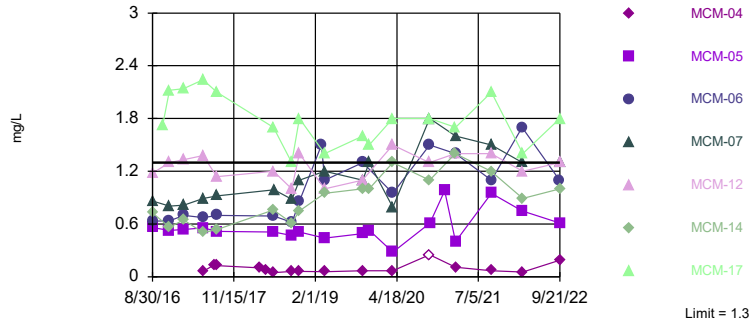
Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/8/2022, 4:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	N	Bq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-04	1.3	n/a	9/21/2022	0.19J	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	9/21/2022	0.61	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	9/20/2022	1.1	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	9/21/2022	1.3	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	9/21/2022	1	No	122	n/a	n/a	n/a	8.197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>MCM-17</b>	<b>1.3</b>	<b>n/a</b>	<b>9/21/2022</b>	<b>1.8</b>	<b>Yes</b>	<b>122</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>8.197</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001314</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-04	169	n/a	9/21/2022	7.8	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	9/21/2022	28	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	9/20/2022	47	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>169</b>	<b>n/a</b>	<b>9/21/2022</b>	<b>190</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.813</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001296</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-12	169	n/a	9/21/2022	4.7	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	9/21/2022	74	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	9/21/2022	110	No	123	n/a	n/a	n/a	0.813	n/a	n/a	n/a	0.0001296	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	9/21/2022	47	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	9/21/2022	1100	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	9/20/2022	2800	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	9/21/2022	6400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	9/21/2022	400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	9/21/2022	3300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	1.5	n/a	9/21/2022	0.1ND	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	1.5	n/a	9/21/2022	0.48	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	1.5	n/a	9/20/2022	1.1J	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	1.5	n/a	9/21/2022	0.18	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	1.5	n/a	9/21/2022	1.3	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	1.5	n/a	9/21/2022	0.12	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	1.5	n/a	9/21/2022	0.78	No	126	n/a	n/a	n/a	50	n/a	n/a	n/a	0.0001243	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	9/21/2022	5.34	No	126	n/a	n/a	n/a	0	n/a	n/a	n/a	0.0002486	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-05</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.93</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>9/20/2022</b>	<b>7.29</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.27</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-12</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.3</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.61</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-17</b>	<b>5.81</b>	<b>3.36</b>	<b>9/21/2022</b>	<b>6.72</b>	<b>Yes</b>	<b>126</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002486</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-04	1140	n/a	9/21/2022	52	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	9/21/2022	100	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	9/20/2022	320	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	9/21/2022	660	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	9/21/2022	0.5ND	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	9/21/2022	270	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-17	1140	n/a	9/21/2022	330	No	121	n/a	n/a	n/a	0.8264	n/a	n/a	n/a	0.0001331	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	9/21/2022	180	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	9/21/2022	2100	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	9/20/2022	3900	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	9/21/2022	9400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	9/21/2022	1300	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	9/21/2022	7400	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	9/21/2022	6200	No	122	n/a	n/a	n/a	0.8197	n/a	n/a	n/a	0.0001314	NP Inter (normality) 1 of 2

Exceeds Limit: MCM-17

Prediction Limit

Interwell Non-parametric



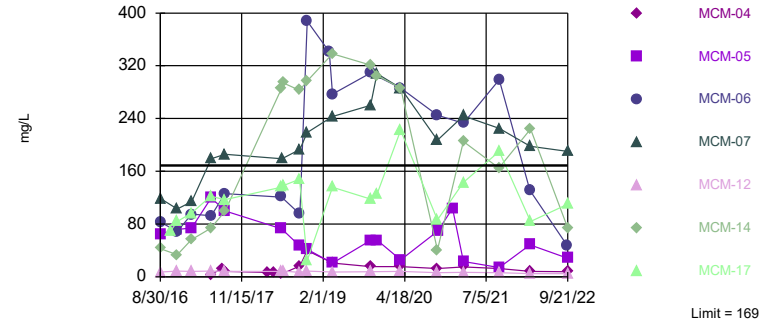
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 8.197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limit: MCM-07

Prediction Limit

Interwell Non-parametric



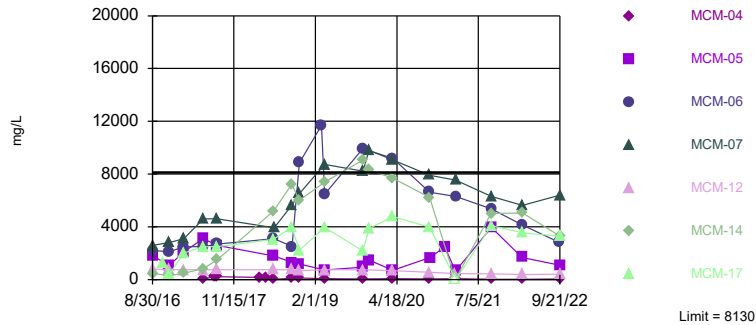
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 123 background values. 0.813% NDs. Annual per-constituent alpha = 0.001813. Individual comparison alpha = 0.0001296 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

Prediction Limit

Interwell Non-parametric



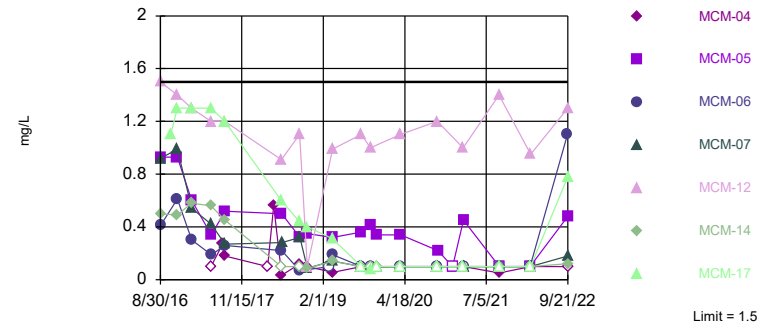
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 0.8197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

Prediction Limit

Interwell Non-parametric

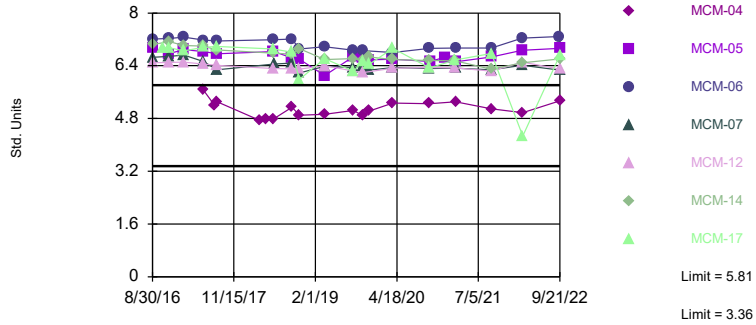


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 126 background values. 50% NDs. Annual per-constituent alpha = 0.001739. Individual comparison alpha = 0.0001243 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-17

Prediction Limit  
Interwell Non-parametric



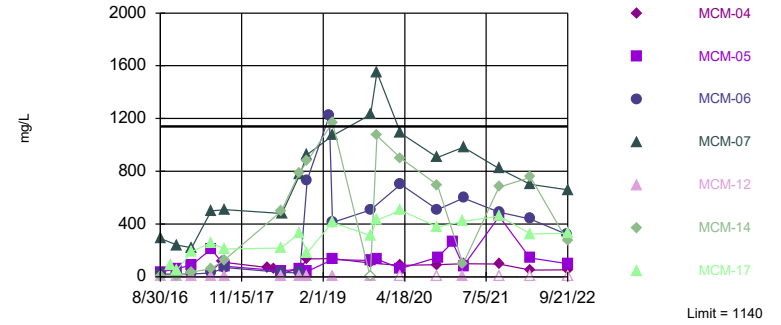
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 126 background values. Annual per-constituent alpha = 0.003478. Individual comparison alpha = 0.0002486 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Within Limit

Prediction Limit  
Interwell Non-parametric



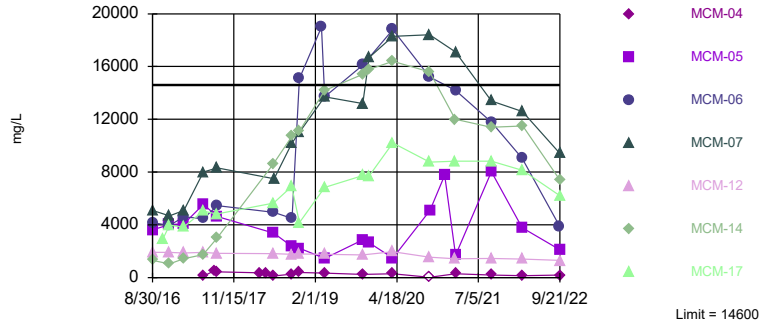
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 121 background values. 0.8264% NDs. Annual per-constituent alpha = 0.001862. Individual comparison alpha = 0.0001331 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 122 background values. 0.8197% NDs. Annual per-constituent alpha = 0.001838. Individual comparison alpha = 0.0001314 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/8/2022 4:13 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	0.0325 (J)	1.18	0.0972 (J)	0.726					
8/31/2016					0.56	0.632	0.863		
10/25/2016								1.73	
11/30/2016	0.0334 (J)	1.3	0.0964	0.565	0.529	0.637	0.804	2.12	
2/15/2017	0.254	1.33	0.398	0.647				2.14	
2/16/2017					0.539	0.698	0.815		
5/31/2017		1.38		0.503				2.24	0.0521
6/1/2017	0.0564		0.0776						
6/2/2017					0.555	0.674	0.891		
8/2/2017									0.0392 (J)
8/15/2017		1.14						2.1	0.0448
8/16/2017	0.0435			0.539					
8/17/2017			0.0853		0.516	0.7	0.922		
4/4/2018									0.046
4/5/2018									
5/8/2018									0.048
5/9/2018									
6/19/2018	0.04 (J)	1.2		0.76				1.7	0.04
6/20/2018			0.079		0.51	0.69			
6/21/2018							0.99		
9/25/2018		1		0.61					0.043
9/26/2018	0.038 (J)		0.072					1.3	
9/27/2018					0.47	0.62	0.88		
11/6/2018				0.75			1.1	1.8	0.046
11/7/2018	0.037 (J)	1.4	0.074		0.51	0.86			
3/6/2019						1.5			
3/24/2019		1		0.95	0.44	1.1	1.2	1.4	
3/25/2019	0.038 (J)		0.067						0.03 (J)
10/15/2019		1.1		1					
10/16/2019	0.036 (J)		0.051		0.49			1.6	0.032 (J)
10/17/2019						1.3	1.1		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					0.53		1.3		
11/21/2019				1				1.5	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	0.064 (J)								
3/27/2020		1.5	0.088 (J)	1.3				1.8	0.058 (J)
3/28/2020					0.28 (J)	0.95	0.79		
10/12/2020		1.3							<0.5
10/13/2020	<0.5		<0.5	1.1				1.8	
10/14/2020						1.5	1.8		
10/15/2020					0.61				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					0.98				
3/2/2021		1.4 (J)		1.4 (J)					
3/3/2021	<0.5		<0.5					1.7 (J)	<0.5
3/4/2021					0.4 (J)	1.4 (J)	1.6 (J)		
9/13/2021		1.4 (M1)		1.2					
9/14/2021	0.079 (J)		0.071 (J)		0.95 (J)	1.1	1.5	2.1 (M1)	0.06 (J)
3/1/2022					0.75 (J)	1.7			
3/2/2022	0.048 (J)						1.3		0.038 (J)
3/3/2022		1.2	0.057	0.89 (J)				1.4	
9/20/2022						1.1			
9/21/2022	0.35 (J)	1.3	0.12 (J)	1	0.61		1.3	1.8	0.17 (J)

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.161					
6/1/2017		0.0608				
6/2/2017			0.0495			
8/2/2017	0.158	0.137	0.0333 (J)			
8/15/2017						
8/16/2017	0.148					
8/17/2017		0.128	0.0593			
4/4/2018		0.1	0.065			
4/5/2018	0.13					
5/8/2018		0.074	0.062			
5/9/2018	0.12					
6/19/2018	0.13		0.064			
6/20/2018		0.045				
6/21/2018						
9/25/2018						
9/26/2018	0.1		0.06			
9/27/2018		0.06				
11/6/2018		0.06				
11/7/2018	0.1		0.062 (J)			
3/6/2019						
3/24/2019						
3/25/2019	0.091	0.058	0.057			
10/15/2019		0.068	0.046			
10/16/2019	0.085					
10/17/2019						
11/7/2019				1.1	0.84	0.27
11/18/2019						0.29 (J)
11/19/2019				1.3	0.83	
11/20/2019						
11/21/2019						
12/4/2019				0.81	0.68	
12/5/2019						0.23
12/17/2019					0.57	
12/18/2019				0.77		0.23
1/8/2020				0.9	0.73	
1/9/2020						0.2
1/21/2020				0.94	0.75	0.24 (J)
2/4/2020				0.96 (J)	0.79 (J)	0.24 (J)
2/13/2020				0.88	0.74	0.22
3/26/2020						
3/27/2020	0.17 (J)		0.076 (J)	0.94	0.96	0.24 (J)
3/28/2020		0.067 (J)				
10/12/2020						0.24 (J)
10/13/2020	<0.5	<0.5	<0.5	1.1	0.73	
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			<0.5			
3/3/2021	<0.5			0.91 (J)	0.79 (J)	0.21 (J)
3/4/2021		0.11 (J)				
9/13/2021						
9/14/2021	0.093 (J)	0.07 (J)	0.068 (J)	0.91 (J)	1.2	0.2 (J)
3/1/2022				0.87 (J)	0.41 (J)	
3/2/2022	0.086		0.054			0.23 (J)
3/3/2022		0.053				
9/20/2022				0.9	0.77	0.18 (J)
9/21/2022	0.23 (J)	0.19 (J)	0.14 (J)			



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	7.3	7.05	4.02	42.8					
8/31/2016					65	82.8	119		
10/25/2016								69.4	
11/30/2016	10.8	8.69	4.87	33.2	71.7	68.7	103	83.9	
2/15/2017	14.3	8.34	6.61	56.1				96.3	
2/16/2017					74	94.8	114		
5/31/2017		8.85		73.6				122	18.6
6/1/2017	12.7 (J)		6.42						
6/2/2017					120	92.5	179		
8/2/2017									18.5
8/15/2017		8.05						117	4.09
8/16/2017	8.7			99.6					
8/17/2017			5.62		100	126	186		
4/4/2018									<25
4/5/2018									
5/8/2018									18.4 (J)
5/9/2018									
6/19/2018	11.6 (J)	8.3		285				136	4.3
6/20/2018			5.7		72.8	121			
6/21/2018							179		
6/28/2018	13	8.9		294				138	
9/25/2018		6.8		283					6.2 (D)
9/26/2018	12.8 (J)		5.3					148	
9/27/2018					46.6	95.1	193		
11/6/2018				297			219	24.7	1.8
11/7/2018	11.9	8.5	5.3		41.8	387.5 (D)			
3/6/2019						341			
3/24/2019		7.4		338	20.9 (J)	277	243	136	
3/25/2019	12.6 (J)		5.7						2.5 (D)
10/15/2019		7.9		321					
10/16/2019	13.6		4.8		55.2			118	2.2
10/17/2019						309	260		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					55.8		308		
11/21/2019				305				125	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	10.1								
3/27/2020		8.3	5.4	286				222	3.3
3/28/2020					25.8	286	286		
10/12/2020		6.1							2.8
10/13/2020	9.8		5.7	40.9				86.4	
10/14/2020						245	207		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
10/15/2020					69.1				
1/4/2021					104				
3/3/2021	14								
3/4/2021		6.5	11.2	205	23.4	233	244	143	2.1
9/13/2021		6		165					
9/14/2021	9.6		6.5		13.9	299	225	190	14
3/1/2022					48.4	131			
3/2/2022	8.2						198		6.8
3/3/2022		4.6	5.4	224				84	
9/20/2022						47			
9/21/2022	9.2	4.7	4.6	74	28		190	110	7.6

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.9					
6/1/2017		3.65				
6/2/2017			2.77			
8/2/2017	4.69	12.4	1.27			
8/15/2017						
8/16/2017	5.25					
8/17/2017		8.17	5.53			
4/4/2018		6.8	6.5			
4/5/2018	5					
5/8/2018		5.7	6.7			
5/9/2018	4.7					
6/19/2018	4.8		7.4			
6/20/2018		4.3				
6/21/2018						
6/28/2018						
9/25/2018						
9/26/2018	4.6		8.5 (J)			
9/27/2018		16.4 (J)				
11/6/2018		39.5				
11/7/2018	4.6		9.8			
3/6/2019						
3/24/2019						
3/25/2019	4.7	20.8 (J)	7.8			
10/15/2019		15.5	6.7			
10/16/2019	4.9					
10/17/2019						
11/7/2019				158	46.2	163
11/18/2019					41.8	
11/19/2019				152		169
11/20/2019						
11/21/2019						
12/4/2019				142		140
12/5/2019					40.5	
12/17/2019				136		
12/18/2019					42	145
1/8/2020				147		157
1/9/2020					37.1	
1/21/2020				167	40.1	152
2/4/2020				142	36.2	139
2/13/2020				148	38.9	146
3/26/2020						
3/27/2020	4.9		5.9	122	23.2	113
3/28/2020		15.5				
10/12/2020					19.1	
10/13/2020	3.8	12.5	0.83	125		128
10/14/2020						

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
10/15/2020						
1/4/2021						
3/3/2021	4					
3/4/2021		15.1	1.4	123	26	110
9/13/2021						
9/14/2021	4.2	12.5	6.7	93.6	18.8	61.1
3/1/2022				35.5		99.8
3/2/2022	4.1		7.2		22.3	
3/3/2022		8				
9/20/2022				150	20	100
9/21/2022	4.3	7.8	0.83			

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	9.7	800	26	450					
8/31/2016					1800	2200	2600		
10/25/2016								1300	
11/30/2016	19	760	27	310	1100	2100	2800	400	
2/15/2017	21	740	30	490				2000	
2/16/2017					2100	2500	3100		
5/31/2017		740		820				2500	98
6/1/2017	12		27						
6/2/2017					3100	2500	4600		
8/2/2017									57
8/15/2017		750						2500	15
8/16/2017	14			1500					
8/17/2017			32		2600	2700	4600		
4/4/2018									69
4/5/2018									
5/8/2018									72.3
5/9/2018									
6/19/2018	24.4	760		5180				3050	17.3
6/20/2018			30		1800	3100			
6/21/2018							3920		
9/25/2018		752 (D)		7220					31.3
9/26/2018	23.4		28.4					3965 (D)	
9/27/2018					1300	2510 (D)	5660 (D)		
11/6/2018				6020			6520	2230	9.8
11/7/2018	21.8	665	25.1		1180	8860			
3/6/2019						11700			
3/24/2019		744		7400	717	6470	8720	3960	
3/25/2019	19.4		21.8						12.9
10/15/2019		744		9050					
10/16/2019	21.4		20		941 (D)			2181.5 (D)	12.2
10/17/2019						9930	8210		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					1480		9810		
11/21/2019				8330				3890	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	23								
3/27/2020		675	23.6	7680				4770	14.5
3/28/2020					693	9190	9070		
10/12/2020		552							13.9
10/13/2020	13.5		23.3	6230				3980	
10/14/2020						6630	7910		
10/15/2020					1660				

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					2460				
3/2/2021		459		<1					
3/3/2021	13.6		27.6					<1	9.4
3/4/2021					652	6310	7540		
9/13/2021		433		5010					
9/14/2021	16.7		30		3940	5360	6300	4090	62.8
3/1/2022					1680	4150			
3/2/2022	13.4						5630		28.4
3/3/2022		394	26.5	5040				3540	
9/20/2022						2800			
9/21/2022	17	400	17	3300	1100		6400	3300	32

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	39					
6/1/2017		22				
6/2/2017			11			
8/2/2017	42	230	3.2			
8/15/2017						
8/16/2017	41					
8/17/2017		210	12			
4/4/2018		156	13.4			
4/5/2018	40.2					
5/8/2018		140	13.2			
5/9/2018	40.6					
6/19/2018	37.7		13.7			
6/20/2018		27.5				
6/21/2018						
9/25/2018						
9/26/2018	33.4		18.5			
9/27/2018		101				
11/6/2018		107				
11/7/2018	30.7		20.2			
3/6/2019						
3/24/2019						
3/25/2019	33.5	78.5	19.7			
10/15/2019		46	17.1			
10/16/2019	33.1					
10/17/2019						
11/7/2019				7880	6170	2360
11/18/2019						6970
11/19/2019				8130	5650	
11/20/2019						
11/21/2019						
12/4/2019				7410	6100	
12/5/2019						2130
12/17/2019					5660	
12/18/2019				7170		2090
1/8/2020				6480	5070	
1/9/2020						1750
1/21/2020				6000	5010	1630
2/4/2020				5700	5030	1760
2/13/2020				7060	6140	1850
3/26/2020						
3/27/2020	32.9		14.1	7110	6870	1450
3/28/2020		71.4				
10/12/2020						1340
10/13/2020	25.7	54.4	3.8	5980	5260	
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			4.2			
3/3/2021	20.5			<1	5170	1230
3/4/2021		69.6				
9/13/2021						
9/14/2021	21.8	28.5	13.6	5100	7250	1020
3/1/2022				4900	1870	
3/2/2022	20.6		14.3			1420
3/3/2022		12.2				
9/20/2022				5700	6200	1200
9/21/2022	23	47	3.3			



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-06	MCM-07	MCM-05	MCM-17	MCM-11 (bg)
8/30/2016	0.03 (J)	1.5	0.5	0.04 (J)					
8/31/2016					0.41	0.92	0.93		
10/25/2016								1.1	
11/30/2016	0.04 (J)	1.4	0.49	0.18 (J)	0.61	0.99	0.93	1.3	
2/15/2017	0.007 (J)	1.3	0.58	0.02 (J)				1.3	
2/16/2017					0.3 (J)	0.54	0.6		
5/31/2017		1.2	0.56					1.3	0.85
6/1/2017	<0.1			0.005 (J)					
6/2/2017					0.19 (J)	0.42	0.34		
8/2/2017									0.69
8/15/2017		1.2						1.2	0.29 (J)
8/16/2017	0.03 (J)		0.45						
8/17/2017				0.04 (J)	0.26 (J)	0.27 (J)	0.52		
4/4/2018									0.32
4/5/2018									
5/8/2018									0.63
5/9/2018									
6/19/2018	<0.1	0.91	<0.1					0.6	0.17 (J)
6/20/2018				0.038 (J)	0.22 (J)		0.5		
6/21/2018						0.28 (J)			
9/25/2018		1.1	<0.1						0.15 (J)
9/26/2018	0.12 (J)			0.029				0.44 (D)	
9/27/2018					0.068 (J)	0.32 (D)	0.32		
11/6/2018			0.084 (J)			0.086 (J)		0.4	<0.1
11/7/2018	<0.1	<0.1		<0.1	10.3 (o)		0.35		
3/6/2019					<0.1				
3/24/2019		0.99	0.14 (J)		0.19 (J)	0.14 (J)	0.32	0.31	
3/25/2019	0.038 (J)			0.041 (J)					0.12 (J)
8/26/2019			<0.1						
8/27/2019	<0.1	1.1		<0.1				<0.1	
8/28/2019					<0.1	<0.1	0.36		0.068 (J)
10/15/2019		1	<0.1						
10/16/2019	0.046 (JD)			0.044 (J)			0.41	0.083 (J)	0.1 (J)
10/17/2019					<0.1	<0.1			
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019						<0.1	0.34		
11/21/2019			<0.1					<0.1	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	<0.1								
3/27/2020		1.1	<0.1	<0.1				<0.1	0.066 (J)
3/28/2020					<0.1	<0.1	0.34		
10/12/2020		1.2							<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-06	MCM-07	MCM-05	MCM-17	MCM-11 (bg)
10/13/2020	<0.1		<0.1	<0.1				<0.1	
10/14/2020					<0.1	<0.1			
10/15/2020							0.22		
1/4/2021							<0.1		
3/2/2021		1	<0.1						
3/3/2021	<0.1			<0.1				<0.1	0.082 (J)
3/4/2021					<0.1	<0.1	0.45		
9/13/2021		1.4	<0.1						
9/14/2021	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	0.18
3/1/2022					<0.1		<0.1		
3/2/2022	<0.1					<0.1			0.097 (J)
3/3/2022		0.95	<0.1	<0.1				<0.1	
9/20/2022					1.1 (J)				
9/21/2022	<0.1	1.3	0.12	<0.1		0.18	0.48	0.78	0.11

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.01 (J)					
6/1/2017		<0.1				
6/2/2017			<0.1			
8/2/2017	0.14 (J)	0.27 (J)	0.05 (J)			
8/15/2017						
8/16/2017	0.13 (J)					
8/17/2017		0.18 (J)	<0.1			
4/4/2018		<0.1	<0.1			
4/5/2018	<0.1					
5/8/2018		0.56	<0.1			
5/9/2018	<0.1					
6/19/2018	0.065 (J)		0.057 (J)			
6/20/2018		0.033 (J)				
6/21/2018						
9/25/2018						
9/26/2018	0.029		0.029			
9/27/2018		0.12 (J)				
11/6/2018		<0.1				
11/7/2018	<0.1		<0.1			
3/6/2019						
3/24/2019						
3/25/2019	0.039 (J)	0.055 (J)	0.036 (J)			
8/26/2019						
8/27/2019		<0.1	<0.1			
8/28/2019	<0.1					
10/15/2019		0.095 (J)	0.14 (J)			
10/16/2019	0.044 (JD)					
10/17/2019						
11/7/2019				<0.1	1.4	0.49
11/18/2019						0.52
11/19/2019				0.033 (J)	1.2	
11/20/2019						
11/21/2019						
12/4/2019				0.22 (J)	1.4	
12/5/2019						0.5
12/17/2019				<0.1		
12/18/2019					1.5	0.33
1/8/2020				<0.1	<0.1	
1/9/2020						0.12 (J)
1/21/2020				0.11 (J)	0.53	0.13 (J)
2/4/2020				<0.1	<0.1	0.18 (J)
2/13/2020				<0.1	<0.1	0.077 (J)
3/26/2020						
3/27/2020	<0.1		<0.1	<0.1	<0.1	0.06 (J)
3/28/2020		<0.1				
10/12/2020						0.34

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
10/13/2020	<0.1	<0.1	<0.1	<0.1	<0.1	
10/14/2020						
10/15/2020						
1/4/2021						
3/2/2021			<0.1			
3/3/2021	<0.1			<0.1	<0.1	0.32
3/4/2021		<0.1				
9/13/2021						
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1	<0.1
3/1/2022				<0.1	<0.1	
3/2/2022	<0.1		<0.1			<0.1
3/3/2022		<0.1				
9/20/2022				<0.1	4.3 (Jo)	0.61 (J)
9/21/2022	<0.1	<0.1	<0.1			

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-02 (bg)
8/30/2016	5.66	5.18	7.04	6.49					
8/31/2016					6.93	7.21	6.66		
10/25/2016								6.95	
11/30/2016	5.36	4.96	7.13	6.5	6.77	7.23	6.69	6.95	
2/15/2017	5.25	5.13	7.02	6.51				6.85	
2/16/2017					6.89	7.27	6.72		
5/31/2017			7	6.45				6.96	5.06
6/1/2017	5.59	4.99							
6/2/2017					6.83	7.18	6.53		
8/2/2017									5
8/15/2017				6.41				6.99	
8/16/2017	5.58		6.88						4.98
8/17/2017		4.68			6.76	7.15	6.28		
4/4/2018									
4/5/2018									5.02
5/8/2018									
5/9/2018									4.96
6/19/2018	5.51		6.78	6.32				6.91	5.02
6/20/2018		4.77			6.83	7.19			
6/21/2018							6.45		
9/25/2018			6.75	6.31					
9/26/2018	5.32	4.65						6.81	5.06
9/27/2018					6.64	7.21	6.48		
11/6/2018			6.92				6.18	5.99	
11/7/2018	5.72	4.99		6.3	6.6	6.91			5.03
3/24/2019			6.59	6.4	6.1	6.98	6.38	6.62	
3/25/2019	5.75	5.13							5.08
8/26/2019			6.62						
8/27/2019	5.58	4.88		6.24				6.23	
8/28/2019					6.69	6.87	6.35		4.99
10/15/2019			6.58	6.19					
10/16/2019	5.72	4.89			6.64			6.54	4.98
10/17/2019						6.86	6.4		
11/7/2019									
11/18/2019									
11/19/2019									5.11
11/20/2019	5.77				6.58		6.27		
11/21/2019			6.67					6.44	
12/4/2019									
12/5/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	5.45								
3/27/2020		5.12	6.59	6.33				6.93	5.12
3/28/2020					6.6	6.8	6.35		
10/12/2020				6.35					
10/13/2020	5.69	5.17	6.56					6.34	5.03
10/14/2020						6.93	6.32		
10/15/2020					6.53				

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-02 (bg)
1/4/2021					6.66				
3/2/2021			6.55	6.34					
3/3/2021	5.81	5.71						6.58	5.06
3/4/2021					6.52	6.94	6.33		
9/13/2021			6.3	6.24					
9/14/2021	5.13	4.69			6.67	6.94	6.28	6.77	5.04
3/1/2022					6.87	7.24			
3/2/2022	5.32						6.41		5.16
3/3/2022		4.88	6.49	6.51				4.27	
9/20/2022						7.29			
9/21/2022	4.95	4.91	6.61	6.3	6.93		6.27	6.72	5.14

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-11 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.29					
6/1/2017		5.68				
6/2/2017			5.31			
8/2/2017	5.19	5.2	5.05			
8/15/2017	5.19					
8/16/2017						
8/17/2017		5.31	5.52			
4/4/2018	5.19	4.74	5.45			
4/5/2018						
5/8/2018	5.3	4.78	5.54			
5/9/2018						
6/19/2018	5.15		5.6			
6/20/2018		4.79				
6/21/2018						
9/25/2018	5.13					
9/26/2018			5.17			
9/27/2018		5.14				
11/6/2018	5.08	4.9				
11/7/2018			5.47			
3/24/2019			5.4			
3/25/2019	5.05	4.93				
8/26/2019						
8/27/2019		5.05	5.35			
8/28/2019	4.87					
10/15/2019		4.89	5.32			
10/16/2019	5.05					
10/17/2019						
11/7/2019				3.79	4.25	5.21
11/18/2019					4.12	
11/19/2019				3.78		5.15
11/20/2019		5.03				
11/21/2019						
12/4/2019				3.87 (D)		5.28 (D)
12/5/2019					4.17 (D)	
1/8/2020				3.77		5.04
1/9/2020					4.19	
1/21/2020				3.73	4.28	5.1
2/4/2020				3.72	4.26	5.15
2/13/2020				3.75	4.2	5.07
3/26/2020						
3/27/2020	5.09		5.3	3.81	4.34	5.14
3/28/2020		5.27				
10/12/2020	5				4.29	
10/13/2020		5.25	5.02	3.72		5.04
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-11 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			5.16			
3/3/2021	5.07			3.36	4.37	5.1
3/4/2021		5.31				
9/13/2021						
9/14/2021	5.5	5.09	5.39	3.72	4.28	5.31
3/1/2022				3.69		5.38
3/2/2022	5.11		5.37		4.33	
3/3/2022		4.98				
9/20/2022				3.63	4.47	5.14
9/21/2022	4.97	5.34	5.23			



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	17	4.3	24	6.4					
8/31/2016					37	21	290		
10/25/2016								84	
11/30/2016	33	7.6	26	4.5	63	19	240	52	
2/15/2017	83	3	30	37				190	
2/16/2017					90	22	220		
5/31/2017		2.5		61				260	40
6/1/2017	51		24						
6/2/2017					210	28	500		
8/2/2017									34
8/15/2017		3.2						210	24
8/16/2017	36			130					
8/17/2017			26		80	69	510		
4/4/2018									33.9
4/5/2018									
5/8/2018									35.7
5/9/2018									
6/19/2018	50.3	1.6		498				218	23.7
6/20/2018			31.2		46 (J)	33			
6/21/2018							481		
9/25/2018		1		790					25.6
9/26/2018	54.1		36.8					333 (D)	
9/27/2018					58.5 (J)	29.4 (D)	777 (D)		
11/6/2018				875			926	182	25.2
11/7/2018	45.6	0.41 (J)	35		41.3 (J)	734			
3/6/2019						1220 (J)			
3/24/2019		1.5		1170	131	413	1070	413	
3/25/2019	43		40.1						24.9
10/15/2019		0.54 (J)		<1					
10/16/2019	31.9		28.5		122.5 (D)			312.5 (D)	17.4
10/17/2019						507	1230		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					132		1550		
11/21/2019				1070				428	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	36.2								
3/27/2020		<1	31.2	899				504	23.4
3/28/2020					63.8	701	1090		
10/12/2020		<1							19.3
10/13/2020	32.3		26.8	695				378	
10/14/2020						510	904		
10/15/2020					147				

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					262				
3/2/2021		1.2		97.5					
3/3/2021	33.8		30.5					420	19.9
3/4/2021					82.2	596	982		
9/13/2021		<1		680					
9/14/2021	34.2		24.4		459	490	819	460	33.1
3/1/2022					143	440			
3/2/2022	30.8						702		19.5
3/3/2022		<1	20.4	754				324	
9/20/2022						320			
9/21/2022	39	<1	24	270	100		660	330	23

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	46					
6/1/2017		42				
6/2/2017			13			
8/2/2017	43	120	14			
8/15/2017						
8/16/2017	41					
8/17/2017		110	14			
4/4/2018		70.6	13.4			
4/5/2018	33.4					
5/8/2018		61.4	14.8			
5/9/2018	36					
6/19/2018	35.5		15.5			
6/20/2018		25.3				
6/21/2018						
9/25/2018						
9/26/2018	39.6		23			
9/27/2018		63.4				
11/6/2018		136				
11/7/2018	35.8		22.2			
3/6/2019						
3/24/2019						
3/25/2019	34.2	137	22.4			
10/15/2019		105	17.9			
10/16/2019	24.4					
10/17/2019						
11/7/2019				1010	379	832
11/18/2019					737	
11/19/2019				1140		795
11/20/2019						
11/21/2019						
12/4/2019				1020		810
12/5/2019					351	
12/17/2019						535
12/18/2019				8.1		
1/8/2020				747		603
1/9/2020					254	
1/21/2020				798	254	611
2/4/2020				1120	432	599
2/13/2020				833	300	761
3/26/2020						
3/27/2020	28.6		14.6	700	219	836
3/28/2020		86.6				
10/12/2020					191	
10/13/2020	27.6	92.3	7.6	638		609
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			8			
3/3/2021	27.6			743	171	<1
3/4/2021		99.1				
9/13/2021						
9/14/2021	30.4	96.2 (M1)	16.7	659	134	995
3/1/2022				543		158
3/2/2022	25.7		16		186	
3/3/2022		50.6				
9/20/2022				750	160	740
9/21/2022	29	52	6.3			

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	86	1910	99	1310					
8/31/2016					3620	4160	5100		
10/25/2016								2900	
11/30/2016	131	1910	111	1050	4030	3950	4680	3970	
2/15/2017	212	1870	170	1440				3820	
2/16/2017					4080	4600	5080		
5/31/2017		1920		1740				5050	257
6/1/2017	103		98						
6/2/2017					5560	4470	8000		
8/2/2017									183
8/15/2017		1840						4820	90
8/16/2017	65			3010					
8/17/2017			84		4620	5450	8320		
4/4/2018									197
4/5/2018									
5/8/2018									225
5/9/2018									
6/19/2018	142	1820		8630				5640	112
6/20/2018			123		3370	4940			
6/21/2018							7500		
9/25/2018		1760		10700					137
9/26/2018	133		117					6920	
9/27/2018					2360	4480	10200		
11/6/2018				11100			11000	4160	89
11/7/2018	121	1800	120		2230	15100			
3/6/2019						19000			
3/24/2019		1770		14200	1450	13700	13700	6840	
3/25/2019	116		101						74
10/15/2019		1730		15400					
10/16/2019	104		95		2860			7740	82
10/17/2019						16100	13200		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					2640		16700		
11/21/2019				15800				7720	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	114								
3/27/2020		1970	110	16400				10200	87
3/28/2020					1470	18800	18300		
10/12/2020		1560							94
10/13/2020	113		115	15600				8750	
10/14/2020						15200	18400		
10/15/2020					5100				

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					7750				
3/2/2021		1430		12000					
3/3/2021	99		122					8830	66
3/4/2021					1700	14200	17100		
9/13/2021		1450		11400					
9/14/2021	66		<25		8020	11800	13400	8820	191
3/1/2022					3780	9040			
3/2/2022	97						12600		124
3/3/2022		1400	104	11500				8120	
9/20/2022						3900			
9/21/2022	100	1300	78	7400	2100		9400	6200	110

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	123					
6/1/2017		97				
6/2/2017			69			
8/2/2017	136	538	35			
8/15/2017						
8/16/2017	124					
8/17/2017		445	51			
4/4/2018		365	90			
4/5/2018	128					
5/8/2018		304	89			
5/9/2018	127					
6/19/2018	143		110			
6/20/2018		114				
6/21/2018						
9/25/2018						
9/26/2018	132		124			
9/27/2018		255				
11/6/2018		388				
11/7/2018	134		125			
3/6/2019						
3/24/2019						
3/25/2019	111	327	98			
10/15/2019		237	107			
10/16/2019	96					
10/17/2019						
11/7/2019				13500	10900	4140
11/18/2019						4030
11/19/2019				13300	10000	
11/20/2019						
11/21/2019						
12/4/2019				13200	11000	
12/5/2019						3840
12/17/2019					9860	
12/18/2019				12500		3880
1/8/2020				12300	9760	
1/9/2020						3520
1/21/2020				12000	10100	3280
2/4/2020				12300	10600	3220
2/13/2020				12400	10900	3580
3/26/2020						
3/27/2020	119		110	14600	14300	3090
3/28/2020		284				
10/12/2020						2920
10/13/2020	118	<25	63	13900	6600	
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2022 4:15 PM View: Appendix III - Interwell  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
1/4/2021						
3/2/2021			40			
3/3/2021	84			11400	11000	2620
3/4/2021		285				
9/13/2021						
9/14/2021	76	193	96	10300	14600	2190
3/1/2022				10500	4050	
3/2/2022	94		103			3100
3/3/2022		146				
9/20/2022				8600	10000	2000
9/21/2022	90	180	38			



FIGURE E.

# Trend Tests - Prediction Limit Exceedances - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/8/2022, 4:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MCM-02 (bg)	-0.203	-59	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-07	22.69	65	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-18 (bg)	-12.22	-69	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-20 (bg)	-34.13	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.05609	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.1164	-118	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.09133	51	43	Yes	13	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.0637	-49	-43	Yes	13	0	n/a	n/a	0.01	NP

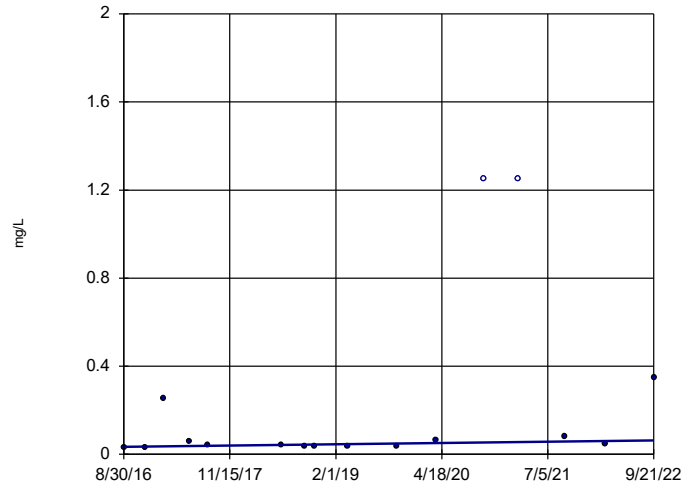
# Trend Tests - Prediction Limit Exceedances - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/8/2022, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.004651	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.01071	-19	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.00389	26	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.007093	42	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004349	-25	-58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04944	-27	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01812	-39	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	0.007503	3	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.01501	-13	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.2923	-18	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-02 (bg)</b>	<b>-0.203</b>	<b>-59</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>22.69</b>	<b>65</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-11 (bg)	-1.082	-32	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	0	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	0.02199	7	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-12.22</b>	<b>-69</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-19 (bg)	-30.04	-42	-48	No	14	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-20 (bg)</b>	<b>-34.13</b>	<b>-65</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-01 (bg)	-0.004468	-4	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02274	65	68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-05	-0.0466	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.05477	-28	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>-0.05609</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-11 (bg)	-0.04429	-60	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-12	-0.0342	-51	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>-0.1164</b>	<b>-118</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-15 (bg)	-0.04201	-34	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.001213	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.09481	-64	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-18 (bg)</b>	<b>0.09133</b>	<b>51</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-19 (bg)	0	2	43	No	13	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-20 (bg)</b>	<b>-0.0637</b>	<b>-49</b>	<b>-43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

### Sen's Slope Estimator

MCM-01 (bg)

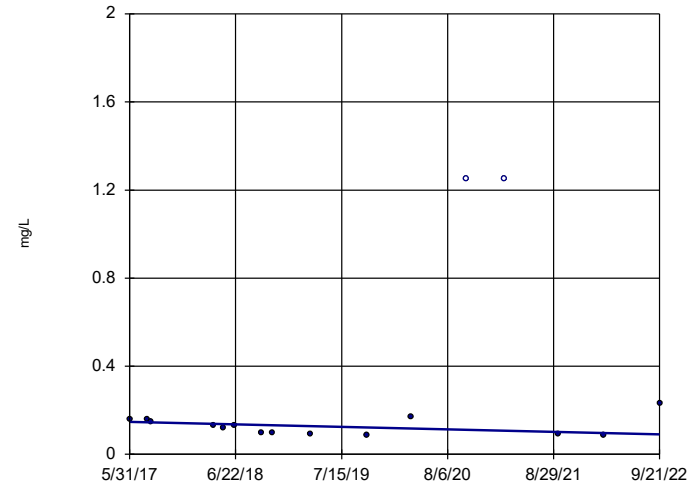


n = 16  
Slope = 0.004651  
units per year.  
Mann-Kendall  
statistic = 42  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-02 (bg)

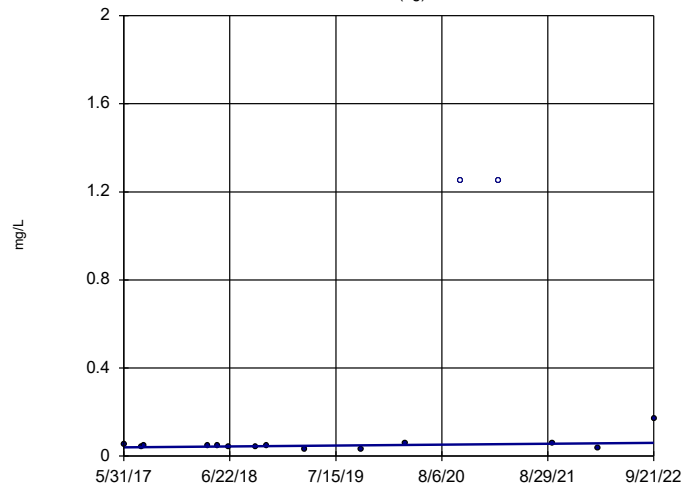


n = 16  
Slope = -0.01071  
units per year.  
Mann-Kendall  
statistic = -19  
critical = -58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

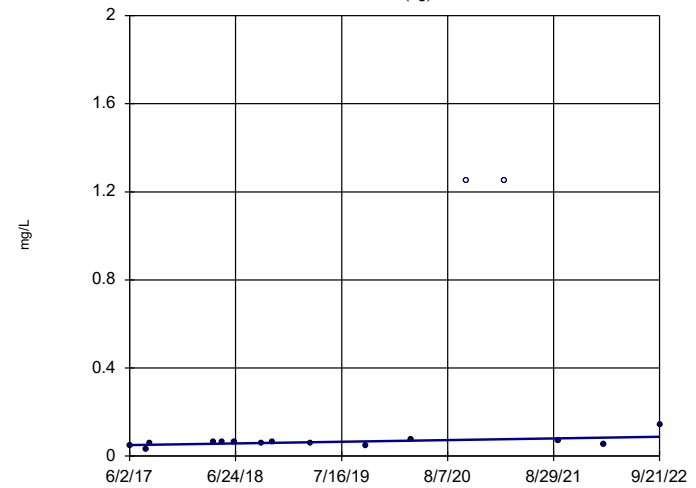


n = 16  
Slope = 0.00389  
units per year.  
Mann-Kendall  
statistic = 26  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

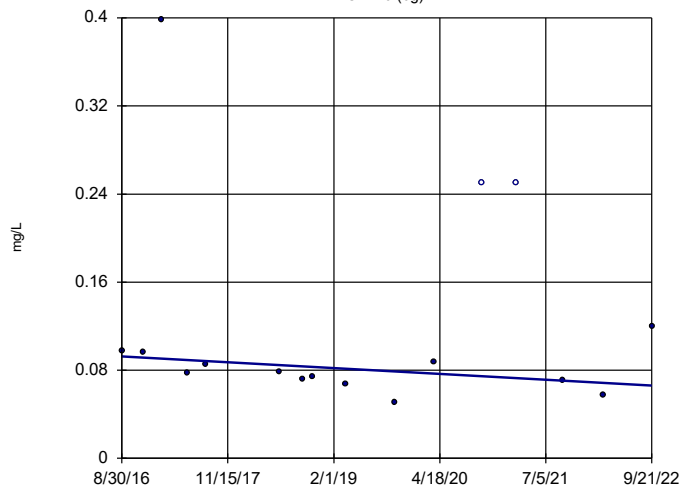


n = 16  
Slope = 0.007093  
units per year.  
Mann-Kendall  
statistic = 42  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

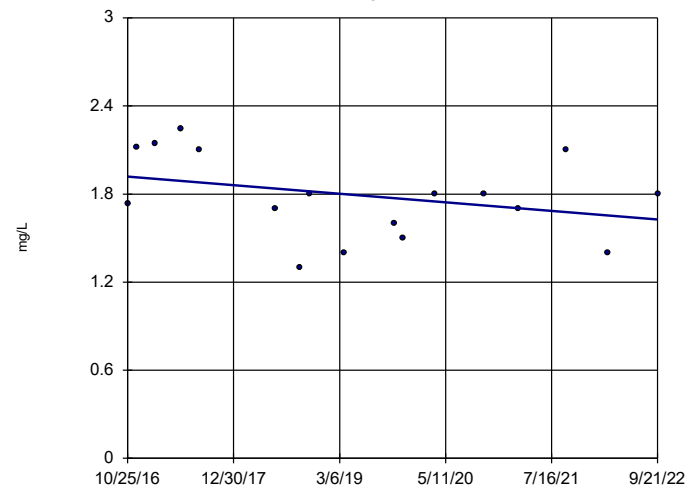


n = 16  
 Slope = -0.004349  
 units per year.  
 Mann-Kendall  
 statistic = -25  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-17

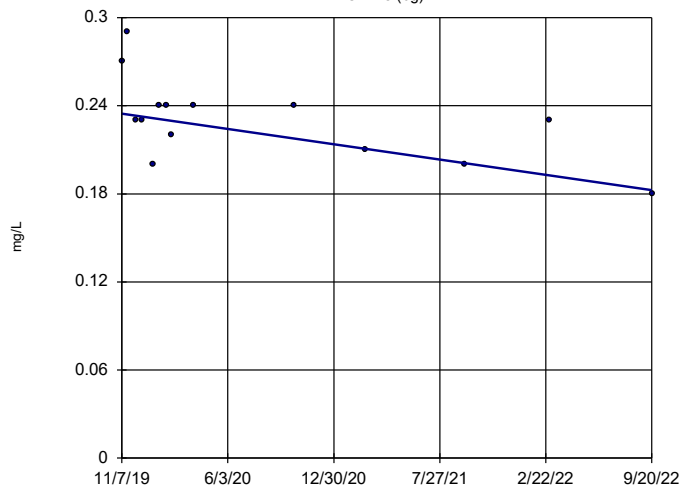


n = 17  
 Slope = -0.04944  
 units per year.  
 Mann-Kendall  
 statistic = -27  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-18 (bg)

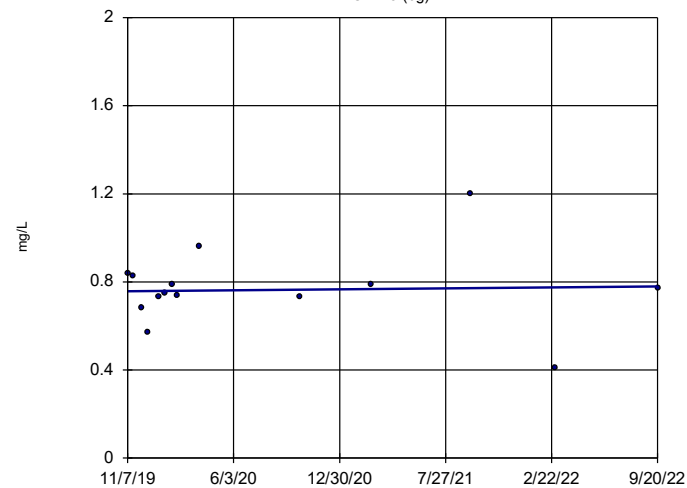


n = 14  
 Slope = -0.01812  
 units per year.  
 Mann-Kendall  
 statistic = -39  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-19 (bg)

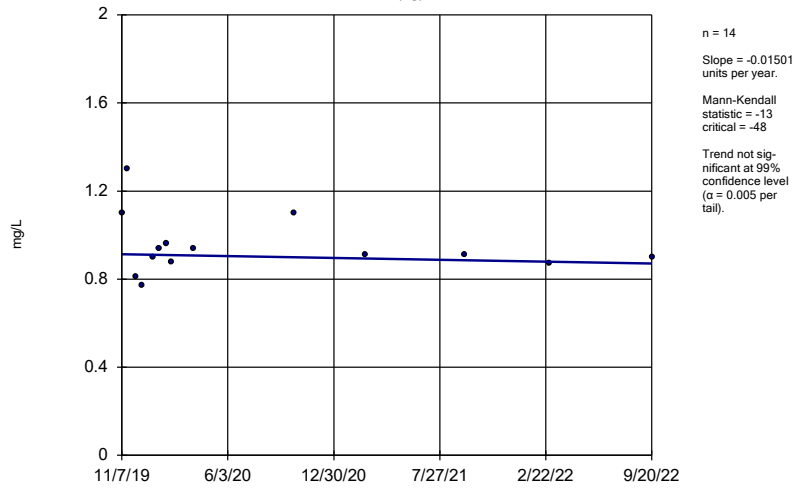


n = 14  
 Slope = 0.007503  
 units per year.  
 Mann-Kendall  
 statistic = 3  
 critical = 48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

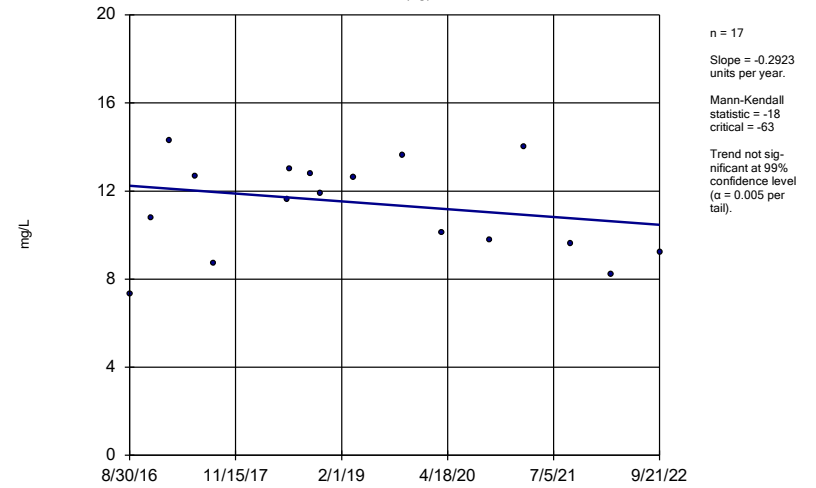
MCM-20 (bg)



Constituent: Boron Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

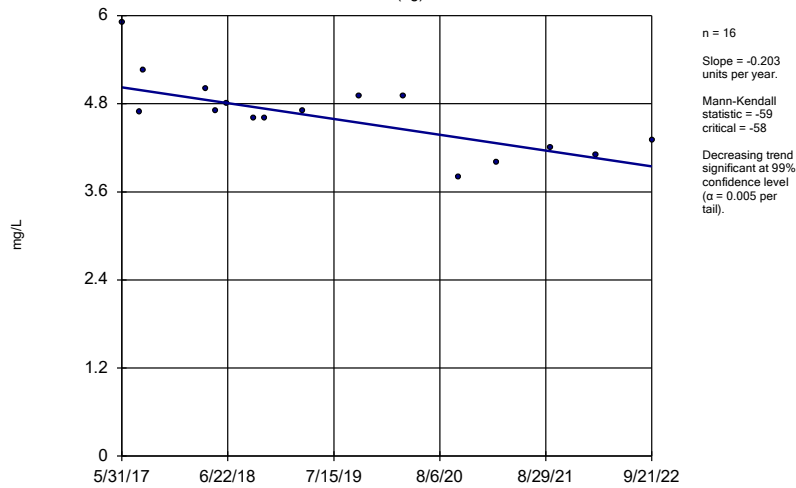
MCM-01 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

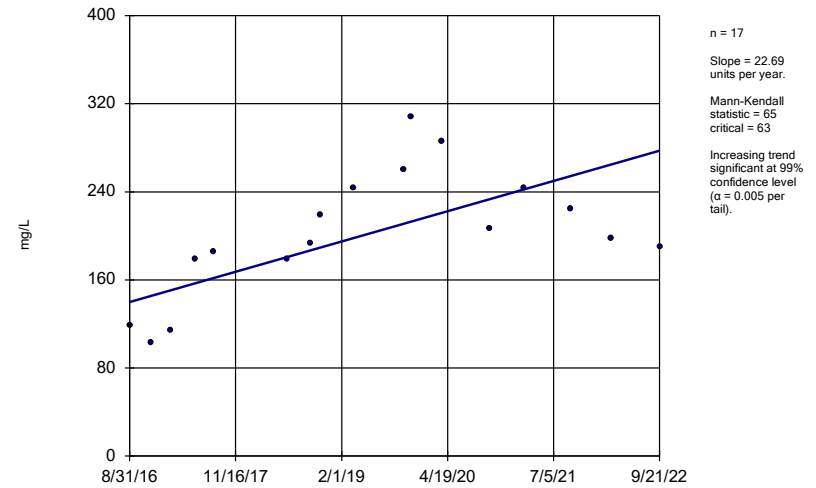
MCM-02 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

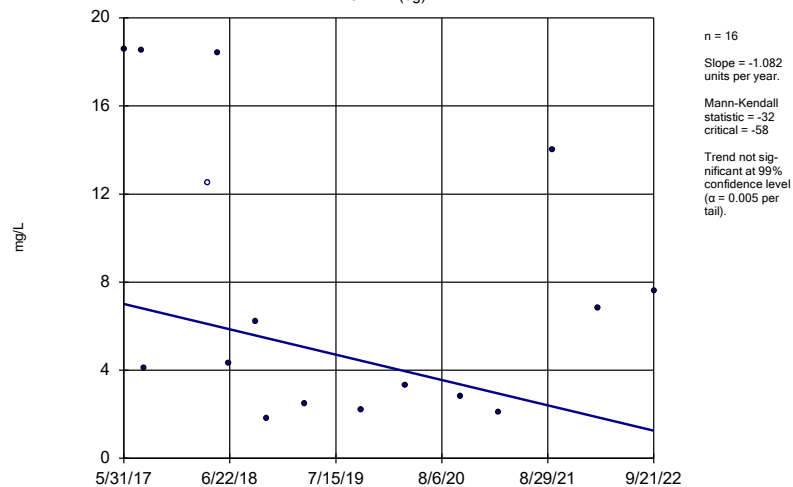
MCM-07



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

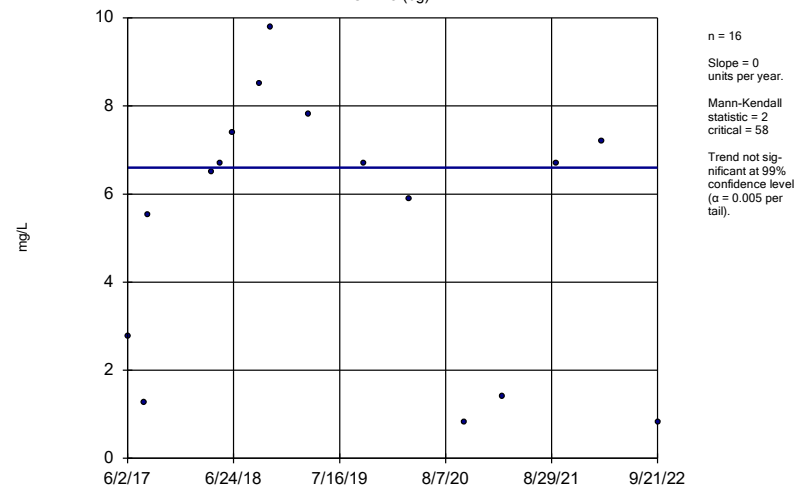
MCM-11 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

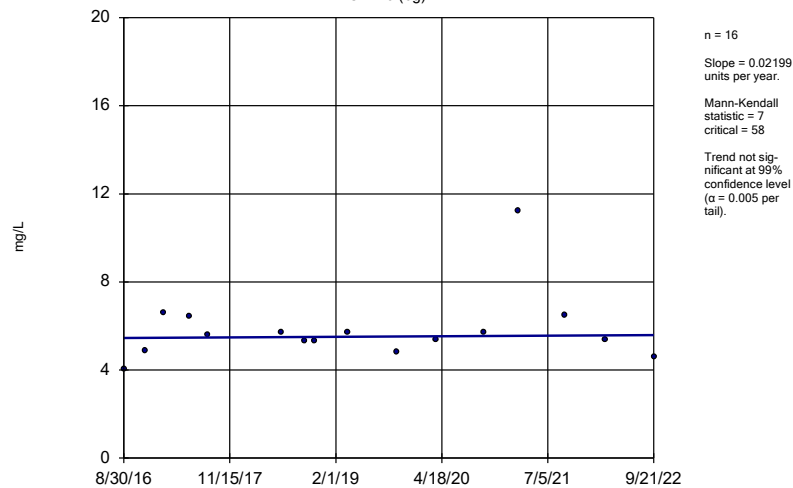
MCM-15 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

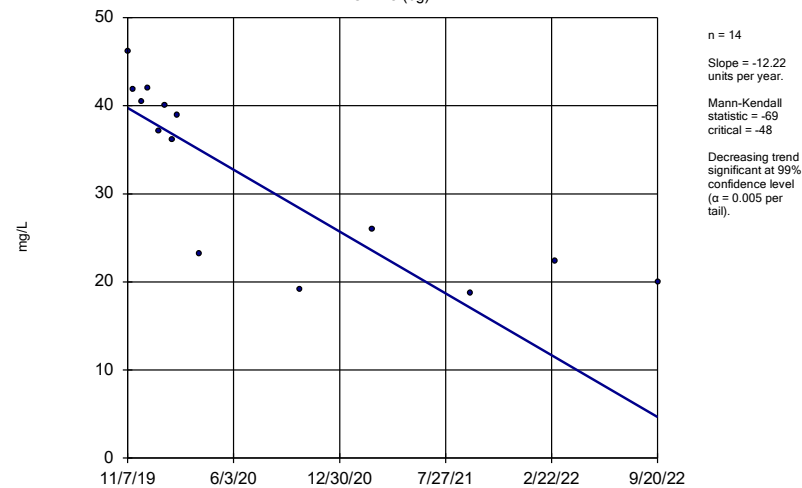
MCM-16 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

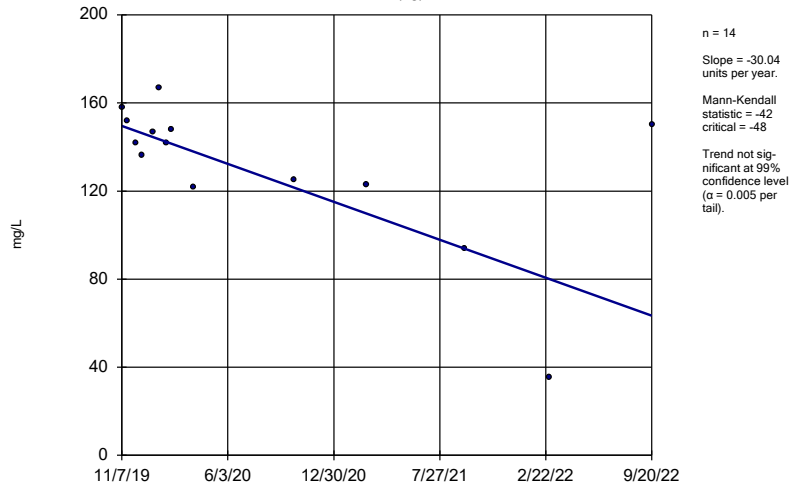
MCM-18 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

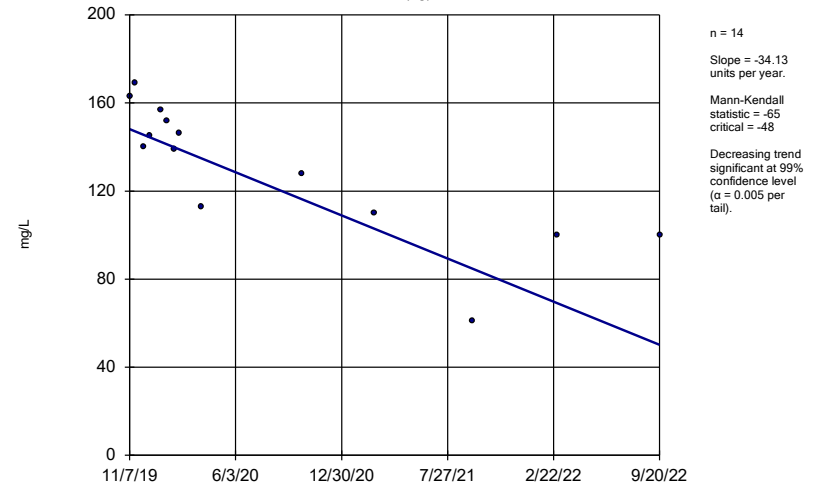
MCM-19 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

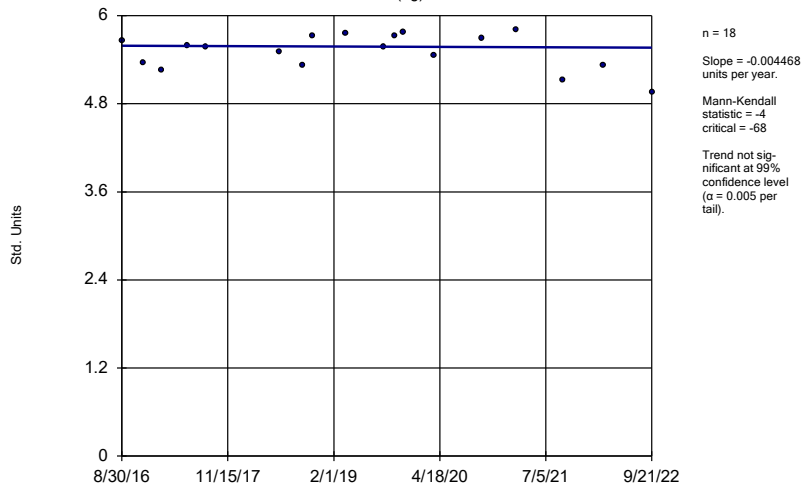
MCM-20 (bg)



Constituent: Calcium Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

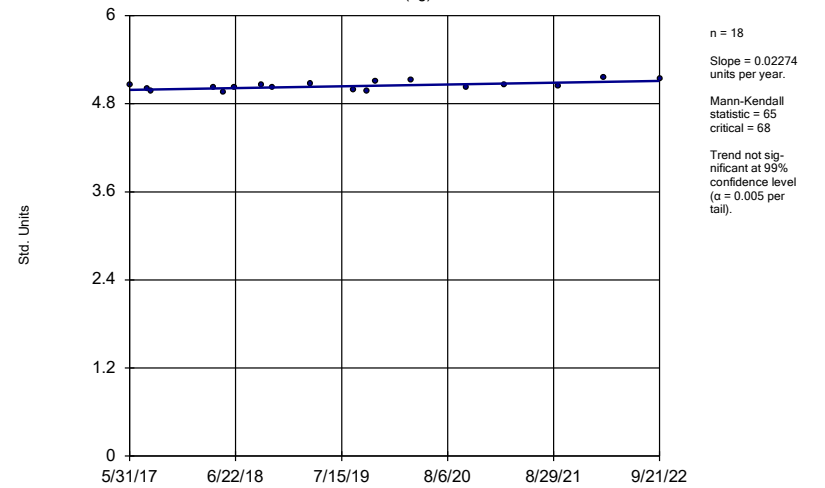
MCM-01 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-02 (bg)

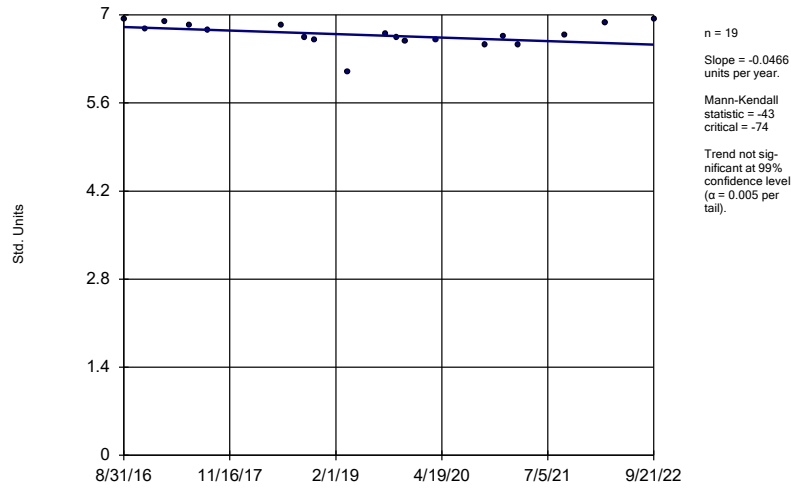


Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



### Sen's Slope Estimator

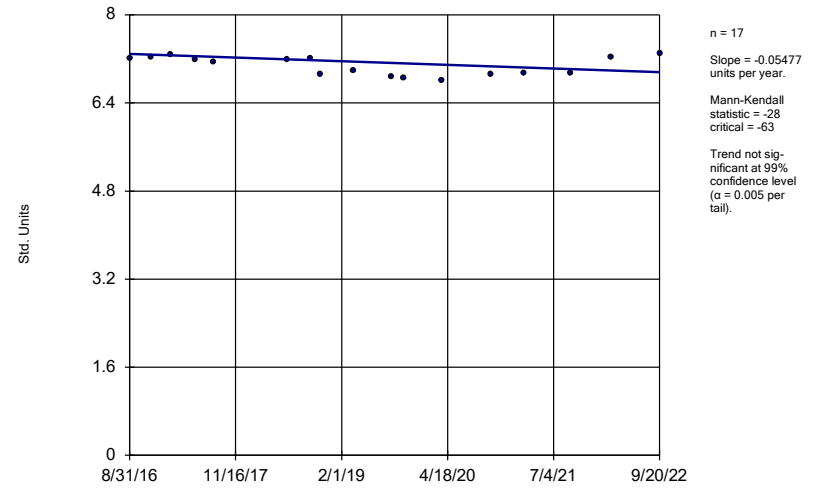
MCM-05



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

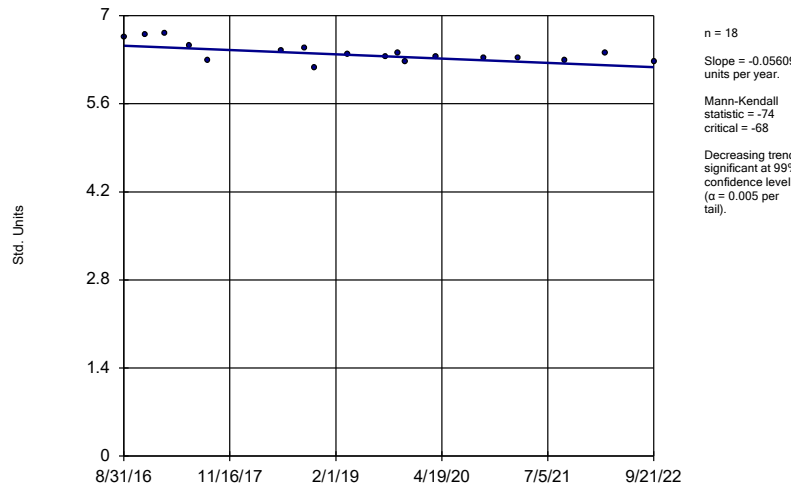
MCM-06



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

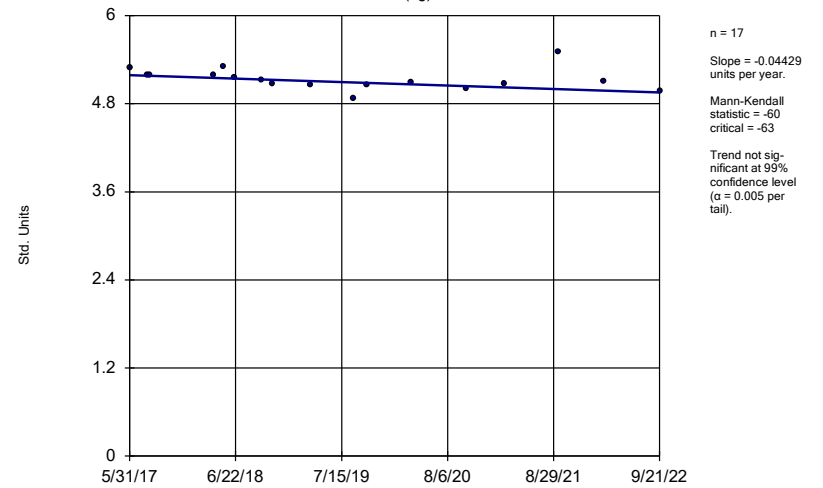
MCM-07



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

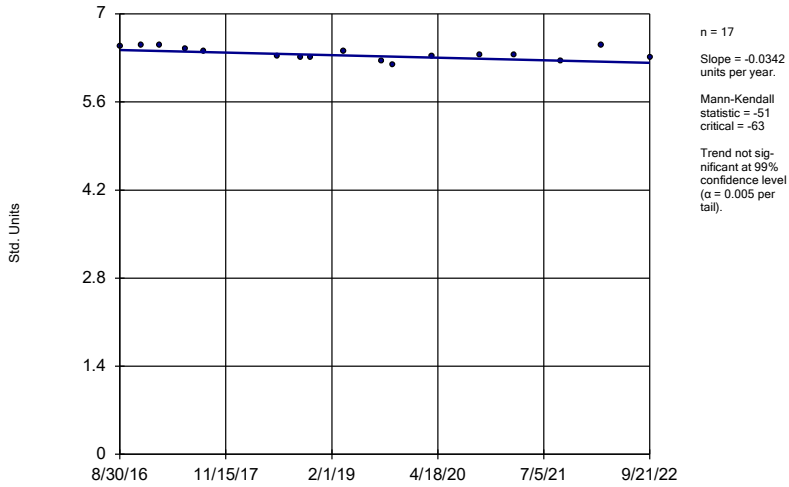
MCM-11 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

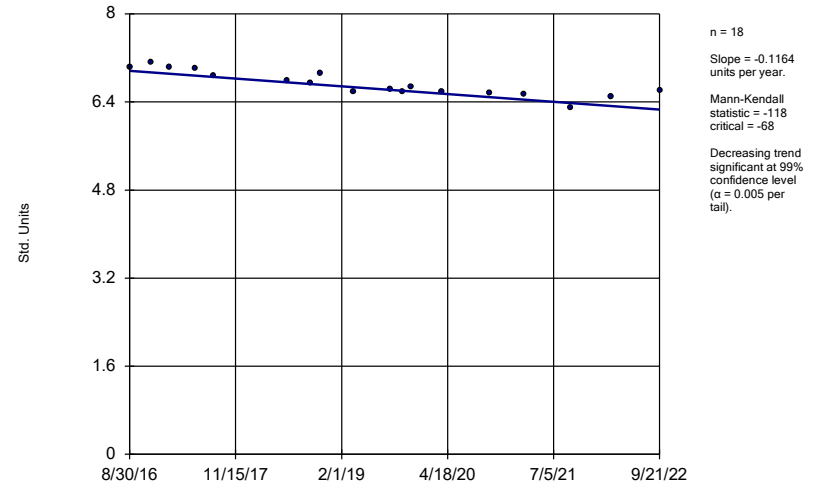
MCM-12



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

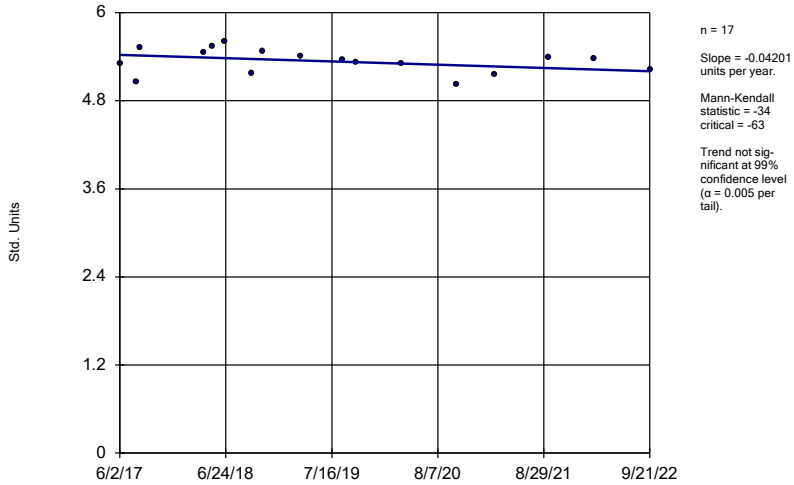
MCM-14



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

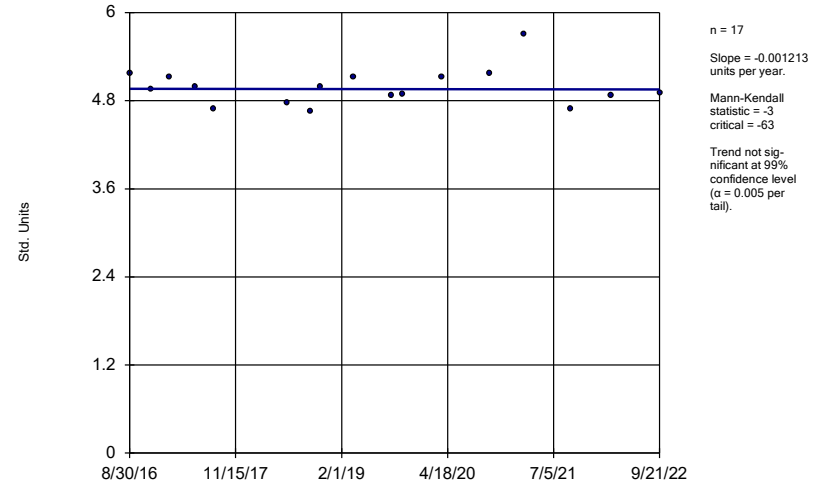
MCM-15 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

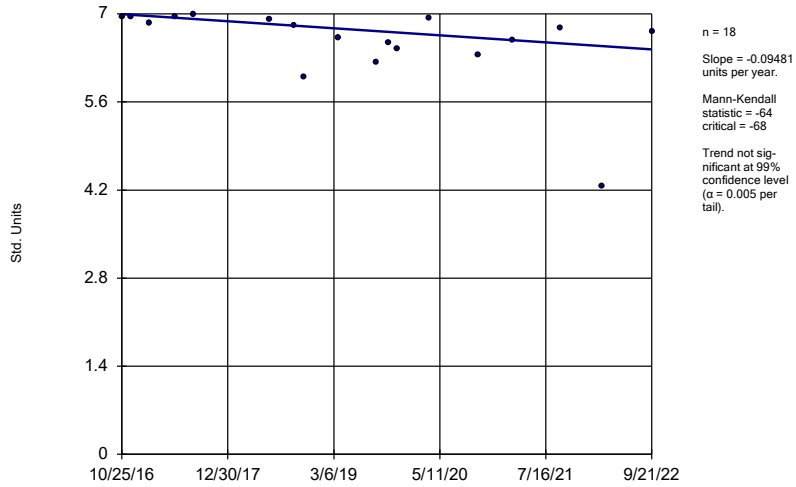
MCM-16 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

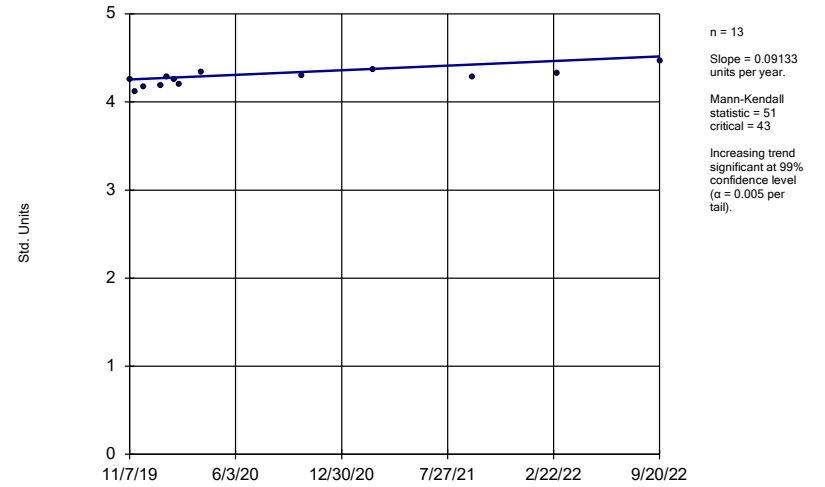
MCM-17



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

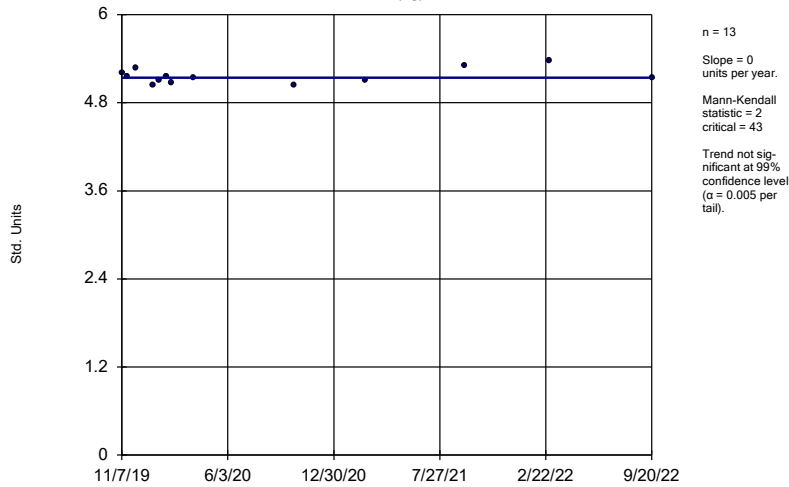
MCM-18 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

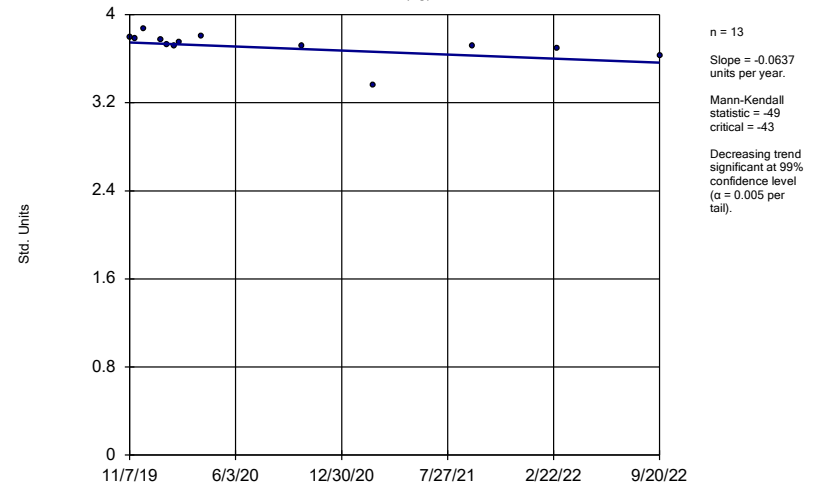
MCM-19 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-20 (bg)



Constituent: pH, field Analysis Run 12/8/2022 4:16 PM View: Appendix III - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE F.

# Upper Tolerance Limit Summary Table

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 12/22/2022, 1:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	107	n/a	n/a	95.33	n/a	n/a	0.004135	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a	126	n/a	n/a	14.29	n/a	n/a	0.00156	NP Inter(normality)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.021	n/a	n/a	n/a	n/a	122	n/a	n/a	27.05	n/a	n/a	0.001915	NP Inter(normality)
Cadmium (mg/L)	n/a	0.0043	n/a	n/a	n/a	n/a	100	n/a	n/a	92	n/a	n/a	0.005921	NP Inter(NDs)
Chromium (mg/L)	n/a	0.011	n/a	n/a	n/a	n/a	107	n/a	n/a	50.47	n/a	n/a	0.004135	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.036	n/a	n/a	n/a	n/a	122	n/a	n/a	72.95	n/a	n/a	0.001915	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	55.8	n/a	n/a	n/a	n/a	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	n/a	1.5	n/a	n/a	n/a	n/a	126	n/a	n/a	50	n/a	n/a	0.00156	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	122	n/a	n/a	83.61	n/a	n/a	0.001915	NP Inter(NDs)
Lithium (mg/L)	n/a	0.029	n/a	n/a	n/a	n/a	119	n/a	n/a	55.46	n/a	n/a	0.002234	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	101	n/a	n/a	95.05	n/a	n/a	0.005625	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	106	n/a	n/a	90.57	n/a	n/a	0.004352	NP Inter(NDs)
Selenium (mg/L)	n/a	0.15	n/a	n/a	n/a	n/a	123	n/a	n/a	61.79	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	106	n/a	n/a	92.45	n/a	n/a	0.004352	NP Inter(NDs)

FIGURE G.

<b>MCMANUS ASH POND GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.



# Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.419	0.2642	0.032	Yes	20	0.3416	0.1364	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09839	0.06881	0.04	Yes	7	0.07907	0.02995	14.29	None	x^4	0.01	Param.
Lithium (mg/L)	MCM-06	0.09647	0.0557	0.04	Yes	17	0.07608	0.03253	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	15	0.002719	0.0007228	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	14	0.002814	0.0006949	92.86	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	14	0.002841	0.0005933	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.1	0.015	0.032	No	6	0.03267	0.0331	16.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	MCM-04	0.007099	0.002848	0.032	No	17	0.005459	0.004106	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.01548	0.004029	0.032	No	19	0.01484	0.01165	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.419</b>	<b>0.2642</b>	<b>0.032</b>	<b>Yes</b>	<b>20</b>	<b>0.3416</b>	<b>0.1364</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	MCM-07	0.01945	0.01054	0.032	No	19	0.01559	0.007958	0	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MCM-12	0.0063	0.001	0.032	No	16	0.004331	0.002576	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0067	0.0014	0.032	No	16	0.004863	0.002306	56.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	17	0.004518	0.002169	47.06	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09686	0.05994	2	No	5	0.0784	0.01101	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07989	0.03217	2	No	16	0.06769	0.07126	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.04117	0.01055	2	No	17	0.04808	0.1054	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-06	0.1371	0.06635	2	No	17	0.1017	0.05647	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	16	0.1589	0.09263	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1257	0.09678	2	No	16	0.1113	0.02224	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1267	0.05881	2	No	16	0.09276	0.05218	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1326	0.0663	2	No	16	0.09943	0.05093	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.0025	0.00021	0.021	No	16	0.001129	0.001106	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.0025	0.000054	0.021	No	17	0.002356	0.0005932	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.0025	0.00012	0.021	No	16	0.002048	0.0009713	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.001226	0.0005293	0.021	No	16	0.0009425	0.0006676	12.5	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.0025	0.0001	0.021	No	16	0.001753	0.001145	68.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	16	0.0009081	0.0008755	37.5	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	13	0.002341	0.0005741	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	13	0.002323	0.0006379	92.31	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	13	0.002315	0.0006676	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.00085	0.1	No	14	0.005025	0.004479	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	14	0.005503	0.004676	50	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	15	0.00701	0.00438	66.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.002	0.1	No	14	0.005064	0.003825	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	14	0.007221	0.002319	35.71	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	14	0.005198	0.00434	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01225	0.007354	0.1	No	14	0.01063	0.003069	28.57	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	17	0.004518	0.002316	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	17	0.002333	0.0005536	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	17	0.002276	0.0006399	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	16	0.002276	0.0006298	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00053	0.036	No	16	0.001762	0.0009856	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	16	0.002381	0.000475	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.00052	0.036	No	16	0.001992	0.0009129	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.978	5.787	55.8	No	4	7.883	0.9229	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.506	2.866	55.8	No	16	4.316	2.278	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	55.8	No	17	2.718	2.163	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.58	1.83	55.8	No	16	5.191	3.243	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.295	5.783	55.8	No	17	7.539	2.802	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.079	2.126	55.8	No	16	2.603	0.7328	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.329	3.467	55.8	No	17	5.398	3.082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	55.8	No	17	5.269	3.011	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	5	0.102	0.004472	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	17	0.1331	0.1219	52.94	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.4419	0.2033	4	No	19	0.4058	0.2315	15.79	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MCM-06	0.3	0.1	4	No	17	0.244	0.2623	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.42	0.1	4	No	18	0.2748	0.2796	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-12	1.28	0.987	4	No	17	1.1	0.3205	5.882	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	18	0.218	0.1922	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	18	0.5285	0.4963	38.89	None	No	0.01	NP (normality)

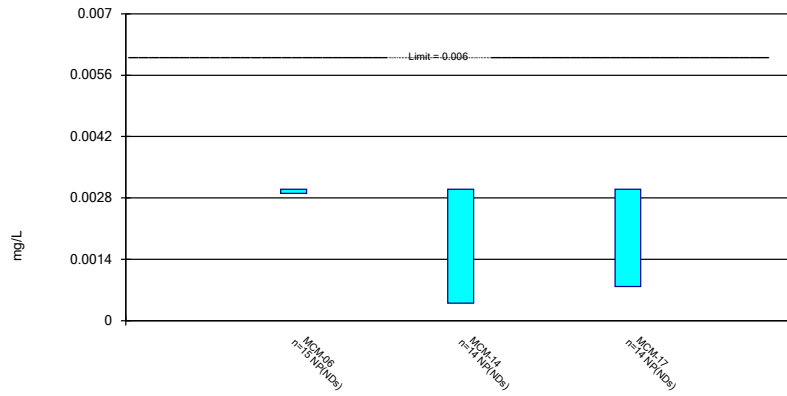
# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	17	0.004718	0.001164	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	17	0.004713	0.001184	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	16	0.004086	0.001965	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.0001	0.015	No	16	0.003518	0.002276	68.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	16	0.004692	0.00123	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00027	0.015	No	16	0.003809	0.00213	75	None	No	0.01	NP (NDs)
<b>Lithium (mg/L)</b>	<b>DPZ-02</b>	<b>0.09839</b>	<b>0.06881</b>	<b>0.04</b>	<b>Yes</b>	<b>7</b>	<b>0.07907</b>	<b>0.02995</b>	<b>14.29</b>	<b>None</b>	<b>x^4</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-04	0.025	0.0015	0.04	No	16	0.01347	0.01192	50	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	17	0.05995	0.1317	0	None	No	0.01	NP (normality)
<b>Lithium (mg/L)</b>	<b>MCM-06</b>	<b>0.09647</b>	<b>0.0557</b>	<b>0.04</b>	<b>Yes</b>	<b>17</b>	<b>0.07608</b>	<b>0.03253</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-07	0.04934	0.02023	0.04	No	17	0.04114	0.0352	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0102	0.04	No	16	0.01369	0.005744	18.75	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.04813	0.02964	0.04	No	17	0.03614	0.01761	5.882	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02516	0.01509	0.04	No	16	0.02013	0.007746	6.25	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	13	0.0002392	0.0001414	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	13	0.0001878	0.00004382	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	14	0.0001971	0.00001069	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	13	0.0002362	0.0001304	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	13	0.0002354	0.0001276	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	13	0.0002212	0.0001337	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	14	0.009296	0.002633	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0099	0.1	No	14	0.008718	0.003238	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	15	0.007307	0.003952	66.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.00095	0.1	No	14	0.009354	0.002419	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	14	0.009421	0.002165	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.005	0.0025	0.15	No	16	0.00425	0.001681	81.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.005	0.0028	0.15	No	17	0.004359	0.001203	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.0054	0.0022	0.15	No	17	0.004353	0.001779	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.0023	0.15	No	16	0.004175	0.001255	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	16	0.003637	0.001615	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.0057	0.0019	0.15	No	16	0.004144	0.001456	62.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.0021	0.15	No	16	0.004262	0.001976	50	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.001	0.000076	0.002	No	15	0.0009384	0.0002386	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.001	0.00014	0.002	No	14	0.0009386	0.0002298	92.86	None	No	0.01	NP (NDs)

### Non-Parametric Confidence Interval

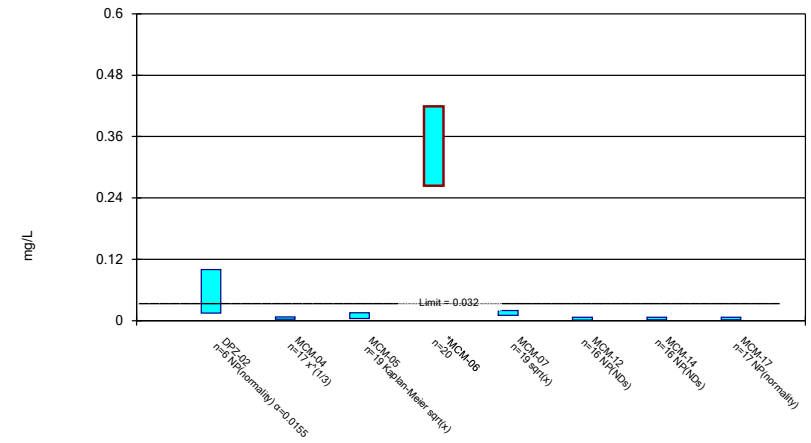
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

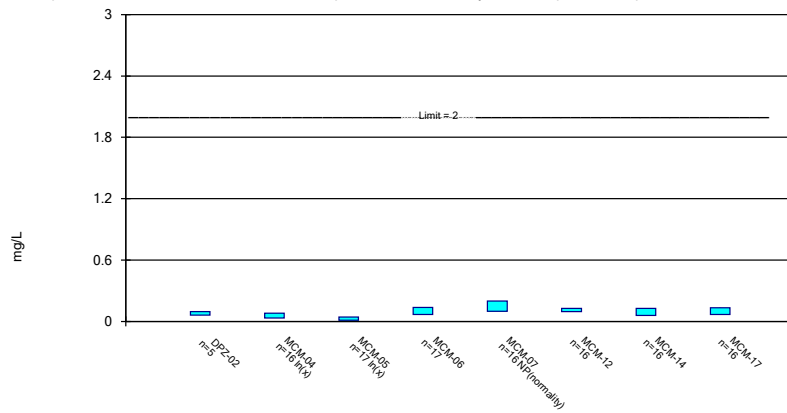
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on



Constituent: Arsenic Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

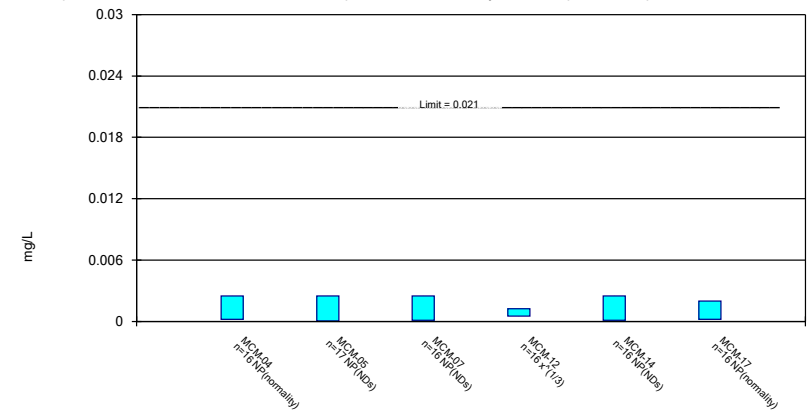
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Constituent: Barium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

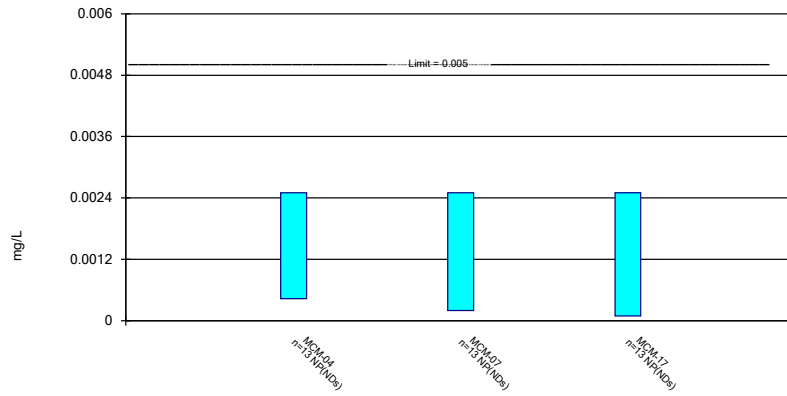
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

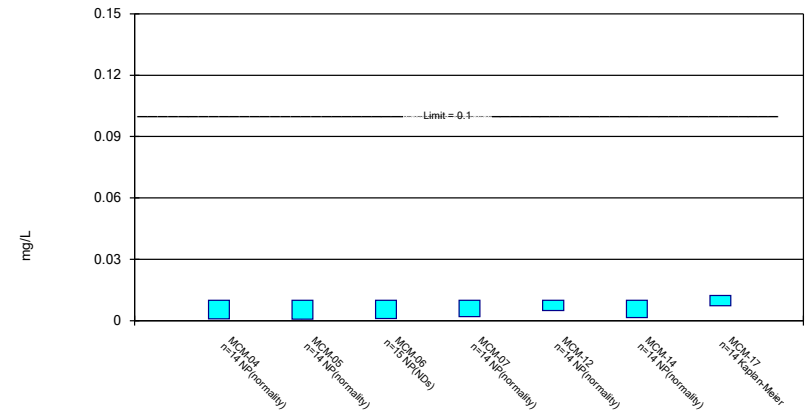
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

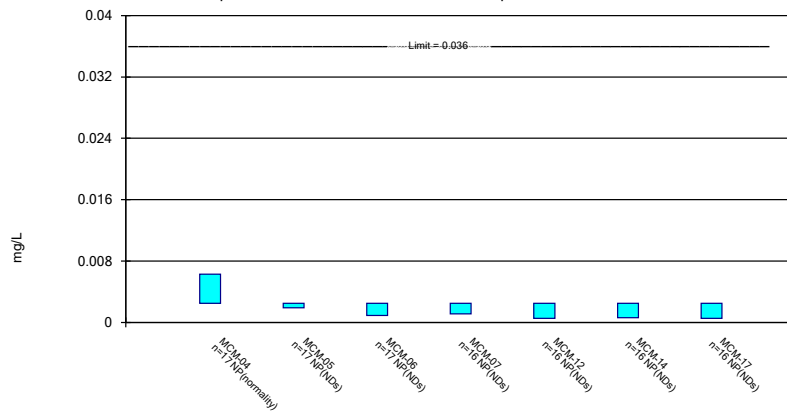
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

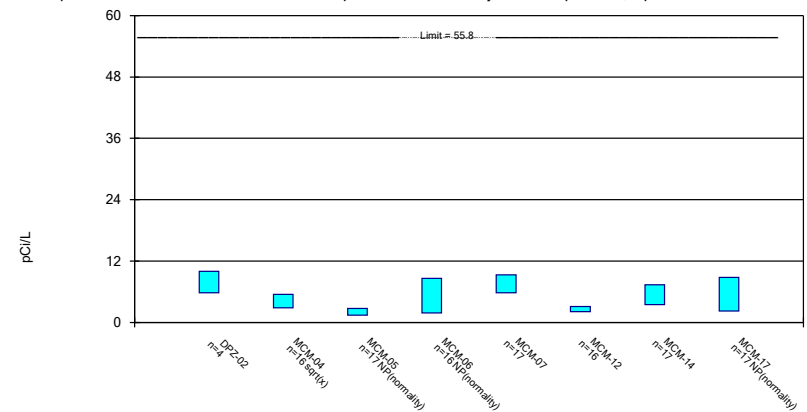
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

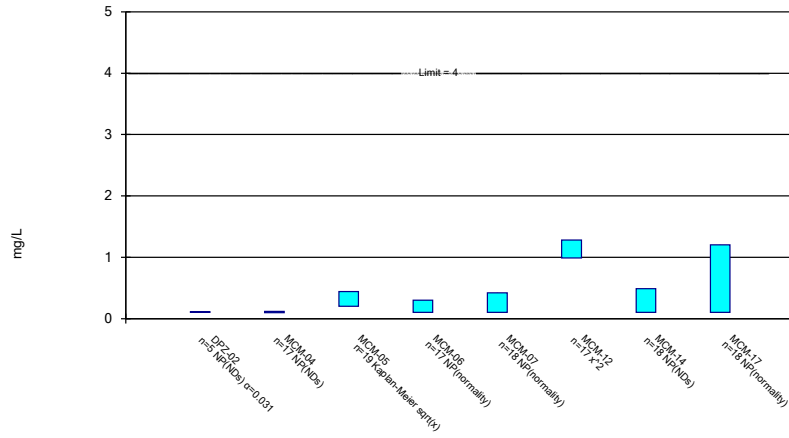
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confide  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

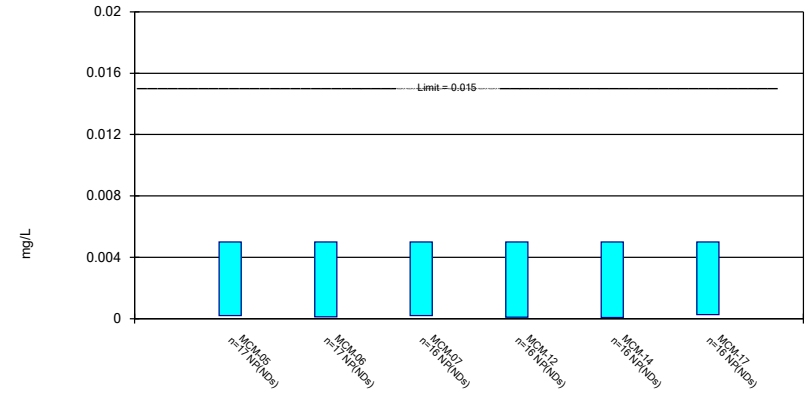
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Fluoride Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

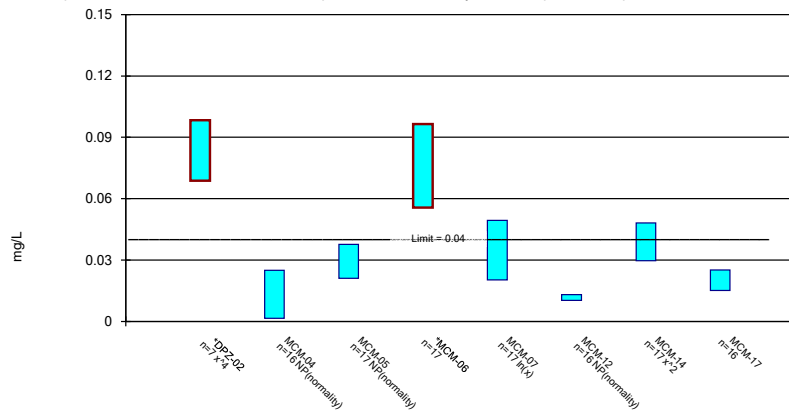
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

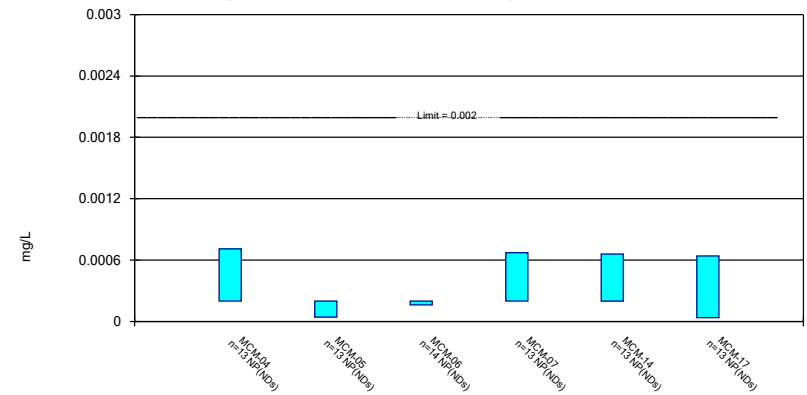
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

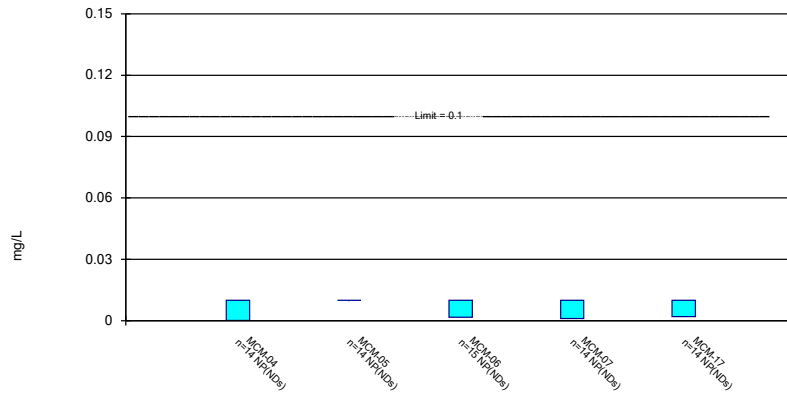
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

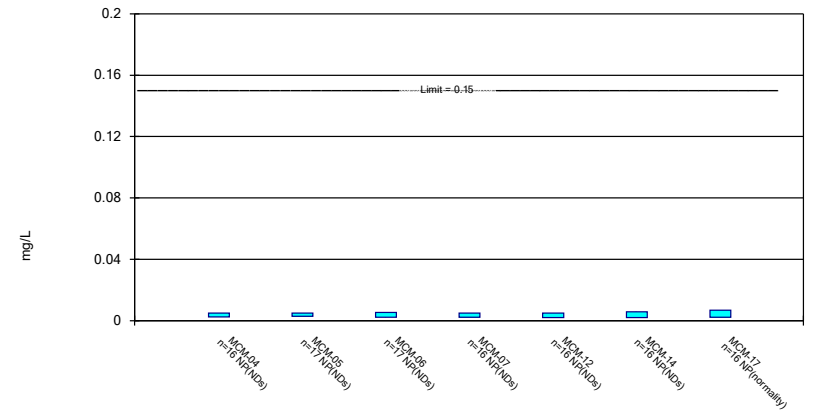
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

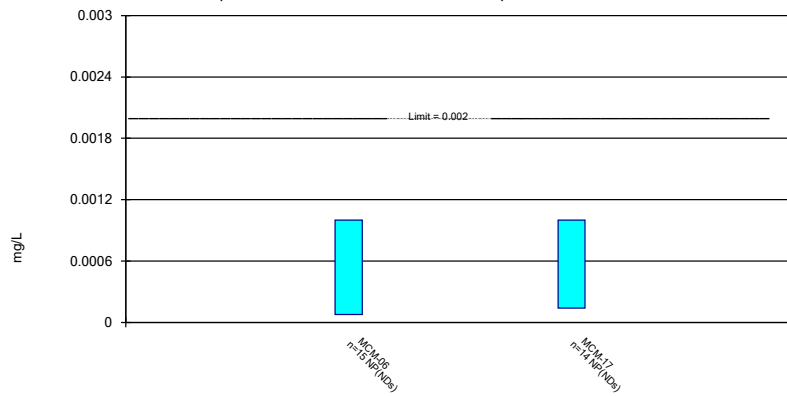
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 12/22/2022 1:58 PM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-14	MCM-17
8/30/2016		<0.003	
8/31/2016	<0.003		
10/25/2016			<0.003
11/30/2016	<0.003	<0.003	<0.003
2/15/2017		<0.003	<0.003
2/16/2017	<0.003		
5/31/2017		<0.003	<0.003
6/2/2017	<0.003		
8/15/2017			<0.003
8/16/2017		<0.003	
8/17/2017	<0.003		
6/19/2018		<0.003	<0.003
6/20/2018	<0.003		
9/25/2018		<0.003	
9/26/2018			0.00078
9/27/2018	<0.003		
11/6/2018		<0.003	<0.003
11/7/2018	<0.003		
3/6/2019	<0.003		
8/26/2019		0.0004 (J)	
8/27/2019			<0.003
8/28/2019	0.00098 (J)		
10/15/2019		<0.003	
10/16/2019			<0.003
10/17/2019	0.0009 (J)		
3/27/2020		<0.003	<0.003
3/28/2020	0.0029 (J)		
9/13/2021		<0.003	
9/14/2021	<0.003		<0.003
3/1/2022	<0.003		
3/3/2022		<0.003	<0.003
9/20/2022	<0.003		
9/21/2022		<0.003	<0.003
Mean	0.002719	0.002814	0.002841
Std. Dev.	0.0007228	0.0006949	0.0005933
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.0029	0.0004	0.00078



# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						<0.0063	<0.0063	
8/31/2016			<0.02	0.212	0.0066			
10/25/2016								<0.0063
11/30/2016			0.0132	0.129	0.0281	<0.0063	<0.0063	0.0072
2/15/2017						<0.0063	<0.0063	0.0017 (J)
2/16/2017			0.0372	0.257	0.0295			
5/31/2017						0.0007 (J)	0.0008 (J)	0.0018 (J)
6/1/2017		0.004 (J)						
6/2/2017			0.0335	0.0559	0.0286			
8/2/2017		0.0028 (J)						
8/15/2017						0.0006 (J)		0.0015 (J)
8/16/2017							0.0007 (J)	
8/17/2017		0.0021 (J)	0.0336	0.458	0.0211			
4/4/2018		0.0023 (J)						
5/8/2018		0.0048 (J)						
6/19/2018						0.001 (J)	0.0062 (J)	0.0029 (J)
6/20/2018		0.0099	0.019	0.44				
6/21/2018					0.022 (J)			
9/25/2018						0.0011 (J)	0.0031 (J)	
9/26/2018								0.0015 (J)
9/27/2018		0.01	0.0035 (J)	0.27	0.015			
11/6/2018		0.013			0.012		0.0014 (J)	<0.0063
11/7/2018			0.002 (J)	0.5		0.0057		
11/27/2018			0.0016 (J)	0.5	0.011			
3/6/2019				0.49				
3/26/2019			0.0018 (J)	0.3	0.0078			
7/2/2019		0.015 (J)		0.37	0.027			
8/26/2019							0.0022 (J)	
8/27/2019		0.0072				0.0011 (J)		0.0024 (J)
8/28/2019			0.0019 (J)	0.5	0.011			
10/15/2019		0.0038 (J)				0.0024 (J)	0.0067	
10/16/2019			0.0047 (J)					0.0043 (J)
10/17/2019				0.34	0.0046 (J)			
11/21/2019								0.0031 (J)
3/27/2020						<0.0063	<0.0063	<0.0063
3/28/2020	<0.1	0.0034 (J)	<0.02	0.3	0.012			
10/12/2020						<0.0063		
10/13/2020		0.0022 (J)					<0.0063	<0.0063
10/14/2020				0.43	0.013			
10/15/2020	0.021		0.024					
1/4/2021			0.0072					
3/2/2021						<0.0063	<0.0063	
3/3/2021								<0.0063
3/4/2021	0.017 (J)	0.0018 (J)	<0.02	0.35	0.015 (J)			
9/13/2021						<0.0063	<0.0063	
9/14/2021	0.022	0.0047 (J)	0.02 (J)	0.51	0.013 (J)			<0.0063
3/1/2022	0.015 (J)		0.011 (J)	0.24				
3/2/2022					0.009 (J)			
3/3/2022		0.0041				<0.0063	<0.0063	<0.0063
9/20/2022	0.021			0.18				
9/21/2022		0.0017 (J)	0.0077		0.01	<0.0063	<0.0063	<0.0063
Mean	0.03267	0.005459	0.01484	0.3416	0.01559	0.004331	0.004863	0.004518

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Std. Dev.	0.0331	0.004106	0.01165	0.1364	0.007958	0.002576	0.002306	0.002169
Upper Lim.	0.1	0.007099	0.01548	0.419	0.01945	0.0063	0.0067	0.0063
Lower Lim.	0.015	0.002848	0.004029	0.2642	0.01054	0.001	0.0014	0.0018

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.108	0.0131	
8/31/2016			0.0289	0.0498	0.0771			
10/25/2016								0.063
11/30/2016			0.0168	0.0528	0.101	0.121	0.0105	0.0628
2/15/2017						0.111	0.0786	0.0102
2/16/2017			0.016	0.0555	0.0865			
5/31/2017						0.131	0.0199	0.061
6/1/2017		0.0195						
6/2/2017			0.0393 (J)	0.0508	0.123			
8/2/2017		0.053						
8/15/2017						0.126		0.0579
8/16/2017							0.033	
8/17/2017		0.0475	0.0188	0.0596	0.124			
4/4/2018		0.035						
5/8/2018		0.027						
6/19/2018						0.13	0.092	0.076
6/20/2018		0.027	0.014	0.06				
6/21/2018					0.1			
9/25/2018						0.12	0.098	
9/26/2018								0.099
9/27/2018		0.14	0.0097 (J)	0.06	0.12			
11/6/2018		0.31			0.12		0.1	0.052
11/7/2018			0.0085 (J)	0.19		0.11		
3/6/2019				0.16				
8/26/2019							0.12	
8/27/2019		0.083				0.14		0.11
8/28/2019			0.011	0.13	0.4			
10/15/2019		0.082				0.14	0.12	
10/16/2019			0.012					0.14
10/17/2019				0.13	0.35			
3/27/2020						0.12	0.13	0.16
3/28/2020		0.039	0.0041 (J)	0.12	0.11			
10/12/2020						0.1		
10/13/2020		0.055					0.14	0.14
10/14/2020				0.14	0.19			
10/15/2020	0.071		0.45					
1/4/2021			0.051					
3/2/2021						0.1	0.16	
3/3/2021								0.17
3/4/2021	0.096	0.062	0.0082 (J)	0.14	0.2			
9/13/2021						0.086	0.16	
9/14/2021	0.082	0.043	0.08	0.22	0.2			0.2 (M1)
3/1/2022	0.074		0.035	0.084				
3/2/2022					0.12			
3/3/2022		0.031				0.069	0.15	0.1
9/20/2022	0.069			0.027				
9/21/2022		0.029	0.014		0.12	0.068	0.059	0.089
Mean	0.0784	0.06769	0.04808	0.1017	0.1589	0.1113	0.09276	0.09943
Std. Dev.	0.01101	0.07126	0.1054	0.05647	0.09263	0.02224	0.05218	0.05093
Upper Lim.	0.09686	0.07989	0.04117	0.1371	0.2	0.1257	0.1267	0.1326
Lower Lim.	0.05994	0.03217	0.01055	0.06635	0.1	0.09678	0.05881	0.0663

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0003 (J)	<0.0025	
8/31/2016		<0.0025	<0.0025			
10/25/2016						0.0004 (J)
11/30/2016		<0.0025	<0.0025	0.0004 (J)	<0.0025	0.0003 (J)
2/15/2017				0.0004 (J)	<0.0025	<0.002
2/16/2017		<0.0025	<0.0025			
5/31/2017				0.0005 (J)	0.0001 (J)	0.0002 (J)
6/1/2017	0.0001 (J)					
6/2/2017		<0.0025	<0.0025			
8/2/2017	0.0003 (J)					
8/15/2017				0.0005 (J)		0.0002 (J)
8/16/2017					0.0002 (J)	
8/17/2017	0.0002 (J)	<0.0025	<0.0025			
4/4/2018	<0.0025					
5/8/2018	0.00025 (J)					
6/19/2018				0.00065 (J)	<0.0025	0.00032 (J)
6/20/2018	0.00021 (J)	<0.0025				
6/21/2018			<0.0025			
9/25/2018				0.00066 (J)	5E-05 (J)	
9/26/2018						0.00024 (J)
9/27/2018	0.00031 (J)	<0.0025	7.4E-05 (J)			
11/6/2018	0.00077 (J)		0.00012 (J)		9.7E-05 (J)	0.00026 (J)
11/7/2018		5.4E-05 (J)		0.00058 (J)		
8/26/2019					0.0001 (J)	
8/27/2019	0.00032 (J)			0.0009 (J)		0.00018 (J)
8/28/2019		<0.0025	<0.0025			
10/15/2019	0.00035 (J)			0.00079 (J)	<0.0025	
10/16/2019		<0.0025				0.00014 (J)
10/17/2019			7.8E-05 (J)			
3/27/2020				<0.005	<0.0025	<0.002
3/28/2020	<0.0025	<0.0025	<0.0025			
10/12/2020				0.001 (J)		
10/13/2020	<0.0025				<0.0025	<0.002
10/14/2020			<0.0025			
10/15/2020		<0.0025				
1/4/2021		<0.0025				
3/2/2021				<0.005	<0.0025	
3/3/2021						<0.002
3/4/2021	<0.0025	<0.0025	<0.0025			
9/13/2021				0.0011	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025			<0.002
3/1/2022		<0.0025				
3/2/2022			<0.0025			
3/3/2022	0.00025			0.0012 (J)	<0.0025	<0.002
9/21/2022	<0.0025	<0.0025	<0.0025	0.0011 (J)	<0.0025	0.00029 (J)
Mean	0.001129	0.002356	0.002048	0.0009425	0.001753	0.0009081
Std. Dev.	0.001106	0.0005932	0.0009713	0.0006676	0.001145	0.0008755
Upper Lim.	0.0025	0.0025	0.0025	0.001226	0.0025	0.002
Lower Lim.	0.00021	5.4E-05	0.00012	0.0005293	0.0001	0.0002

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-07	MCM-17
8/31/2016		<0.0025	
10/25/2016			<0.0025
11/30/2016		<0.0025	<0.0025
2/15/2017			<0.0025
2/16/2017		<0.0025	
5/31/2017			<0.0025
6/1/2017	<0.0025		
6/2/2017		<0.0025	
8/2/2017	<0.0025		
8/15/2017			<0.0025
8/17/2017	<0.0025	<0.0025	
4/4/2018	<0.0025		
5/8/2018	<0.0025		
6/19/2018			<0.0025
6/20/2018	<0.0025		
6/21/2018		<0.0025	
9/26/2018			9.3E-05
9/27/2018	<0.0025	<0.0025	
11/6/2018	<0.0025	<0.0025	<0.0025
8/27/2019	<0.0025		<0.0025
8/28/2019		<0.0025	
3/27/2020			<0.0025
3/28/2020	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025
3/2/2022		<0.0025	
3/3/2022	0.00043		<0.0025
9/21/2022	<0.0025	0.0002 (J)	<0.0025
Mean	0.002341	0.002323	0.002315
Std. Dev.	0.0005741	0.0006379	0.0006676
Upper Lim.	0.0025	0.0025	0.0025
Lower Lim.	0.00043	0.0002	9.3E-05

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0054 (J)	0.0026 (J)	
8/31/2016		0.0013 (J)	0.001 (J)	0.0022 (J)			
10/25/2016							0.016
11/30/2016		0.0012 (J)	<0.01	<0.01	0.0073 (J)	0.0016 (J)	0.0151 (J)
2/15/2017					0.0045 (J)	0.0018 (J)	0.0137
2/16/2017		0.0012 (J)	0.0011 (J)	0.0028 (J)			
5/31/2017					0.0052 (J)	0.0019 (J)	0.0109
6/1/2017	0.0008 (J)						
6/2/2017		<0.01	<0.01	0.0023 (J)			
8/2/2017	0.0012 (J)						
8/15/2017					0.005 (J)		0.0117
8/16/2017						0.0019 (J)	
8/17/2017	0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)			
4/4/2018	<0.01						
5/8/2018	<0.01						
6/19/2018					0.0047 (J)	<0.01	0.013 (J)
6/20/2018	<0.01	<0.01	<0.01				
6/21/2018				<0.01			
9/25/2018					<0.01	<0.01	
9/26/2018							0.0092 (J)
9/27/2018	<0.01	<0.01	<0.01	0.0024 (J)			
11/6/2018	0.0017 (J)			0.002 (J)		<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01		
3/6/2019			<0.01				
8/26/2019						0.00071 (J)	
8/27/2019	0.0018 (J)				0.0056 (J)		0.0066 (J)
8/28/2019		0.00047 (J)	0.00085 (J)	0.0024 (J)			
10/15/2019	0.0012 (J)				0.0057 (J)	0.00076 (J)	
10/16/2019		0.00057 (J)					0.0063 (J)
10/17/2019			0.0015 (J)	0.0019 (J)			
3/27/2020					<0.01	<0.01	<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01			
9/13/2021					<0.01	<0.01	
9/14/2021	<0.01	<0.01	<0.01	<0.01			<0.01
3/1/2022		<0.01	<0.01				
3/2/2022				<0.01			
3/3/2022	0.00085 (J)				<0.01	<0.01	<0.01
9/20/2022			<0.01				
9/21/2022	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0077 (J)	0.0015 (J)	0.0063 (J)
Mean	0.005025	0.005503	0.00701	0.005064	0.007221	0.005198	0.01063
Std. Dev.	0.004479	0.004676	0.00438	0.003825	0.002319	0.00434	0.003069
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01225
Lower Lim.	0.00085	0.0007	0.001	0.002	0.005	0.0015	0.007354

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					<0.0025	0.0006 (J)	
8/31/2016		<0.0025	<0.0025	<0.0025			
10/25/2016							<0.0025
11/30/2016		<0.0025	0.0009 (J)	0.0011 (J)	<0.0025	<0.0025	0.0007 (J)
2/15/2017					<0.0025	<0.0025	<0.0025
2/16/2017		<0.0025	<0.0025	<0.0025			
5/31/2017					0.0005 (J)	<0.0025	<0.0025
6/1/2017	<0.0025						
6/2/2017		<0.0025	<0.0025	<0.0025			
8/2/2017	<0.0025						
8/15/2017					0.0005 (J)		0.0004 (J)
8/16/2017						<0.0025	
8/17/2017	<0.0025	<0.0025	0.0003 (J)	<0.0025			
4/4/2018	<0.0025						
5/8/2018	<0.0025						
6/19/2018					0.00053 (J)	<0.0025	<0.0025
6/20/2018	<0.0025	<0.0025	<0.0025				
6/21/2018				<0.0025			
9/25/2018					<0.0025	<0.0025	
9/26/2018							0.00052
9/27/2018	<0.0025	<0.0025	<0.0025	<0.0025			
11/6/2018	0.0048 (J)			<0.0025		<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025		
3/6/2019			<0.0025				
8/26/2019						<0.0025	
8/27/2019	0.0078				0.0007 (J)		<0.0025
8/28/2019		<0.0025	<0.0025	<0.0025			
10/15/2019	0.0085				0.00054 (J)	<0.0025	
10/16/2019		<0.0025					<0.0025
10/17/2019			<0.0025	<0.0025			
11/20/2019	0.009						
3/27/2020					<0.0025	<0.0025	<0.0025
3/28/2020	0.0041 (J)	<0.0025	<0.0025	<0.0025			
10/12/2020					<0.0025		
10/13/2020	0.0063					<0.0025	<0.0025
10/14/2020			<0.0025	<0.0025			
10/15/2020		0.0019 (J)					
1/4/2021		<0.0025					
3/2/2021					<0.0025	<0.0025	
3/3/2021							<0.0025
3/4/2021	0.006	<0.0025	<0.0025	<0.0025			
9/13/2021					<0.0025	<0.0025	
9/14/2021	0.0054	<0.0025	<0.0025	<0.0025			<0.0025
3/1/2022		<0.0025	<0.0025				
3/2/2022				<0.0025			
3/3/2022	0.0049				<0.0025	<0.0025	<0.0025
9/20/2022			<0.0025				
9/21/2022	0.0025	0.00026 (J)		0.00031 (J)	0.00042 (J)	<0.0025	0.00025 (J)
Mean	0.004518	0.002333	0.002276	0.002276	0.001762	0.002381	0.001992
Std. Dev.	0.002316	0.0005536	0.0006399	0.0006298	0.0009856	0.000475	0.0009129
Upper Lim.	0.0063	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0019	0.0009	0.0011	0.00053	0.0006	0.00052

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.4	1.31	
8/31/2016			2.39 (D)	2.47 (D)	5.4 (D)			
10/25/2016								2.22
11/30/2016			1.66	1.6	3.13	4.37	0.438 (U)	2.01
2/15/2017						2.21	0.3 (U)	1.56
2/16/2017			2.71	1.83	3.09			
5/31/2017						2.62	1.77	1.92
6/1/2017		1.9						
6/2/2017			1.99	2.45	7.56			
8/2/2017		5.01						
8/15/2017						2.69		2.47
8/16/2017							2.26	
8/17/2017		5.35	1.87	3.33	6.38			
4/4/2018		5.05						
5/8/2018		3.25						
6/19/2018						2.96	5.39	2.82
6/20/2018		3.53	1.95	2.84				
6/21/2018					5.24			
9/25/2018						2.23	6.22	
9/26/2018								3.15 (D)
9/27/2018		7.07	0.629 (U)	1.94	6.11			
11/6/2018		11			6.1		5.38	2.95
11/7/2018			1.41 (U)	8.58		2.14		
8/26/2019							7.68	
8/27/2019		4.4				2.91		5.82
8/28/2019			1.67	6.86	8.73			
10/15/2019		4.92				3.28	8.7	
10/16/2019			1.92					7.5
10/17/2019				7.85	7.97			
11/20/2019					9.8			
11/21/2019							7.34	8.89
3/27/2020						2.33	9.63	9.54
3/28/2020		4.16	1.44 (U)	11 (U)	11.7			
10/12/2020						2.66		
10/13/2020		3.71					7.43	7.75
10/14/2020				8.97	13.1			
10/15/2020			2.56					
1/4/2021			5.84					
4/6/2021	7.33	2.83	1.43 (U)	7.89	9.66	2.2	7.02	7.8
9/13/2021						2.54	8.38	
9/14/2021	6.97	2.69	7.15	8.11	10.3			8.82
3/1/2022	9.03		8.16 (U)	5.83 (U)				
3/2/2022					5.66 (U)			
3/3/2022		2.51				3.56 (U)	8	9.1
9/20/2022	8.2			1.51				
9/21/2022		1.67	1.42		8.23	1.54	4.52	5.26
Mean	7.883	4.316	2.718	5.191	7.539	2.603	5.398	5.269
Std. Dev.	0.9229	2.278	2.163	3.243	2.802	0.7328	3.082	3.011
Upper Lim.	9.978	5.506	2.71	8.58	9.295	3.079	7.329	8.82
Lower Lim.	5.787	2.866	1.43	1.83	5.783	2.126	3.467	2.22



# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.5	0.5	
8/31/2016			0.93	0.41	0.92			
10/25/2016								1.1
11/30/2016			0.93	0.61	0.99	1.4	0.49	1.3
2/15/2017						1.3	0.58	1.3
2/16/2017			0.6	0.3 (J)	0.54			
5/31/2017						1.2	0.56	1.3
6/1/2017		<0.1						
6/2/2017			0.34	0.19 (J)	0.42			
8/2/2017		0.27 (J)						
8/15/2017						1.2		1.2
8/16/2017							0.45	
8/17/2017		0.18 (J)	0.52	0.26 (J)	0.27 (J)			
4/4/2018		<0.1						
5/8/2018		0.56						
6/19/2018						0.91	<0.1	0.6
6/20/2018		0.033 (J)	0.5	0.22 (J)				
6/21/2018					0.28 (J)			
9/25/2018						1.1	<0.1	
9/26/2018								0.44 (D)
9/27/2018		0.12 (J)	0.32	0.068 (J)	0.32 (D)			
11/6/2018		<0.1			0.086 (J)		0.084 (J)	0.4
11/7/2018			0.35	10.3 (o)	<0.1			
3/6/2019				<0.1				
3/24/2019			0.32	0.19 (J)	0.14 (J)	0.99	0.14 (J)	0.31
3/25/2019		0.055 (J)						
8/26/2019							<0.1	
8/27/2019		<0.1				1.1		<0.1
8/28/2019			0.36	<0.1	<0.1			
10/15/2019		0.095 (J)				1	<0.1	
10/16/2019			0.41					0.083 (J)
10/17/2019				<0.1	<0.1			
11/20/2019			0.34		<0.1			
11/21/2019							<0.1	<0.1
3/27/2020						1.1	<0.1	<0.1
3/28/2020		<0.1	0.34	<0.1	<0.1			
10/12/2020						1.2		
10/13/2020		<0.1					<0.1	<0.1
10/14/2020				<0.1	<0.1			
10/15/2020	0.11		0.22					
1/4/2021			<0.1					
3/2/2021						1	<0.1	
3/3/2021								<0.1
3/4/2021	<0.1	<0.1	0.45	<0.1	<0.1			
9/13/2021						1.4	<0.1	
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1			<0.1
3/1/2022	<0.1		<0.1	<0.1				
3/2/2022					<0.1			
3/3/2022		<0.1				0.95	<0.1	<0.1
9/20/2022	<0.1			1.1 (J)				
9/21/2022		<0.1	0.48		0.18	1.3	0.12	0.78
Mean	0.102	0.1331	0.4058	0.244	0.2748	1.1	0.218	0.5285

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Std. Dev.	0.004472	0.1219	0.2315	0.2623	0.2796	0.3205	0.1922	0.4963
Upper Lim.	0.11	0.12	0.4419	0.3	0.42	1.28	0.49	1.2
Lower Lim.	0.1	0.095	0.2033	0.1	0.1	0.987	0.1	0.1

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0001 (J)	<0.005	
8/31/2016	<0.005	<0.005	<0.005			
10/25/2016						<0.005
11/30/2016	0.0002 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2017				<0.005	<0.005	<0.005
2/16/2017	<0.005	<0.005	0.0002 (J)			
5/31/2017				9E-05 (J)	<0.005	<0.005
6/2/2017	<0.005	<0.005	<0.005			
8/15/2017				<0.005		0.0002 (J)
8/16/2017					8E-05 (J)	
8/17/2017	<0.005	<0.005	8E-05 (J)			
6/19/2018				<0.005	<0.005	<0.005
6/20/2018	<0.005	<0.005				
6/21/2018			<0.005			
9/25/2018				<0.005	<0.005	
9/26/2018						0.00027
9/27/2018	<0.005	<0.005	<0.005			
11/6/2018			<0.005		<0.005	<0.005
11/7/2018	<0.005	<0.005		<0.005		
3/6/2019		<0.005				
8/26/2019					<0.005	
8/27/2019				0.00022 (J)		0.00014 (J)
8/28/2019	<0.005	<0.005	0.0001 (J)			
10/15/2019				5.6E-05 (J)	<0.005	
10/16/2019	<0.005					0.00034 (J)
10/17/2019		0.00012 (J)	<0.005			
3/27/2020				<0.005	<0.005	<0.005
3/28/2020	<0.005	<0.005	<0.005			
10/12/2020				<0.005		
10/13/2020					<0.005	<0.005
10/14/2020		<0.005	<0.005			
10/15/2020	<0.005					
1/4/2021	<0.005					
3/2/2021				<0.005	<0.005	
3/3/2021						<0.005
3/4/2021	<0.005	<0.005	<0.005			
9/13/2021				<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005			<0.005
3/1/2022	<0.005	<0.005				
3/2/2022			<0.005			
3/3/2022				<0.005	<0.005	<0.005
9/20/2022		<0.005				
9/21/2022	<0.005		<0.005	0.00083 (J)	<0.005	<0.005
Mean	0.004718	0.004713	0.004086	0.003518	0.004692	0.003809
Std. Dev.	0.001164	0.001184	0.001965	0.002276	0.00123	0.00213
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0002	0.00012	0.0002	0.0001	8E-05	0.00027

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.0102 (J)	0.0112 (J)	
8/31/2016			0.0219 (J)	0.0389 (J)	0.0122 (J)			
10/25/2016								0.007 (J)
11/30/2016			0.0333 (J)	0.0303 (J)	0.011 (J)	0.0106 (J)	<0.025	0.0086 (J)
2/15/2017						0.0115 (J)	0.0105 (J)	0.0149 (J)
2/16/2017			0.0376 (J)	0.05 (J)	0.0142 (J)			
5/31/2017						0.011 (J)	0.0106 (J)	0.019 (J)
6/1/2017		<0.025						
6/2/2017			0.0346 (J)	0.0477 (J)	0.0229 (J)			
8/2/2017		<0.025						
8/15/2017						0.0123 (J)		0.016 (J)
8/16/2017							0.0145 (J)	
8/17/2017		<0.025	0.0367 (J)	0.0645	0.0241 (J)			
4/4/2018		0.0013 (J)						
5/8/2018		0.0012 (J)						
6/19/2018						0.012 (J)	0.044 (J)	0.021 (J)
6/20/2018		0.0015 (J)	0.034 (J)	0.066 (J)				
6/21/2018					0.03 (J)			
9/25/2018						0.011 (J)	0.041 (J)	
9/26/2018								0.02 (J)
9/27/2018		0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)			
11/6/2018		0.0038 (J)			0.037 (J)		0.047 (J)	0.017 (J)
11/7/2018			0.022 (J)	0.11		0.013 (J)		
3/6/2019				0.12				
8/26/2019							0.059	
8/27/2019		0.002 (J)				0.012 (J)		0.023 (J)
8/28/2019			0.023 (J)	0.13	0.12			
10/15/2019		0.0019 (J)				0.012 (J)	0.056 (J)	
10/16/2019			0.021 (J)					0.024 (J)
10/17/2019				0.12	0.096			
11/20/2019					0.12			
11/21/2019							0.052	
3/27/2020						<0.025	0.052	0.033 (J)
3/28/2020	0.078 (J)	<0.025	0.014 (J)	0.064	0.027 (J)			
6/16/2020	0.096 (J)							
10/12/2020						0.011 (J)		
10/13/2020		<0.025					0.046 (J)	0.028 (J)
10/14/2020				0.11	0.039 (J)			
10/15/2020	0.093		0.57					
1/4/2021			0.043 (J)					
3/2/2021						<0.025	0.046 (J)	
3/3/2021								<0.025
3/4/2021	0.094 (J)	<0.025	0.017 (J)	0.096 (J)	0.035 (J)			
9/13/2021						0.01 (J)	0.047	
9/14/2021	0.092	<0.025	0.042 (J)	0.084	0.035 (J)			0.035 (J)
3/1/2022	0.088 (J)		0.028 (J)	0.074				
3/2/2022					0.022 (J)			
3/3/2022		0.0017 (J)				<0.025	0.037 (J)	0.02 (J)
9/20/2022	<0.025			0.043				
9/21/2022		<0.025	0.018 (J)		0.02 (J)	0.0075 (J)	0.028	0.023 (J)
Mean	0.07907	0.01347	0.05995	0.07608	0.04114	0.01369	0.03614	0.02013
Std. Dev.	0.02995	0.01192	0.1317	0.03253	0.0352	0.005744	0.01761	0.007746

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Upper Lim.	0.09839	0.025	0.0376	0.09647	0.04934	0.013	0.04813	0.02516
Lower Lim.	0.06881	0.0015	0.021	0.0557	0.02023	0.0102	0.02964	0.01509

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-14	MCM-17
8/30/2016					<0.0002	
8/31/2016		<0.0002	<0.0002	<0.0002		
10/25/2016						<0.0002
11/30/2016		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/15/2017					<0.0002	<0.0002
2/16/2017		<0.0002	<0.0002	<0.0002		
5/31/2017					<0.0002	<0.0002
6/1/2017	<0.0002					
6/2/2017		4.2E-05 (J)	<0.0002	<0.0002		
8/2/2017	<0.0002					
8/15/2017						<0.0002
8/16/2017					<0.0002	
8/17/2017	<0.0002	<0.0002	<0.0002	<0.0002		
4/4/2018	<0.0002					
5/8/2018	<0.0002					
6/19/2018					<0.0002	<0.0002
6/20/2018	<0.0002	<0.0002	<0.0002			
6/21/2018				<0.0002		
9/25/2018					<0.0002	
9/26/2018						3.6E-05
9/27/2018	<0.0002	<0.0002	<0.0002	<0.0002		
11/6/2018	0.00071			0.00067	0.00066	0.00064
11/7/2018		<0.0002	<0.0002			
3/6/2019			<0.0002			
8/26/2019					<0.0002	
8/27/2019	<0.0002					<0.0002
8/28/2019		<0.0002	<0.0002	<0.0002		
3/27/2020					<0.0002	<0.0002
3/28/2020	<0.0002	<0.0002	<0.0002	<0.0002		
9/13/2021					<0.0002	
9/14/2021	<0.0002	<0.0002	0.00016 (J)	<0.0002		<0.0002
3/1/2022		<0.0002	<0.0002			
3/2/2022				<0.0002		
3/3/2022	<0.0002				<0.0002	<0.0002
9/20/2022			<0.0002			
9/21/2022	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002
Mean	0.0002392	0.0001878	0.0001971	0.0002362	0.0002354	0.0002212
Std. Dev.	0.0001414	4.382E-05	1.069E-05	0.0001304	0.0001276	0.0001337
Upper Lim.	0.00071	0.0002	0.0002	0.00067	0.00066	0.00064
Lower Lim.	0.0002	4.2E-05	0.00016	0.0002	0.0002	3.6E-05

# Confidence Interval

Constituent: Molybdenum (mg/L)    Analysis Run 12/22/2022 2:00 PM    View: Appendix IV - Confidence Intervals

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-17
8/31/2016		<0.01	<0.01	<0.01	
10/25/2016					<0.01
11/30/2016		<0.01	<0.01	<0.01	<0.01
2/15/2017					<0.01
2/16/2017		<0.01	<0.01	<0.01	
5/31/2017					<0.01
6/1/2017	<0.01				
6/2/2017		<0.01	<0.01	<0.01	
8/2/2017	<0.01				
8/15/2017					<0.01
8/17/2017	<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018	<0.01				
5/8/2018	<0.01				
6/19/2018					<0.01
6/20/2018	<0.01	<0.01	<0.01		
6/21/2018				<0.01	
9/26/2018					0.0019
9/27/2018	<0.01	<0.01	<0.01	<0.01	
11/6/2018	<0.01			<0.01	<0.01
11/7/2018		<0.01	0.0024 (J)		
3/6/2019			<0.01		
8/27/2019	<0.01				<0.01
8/28/2019		<0.01	0.0017 (J)	<0.01	
10/15/2019	<0.01				
10/16/2019		<0.01			<0.01
10/17/2019			0.0017 (J)	<0.01	
3/27/2020					<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022		<0.01	<0.01		
3/2/2022				<0.01	
3/3/2022	0.00015 (J)				<0.01
9/20/2022			0.0013 (J)		
9/21/2022	<0.01	0.00095 (J)		0.00095 (J)	<0.01
Mean	0.009296	0.008718	0.007307	0.009354	0.009421
Std. Dev.	0.002633	0.003238	0.003952	0.002419	0.002165
Upper Lim.	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.00015	0.0099	0.0017	0.00095	0.0019

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0011 (J)	<0.005	
8/31/2016		0.002 (J)	0.0015 (J)	0.0021 (J)			
10/25/2016							0.003 (J)
11/30/2016		0.0023 (J)	0.0054 (J)	<0.005	0.0023 (J)	<0.005	0.0087 (J)
2/15/2017					0.0021 (J)	0.0014 (J)	0.0067 (J)
2/16/2017		0.002 (J)	0.0022 (J)	0.0025 (J)			
5/31/2017					<0.005	<0.005	0.0018 (J)
6/1/2017	<0.005						
6/2/2017		<0.005	<0.005	<0.005			
8/2/2017	<0.005						
8/15/2017					0.0021 (J)		0.0025 (J)
8/16/2017						0.0018 (J)	
8/17/2017	<0.005	<0.005	0.002 (J)	0.0033 (J)			
4/4/2018	<0.005						
5/8/2018	<0.005						
6/19/2018					0.0017 (J)	<0.005	<0.005
6/20/2018	<0.005	<0.005	<0.005				
6/21/2018				<0.005			
9/25/2018					0.002 (J)	0.0019 (J)	
9/26/2018							0.0016 (J)
9/27/2018	<0.005	<0.005	<0.005	0.0023 (J)			
11/6/2018	0.0025 (J)			0.0048 (J)		0.0057 (J)	<0.005
11/7/2018		<0.005	0.0075 (J)		<0.005		
3/6/2019			0.0024 (J)				
8/26/2019						0.0025 (J)	
8/27/2019	<0.005				0.0019 (J)		0.0018 (J)
8/28/2019		<0.005	0.0014 (J)	0.0019 (J)			
10/15/2019	<0.005				<0.005	0.003 (J)	
10/16/2019		<0.005					<0.005
10/17/2019			0.0066 (J)	0.0049 (J)			
3/27/2020					<0.005	<0.005	<0.005
3/28/2020	<0.005	<0.005	<0.005	<0.005			
10/12/2020					<0.005		
10/13/2020	<0.005					<0.005	<0.005
10/14/2020			<0.005	<0.005			
10/15/2020		0.0028 (J)					
1/4/2021		<0.005					
3/2/2021					<0.005	<0.005	
3/3/2021							<0.005
3/4/2021	0.00038 (J)	<0.005	<0.005	<0.005			
9/13/2021					<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005			0.0021
3/1/2022		<0.005	<0.005				
3/2/2022				<0.005			
3/3/2022	0.00012 (J)				<0.005	<0.005	<0.005
9/20/2022			<0.005				
9/21/2022	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Mean	0.00425	0.004359	0.004353	0.004175	0.003637	0.004144	0.004262
Std. Dev.	0.001681	0.001203	0.001779	0.001255	0.001615	0.001456	0.001976
Upper Lim.	0.005	0.005	0.0054	0.005	0.005	0.0057	0.0067
Lower Lim.	0.0025	0.0028	0.0022	0.0023	0.0019	0.0019	0.0021



# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/22/2022 2:00 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-17
8/31/2016	<0.001	
10/25/2016		<0.001
11/30/2016	<0.001	<0.001
2/15/2017		<0.001
2/16/2017	<0.001	
5/31/2017		<0.001
6/2/2017	<0.001	
8/15/2017		<0.001
8/17/2017	<0.001	
6/19/2018		<0.001
6/20/2018	<0.001	
9/26/2018		0.00014
9/27/2018	<0.001	
11/6/2018		<0.001
11/7/2018	<0.001	
3/6/2019	<0.001	
8/27/2019		<0.001
8/28/2019	<0.001	
10/16/2019		<0.001
10/17/2019	7.6E-05 (J)	
3/27/2020		<0.001
3/28/2020	<0.001	
9/14/2021	<0.001	<0.001
3/1/2022	<0.001	
3/3/2022		<0.001
9/20/2022	<0.001	
9/21/2022		<0.001
Mean	0.0009384	0.0009386
Std. Dev.	0.0002386	0.0002298
Upper Lim.	0.001	0.001
Lower Lim.	7.6E-05	0.00014

FIGURE I.

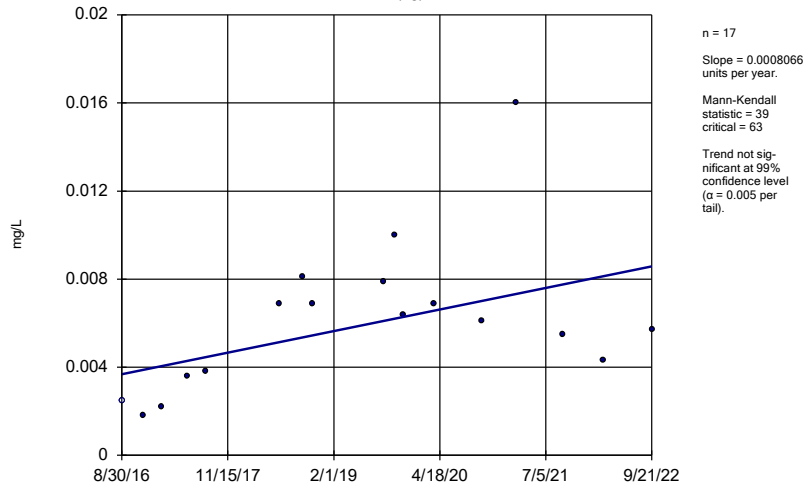
# Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/22/2022, 2:04 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	0.0008066	39	63	No	17	5.882	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	3	63	No	17	41.18	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	0.02021	26	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	-0.00233	-49	-68	No	18	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.0001728	23	58	No	16	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-7	-58	No	16	50	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.001407	-37	-48	No	14	14.29	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	-0.0005489	-7	-48	No	14	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.003763	-9	-18	No	7	14.29	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	3	58	No	16	93.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	0.008391	38	63	No	17	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	13	58	No	16	43.75	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	17	58	No	16	56.25	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-11	-58	No	16	87.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0.007745	22	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0007766	-13	-48	No	14	7.143	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

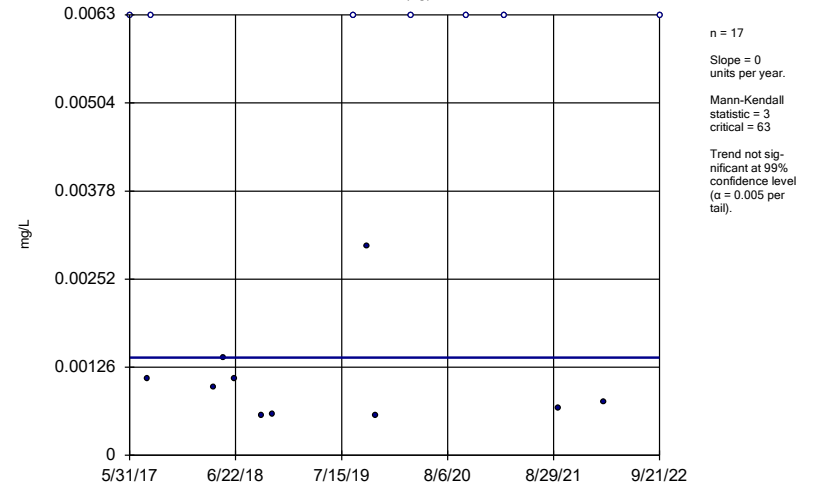
MCM-01 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

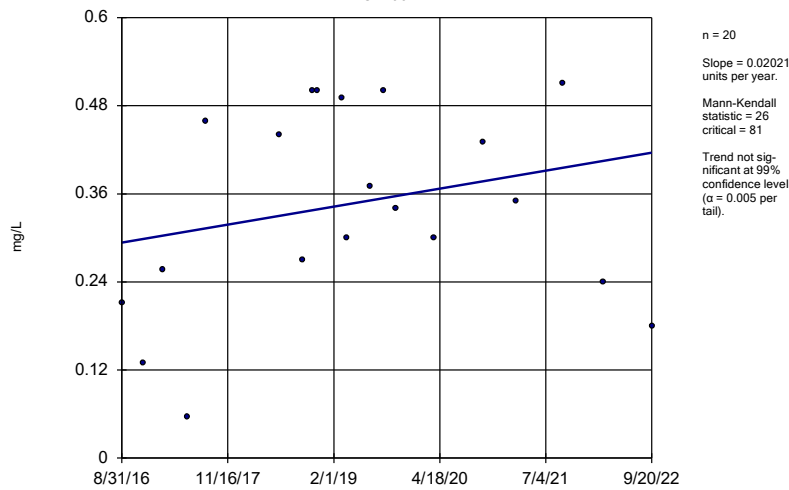
MCM-02 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

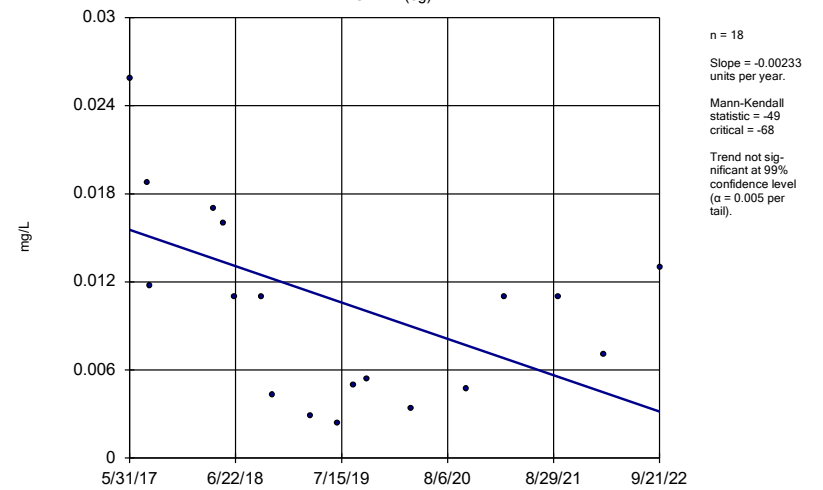
MCM-06



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

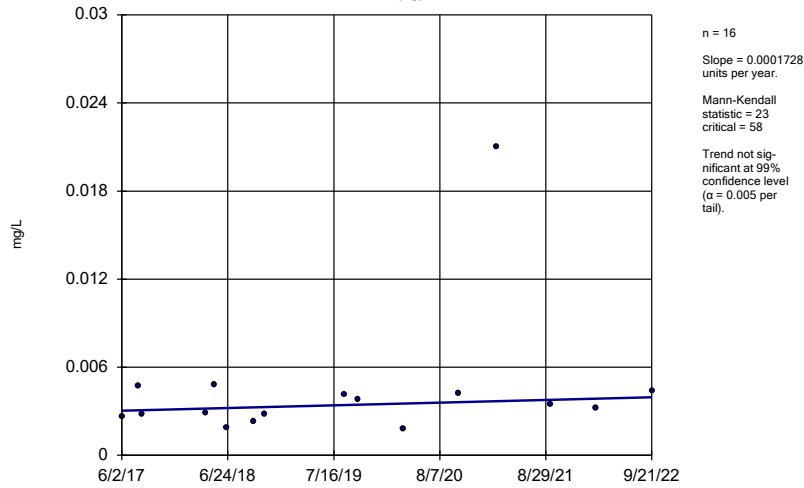
MCM-11 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

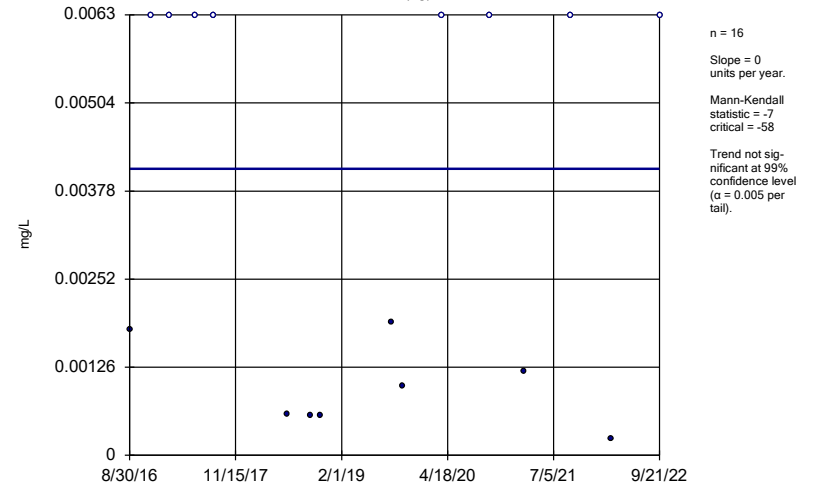
MCM-15 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

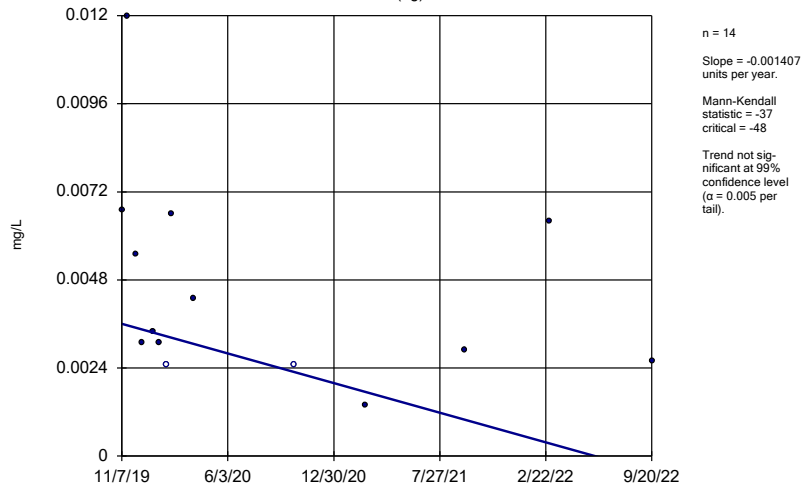
MCM-16 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

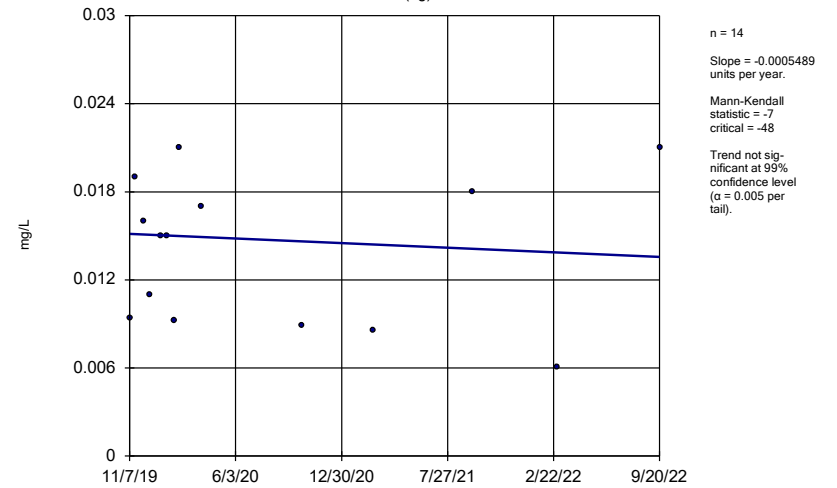
MCM-18 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

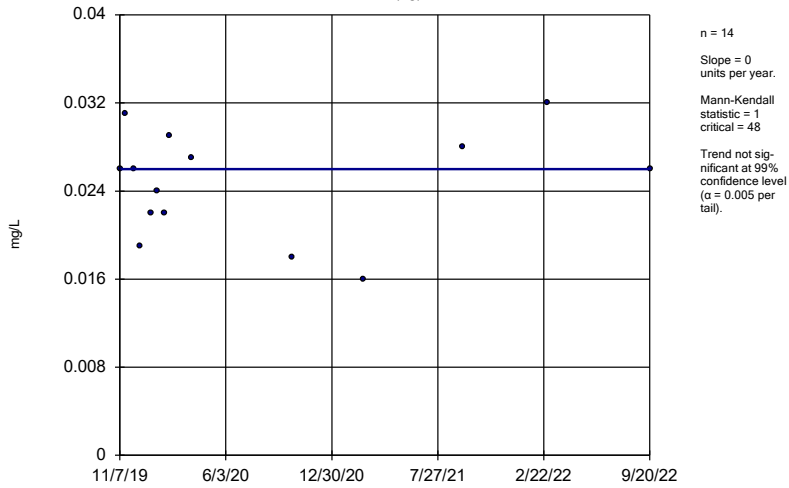
MCM-19 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

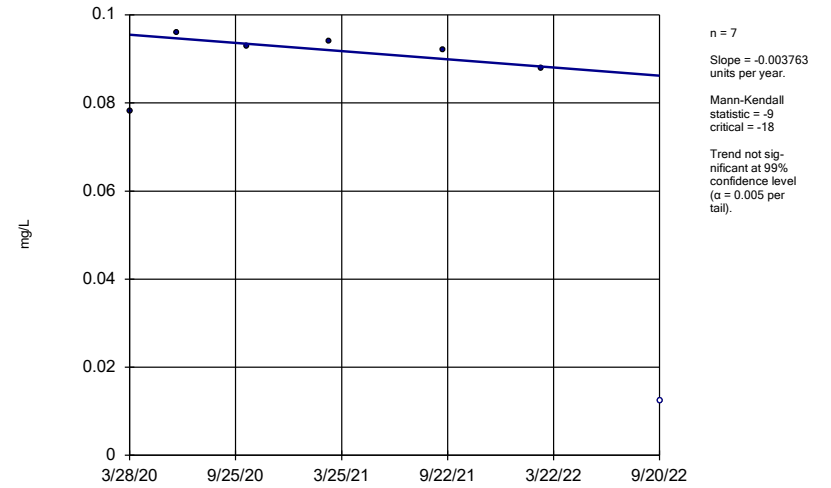
MCM-20 (bg)



Constituent: Arsenic Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

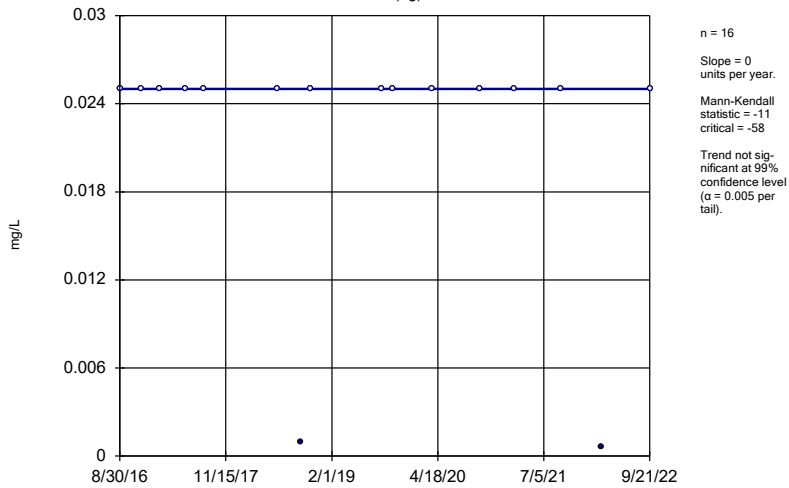
DPZ-02



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

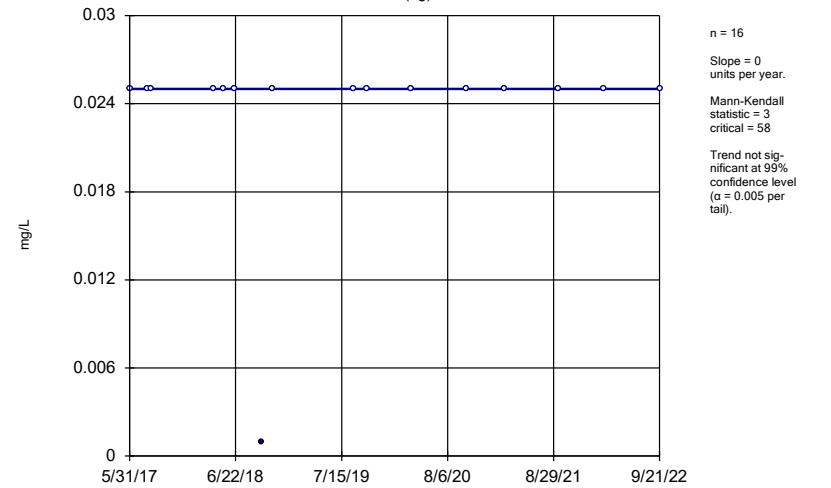
MCM-01 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

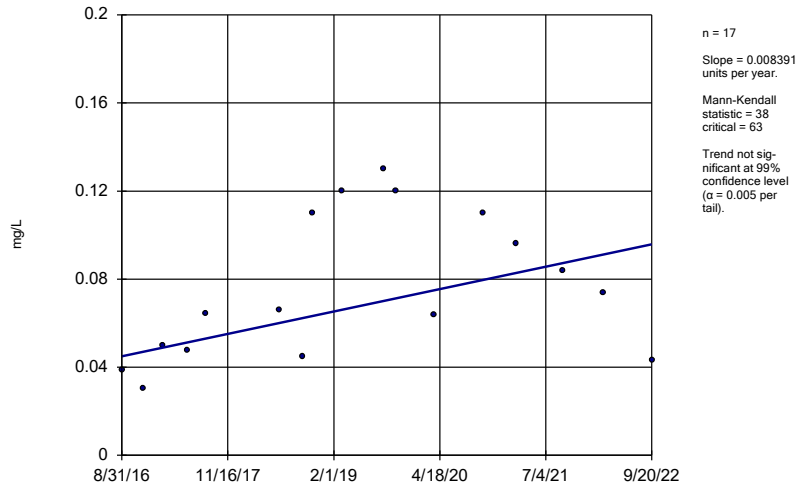
MCM-02 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-06

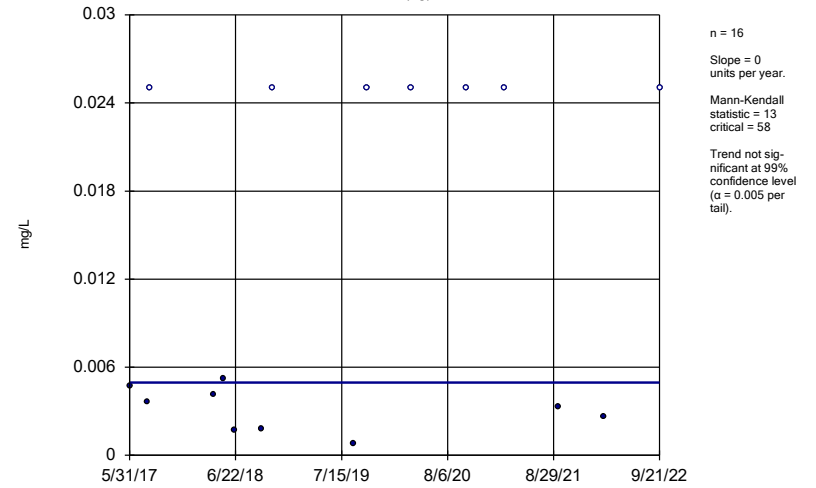


Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

MCM-11 (bg)

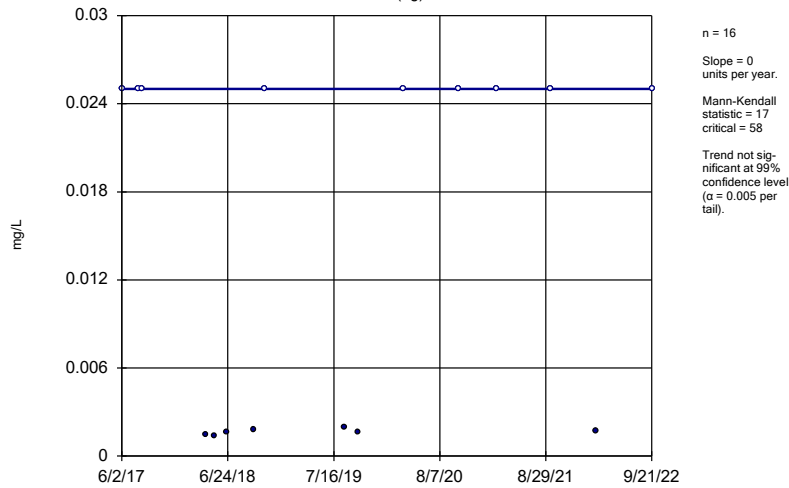


Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

MCM-15 (bg)

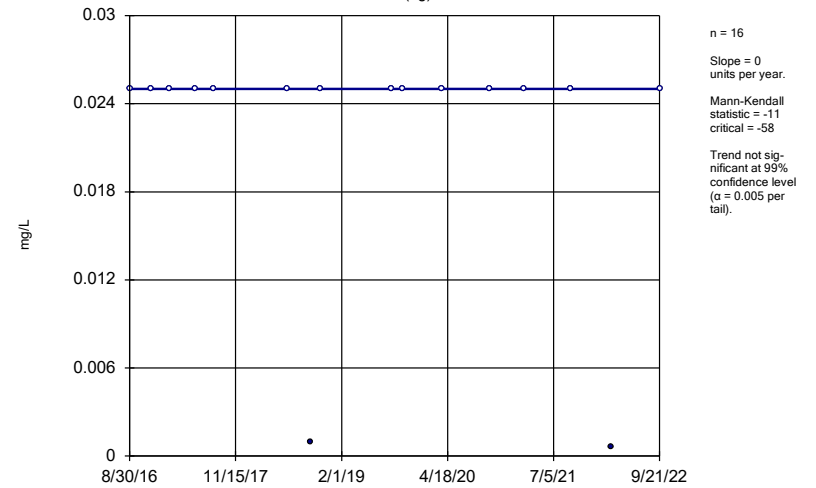


Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

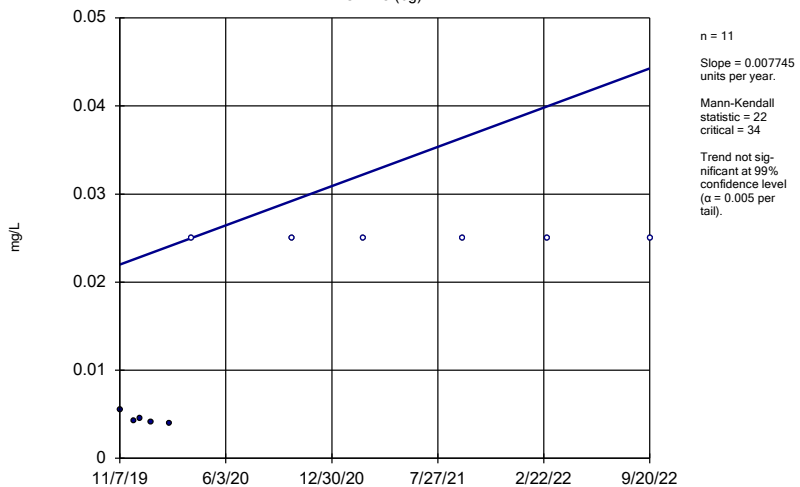
MCM-16 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

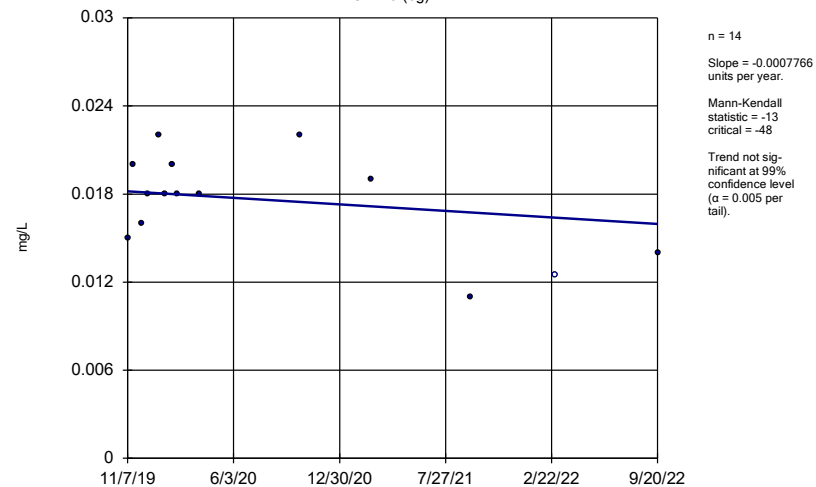
MCM-18 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

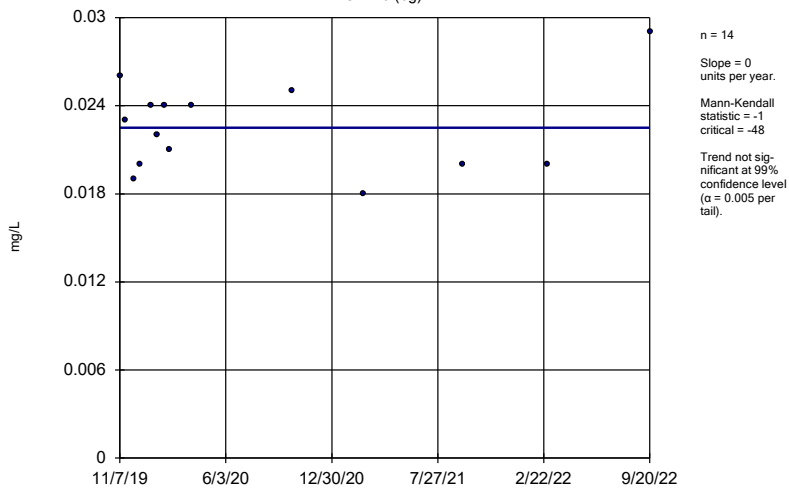
MCM-19 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

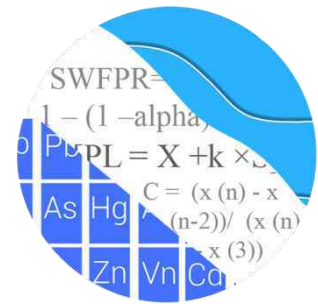
MCM-20 (bg)



Constituent: Lithium Analysis Run 12/22/2022 2:01 PM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



## GROUNDWATER STATS CONSULTING



July 31, 2023

Resolute Environmental & Water Resources Consulting  
Attn: Mr. Stephen Wilson  
1003 Weatherstone Parkway, Ste. 320  
Woodstock, GA 30188

Re: Plant McManus Ash Pond (AP)  
Statistical Analysis – February/March 2023 Sample Event

Dear Mr. Wilson,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the February/March 2023 sample event for Georgia Power Company's Plant McManus Ash Pond. 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 (EPD) for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

The groundwater monitoring well network consists of the following:

- **Upgradient Wells:** MCM-01, MCM-02, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, and MCM-20
- **Downgradient Wells:** MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- **Assessment Well:** DPZ-2

Note that upgradient wells MCM-18, MCM-19, and MCM-20 were installed late in 2019. Assessment well DPZ-2 is evaluated with confidence intervals for Appendix IV constituents when four or more samples are available. A minimum of 8 samples have been collected at each upgradient and downgradient well and data from these wells are included in this

analysis. Note that observations from the June 2022 sample event for arsenic at downgradient well MCM-06 and assessment well DPZ-2 were added and evaluated during this analysis.

Piezometers PT-01, PT-02, PT-03, and PT-04D were, reportedly, installed to support assessment of corrective measures and remedy selection. Baseline data collected from the piezometers will be utilized to establish conditions prior to implementation of a pilot study. These piezometers are discussed separately below.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager for Groundwater Stats Consulting.

The statistical analysis provided in this report was performed according to the background screening conducted by MacStat Consulting in April 2019. Interwell prediction limits, combined with a 1-of-2 resample plan, for Appendix III parameters were recommended as the primary statistical method.

The CCR program monitors the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient and assessment well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. However, the reporting limits for some constituents during this event were at or above the MCL or CCR-Rule Specified Level. In order maintain conservative limits, the following historic reporting limits were substituted:

- Antimony: 0.003 mg/L
- Cadmium: 0.0025 mg/L
- Chromium: 0.01 mg/L
- Cobalt: 0.0025 mg/L
- Fluoride: 0.1 mg/L

- Lead: 0.005 mg/L
- Lithium: 0.025 mg/L
- Molybdenum: 0.01 mg/L

Some constituents exist in higher concentrations in upgradient wells compared to those reported in one or more downgradient wells which is reflective of natural variation in groundwater quality. In other cases, concentrations exist higher in downgradient wells relative to observations reported upgradient of the facility, as seen in the majority of the Appendix III parameters. This may be reflective of natural variation or a result of practices at the facility. A separate study and hydrogeological investigation would be required to fully understand the geochemical conditions and expected groundwater quality for the region. That study and assessment is beyond the scope of services provided by Groundwater Stats Consulting.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs.

As a result of the previous background screening, the following non-detect values were previously flagged due to elevated reporting limits: 0.025 mg/L for lead in upgradient well MCM-19; and 0.1 mg/L, 0.15 mg/L and 0.3 mg/L for lithium in upgradient well MCM-18. Additionally, a high value for combined radium 226 + 228 in upgradient well MCM-20 was flagged as an outlier as well as a high value for fluoride in downgradient well MCM-06. This step results in construction of background limits that are conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

Based on the 2019 screening, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the 2019 screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. 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:

Based on the evaluation for state and federal regulatory requirements, the following methods were selected for Appendix III and IV constituents:

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Groundwater Protection Standards (GWPS) for each detected Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) 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 following approaches are used for handling non-detects (USEPA, 2009):

- 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. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers.

While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting 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.

### **Statistical Analysis of Appendix III Parameters – February/March 2023**

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were reassessed for potential outliers during this analysis. No additional outliers were flagged at this time. 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).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through February/March 2023 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The February/March 2023 sample 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 and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MCM-17
- Calcium: MCM-07
- pH: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- Sulfate: MCM-14

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure E). Upgradient well data are included in the trend analyses for all parameters

found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Trends identified in upgradient wells are an indication of variability in groundwater quality unrelated to practices at the site. A summary of trend test results follows this letter including a list of statistically significant trends. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- pH: MCM-18 (upgradient)

Decreasing:

- Calcium: MCM-18 and MCM-20 (all upgradient)
- pH: MCM-07, MCM-11 (upgradient), MCM-14, and MCM-20 (upgradient)
- Sulfate: MCM-02, MCM-11, and MCM-18 (all upgradient)

### **Statistical Analysis of Appendix IV Parameters – February/March 2023**

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and assessment well/constituent pairs containing 100% non-detects do not require analysis.

Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new individual observations were flagged as outliers; however, elevated historic concentrations for combined radium 226 + 228 in upgradient well MCM-20 were truncated from the record in order to maintain more conservative (i.e., lower) limits and construct statistical limits that are more representative of present-day groundwater quality conditions. Both a summary of all flagged outliers (Figure C) and a list of any truncated records follow this report.

#### Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through February/March 2023 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

## Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 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 G).

## Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient and assessment well using all available data through February/March 2023 (Figure H). Note that confidence intervals require a minimum of 4 samples.

The Sanitas software was used to calculate both the tolerance limits and 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 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. Summaries of the confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: MCM-06
- Lithium: DPZ-02 and MCM-06

#### Trend Test Evaluation – Appendix IV

The Sen's Slope/Mann Kendall trend test was conducted to determine whether concentrations for Appendix IV parameters with confidence interval exceedances are statistically increasing, decreasing, or stable at the 99% confidence level (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. Note that closure measures have been implemented; therefore, the trend test was used to evaluate all available data beyond November 27, 2019 to the present. When trends are present in upgradient trends, 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 and no significant trends were identified.

#### **Addendum Reports – June 2023 Sample Event**

Additional data were collected in June 2023 for arsenic, pH, sulfate, and TDS at downgradient well MCM-06, upgradient well MCM-20, and assessment well DPZ-02 as well as for chloride and fluoride at downgradient well MCM-06. These well/constituent pairs were plotted along with upgradient wells for reference on time series and box plots (Figures J and K).

#### Appendix III Resamples

Interwell prediction limits were constructed using pooled upgradient well data through February/March 2023 (except for pH, sulfate, and TDS which had data at upgradient well MCM-20 through June 2023) to compare the June 2023 resample for chloride, fluoride, pH, sulfate, and TDS at well downgradient well MCM-06 (Figure L). No changes to the interwell prediction limits occurred, and the following exceedance was identified:

- pH: MCM-06



## Appendix IV Resamples

Upper tolerance limits were recalculated for arsenic and fluoride as described above to using all available pooled upgradient well data through June 2023 (Figure M). No changes to the upper tolerance limits occurred. Confidence intervals were constructed for arsenic and fluoride at assessment well DPZ-02 and downgradient well MCM-06 using data through June 2023 (Figure N) and compared to the GWPS as described above. The following exceedance was identified:

- Arsenic: MCM-06

## Piezometers

As discussed earlier, baseline data collected at piezometers PT-01, PT-02, PT-03, and PT-04D are plotted on time series graphs to monitor concentrations over time (Figure O).

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Plant McManus Ash Pond. 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

# 100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 5/7/2023 9:02 PM View: Appendix IV

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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Antimony (mg/L)

DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12

Beryllium (mg/L)

DPZ-02, MCM-06

Cadmium (mg/L)

DPZ-02, MCM-05, MCM-06, MCM-12, MCM-14

Chromium (mg/L)

DPZ-02

Cobalt (mg/L)

DPZ-02

Lead (mg/L)

DPZ-02, MCM-04

Mercury (mg/L)

DPZ-02, MCM-12

Molybdenum (mg/L)

MCM-14

Thallium (mg/L)

DPZ-02, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

# Date Ranges

Date: 5/7/2023 8:04 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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Combined Radium 226 + 228 (pCi/L)  
MCM-20 overall: 10/13/2020-3/2/2023

# Appendix III - Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:24 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)	MCM-17	1.3	n/a	2/28/2023	1.78	Yes	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	169	n/a	3/2/2023	194	Yes	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	3/2/2023	6.55	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	3/2/2023	7.38	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	3/2/2023	6.28	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	2/28/2023	6.28	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	3/2/2023	6.53	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	2/28/2023	6.62	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	3/2/2023	2520	Yes	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2

# Appendix III - Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:24 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)	MCM-04	1.3	n/a	3/1/2023	0.108	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	3/2/2023	0.511	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	3/2/2023	0.961	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	3/2/2023	1.25	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	2/28/2023	1.23	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	3/2/2023	0.738	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>MCM-17</b>	<b>1.3</b>	<b>n/a</b>	<b>2/28/2023</b>	<b>1.78</b>	<b>Yes</b>	<b>130</b>	<b>n/a</b>	<b>n/a</b>	<b>7.692</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001172</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-04	169	n/a	3/1/2023	7.75	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	3/2/2023	25.9	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	3/2/2023	36.1	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>169</b>	<b>n/a</b>	<b>3/2/2023</b>	<b>194</b>	<b>Yes</b>	<b>131</b>	<b>n/a</b>	<b>n/a</b>	<b>0.7634</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001155</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-12	169	n/a	2/28/2023	5.17	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	3/2/2023	48	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	2/28/2023	94.2	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	3/1/2023	45.6	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	3/2/2023	853	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	3/2/2023	1470	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	3/2/2023	5450	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	2/28/2023	518	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	3/2/2023	1810	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	2/28/2023	2770	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	3.32	n/a	3/1/2023	0.1ND	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	3.32	n/a	3/2/2023	0.388J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.32	n/a	3/2/2023	0.419J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	3.32	n/a	3/2/2023	0.44J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	3.32	n/a	2/28/2023	1.21J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	3.32	n/a	3/2/2023	0.188J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	3.32	n/a	2/28/2023	0.815J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	3/1/2023	4.93	No	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-05</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.55</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>7.38</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.28</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-12</b>	<b>5.81</b>	<b>3.36</b>	<b>2/28/2023</b>	<b>6.28</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.53</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-17</b>	<b>5.81</b>	<b>3.36</b>	<b>2/28/2023</b>	<b>6.62</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-04	1140	n/a	3/1/2023	44.2	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	3/2/2023	84.2	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	3/2/2023	157	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	3/2/2023	640	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	2/28/2023	1.33	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>MCM-14</b>	<b>1140</b>	<b>n/a</b>	<b>3/2/2023</b>	<b>2520</b>	<b>Yes</b>	<b>129</b>	<b>n/a</b>	<b>n/a</b>	<b>0.7752</b>	<b>n/a</b>	<b>n/a</b>	<b>0.000119</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-17	1140	n/a	2/28/2023	334	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	3/1/2023	142	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	3/2/2023	1710	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	3/2/2023	3120	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	3/2/2023	10500	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	2/28/2023	1290	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	3/2/2023	3280	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	2/28/2023	6810	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2

# Appendix III - Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MCM-18 (bg)	-9.695	-75	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-20 (bg)	-26.66	-73	-53	Yes	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02124	75	74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.05268	-84	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-11 (bg)	-0.05227	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.1072	-132	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.07993	62	48	Yes	14	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.04646	-56	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-02 (bg)	-2.937	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-11 (bg)	-1.959	-70	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-18 (bg)	-74.43	-63	-48	Yes	14	0	n/a	n/a	0.01	NP

# Appendix III - Trend Tests - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 5/7/2023, 8:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.008035	50	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.00785	-23	-63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.002622	28	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.004228	28	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004286	-37	-63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04304	-28	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01789	-51	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	-0.007612	-5	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.0269	-27	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.4686	-33	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-02 (bg)	-0.157	-45	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-07	14.97	64	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-11 (bg)	-0.9529	-30	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	-0.0698	-6	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	-0.008888	-5	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-9.695</b>	<b>-75</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-19 (bg)	-23.7	-35	-53	No	15	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-20 (bg)</b>	<b>-26.66</b>	<b>-73</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-01 (bg)	-0.048	-22	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-02 (bg)</b>	<b>0.02124</b>	<b>75</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-05	-0.04499	-56	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.02053	-11	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>-0.05268</b>	<b>-84</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, field (Std. Units)</b>	<b>MCM-11 (bg)</b>	<b>-0.05227</b>	<b>-77</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-12	-0.03134	-62	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>-0.1072</b>	<b>-132</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-15 (bg)	-0.06195	-51	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.009918	-14	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.0729	-67	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-18 (bg)</b>	<b>0.07993</b>	<b>62</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-19 (bg)	-0.003523	-5	-48	No	14	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-20 (bg)</b>	<b>-0.04646</b>	<b>-56</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-01 (bg)	-1.074	-20	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MCM-02 (bg)</b>	<b>-2.937</b>	<b>-89</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MCM-11 (bg)</b>	<b>-1.959</b>	<b>-70</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-14	142.6	61	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-15 (bg)	-0.7341	-9	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-16 (bg)	-0.339	-13	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-74.43</b>	<b>-63</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-19 (bg)	-5.468	-5	-53	No	15	6.667	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-20 (bg)	-90.55	-29	-53	No	15	0	n/a	n/a	0.01	NP

# Upper Tolerance Limits

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:48 PM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	115	95.65	n/a	0.002743	NP Inter(NDs)
Arsenic (mg/L)	0.032	n/a	n/a	n/a	n/a	134	14.18	n/a	0.001035	NP Inter(normality)
Barium (mg/L)	0.22	n/a	n/a	n/a	n/a	131	0	n/a	0.001207	NP Inter(normality)
Beryllium (mg/L)	0.021	n/a	n/a	n/a	n/a	130	27.69	n/a	0.001271	NP Inter(normality)
Cadmium (mg/L)	0.0043	n/a	n/a	n/a	n/a	108	92.59	n/a	0.003928	NP Inter(NDs)
Chromium (mg/L)	0.011	n/a	n/a	n/a	n/a	115	52.17	n/a	0.002743	NP Inter(NDs)
Cobalt (mg/L)	0.036	n/a	n/a	n/a	n/a	130	73.08	n/a	0.001271	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	34.9	n/a	n/a	n/a	n/a	121	0	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	3.32	n/a	n/a	n/a	n/a	134	48.51	n/a	0.001035	NP Inter(normality)
Lead (mg/L)	0.005	n/a	n/a	n/a	n/a	130	84.62	n/a	0.001271	NP Inter(NDs)
Lithium (mg/L)	0.029	n/a	n/a	n/a	n/a	127	55.91	n/a	0.001482	NP Inter(NDs)
Mercury (mg/L)	0.0007	n/a	n/a	n/a	n/a	109	95.41	n/a	0.003731	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	114	88.6	n/a	0.002887	NP Inter(NDs)
Selenium (mg/L)	0.15	n/a	n/a	n/a	n/a	131	61.83	n/a	0.001207	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	114	92.98	n/a	0.002887	NP Inter(NDs)



<b>MCMANUS ASH POND GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		34.9	34.9
Fluoride, Total (mg/L)	4		3.32	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.3998	0.2437	0.032	Yes	22	0.3217	0.1455	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09598	0.07787	0.04	Yes	8	0.08068	0.0281	12.5	None	x^6	0.01	Param.
Lithium (mg/L)	MCM-06	0.09379	0.05393	0.04	Yes	18	0.07386	0.03294	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	16	0.002736	0.0007018	81.25	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	15	0.002827	0.0006713	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	15	0.002852	0.0005732	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.05	0.015	0.032	No	8	0.0239	0.01098	12.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	MCM-04	0.006326	0.002757	0.032	No	18	0.005293	0.004045	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.02093	0.007842	0.032	No	20	0.01438	0.01152	15	None	No	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.3998</b>	<b>0.2437</b>	<b>0.032</b>	<b>Yes</b>	<b>22</b>	<b>0.3217</b>	<b>0.1455</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	MCM-07	0.01992	0.01111	0.032	No	20	0.01552	0.007754	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-12	0.01	0.001	0.032	No	17	0.006624	0.004306	58.82	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0063	0.00201	0.032	No	17	0.004695	0.002338	52.94	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	18	0.004392	0.002171	44.44	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09233	0.05837	2	No	6	0.07535	0.01236	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07576	0.03201	2	No	17	0.06553	0.06957	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.0393	0.0097	2	No	18	0.04614	0.1025	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-06	0.1323	0.06201	2	No	18	0.09717	0.05811	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	17	0.1553	0.09089	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1237	0.09407	2	No	17	0.1089	0.02364	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1222	0.05657	2	No	17	0.08939	0.05239	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1295	0.06745	2	No	17	0.09845	0.04948	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.004	0.00021	0.021	No	17	0.001827	0.001879	41.18	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.004	0.000054	0.021	No	18	0.003781	0.0009301	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.004	0.00012	0.021	No	17	0.00331	0.001536	82.35	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.00127	0.0005636	0.021	No	17	0.0009665	0.0006539	11.76	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.004	0.0001	0.021	No	17	0.002856	0.001827	70.59	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	17	0.0008711	0.0008614	35.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	14	0.002352	0.0005532	92.86	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	14	0.002336	0.0006147	92.86	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	14	0.002328	0.0006433	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.0012	0.1	No	15	0.005357	0.004503	46.67	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	15	0.005803	0.004653	53.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	16	0.007197	0.004297	68.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.0022	0.1	No	15	0.005393	0.0039	40	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	15	0.007182	0.002239	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	15	0.005518	0.004362	46.67	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01187	0.007143	0.1	No	15	0.01034	0.003168	26.67	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	18	0.004409	0.002294	38.89	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	18	0.002342	0.0005385	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	18	0.002289	0.000623	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	17	0.002289	0.0006123	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00052	0.036	No	17	0.001689	0.001001	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	17	0.002388	0.0004608	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.0007	0.036	No	17	0.002022	0.0008925	76.47	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.957	6.423	34.9	No	5	8.19	1.054	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.475	2.98	34.9	No	17	4.359	2.213	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	34.9	No	18	2.69	2.102	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.11	1.83	34.9	No	17	4.991	3.247	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.071	5.669	34.9	No	18	7.37	2.811	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.031	2.137	34.9	No	17	2.584	0.7136	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.583	4.656	34.9	No	18	5.547	3.056	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	34.9	No	18	5.281	2.922	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	6	0.1017	0.004082	83.33	None	No	0.0155	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	18	0.1313	0.1185	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.5329	0.2769	4	No	20	0.4049	0.2254	15	None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No	18	0.2537	0.2578	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.44	0.1	4	No	19	0.2835	0.2743	42.11	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MCM-12	1.276	1.002	4	No	18	1.106	0.312	5.556	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	19	0.2164	0.1869	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	19	0.5436	0.4868	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	18	0.004733	0.001131	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	18	0.004729	0.00115	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	17	0.00414	0.001915	82.35	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.00022	0.015	No	17	0.003606	0.002233	70.59	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	17	0.004711	0.001193	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00034	0.015	No	17	0.003879	0.002083	76.47	None	No	0.01	NP (NDs)
<b>Lithium (mg/L)</b>	<b>DPZ-02</b>	<b>0.09598</b>	<b>0.07787</b>	<b>0.04</b>	<b>Yes</b>	<b>8</b>	<b>0.08068</b>	<b>0.0281</b>	<b>12.5</b>	<b>None</b>	<b>x^6</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-04	0.025	0.0017	0.04	No	17	0.01415	0.01188	52.94	None	No	0.01	NP (NDs)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	18	0.05793	0.1281	0	None	No	0.01	NP (normality)
<b>Lithium (mg/L)</b>	<b>MCM-06</b>	<b>0.09379</b>	<b>0.05393</b>	<b>0.04</b>	<b>Yes</b>	<b>18</b>	<b>0.07386</b>	<b>0.03294</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-07	0.04714	0.02031	0.04	No	18	0.04006	0.03446	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0104	0.04	No	17	0.0135	0.005619	17.65	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.0472	0.02903	0.04	No	18	0.03534	0.01741	5.556	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02523	0.01568	0.04	No	17	0.02045	0.007621	5.882	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	14	0.0002364	0.0001363	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	14	0.0001887	0.00004223	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	15	0.0001973	0.00001033	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	14	0.0002336	0.0001256	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	14	0.0002329	0.0001229	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	14	0.0002197	0.0001286	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	15	0.009343	0.002543	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0012	0.1	No	15	0.008193	0.003723	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	16	0.006932	0.004102	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.000963	0.1	No	15	0.008794	0.003182	86.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	15	0.008814	0.003144	86.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.05	0.0025	0.15	No	17	0.04135	0.01926	82.35	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.05	0.0028	0.15	No	18	0.03939	0.02042	77.78	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.05	0.0022	0.15	No	18	0.02939	0.02376	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.00238	0.15	No	17	0.004069	0.00129	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	17	0.003516	0.001642	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.05	0.0025	0.15	No	17	0.03331	0.02331	64.71	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.00184	0.15	No	17	0.00412	0.002002	47.06	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.002	0.000076	0.002	No	16	0.00188	0.000481	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.002	0.00014	0.002	No	15	0.001876	0.0004802	93.33	None	No	0.01	NP (NDs)

# Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 7/11/2023, 9:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	-0.000672	-11	-18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	-1	-18	No	7	71.43	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	-0.1329	-24	-25	No	9	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	0.001803	10	18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.001045	7	18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-5	-18	No	7	57.14	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.0002005	-18	-43	No	13	15.38	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	0.00005126	2	43	No	13	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	-0.0005887	-7	-48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.002155	-10	-21	No	8	12.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	0	18	No	7	100	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	-0.02612	-13	-18	No	7	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	-3	-18	No	7	71.43	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0	10	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0001629	-8	-43	No	13	7.692	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0.0006089	14	43	No	13	0	n/a	n/a	0.01	NP

# Interwell Prediction Limits - June 2023 Resample - Significant Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 6/23/2023, 3:12 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (Std. Units)	MCM-06	5.81	3.36	6/14/2023	7.17	Yes	135	n/a	n/a	0	n/a	n/a	0.0002168	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - June 2023 Resample - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:12 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	MCM-06	8130	n/a	6/14/2023	1770	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.32	n/a	6/14/2023	0.1ND	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>6/14/2023</b>	<b>7.17</b>	<b>Yes</b>	<b>135</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002168</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-06	1140	n/a	6/14/2023	187	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	6/14/2023	3370	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2

# Upper Tolerance Limits Summary Table - June 2023 Resample

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform Alpha	Method
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a 135	n/a	n/a	14.07	n/a	n/a	0.0009833 NP Inter(normality)
Fluoride (mg/L)	n/a	3.32	n/a	n/a	n/a	n/a 134	n/a	n/a	48.51	n/a	n/a	0.001035 NP Inter(normality)



# Confidence Intervals - June 2023 Resample - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.39</b>	<b>0.2308</b>	<b>0.032</b>	<b>Yes</b>	<b>23</b>	<b>0.3104</b>	<b>0.1522</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>

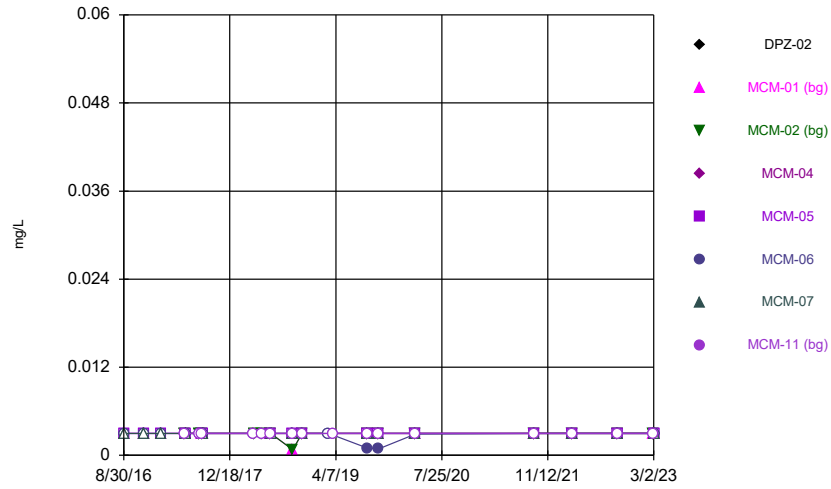
# Confidence Intervals - June 2023 Resample - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:16 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DPZ-02	0.05	0.015	0.032	No	9	0.02361	0.0103	11.11	None	No	0.002	NP (normality)
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.39</b>	<b>0.2308</b>	<b>0.032</b>	<b>Yes</b>	<b>23</b>	<b>0.3104</b>	<b>0.1522</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	6	0.1017	0.004082	83.33	None	No	0.0155	NP (NDs)
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No	19	0.2456	0.253	47.37	None	No	0.01	NP (normality)

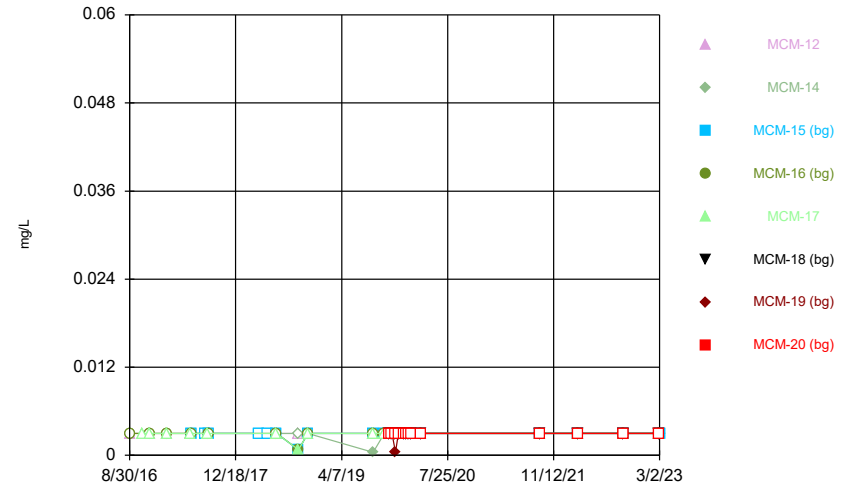
FIGURE A.

Time Series



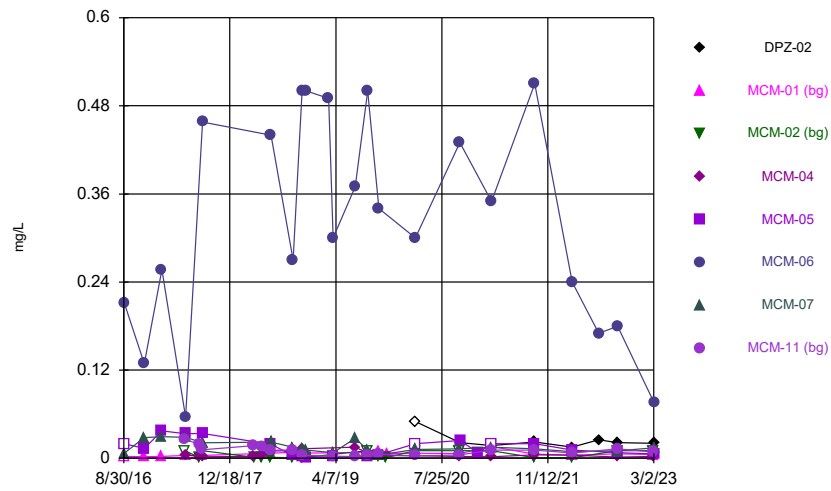
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Time Series



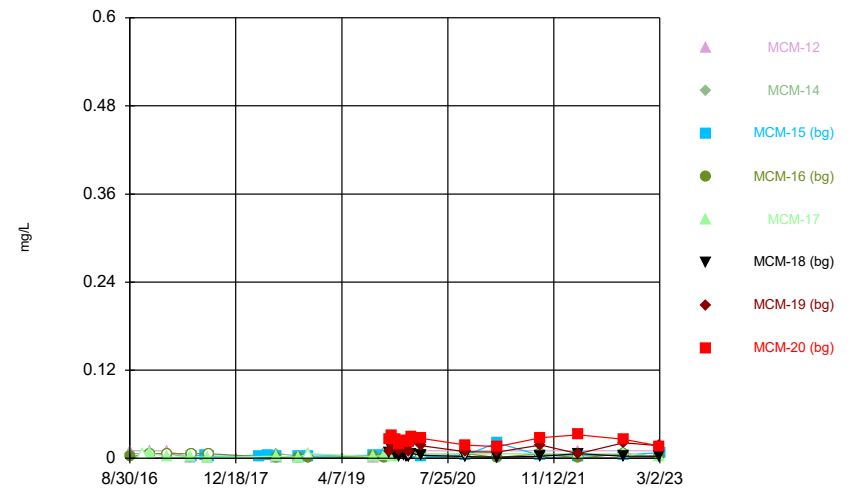
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



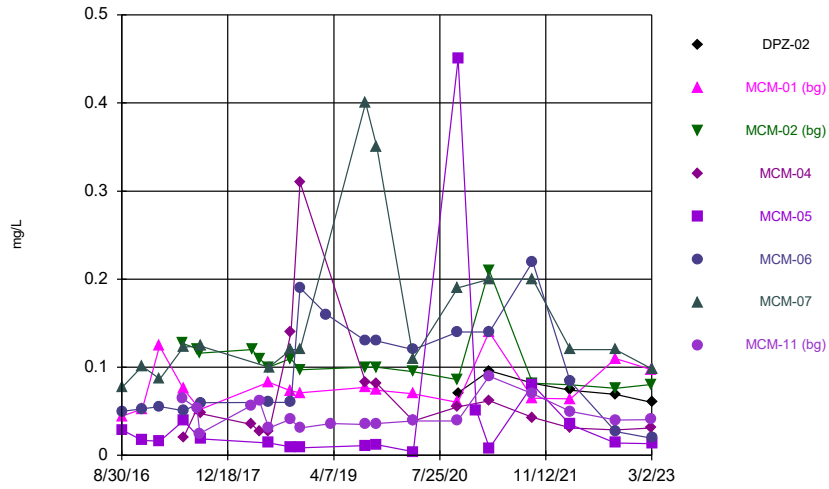
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Time Series



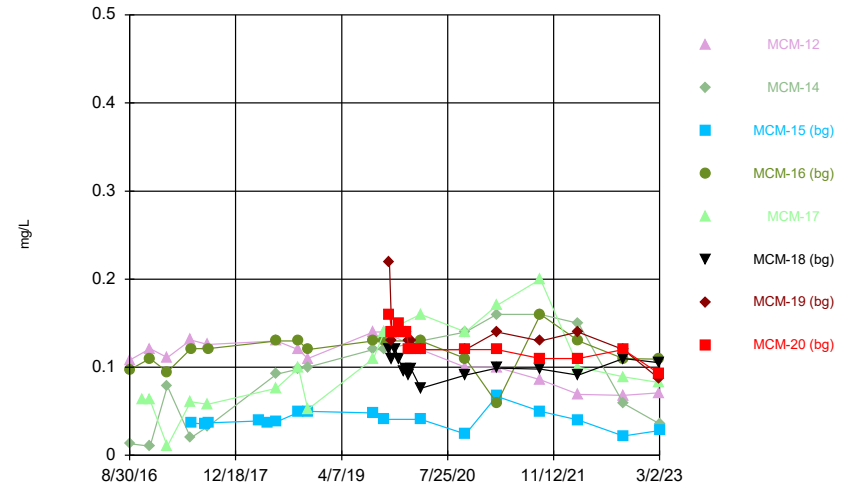
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Time Series



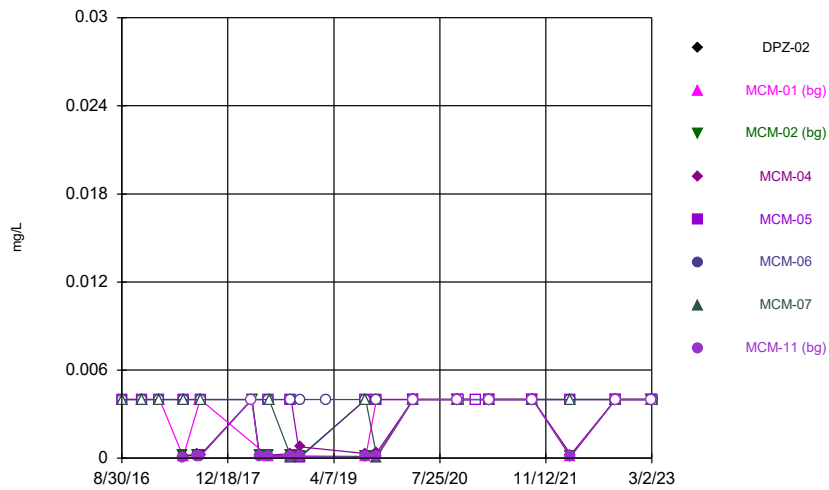
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



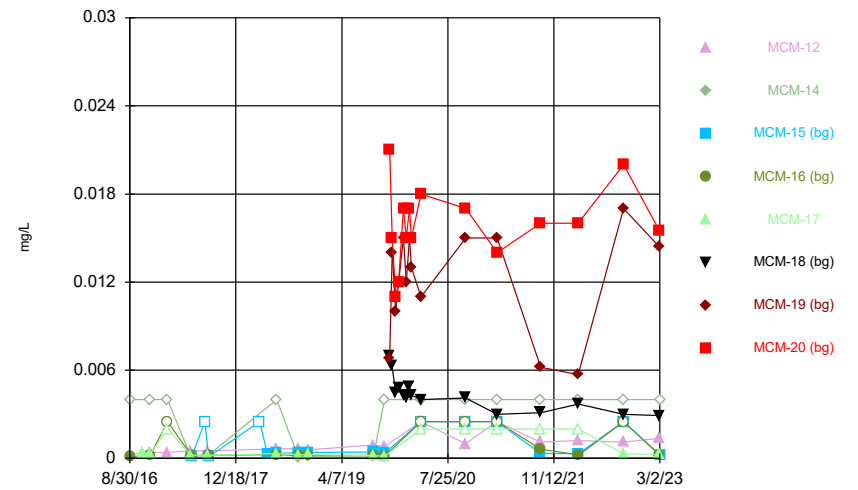
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Time Series



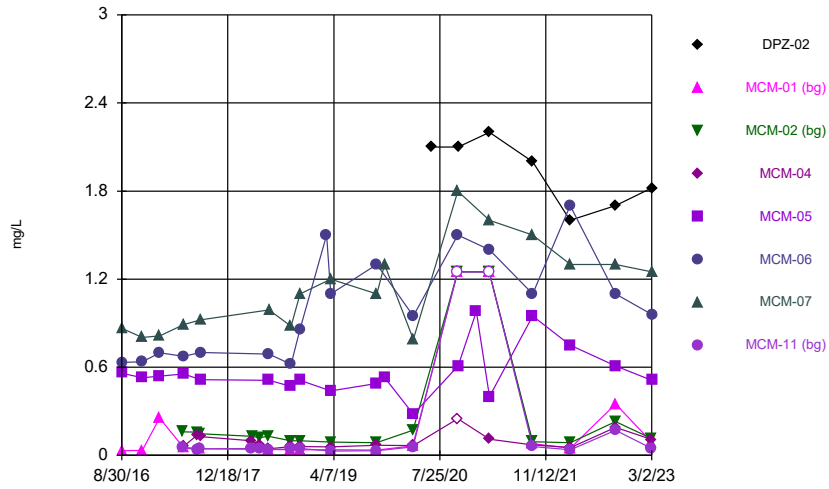
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



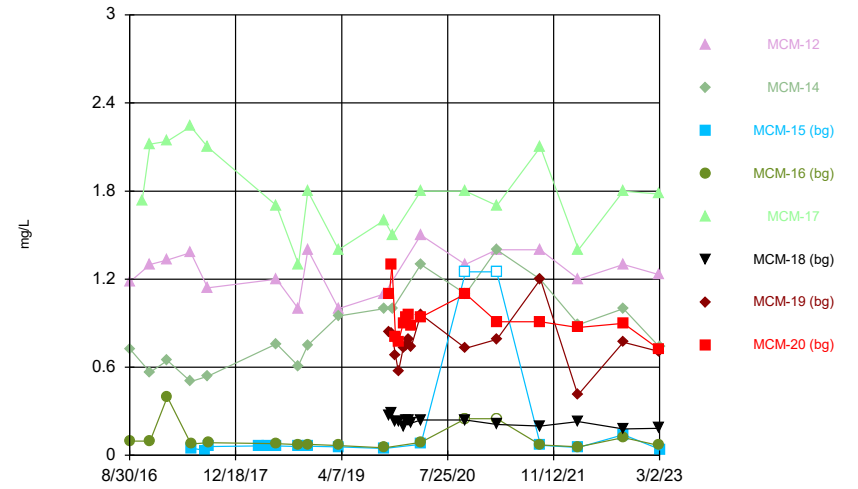
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Time Series



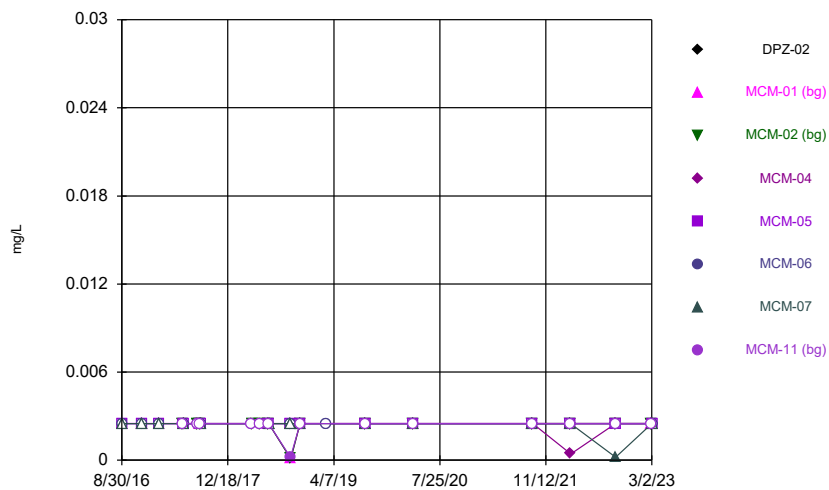
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



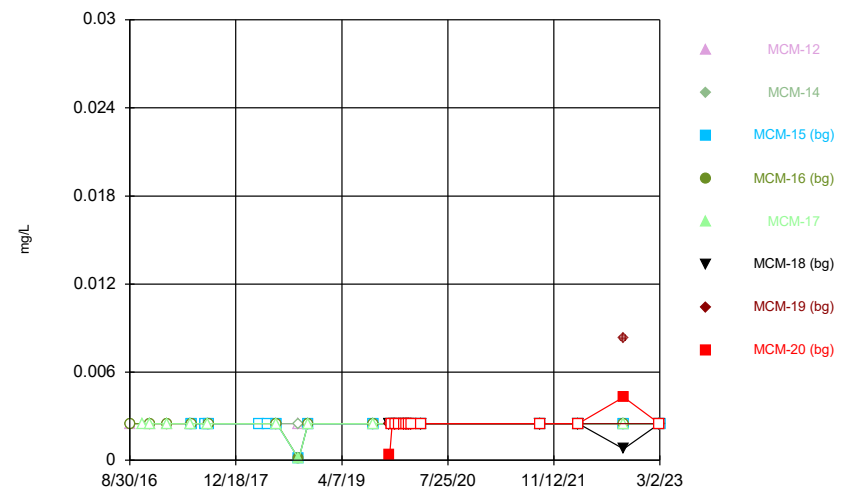
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Time Series



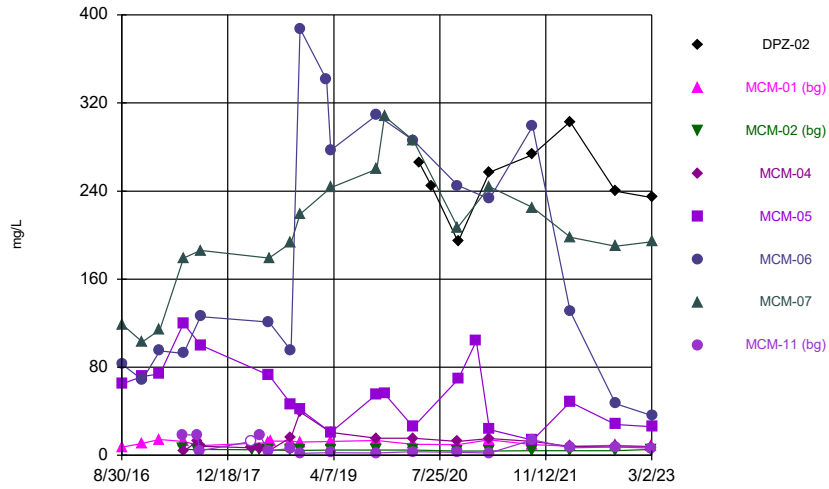
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



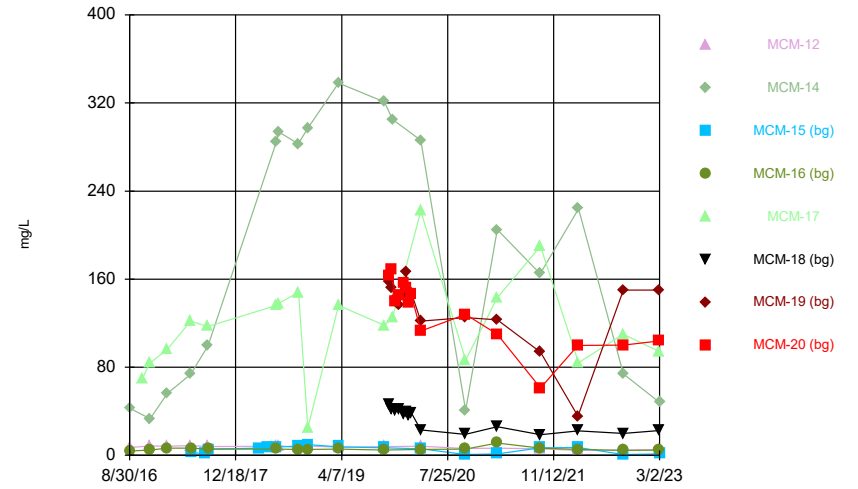
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



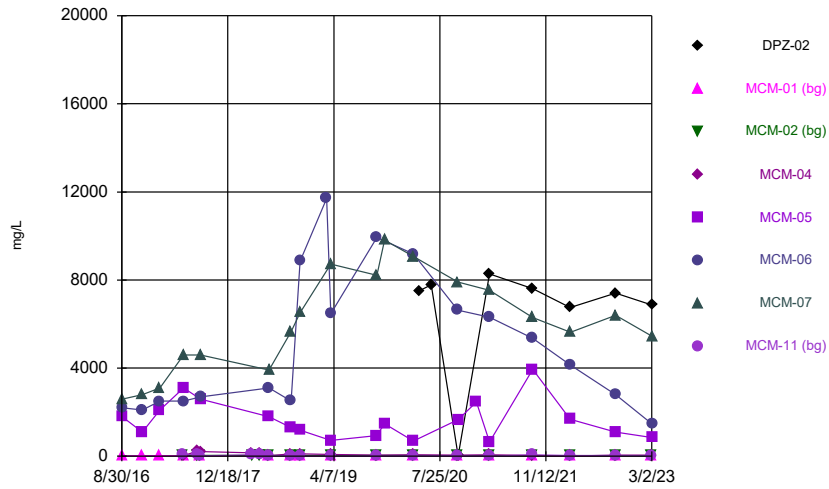
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



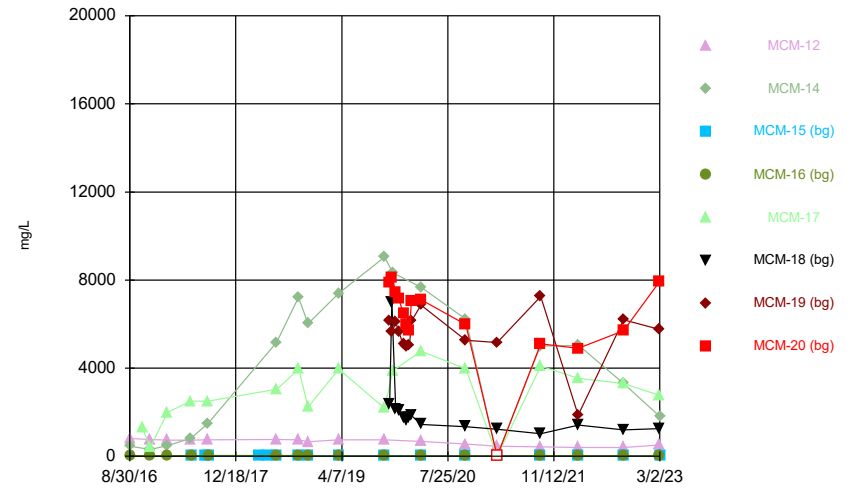
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### Time Series



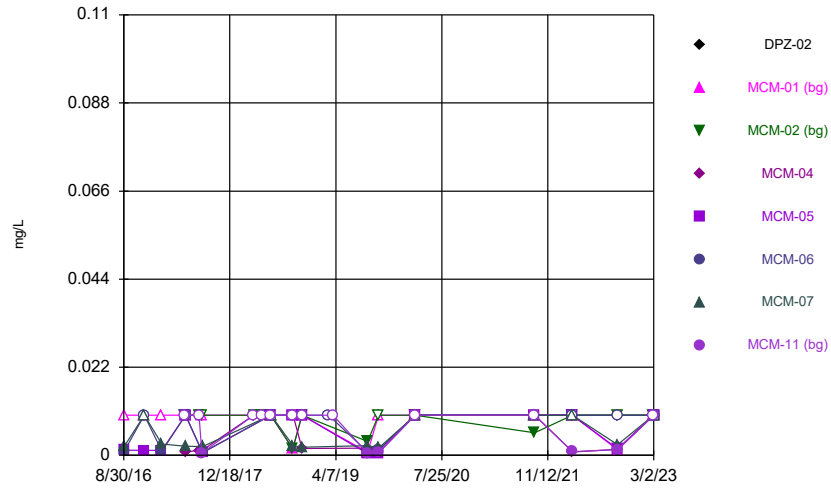
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Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



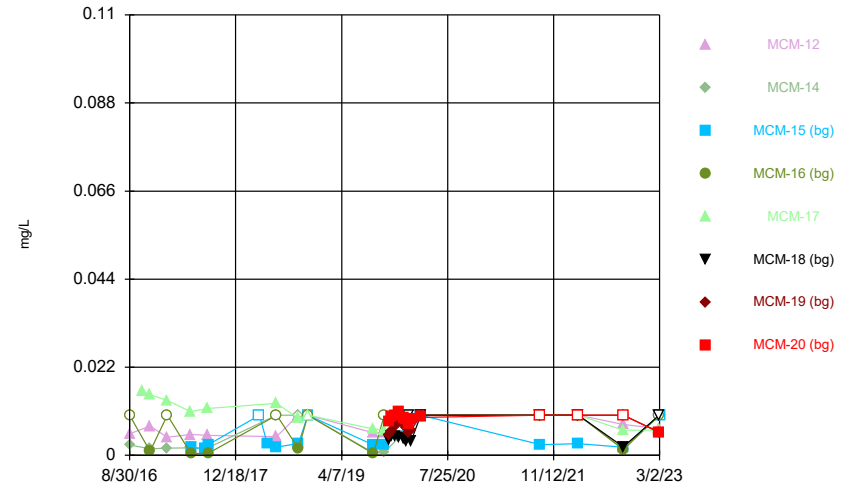
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Time Series



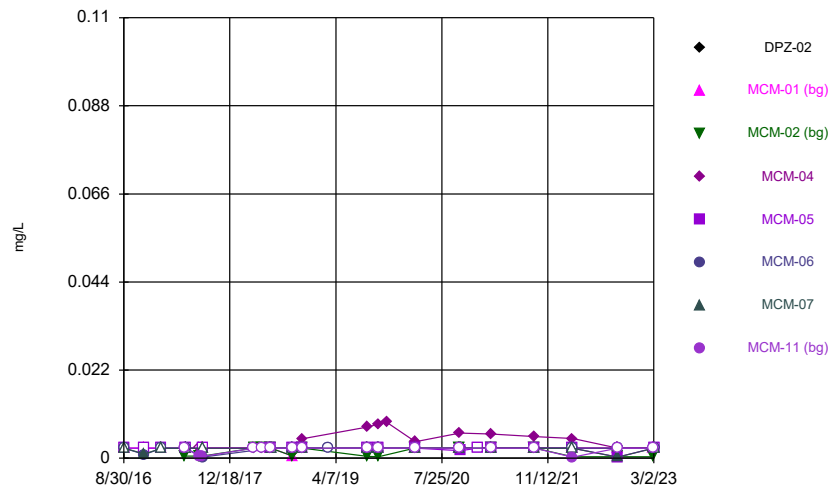
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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



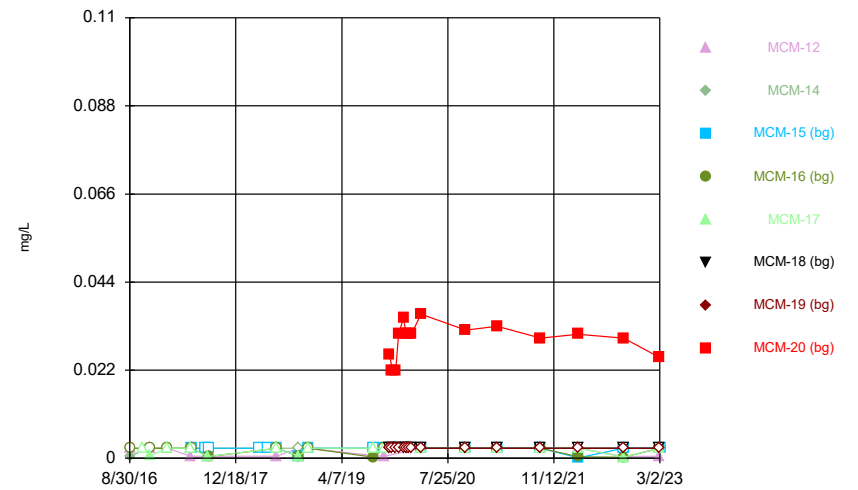
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Time Series



Constituent: Cobalt Analysis Run 5/25/2023 9:13 AM  
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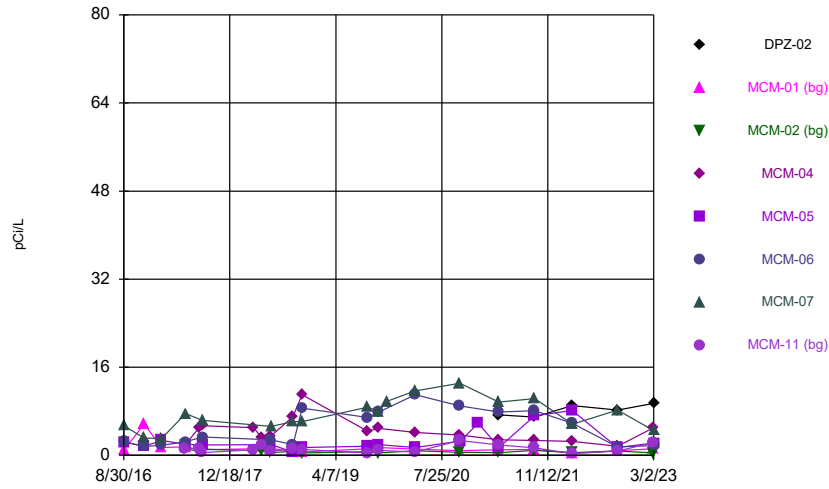
Time Series



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 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

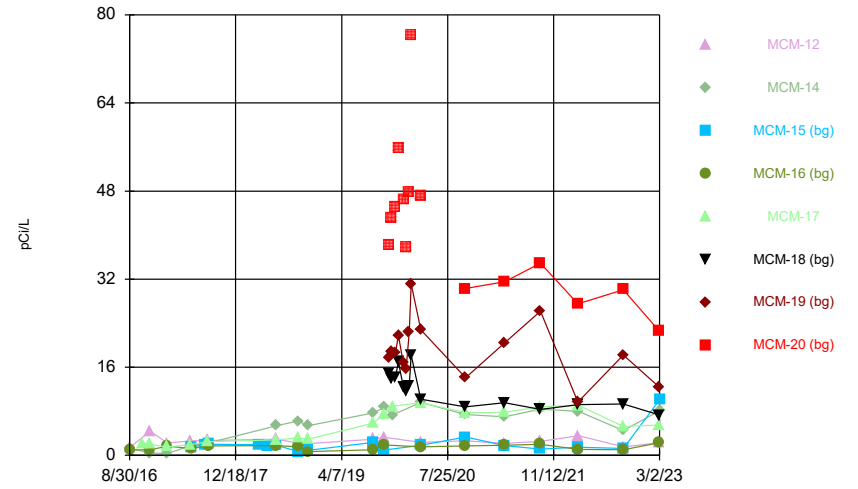


### Time Series



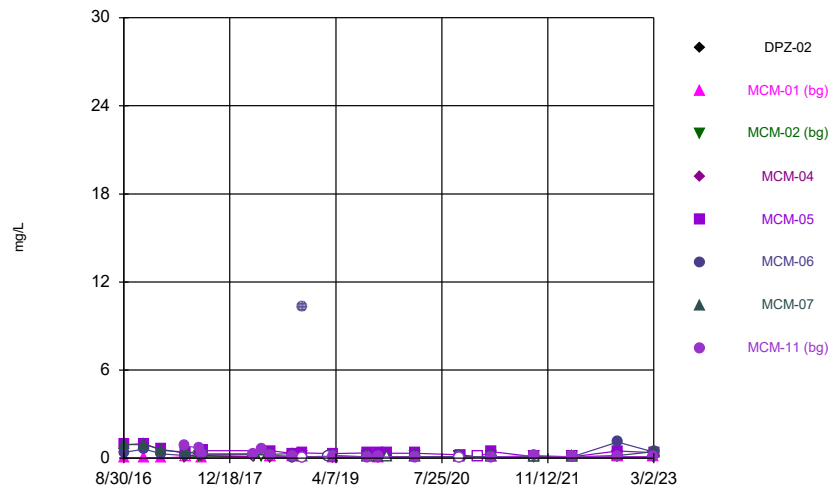
Constituent: Combined Radium 226 + 228 Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



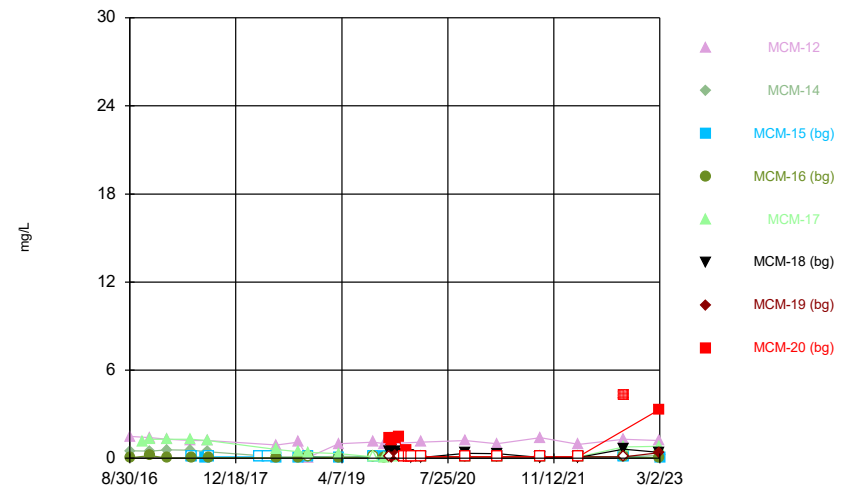
Constituent: Combined Radium 226 + 228 Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



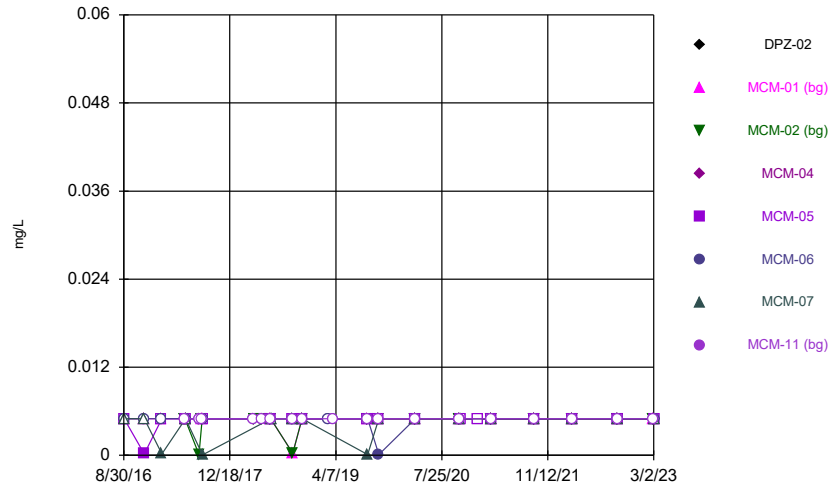
Constituent: Fluoride Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



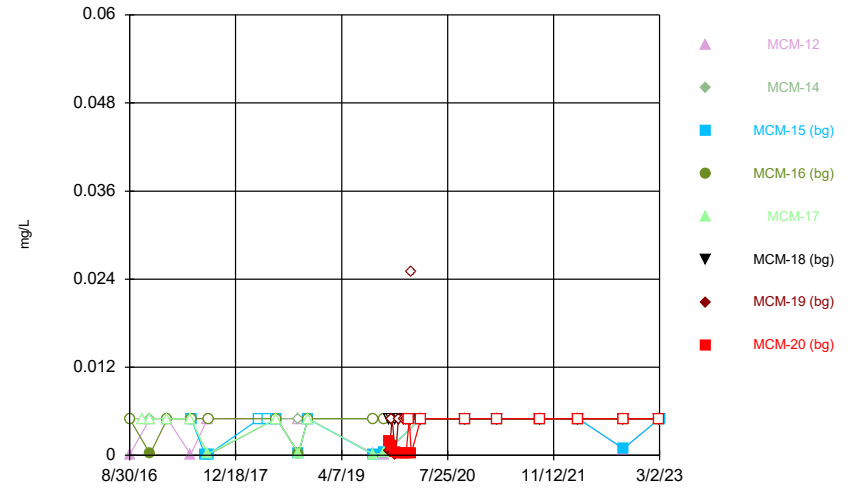
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### Time Series



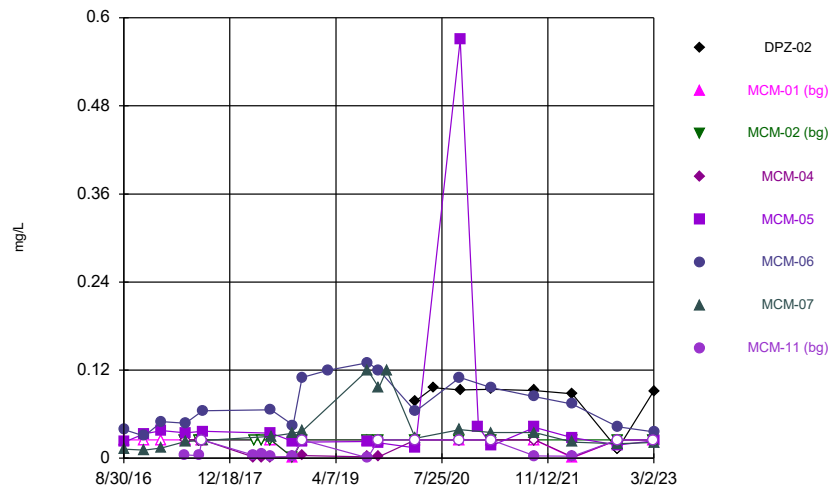
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### Time Series



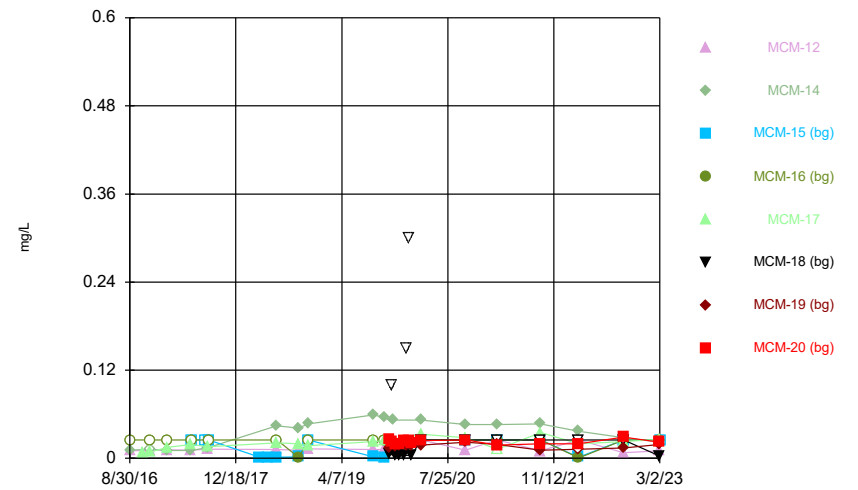
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### Time Series



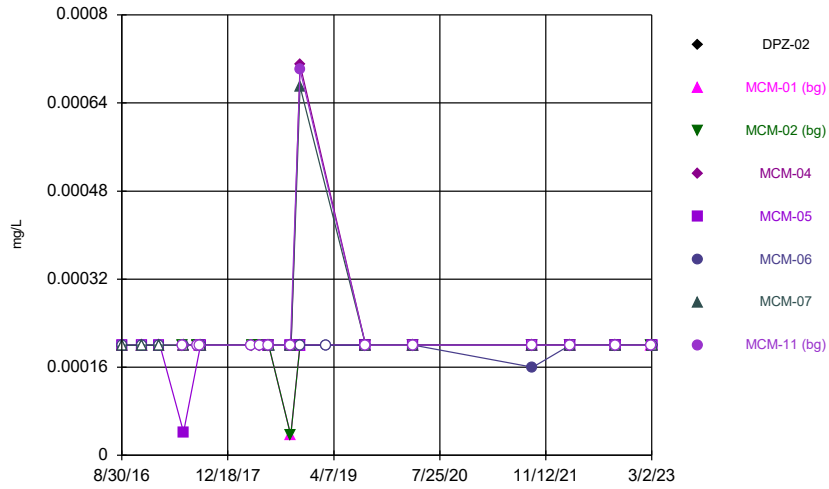
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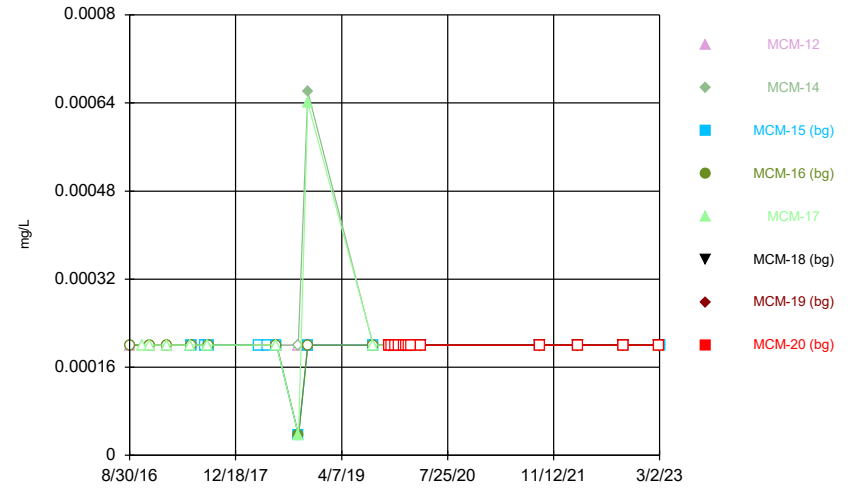
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Time Series



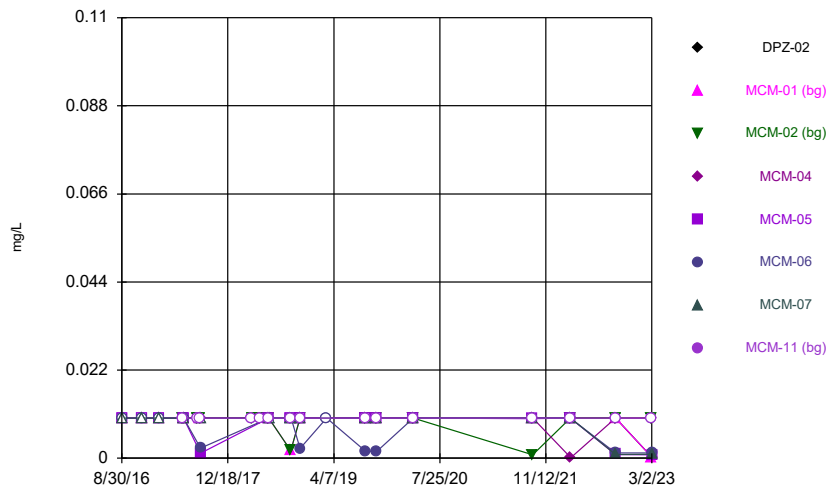
Constituent: Mercury Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



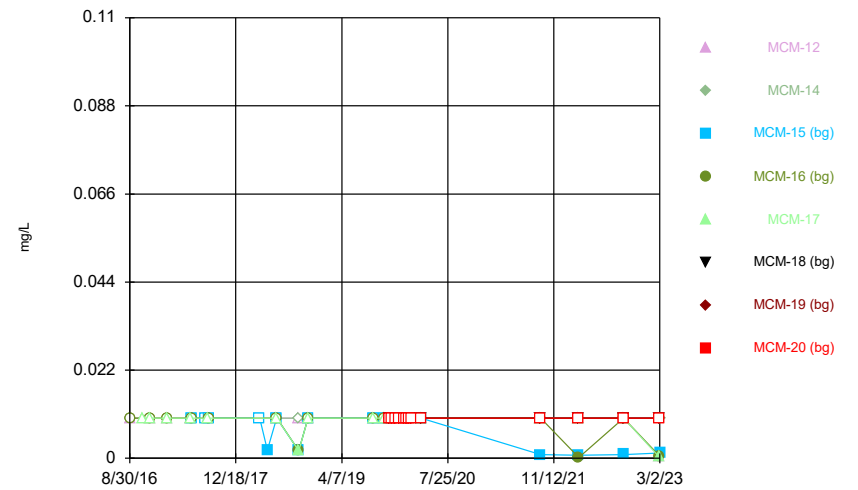
Constituent: Mercury Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



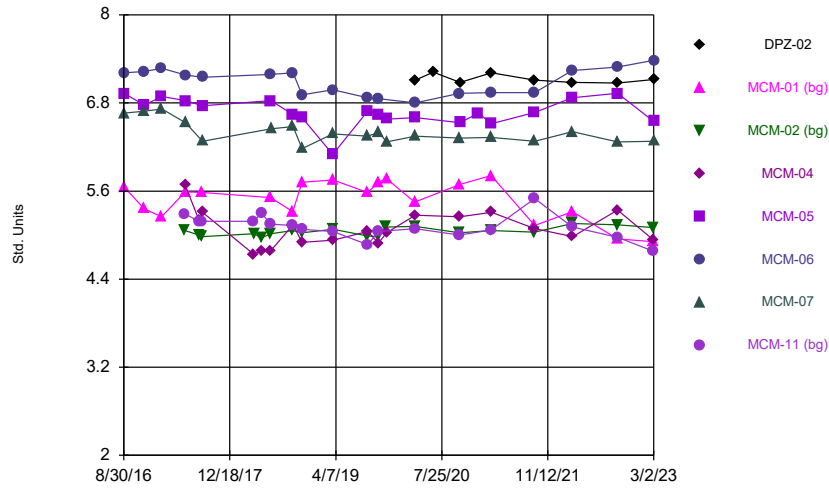
Constituent: Molybdenum Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



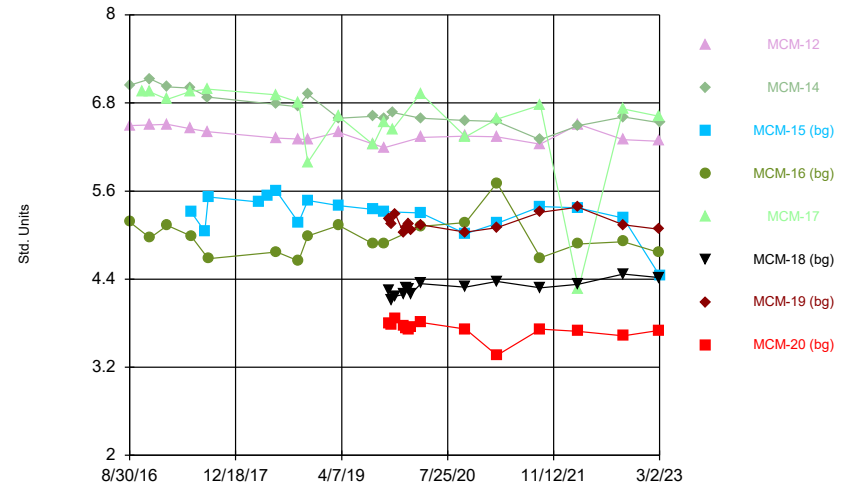
Constituent: Molybdenum Analysis Run 5/25/2023 9:14 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



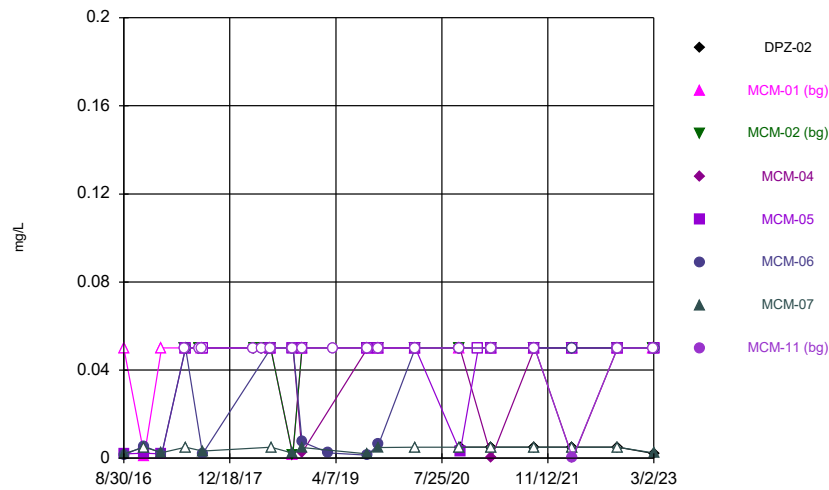
Constituent: pH, field Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



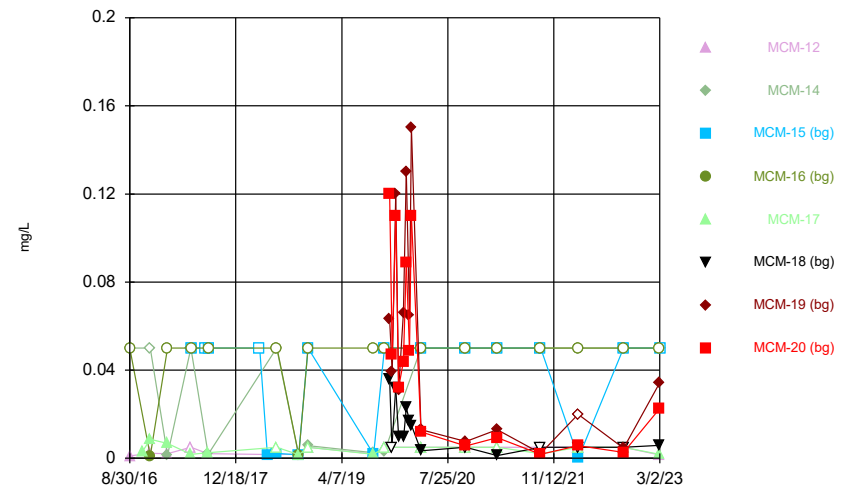
Constituent: pH, field Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



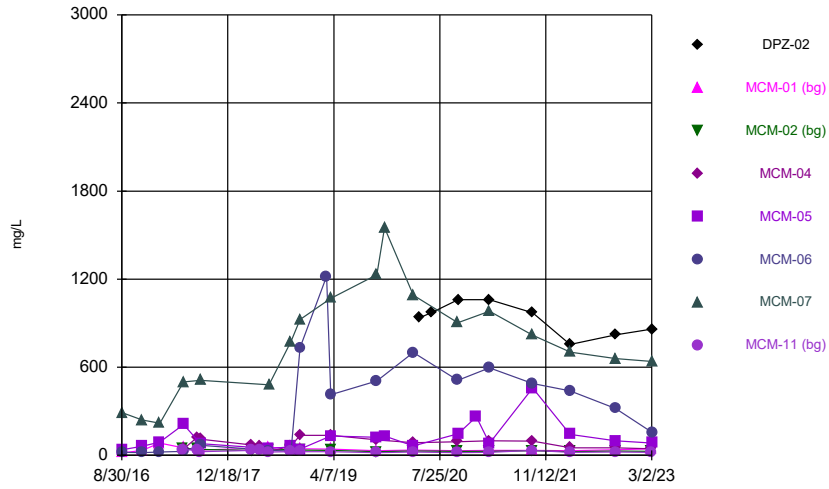
Constituent: Selenium Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Selenium Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

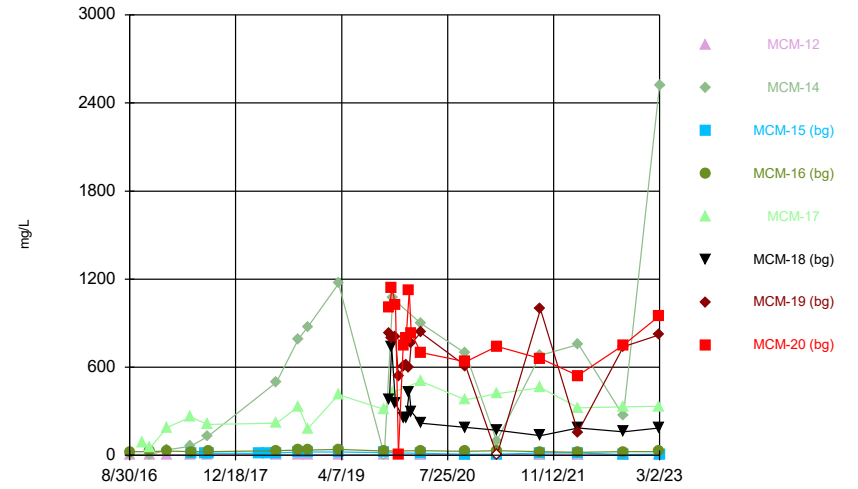
Time Series



Constituent: Sulfate Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

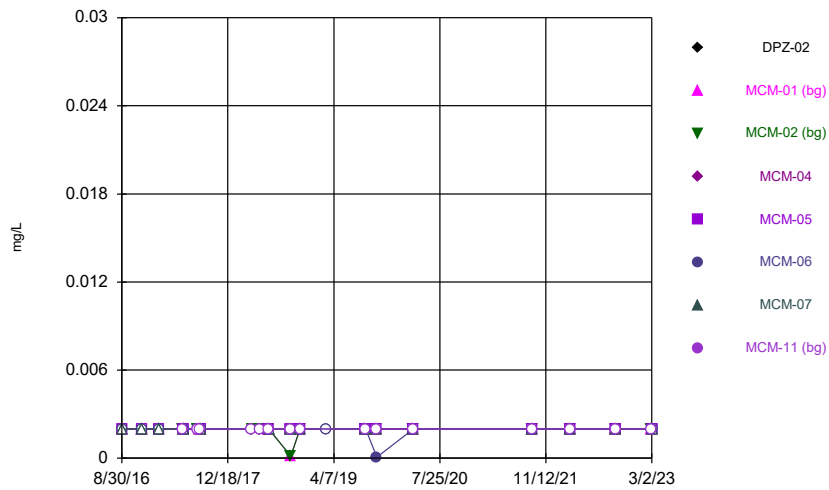
Time Series



Constituent: Sulfate Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

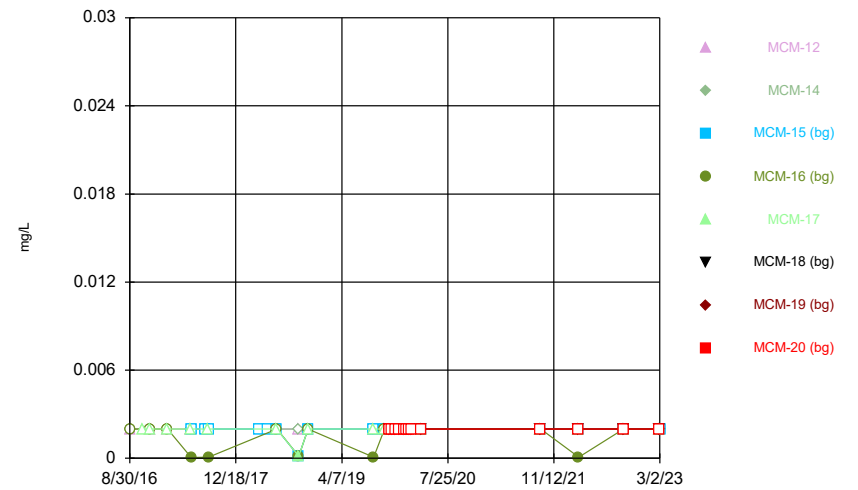
Time Series



Constituent: Thallium Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

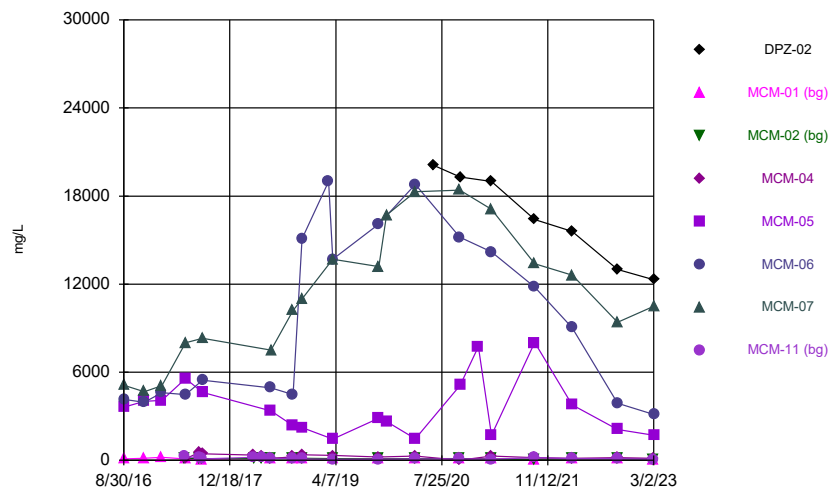
Hollow symbols indicate censored values.

Time Series



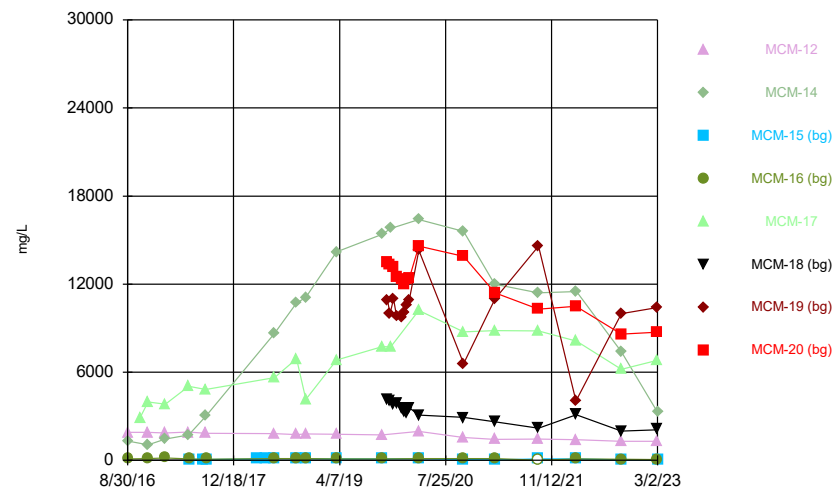
Constituent: Thallium Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 5/25/2023 9:14 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.003						
8/31/2016					<0.003	<0.003	<0.003	
11/30/2016		<0.003			<0.003	<0.003	<0.003	
2/15/2017		<0.003						
2/16/2017					<0.003	<0.003	<0.003	
5/31/2017			<0.003					<0.003
6/1/2017		<0.003		<0.003				
6/2/2017					<0.003	<0.003	<0.003	
8/2/2017			<0.003	<0.003				<0.003
8/15/2017								<0.003
8/16/2017		<0.003	<0.003					
8/17/2017				<0.003	<0.003	<0.003	<0.003	
4/4/2018				<0.003				<0.003
4/5/2018			<0.003					
5/8/2018				<0.003				<0.003
5/9/2018			<0.003					
6/19/2018		<0.003	<0.003					<0.003
6/20/2018				<0.003	<0.003	<0.003		
6/21/2018							<0.003	
9/25/2018								<0.003
9/26/2018		0.00078	0.00078					
9/27/2018				<0.003	<0.003	<0.003	<0.003	
11/6/2018				<0.003			<0.003	<0.003
11/7/2018		<0.003	<0.003		<0.003	<0.003		
3/6/2019						<0.003		
3/25/2019								<0.003
8/27/2019		<0.003		<0.003				
8/28/2019			<0.003		<0.003	0.00098 (J)	<0.003	<0.003
10/15/2019				<0.003				
10/16/2019		<0.003	<0.003		<0.003			<0.003
10/17/2019						0.0009 (J)	<0.003	
3/26/2020		<0.003						
3/27/2020			<0.003					<0.003
3/28/2020				<0.003	<0.003	0.0029 (J)	<0.003	
9/14/2021	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022	<0.003				<0.003	<0.003		
3/2/2022		<0.003	<0.003				<0.003	<0.003
3/3/2022				<0.003				
9/20/2022	<0.003					<0.003		
9/21/2022		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
3/1/2023		<0.003	<0.003	<0.003				<0.003
3/2/2023	<0.003				<0.003	<0.003	<0.003	

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.003	<0.003		<0.003				
10/25/2016					<0.003			
11/30/2016	<0.003	<0.003		<0.003	<0.003			
2/15/2017	<0.003	<0.003		<0.003	<0.003			
5/31/2017	<0.003	<0.003			<0.003			
6/1/2017				<0.003				
6/2/2017			<0.003					
8/2/2017			<0.003					
8/15/2017	<0.003				<0.003			
8/16/2017		<0.003						
8/17/2017			<0.003	<0.003				
4/4/2018			<0.003					
5/8/2018			<0.003					
6/19/2018	<0.003	<0.003	<0.003		<0.003			
6/20/2018				<0.003				
9/25/2018	<0.003	<0.003						
9/26/2018			0.00078	0.00078	0.00078			
11/6/2018		<0.003			<0.003			
11/7/2018	<0.003		<0.003	<0.003				
8/26/2019		0.0004 (J)						
8/27/2019	<0.003		<0.003	<0.003	<0.003			
10/15/2019	<0.003	<0.003	<0.003					
10/16/2019				<0.003	<0.003			
11/7/2019						<0.003	<0.003	<0.003
11/18/2019						<0.003		
11/19/2019							<0.003	<0.003
12/4/2019							0.00041 (J)	<0.003
12/5/2019						<0.003		
12/17/2019							<0.003	
12/18/2019						<0.003		<0.003
1/8/2020							<0.003	<0.003
1/9/2020						<0.003		
1/21/2020						<0.003	<0.003	<0.003
2/4/2020						<0.003	<0.003	<0.003
2/13/2020						<0.003	<0.003	<0.003
3/27/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/13/2021	<0.003	<0.003						
9/14/2021			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2022							<0.003	<0.003
3/2/2022			<0.003			<0.003		
3/3/2022	<0.003	<0.003		<0.003	<0.003			
9/20/2022						<0.003	<0.003	<0.003
9/21/2022	<0.003	<0.003	<0.003	<0.003	<0.003			
2/28/2023	<0.003				<0.003	<0.003	<0.003	<0.003
3/1/2023				<0.003				
3/2/2023		<0.003	<0.003					



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.02	0.212	0.0066	
11/30/2016		0.0018 (J)			0.0132	0.129	0.0281	
2/15/2017		0.0022 (J)						
2/16/2017					0.0372	0.257	0.0295	
5/31/2017			<0.01					0.0259
6/1/2017		0.0036 (J)		0.004 (J)				
6/2/2017					0.0335	0.0559	0.0286	
8/2/2017			0.0011 (J)	0.0028 (J)				0.0188
8/15/2017								0.0117
8/16/2017		0.0038 (J)	<0.01					
8/17/2017				0.0021 (J)	0.0336	0.458	0.0211	
4/4/2018				0.0023 (J)				0.017
4/5/2018			0.00098 (J)					
5/8/2018				0.0048 (J)				0.016
5/9/2018			0.0014 (J)					
6/19/2018		0.0069	0.0011 (J)					0.011
6/20/2018				0.0099	0.019	0.44		
6/21/2018							0.022 (J)	
9/25/2018								0.011
9/26/2018		0.0081	0.00057					
9/27/2018				0.01	0.0035 (J)	0.27	0.015	
11/6/2018				0.013			0.012	0.0043 (J)
11/7/2018		0.0069	0.00059 (J)		0.002 (J)	0.5		
11/27/2018					0.0016 (J)	0.5	0.011	
3/6/2019						0.49		
3/25/2019								0.0029 (J)
3/26/2019					0.0018 (J)	0.3	0.0078	
7/2/2019				0.015 (J)		0.37	0.027	0.0024 (J)
8/27/2019		0.0079		0.0072				
8/28/2019			<0.01		0.0019 (J)	0.5	0.011	0.005 (J)
10/15/2019				0.0038 (J)				
10/16/2019		0.01	0.003 (J)		0.0047 (J)			0.0054
10/17/2019						0.34	0.0046 (J)	
11/19/2019			0.00057 (J)					
11/20/2019		0.0064						
3/26/2020		0.0069						
3/27/2020			<0.01					0.0034 (J)
3/28/2020	<0.1			0.0034 (J)	<0.02	0.3	0.012	
10/12/2020								0.0047 (J)
10/13/2020		0.0061	<0.01	0.0022 (J)				
10/14/2020						0.43	0.013	
10/15/2020	0.021				0.024			
1/4/2021					0.0072			
3/3/2021		0.016 (J)	<0.01					0.011 (J)
3/4/2021	0.017 (J)			0.0018 (J)	<0.02	0.35	0.015 (J)	
9/14/2021	0.022	0.0055	0.00067 (J)	0.0047 (J)	0.02 (J)	0.51	0.013 (J)	0.011
3/1/2022	0.015 (J)				0.011 (J)	0.24		
3/2/2022		0.0043	0.00077 (J)				0.009 (J)	0.0071
3/3/2022				0.0041				
6/28/2022	0.025					0.17		
9/20/2022	0.021					0.18		

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
9/21/2022		0.0057 (J)	<0.01	0.0017 (J)	0.0077		0.01	0.013
3/1/2023		0.00493 (J)	<0.01	0.00247 (J)				0.00868 (J)
3/2/2023	0.0202				0.00578 (J)	0.0764	0.014	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.01	<0.0063		0.0018 (J)				
10/25/2016					<0.0063			
11/30/2016	<0.01	<0.0063		<0.0063	0.0072			
2/15/2017	<0.01	<0.0063		<0.0063	0.0017 (J)			
5/31/2017	0.0007 (J)	0.0008 (J)			0.0018 (J)			
6/1/2017				<0.0063				
6/2/2017			0.0026 (J)					
8/2/2017			0.0047 (J)					
8/15/2017	0.0006 (J)				0.0015 (J)			
8/16/2017		0.0007 (J)						
8/17/2017			0.0028 (J)	<0.0063				
4/4/2018			0.0029 (J)					
5/8/2018			0.0048 (J)					
6/19/2018	0.001 (J)	0.0062 (J)	0.0019 (J)		0.0029 (J)			
6/20/2018				0.00058 (J)				
9/25/2018	0.0011 (J)	0.0031 (J)						
9/26/2018			0.0023 (J)	0.00057	0.0015 (J)			
11/6/2018		0.0014 (J)			<0.0063			
11/7/2018	0.0057		0.0028	0.00057				
8/26/2019		0.0022 (J)						
8/27/2019	0.0011 (J)		0.0041 (J)	0.0019 (J)	0.0024 (J)			
10/15/2019	0.0024 (J)	0.0067	0.0038 (J)					
10/16/2019				0.001 (J)	0.0043 (J)			
11/7/2019						0.0067	0.0094 (J)	0.026
11/18/2019						0.012 (J)		
11/19/2019							0.019 (J)	0.031 (J)
11/21/2019					0.0031 (J)			
12/4/2019							0.016	0.026
12/5/2019						0.0055		
12/17/2019							0.011 (J)	
12/18/2019						0.0031 (J)		0.019 (J)
1/8/2020							0.015 (J)	0.022 (J)
1/9/2020						0.0034 (J)		
1/21/2020						0.0031 (J)	0.015 (J)	0.024 (J)
2/4/2020						<0.005	0.0092 (J)	0.022 (J)
2/13/2020						0.0066	0.021 (J)	0.029
3/27/2020	<0.01	<0.0063	0.0018 (J)	<0.0063	<0.0063	0.0043 (J)	0.017	0.027
10/12/2020	<0.01					<0.005		
10/13/2020		<0.0063	0.0042 (J)	<0.0063	<0.0063		0.0089	0.018
3/2/2021	<0.01	<0.0063	0.021 (J)					
3/3/2021				0.0012 (J)	<0.0063	0.0014 (J)	0.0086 (J)	0.016 (J)
9/13/2021	<0.01	<0.0063						
9/14/2021			0.0035 (J)	<0.0063	<0.0063	0.0029 (J)	0.018 (J)	0.028
3/1/2022							0.0061 (J)	0.032
3/2/2022			0.0032			0.0064 (J)		
3/3/2022	<0.01	<0.0063		0.00024 (J)	<0.0063			
9/20/2022						0.0026 (J)	0.021	0.026
9/21/2022	<0.01	<0.0063	0.0044 (J)	<0.0063	<0.0063			
2/28/2023	<0.01				0.00226 (J)	0.00273 (J)	0.0173	0.0166
3/1/2023				0.00223 (J)				
3/2/2023		0.00201 (J)	0.00756 (J)					

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0443						
8/31/2016					0.0289	0.0498	0.0771	
11/30/2016		0.0524			0.0168	0.0528	0.101	
2/15/2017		0.124						
2/16/2017					0.016	0.0555	0.0865	
5/31/2017			0.127					0.0646
6/1/2017		0.0757		0.0195				
6/2/2017					0.0393 (J)	0.0508	0.123	
8/2/2017			0.121	0.053				0.0533
8/15/2017								0.0247
8/16/2017		0.0522	0.116					
8/17/2017				0.0475	0.0188	0.0596	0.124	
4/4/2018				0.035				0.057
4/5/2018			0.12					
5/8/2018				0.027				0.062
5/9/2018			0.11					
6/19/2018		0.083	0.1					0.031
6/20/2018				0.027	0.014	0.06		
6/21/2018							0.1	
9/25/2018								0.041
9/26/2018		0.073	0.11					
9/27/2018				0.14	0.0097 (J)	0.06	0.12	
11/6/2018				0.31			0.12	0.031
11/7/2018		0.071	0.097		0.0085 (J)	0.19		
3/6/2019						0.16		
3/25/2019								0.036
8/27/2019		0.077		0.083				
8/28/2019			0.1		0.011	0.13	0.4	0.035
10/15/2019				0.082				
10/16/2019		0.074	0.1		0.012			0.036
10/17/2019						0.13	0.35	
3/26/2020		0.07						
3/27/2020			0.095					0.039
3/28/2020				0.039	0.0041 (J)	0.12	0.11	
10/12/2020								0.039
10/13/2020		0.06	0.086	0.055				
10/14/2020						0.14	0.19	
10/15/2020	0.071				0.45			
1/4/2021					0.051			
3/3/2021		0.14	0.21					0.09
3/4/2021	0.096			0.062	0.0082 (J)	0.14	0.2	
9/14/2021	0.082	0.065	0.082	0.043	0.08	0.22	0.2	0.07
3/1/2022	0.074				0.035	0.084		
3/2/2022		0.064	0.08				0.12	0.05
3/3/2022				0.031				
9/20/2022	0.069					0.027		
9/21/2022		0.11	0.076	0.029	0.014		0.12	0.04
3/1/2023		0.097 (J)	0.0806 (J)	0.031 (J)				0.0405 (J)
3/2/2023	0.0601 (J)				0.0133 (J)	0.0195 (J)	0.0982 (J)	

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.108	0.0131		0.0973				
10/25/2016					0.063			
11/30/2016	0.121	0.0105		0.11	0.0628			
2/15/2017	0.111	0.0786		0.0945	0.0102			
5/31/2017	0.131	0.0199			0.061			
6/1/2017				0.121				
6/2/2017			0.0368 (J)					
8/2/2017			0.0355					
8/15/2017	0.126				0.0579			
8/16/2017		0.033						
8/17/2017			0.037	0.121				
4/4/2018			0.039					
5/8/2018			0.037					
6/19/2018	0.13	0.092	0.038		0.076			
6/20/2018				0.13				
9/25/2018	0.12	0.098						
9/26/2018			0.049	0.13	0.099			
11/6/2018		0.1			0.052			
11/7/2018	0.11		0.05	0.12				
8/26/2019		0.12						
8/27/2019	0.14		0.048	0.13	0.11			
10/15/2019	0.14	0.12	0.041					
10/16/2019				0.13	0.14			
11/7/2019						0.12	0.22	0.16
11/18/2019						0.11		
11/19/2019							0.13	0.14
12/4/2019							0.14	0.14
12/5/2019						0.12		
12/17/2019							0.14	
12/18/2019						0.11		0.15
1/8/2020							0.14	0.14
1/9/2020						0.096		
1/21/2020						0.098	0.14	0.14
2/4/2020						0.091	0.13	0.12
2/13/2020						0.098	0.13	0.12
3/27/2020	0.12	0.13	0.041	0.13	0.16	0.076	0.12	0.12
10/12/2020	0.1					0.091		
10/13/2020		0.14	0.024	0.11	0.14		0.12	0.12
3/2/2021	0.1	0.16	0.067					
3/3/2021				0.059	0.17	0.099	0.14	0.12
9/13/2021	0.086	0.16						
9/14/2021			0.05	0.16	0.2 (M1)	0.098	0.13	0.11
3/1/2022							0.14	0.11
3/2/2022			0.04			0.091		
3/3/2022	0.069	0.15		0.13	0.1			
9/20/2022						0.11	0.12	0.12
9/21/2022	0.068	0.059	0.022	0.11	0.089			
2/28/2023	0.071 (J)				0.0828 (J)	0.105 (J)	0.0869 (J)	0.0928 (J)
3/1/2023				0.109 (J)				
3/2/2023		0.0356 (J)	0.0282 (J)					

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.004						
8/31/2016					<0.004	<0.004	<0.004	
11/30/2016		<0.004			<0.004	<0.004	<0.004	
2/15/2017		<0.004						
2/16/2017					<0.004	<0.004	<0.004	
5/31/2017			0.0002 (J)					7E-05 (J)
6/1/2017		9E-05 (J)		0.0001 (J)				
6/2/2017					<0.004	<0.004	<0.004	
8/2/2017			0.0002 (J)	0.0003 (J)				0.0001 (J)
8/15/2017								9E-05 (J)
8/16/2017		<0.004	0.0002 (J)					
8/17/2017				0.0002 (J)	<0.004	<0.004	<0.004	
4/4/2018				<0.004				<0.004
4/5/2018			<0.004					
5/8/2018				0.00025 (J)				0.0001 (J)
5/9/2018			0.00017 (J)					
6/19/2018		0.00011 (J)	0.00017 (J)					0.00011 (J)
6/20/2018				0.00021 (J)	<0.004	<0.004		
6/21/2018							<0.004	
9/25/2018								0.0001 (J)
9/26/2018		9.2E-05 (J)	0.00017 (J)					
9/27/2018				0.00031 (J)	<0.004	<0.004	7.4E-05 (J)	
11/6/2018				0.00077 (J)			0.00012 (J)	0.00012 (J)
11/7/2018		0.0001 (J)	0.00015 (J)		5.4E-05 (J)	<0.004		
3/6/2019						<0.004		
8/27/2019		9E-05 (J)		0.00032 (J)				
8/28/2019			0.00011 (J)		<0.004	<0.004	<0.004	8.4E-05 (J)
10/15/2019				0.00035 (J)				
10/16/2019		<0.004	0.00013 (J)		<0.004			9E-05 (J)
10/17/2019						<0.004	7.8E-05 (J)	
3/26/2020		<0.004						
3/27/2020			<0.004					<0.004
3/28/2020				<0.004	<0.004	<0.004	<0.004	
10/12/2020								<0.004
10/13/2020		<0.004	<0.004	<0.004				
10/14/2020						<0.004	<0.004	
10/15/2020	<0.004				<0.004			
1/4/2021					<0.004			
3/3/2021		<0.004	<0.004					<0.004
3/4/2021	<0.004			<0.004	<0.004	<0.004	<0.004	
9/14/2021	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
3/1/2022	<0.004				<0.004	<0.004		
3/2/2022		9.6E-05 (J)	0.00015				<0.004	0.00011
3/3/2022				0.00025				
9/20/2022	<0.004					<0.004		
9/21/2022		<0.004	<0.004	<0.004	<0.004		<0.004	<0.004
3/1/2023		<0.004	<0.004	<0.004				<0.004
3/2/2023	<0.004				<0.004	<0.004	<0.004	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0003 (J)	<0.004		0.0001 (J)				
10/25/2016					0.0004 (J)			
11/30/2016	0.0004 (J)	<0.004		0.0002 (J)	0.0003 (J)			
2/15/2017	0.0004 (J)	<0.004		<0.0025	<0.002			
5/31/2017	0.0005 (J)	0.0001 (J)			0.0002 (J)			
6/1/2017				0.0002 (J)				
6/2/2017			0.0001 (J)					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0002 (J)			
8/16/2017		0.0002 (J)						
8/17/2017			0.0001 (J)	0.0002 (J)				
4/4/2018			<0.0025					
5/8/2018			0.00031 (J)					
6/19/2018	0.00065 (J)	<0.004	0.00034 (J)		0.00032 (J)			
6/20/2018				0.00024 (J)				
9/25/2018	0.00066 (J)	5E-05 (J)						
9/26/2018			0.00039 (J)	0.00019 (J)	0.00024 (J)			
11/6/2018		9.7E-05 (J)			0.00026 (J)			
11/7/2018	0.00058 (J)		0.00041 (J)	0.00019 (J)				
8/26/2019		0.0001 (J)						
8/27/2019	0.0009 (J)		0.00042 (J)	0.00021 (J)	0.00018 (J)			
10/15/2019	0.00079 (J)	<0.004	0.00034 (J)					
10/16/2019				0.00014 (J)	0.00014 (J)			
11/7/2019						0.007	0.0068 (J)	0.021
11/18/2019						0.0063 (J)		
11/19/2019							0.014 (J)	0.015 (J)
12/4/2019							0.01	0.011
12/5/2019						0.0045		
12/17/2019							0.012	
12/18/2019						0.0048		0.012
1/8/2020							0.015 (J)	0.017
1/9/2020						0.0043		
1/21/2020						0.0041 (J)	0.012 (J)	0.015
2/4/2020						0.0049 (J)	0.015 (J)	0.017 (J)
2/13/2020						0.0043	0.013 (J)	0.015 (J)
3/27/2020	<0.005	<0.004	<0.0025	<0.0025	<0.002	0.004	0.011	0.018
10/12/2020	0.001 (J)					0.0041		
10/13/2020		<0.004	<0.0025	<0.0025	<0.002		0.015	0.017
3/2/2021	<0.005	<0.004	<0.0025					
3/3/2021				<0.0025	<0.002	0.003	0.015	0.014
9/13/2021	0.0011	<0.004						
9/14/2021			0.00034 (J)	0.00062	<0.002	0.0031	0.0062	0.016
3/1/2022							0.0057	0.016
3/2/2022			0.00032			0.0037		
3/3/2022	0.0012 (J)	<0.004		0.00023	<0.002			
9/20/2022						0.003	0.017	0.02
9/21/2022	0.0011 (J)	<0.004	<0.0025	<0.0025	0.00029 (J)			
2/28/2023	0.00135 (J)				0.000279 (J)	0.0029 (J)	0.0144	0.0155
3/1/2023				0.000223 (J)				
3/2/2023		<0.004	0.000201 (J)					

# Time Series

Constituent: Boron (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.0325 (J)						
8/31/2016					0.56	0.632	0.863	
11/30/2016		0.0334 (J)			0.529	0.637	0.804	
2/15/2017		0.254						
2/16/2017					0.539	0.698	0.815	
5/31/2017			0.161					0.0521
6/1/2017		0.0564		0.0608				
6/2/2017					0.555	0.674	0.891	
8/2/2017			0.158	0.137				0.0392 (J)
8/15/2017								0.0448
8/16/2017		0.0435	0.148					
8/17/2017				0.128	0.516	0.7	0.922	
4/4/2018				0.1				0.046
4/5/2018			0.13					
5/8/2018				0.074				0.048
5/9/2018			0.12					
6/19/2018		0.04 (J)	0.13					0.04
6/20/2018				0.045	0.51	0.69		
6/21/2018							0.99	
9/25/2018								0.043
9/26/2018		0.038 (J)	0.1					
9/27/2018				0.06	0.47	0.62	0.88	
11/6/2018				0.06			1.1	0.046
11/7/2018		0.037 (J)	0.1		0.51	0.86		
3/6/2019						1.5		
3/24/2019					0.44	1.1	1.2	
3/25/2019		0.038 (J)	0.091	0.058				0.03 (J)
10/15/2019				0.068				
10/16/2019		0.036 (J)	0.085		0.49			0.032 (J)
10/17/2019						1.3	1.1	
11/20/2019					0.53		1.3	
3/26/2020		0.064 (J)						
3/27/2020			0.17 (J)					0.058 (J)
3/28/2020				0.067 (J)	0.28 (J)	0.95	0.79	
6/16/2020	2.1							
10/12/2020								<2.5
10/13/2020		<2.5	<2.5	<0.5				
10/14/2020						1.5	1.8	
10/15/2020	2.1				0.61			
1/4/2021					0.98			
3/3/2021		<2.5	<2.5					<2.5
3/4/2021	2.2 (J)			0.11 (J)	0.4 (J)	1.4 (J)	1.6 (J)	
9/14/2021	2	0.079 (J)	0.093 (J)	0.07 (J)	0.95 (J)	1.1	1.5	0.06 (J)
3/1/2022	1.6 (J)				0.75 (J)	1.7		
3/2/2022		0.048 (J)	0.086				1.3	0.038 (J)
3/3/2022				0.053				
9/20/2022	1.7					1.1		
9/21/2022		0.35 (J)	0.23 (J)	0.19 (J)	0.61		1.3	0.17 (J)
3/1/2023		0.091	0.115	0.108				0.0461
3/2/2023	1.82				0.511	0.961	1.25	



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.18	0.726		0.0972 (J)				
10/25/2016					1.73			
11/30/2016	1.3	0.565		0.0964	2.12			
2/15/2017	1.33	0.647		0.398	2.14			
5/31/2017	1.38	0.503			2.24			
6/1/2017				0.0776				
6/2/2017			0.0495					
8/2/2017			0.0333 (J)					
8/15/2017	1.14				2.1			
8/16/2017		0.539						
8/17/2017			0.0593	0.0853				
4/4/2018			0.065					
5/8/2018			0.062					
6/19/2018	1.2	0.76	0.064		1.7			
6/20/2018				0.079				
9/25/2018	1	0.61						
9/26/2018			0.06	0.072	1.3			
11/6/2018		0.75			1.8			
11/7/2018	1.4		0.062 (J)	0.074				
3/24/2019	1	0.95			1.4			
3/25/2019			0.057	0.067				
10/15/2019	1.1	1	0.046					
10/16/2019				0.051	1.6			
11/7/2019						0.27	0.84	1.1
11/18/2019						0.29 (J)		
11/19/2019							0.83	1.3
11/21/2019		1			1.5			
12/4/2019							0.68	0.81
12/5/2019						0.23		
12/17/2019							0.57	
12/18/2019						0.23		0.77
1/8/2020							0.73	0.9
1/9/2020						0.2		
1/21/2020						0.24 (J)	0.75	0.94
2/4/2020						0.24 (J)	0.79 (J)	0.96 (J)
2/13/2020						0.22	0.74	0.88
3/27/2020	1.5	1.3	0.076 (J)	0.088 (J)	1.8	0.24 (J)	0.96	0.94
10/12/2020	1.3					0.24 (J)		
10/13/2020		1.1	<2.5	<0.5	1.8		0.73	1.1
3/2/2021	1.4 (J)	1.4 (J)	<2.5					
3/3/2021				<0.5	1.7 (J)	0.21 (J)	0.79 (J)	0.91 (J)
9/13/2021	1.4 (M1)	1.2						
9/14/2021			0.068 (J)	0.071 (J)	2.1 (M1)	0.2 (J)	1.2	0.91 (J)
3/1/2022							0.41 (J)	0.87 (J)
3/2/2022			0.054			0.23 (J)		
3/3/2022	1.2	0.89 (J)		0.057	1.4			
9/20/2022						0.18 (J)	0.77	0.9
9/21/2022	1.3	1	0.14 (J)	0.12 (J)	1.8			
2/28/2023	1.23				1.78	0.185	0.707	0.723
3/1/2023				0.0669				
3/2/2023		0.738	0.0416					

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	<0.0025	<0.0025	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			<0.0025					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			<0.0025	<0.0025				<0.0025
8/15/2017								<0.0025
8/16/2017		<0.0025	<0.0025					
8/17/2017				<0.0025	<0.0025	<0.0025	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								0.0002 (J)
9/26/2018		9.3E-05	9.3E-05					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				<0.0025			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		<0.0025				
8/28/2019			<0.0025		<0.0025	<0.0025	<0.0025	<0.0025
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				<0.0025	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	<0.0025				<0.0025	<0.0025
3/3/2022				0.00043				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	<0.0025	<0.0025	<0.0025		0.0002 (J)	<0.0025
3/1/2023		<0.0025	<0.0025	<0.0025				<0.0025
3/2/2023	<0.0025				<0.0025	<0.0025	<0.0025	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	<0.0025		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	<0.0025			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	<0.0025	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	<0.0025				<0.0025			
8/16/2017		<0.0025						
8/17/2017			<0.0025	<0.0025				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	<0.0025	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			9.3E-05	9.3E-05	9.3E-05			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	<0.0025		<0.0025	<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.00034 (J)
11/18/2019						<0.0025		
11/19/2019							<0.0025	<0.0025
12/4/2019							<0.0025	<0.0025
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		<0.0025
1/8/2020							<0.0025	<0.0025
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	<0.0025
2/4/2020						<0.0025	<0.0025	<0.0025
2/13/2020						<0.0025	<0.0025	<0.0025
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022							<0.0025	<0.0025
3/2/2022			<0.0025			<0.0025		
3/3/2022	<0.0025	<0.0025		<0.0025	<0.0025			
9/20/2022						0.00078 (J)	0.0083 (o)	0.0043
9/21/2022	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
2/28/2023	<0.0025				<0.0025	<0.0025	<0.0025	<0.0025
3/1/2023				<0.0025				
3/2/2023		<0.0025	<0.0025					

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		7.3						
8/31/2016					65	82.8	119	
11/30/2016		10.8			71.7	68.7	103	
2/15/2017		14.3						
2/16/2017					74	94.8	114	
5/31/2017			5.9					18.6
6/1/2017		12.7 (J)		3.65				
6/2/2017					120	92.5	179	
8/2/2017			4.69	12.4				18.5
8/15/2017								4.09
8/16/2017		8.7	5.25					
8/17/2017				8.17	100	126	186	
4/4/2018				6.8				<25
4/5/2018			5					
5/8/2018				5.7				18.4 (J)
5/9/2018			4.7					
6/19/2018		11.6 (J)	4.8					4.3
6/20/2018				4.3	72.8	121		
6/21/2018							179	
6/28/2018		13						
9/25/2018								6.2 (D)
9/26/2018		12.8 (J)	4.6					
9/27/2018				16.4 (J)	46.6	95.1	193	
11/6/2018				39.5			219	1.8
11/7/2018		11.9	4.6		41.8	387.5 (D)		
3/6/2019						341		
3/24/2019					20.9 (J)	277	243	
3/25/2019		12.6 (J)	4.7	20.8 (J)				2.5 (D)
10/15/2019				15.5				
10/16/2019		13.6	4.9		55.2			2.2
10/17/2019						309	260	
11/20/2019					55.8		308	
3/26/2020		10.1						
3/27/2020			4.9					3.3
3/28/2020				15.5	25.8	286	286	
4/23/2020	266							
6/16/2020	245							
10/12/2020								2.8
10/13/2020		9.8	3.8	12.5				
10/14/2020						245	207	
10/15/2020	194				69.1			
1/4/2021					104			
3/3/2021		14	4					
3/4/2021	257			15.1	23.4	233	244	2.1
9/14/2021	273	9.6	4.2	12.5	13.9	299	225	14
3/1/2022	303				48.4	131		
3/2/2022		8.2	4.1				198	6.8
3/3/2022				8				
9/20/2022	240					47		
9/21/2022		9.2	4.3	7.8	28		190	7.6
3/1/2023		7.87	5.26	7.75				6.53
3/2/2023	234				25.9	36.1	194	

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	7.05	42.8		4.02				
10/25/2016					69.4			
11/30/2016	8.69	33.2		4.87	83.9			
2/15/2017	8.34	56.1		6.61	96.3			
5/31/2017	8.85	73.6			122			
6/1/2017				6.42				
6/2/2017			2.77					
8/2/2017			1.27					
8/15/2017	8.05				117			
8/16/2017		99.6						
8/17/2017			5.53	5.62				
4/4/2018			6.5					
5/8/2018			6.7					
6/19/2018	8.3	285	7.4		136			
6/20/2018				5.7				
6/28/2018	8.9	294			138			
9/25/2018	6.8	283						
9/26/2018			8.5 (J)	5.3	148			
11/6/2018		297			24.7			
11/7/2018	8.5		9.8	5.3				
3/24/2019	7.4	338			136			
3/25/2019			7.8	5.7				
10/15/2019	7.9	321	6.7					
10/16/2019				4.8	118			
11/7/2019						46.2	158	163
11/18/2019						41.8		
11/19/2019							152	169
11/21/2019		305			125			
12/4/2019							142	140
12/5/2019						40.5		
12/17/2019							136	
12/18/2019						42		145
1/8/2020							147	157
1/9/2020						37.1		
1/21/2020						40.1	167	152
2/4/2020						36.2	142	139
2/13/2020						38.9	148	146
3/27/2020	8.3	286	5.9	5.4	222	23.2	122	113
10/12/2020	6.1					19.1		
10/13/2020		40.9	0.83	5.7	86.4		125	128
3/4/2021	6.5	205	1.4	11.2	143	26	123	110
9/13/2021	6	165						
9/14/2021			6.7	6.5	190	18.8	93.6	61.1
3/1/2022							35.5	99.8
3/2/2022			7.2			22.3		
3/3/2022	4.6	224		5.4	84			
9/20/2022						20	150	100
9/21/2022	4.7	74	0.83	4.6	110			
2/28/2023	5.17				94.2	22.5	150	104
3/1/2023				4.74				
3/2/2023		48	1.41					

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		9.7						
8/31/2016					1800	2200	2600	
11/30/2016		19			1100	2100	2800	
2/15/2017		21						
2/16/2017					2100	2500	3100	
5/31/2017			39					98
6/1/2017		12		22				
6/2/2017					3100	2500	4600	
8/2/2017			42	230				57
8/15/2017								15
8/16/2017		14	41					
8/17/2017				210	2600	2700	4600	
4/4/2018				156				69
4/5/2018			40.2					
5/8/2018				140				72.3
5/9/2018			40.6					
6/19/2018		24.4	37.7					17.3
6/20/2018				27.5	1800	3100		
6/21/2018							3920	
9/25/2018								31.3
9/26/2018		23.4	33.4					
9/27/2018				101	1300	2510 (D)	5660 (D)	
11/6/2018				107			6520	9.8
11/7/2018		21.8	30.7		1180	8860		
3/6/2019						11700		
3/24/2019					717	6470	8720	
3/25/2019		19.4	33.5	78.5				12.9
10/15/2019				46				
10/16/2019		21.4	33.1		941 (D)			12.2
10/17/2019						9930	8210	
11/20/2019					1480		9810	
3/26/2020		23						
3/27/2020			32.9					14.5
3/28/2020				71.4	693	9190	9070	
4/23/2020	7500							
6/16/2020	7780							
10/12/2020								13.9
10/13/2020		13.5	25.7	54.4				
10/14/2020						6630	7910	
10/15/2020	<1				1660			
1/4/2021					2460			
3/3/2021		13.6	20.5					9.4
3/4/2021	8280			69.6	652	6310	7540	
9/14/2021	7610	16.7	21.8	28.5	3940	5360	6300	62.8
3/1/2022	6750				1680	4150		
3/2/2022		13.4	20.6				5630	28.4
3/3/2022				12.2				
9/20/2022	7400					2800		
9/21/2022		17	23	47	1100		6400	32
3/1/2023		14.9	21.8	45.6				17.7
3/2/2023	6860				853	1470	5450	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	800	450		26				
10/25/2016					1300			
11/30/2016	760	310		27	400			
2/15/2017	740	490		30	2000			
5/31/2017	740	820			2500			
6/1/2017				27				
6/2/2017			11					
8/2/2017			3.2					
8/15/2017	750				2500			
8/16/2017		1500						
8/17/2017			12	32				
4/4/2018			13.4					
5/8/2018			13.2					
6/19/2018	760	5180	13.7		3050			
6/20/2018				30				
9/25/2018	752 (D)	7220						
9/26/2018			18.5	28.4	3965 (D)			
11/6/2018		6020			2230			
11/7/2018	665		20.2	25.1				
3/24/2019	744	7400			3960			
3/25/2019			19.7	21.8				
10/15/2019	744	9050	17.1					
10/16/2019				20	2181.5 (D)			
11/7/2019						2360	6170	7880
11/18/2019						6970		
11/19/2019							5650	8130
11/21/2019		8330			3890			
12/4/2019							6100	7410
12/5/2019						2130		
12/17/2019							5660	
12/18/2019						2090		7170
1/8/2020							5070	6480
1/9/2020						1750		
1/21/2020						1630	5010	6000
2/4/2020						1760	5030	5700
2/13/2020						1850	6140	7060
3/27/2020	675	7680	14.1	23.6	4770	1450	6870	7110
10/12/2020	552					1340		
10/13/2020		6230	3.8	23.3	3980		5260	5980
3/2/2021	459	<1	4.2					
3/3/2021				27.6	<1	1230	5170	<1
9/13/2021	433	5010						
9/14/2021			13.6	30	4090	1020	7250	5100
3/1/2022							1870	4900
3/2/2022			14.3			1420		
3/3/2022	394	5040		26.5	3540			
9/20/2022						1200	6200	5700
9/21/2022	400	3300	3.3	17	3300			
2/28/2023	518				2770	1250	5760	7930
3/1/2023				14.2				
3/2/2023		1810	4.88					

# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					0.0013 (J)	0.001 (J)	0.0022 (J)	
11/30/2016		<0.01			0.0012 (J)	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					0.0012 (J)	0.0011 (J)	0.0028 (J)	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		0.0008 (J)				
6/2/2017					<0.01	<0.01	0.0023 (J)	
8/2/2017			<0.01	0.0012 (J)				<0.01
8/15/2017								0.0006 (J)
8/16/2017		<0.01	<0.01					
8/17/2017				0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0016	0.0016					
9/27/2018				<0.01	<0.01	<0.01	0.0024 (J)	
11/6/2018				0.0017 (J)			0.002 (J)	<0.01
11/7/2018		<0.01	<0.01		<0.01	<0.01		
3/6/2019						<0.01		
3/25/2019								<0.01
8/27/2019		0.00079 (J)		0.0018 (J)				
8/28/2019			0.0035 (J)		0.00047 (J)	0.00085 (J)	0.0024 (J)	0.00053 (J)
10/15/2019				0.0012 (J)				
10/16/2019		<0.01	<0.01		0.00057 (J)			0.00072 (J)
10/17/2019						0.0015 (J)	0.0019 (J)	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0056	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	0.00094 (J)
3/3/2022				0.00085 (J)				
9/20/2022	<0.01					<0.01		
9/21/2022		0.0014 (J)	<0.01	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0015 (J)
3/1/2023		<0.01	<0.01	<0.01				<0.01
3/2/2023	<0.01				<0.01	<0.01	<0.01	



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0054 (J)	0.0026 (J)		<0.01				
10/25/2016					0.016			
11/30/2016	0.0073 (J)	0.0016 (J)		0.001 (J)	0.0151 (J)			
2/15/2017	0.0045 (J)	0.0018 (J)		<0.01	0.0137			
5/31/2017	0.0052 (J)	0.0019 (J)			0.0109			
6/1/2017				0.0004 (J)				
6/2/2017			0.0019 (J)					
8/2/2017			0.0017 (J)					
8/15/2017	0.005 (J)				0.0117			
8/16/2017		0.0019 (J)						
8/17/2017			0.0027 (J)	0.0005 (J)				
4/4/2018			<0.01					
5/8/2018			0.0029 (J)					
6/19/2018	0.0047 (J)	<0.01	0.002 (J)		0.013 (J)			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.003 (J)	0.0016	0.0092 (J)			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01		<0.01	<0.01				
8/26/2019		0.00071 (J)						
8/27/2019	0.0056 (J)		0.0026 (J)	0.00043 (J)	0.0066 (J)			
10/15/2019	0.0057 (J)	0.00076 (J)	0.0026 (J)					
10/16/2019				<0.01	0.0063 (J)			
11/7/2019						0.0038 (J)	0.005 (J)	0.0083 (J)
11/18/2019						0.0046 (J)		
11/19/2019							0.0059 (J)	0.0096 (J)
12/4/2019							0.0073 (J)	0.0099 (J)
12/5/2019						0.0046 (J)		
12/17/2019							0.009 (J)	
12/18/2019						0.0045 (J)		0.011 (J)
1/8/2020							0.0077 (J)	0.0092 (J)
1/9/2020						0.004 (J)		
1/21/2020						0.0036 (J)	0.007 (J)	0.009 (J)
2/4/2020						<0.01	0.0057 (J)	0.0078 (J)
2/13/2020						0.0036 (J)	0.0063 (J)	0.0091 (J)
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0095 (J)
9/13/2021	<0.01	<0.01						
9/14/2021			0.0027 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.0029			<0.01		
3/3/2022	<0.01	<0.01		<0.01	<0.01			
9/20/2022						0.0021 (J)	<0.01	<0.01
9/21/2022	0.0077 (J)	0.0015 (J)	0.002 (J)	0.0015 (J)	0.0063 (J)			
2/28/2023	0.00663 (J)				0.00623 (J)	<0.01	0.00575 (J)	0.00573 (J)
3/1/2023				<0.01				
3/2/2023		<0.01	<0.01					

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0025						
8/31/2016					<0.0025	<0.0025	<0.0025	
11/30/2016		<0.0025			<0.0025	0.0009 (J)	0.0011 (J)	
2/15/2017		<0.0025						
2/16/2017					<0.0025	<0.0025	<0.0025	
5/31/2017			0.0005 (J)					<0.0025
6/1/2017		<0.0025		<0.0025				
6/2/2017					<0.0025	<0.0025	<0.0025	
8/2/2017			0.0005 (J)	<0.0025				0.0006 (J)
8/15/2017								0.0004 (J)
8/16/2017		<0.0025	0.0005 (J)					
8/17/2017				<0.0025	<0.0025	0.0003 (J)	<0.0025	
4/4/2018				<0.0025				<0.0025
4/5/2018			<0.0025					
5/8/2018				<0.0025				<0.0025
5/9/2018			<0.0025					
6/19/2018		<0.0025	<0.0025					<0.0025
6/20/2018				<0.0025	<0.0025	<0.0025		
6/21/2018							<0.0025	
9/25/2018								<0.0025
9/26/2018		0.00052	0.00052					
9/27/2018				<0.0025	<0.0025	<0.0025	<0.0025	
11/6/2018				0.0048 (J)			<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025	<0.0025		
3/6/2019						<0.0025		
8/27/2019		<0.0025		0.0078				
8/28/2019			0.00042 (J)		<0.0025	<0.0025	<0.0025	<0.0025
10/15/2019				0.0085				
10/16/2019		<0.0025	0.00037 (J)		<0.0025			<0.0025
10/17/2019						<0.0025	<0.0025	
11/20/2019				0.009				
3/26/2020		<0.0025						
3/27/2020			<0.0025					<0.0025
3/28/2020				0.0041 (J)	<0.0025	<0.0025	<0.0025	
10/12/2020								<0.0025
10/13/2020		<0.0025	<0.0025	0.0063				
10/14/2020						<0.0025	<0.0025	
10/15/2020	<0.0025				0.0019 (J)			
1/4/2021					<0.0025			
3/3/2021		<0.0025	<0.0025					<0.0025
3/4/2021	<0.0025			0.006	<0.0025	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025	0.0054	<0.0025	<0.0025	<0.0025	<0.0025
3/1/2022	<0.0025				<0.0025	<0.0025		
3/2/2022		<0.0025	0.00035 (J)				<0.0025	0.00029 (J)
3/3/2022				0.0049				
9/20/2022	<0.0025					<0.0025		
9/21/2022		<0.0025	0.00032 (J)	0.0025	0.00026 (J)		0.00031 (J)	<0.0025
3/1/2023		<0.0025	0.000372 (J)	0.00256 (J)				<0.0025
3/2/2023	<0.0025				<0.0025	<0.0025	<0.0025	

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0025	0.0006 (J)		<0.0025				
10/25/2016					<0.0025			
11/30/2016	<0.0025	<0.0025		<0.0025	0.0007 (J)			
2/15/2017	<0.0025	<0.0025		<0.0025	<0.0025			
5/31/2017	0.0005 (J)	<0.0025			<0.0025			
6/1/2017				<0.0025				
6/2/2017			<0.0025					
8/2/2017			<0.0025					
8/15/2017	0.0005 (J)				0.0004 (J)			
8/16/2017		<0.0025						
8/17/2017			<0.0025	0.0004 (J)				
4/4/2018			<0.0025					
5/8/2018			<0.0025					
6/19/2018	0.00053 (J)	<0.0025	<0.0025		<0.0025			
6/20/2018				<0.0025				
9/25/2018	<0.0025	<0.0025						
9/26/2018			0.00052	0.00052	0.00052			
11/6/2018		<0.0025			<0.0025			
11/7/2018	<0.0025		<0.0025	<0.0025				
8/26/2019		<0.0025						
8/27/2019	0.0007 (J)		<0.0025	0.0003 (J)	<0.0025			
10/15/2019	0.00054 (J)	<0.0025	<0.0025					
10/16/2019				<0.0025	<0.0025			
11/7/2019						<0.0025	<0.0025	0.026
11/18/2019						<0.0025		
11/19/2019							<0.0025	0.022 (J)
12/4/2019							<0.0025	0.022
12/5/2019						<0.0025		
12/17/2019							<0.0025	
12/18/2019						<0.0025		0.031
1/8/2020							<0.0025	0.035
1/9/2020						<0.0025		
1/21/2020						<0.0025	<0.0025	0.031
2/4/2020						<0.0025	<0.0025	0.031 (J)
2/13/2020						<0.0025	<0.0025	0.031
3/27/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.036
10/12/2020	<0.0025					<0.0025		
10/13/2020		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	0.032
3/2/2021	<0.0025	<0.0025	<0.0025					
3/3/2021				<0.0025	<0.0025	<0.0025	<0.0025	0.033
9/13/2021	<0.0025	<0.0025						
9/14/2021			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03
3/1/2022							<0.0025	0.031
3/2/2022			7.7E-05 (J)			<0.0025		
3/3/2022	<0.0025	<0.0025		0.00035 (J)	<0.0025			
9/20/2022						<0.0025	<0.0025	0.03
9/21/2022	0.00042 (J)	<0.0025	<0.0025	0.00024 (J)	0.00025 (J)			
2/28/2023	0.00052 (J)				<0.0025	<0.0025	<0.0025	0.0252 (J)
3/1/2023				<0.0025				
3/2/2023		<0.0025	<0.0025					

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.929						
8/31/2016					2.39 (D)	2.47 (D)	5.4 (D)	
11/30/2016		5.64			1.66	1.6	3.13	
2/15/2017		1.41						
2/16/2017					2.71	1.83	3.09	
5/31/2017			1.17 (U)					1.2
6/1/2017		1.51		1.9				
6/2/2017					1.99	2.45	7.56	
8/2/2017			0.704 (U)	5.01				1.26
8/15/2017								0.511 (U)
8/16/2017		1.01 (U)	1.11 (U)					
8/17/2017				5.35	1.87	3.33	6.38	
4/4/2018				5.05				1.04
4/5/2018			0.868 (U)					
5/8/2018				3.25				1.95
5/9/2018			0.888					
6/19/2018		1.23	0.483 (U)					0.785 (U)
6/20/2018				3.53	1.95	2.84		
6/21/2018							5.24	
9/25/2018								1.15 (U)
9/26/2018		0.72 (U)	0.73 (U)					
9/27/2018				7.07	0.629 (U)	1.94	6.11	
11/6/2018				11			6.1	1.1
11/7/2018		0.616 (U)	0.429 (U)		1.41 (U)	8.58		
8/27/2019		1.2 (U)		4.4				
8/28/2019			0.679 (U)		1.67	6.86	8.73	0.434 (U)
10/15/2019				4.92				
10/16/2019		1.4 (U)	0.422 (U)		1.92			0.923 (U)
10/17/2019						7.85	7.97	
11/20/2019							9.8	
3/26/2020		1.15 (U)						
3/27/2020			0.838 (U)					0.609 (U)
3/28/2020				4.16	1.44 (U)	11 (U)	11.7	
10/12/2020								2.7
10/13/2020		0.855 (U)	0.56 (U)	3.71				
10/14/2020						8.97	13.1	
10/15/2020					2.56			
1/4/2021					5.84			
4/6/2021	7.33	1.01 (U)	0.474 (U)	2.83	1.43 (U)	7.89	9.66	1.88
9/14/2021	6.97	1.06 (U)	0.878 (U)	2.69	7.15	8.11	10.3	1.37 (U)
3/1/2022	9.03				8.16 (U)	5.83 (U)		
3/2/2022		0.379 (U)	0.476 (U)				5.66 (U)	0.313 (U)
3/3/2022				2.51				
9/20/2022	8.2					1.51		
9/21/2022		0.863	0.789	1.67	1.42		8.23	0.797
3/1/2023		1.18 (U)	0.439 (U)	5.05				2.35
3/2/2023	9.42				2.22	1.79	4.5	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.4	1.31		0.977 (U)				
10/25/2016					2.22			
11/30/2016	4.37	0.438 (U)		0.994	2.01			
2/15/2017	2.21	0.3 (U)		1.65	1.56			
5/31/2017	2.62	1.77			1.92			
6/1/2017				1.22				
6/2/2017			1.47					
8/2/2017			1.99					
8/15/2017	2.69				2.47			
8/16/2017		2.26						
8/17/2017			2.03	1.71				
4/4/2018			1.96					
5/8/2018			1.69					
6/19/2018	2.96	5.39	1.83		2.82			
6/20/2018				1.78				
9/25/2018	2.23	6.22						
9/26/2018			0.637 (U)	1.56	3.15 (D)			
11/6/2018		5.38			2.95			
11/7/2018	2.14		0.894 (U)	0.651 (U)				
8/26/2019		7.68						
8/27/2019	2.91		2.33	1.03 (U)	5.82			
10/15/2019	3.28	8.7	0.979 (U)					
10/16/2019				1.86	7.5			
11/7/2019						14.8	17.7	38.2
11/18/2019						13.9		
11/19/2019							18.9	43.1
11/21/2019		7.34			8.89			
12/4/2019							18.6	45.1
12/5/2019						14.2		
12/17/2019							21.8	
12/18/2019						17		55.8
1/8/2020							16.9	46.5
1/9/2020						12.3		
1/21/2020						11.7	15.6	37.7
2/4/2020						12.7	22.38	47.9
2/13/2020						18.2	31.1	76.3 (o)
3/27/2020	2.33	9.63	1.84	1.51	9.54	10.2	22.8	47.2
10/12/2020	2.66					8.83		
10/13/2020		7.43	3.32	1.71	7.75		14.1	30.3
4/6/2021	2.2	7.02	1.74	1.81	7.8	9.57	20.4	31.5
9/13/2021	2.54	8.38						
9/14/2021			1.15 (U)	2.02	8.82	8.31	26.2	34.9
3/1/2022							9.65	27.5
3/2/2022			1.48			9.23		
3/3/2022	3.56 (U)	8		1.1 (U)	9.1			
9/20/2022						9.35	18.2	30.1
9/21/2022	1.54	4.52	1.23	1.02	5.26			
2/28/2023	2.29				5.48	7.34	12.4	22.6
3/1/2023				2.3				
3/2/2023		8.08	10.1					

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		0.03 (J)						
8/31/2016					0.93	0.41	0.92	
11/30/2016		0.04 (J)			0.93	0.61	0.99	
2/15/2017		0.007 (J)						
2/16/2017					0.6	0.3 (J)	0.54	
5/31/2017			0.01 (J)					0.85
6/1/2017		<0.1		<0.1				
6/2/2017					0.34	0.19 (J)	0.42	
8/2/2017			0.14 (J)	0.27 (J)				0.69
8/15/2017								0.29 (J)
8/16/2017		0.03 (J)	0.13 (J)					
8/17/2017				0.18 (J)	0.52	0.26 (J)	0.27 (J)	
4/4/2018				<0.1				0.32
4/5/2018			<0.1					
5/8/2018				0.56				0.63
5/9/2018			<0.1					
6/19/2018		<0.1	0.065 (J)					0.17 (J)
6/20/2018				0.033 (J)	0.5	0.22 (J)		
6/21/2018							0.28 (J)	
9/25/2018								0.15 (J)
9/26/2018		0.12 (J)	0.029					
9/27/2018				0.12 (J)	0.32	0.068 (J)	0.32 (D)	
11/6/2018				<0.1			0.086 (J)	<0.1
11/7/2018		<0.1	<0.1		0.35	10.3 (o)		
3/6/2019						<0.1		
3/24/2019					0.32	0.19 (J)	0.14 (J)	
3/25/2019		0.038 (J)	0.039 (J)	0.055 (J)				0.12 (J)
8/27/2019		<0.1		<0.1				
8/28/2019			<0.1		0.36	<0.1	<0.1	0.068 (J)
10/15/2019				0.095 (J)				
10/16/2019		0.046 (JD)	0.044 (JD)		0.41			0.1 (J)
10/17/2019						<0.1	<0.1	
11/20/2019					0.34		<0.1	
3/26/2020		<0.1						
3/27/2020			<0.1					0.066 (J)
3/28/2020				<0.1	0.34	<0.1	<0.1	
10/12/2020								<0.1
10/13/2020		<0.1	<0.1	<0.1				
10/14/2020						<0.1	<0.1	
10/15/2020	0.11				0.22			
1/4/2021					<0.1			
3/3/2021		<0.1	<0.1					0.082 (J)
3/4/2021	<0.1			<0.1	0.45	<0.1	<0.1	
9/14/2021	<0.1	<0.1	<0.1	0.05	<0.1	<0.1	<0.1	0.18
3/1/2022	<0.1				<0.1	<0.1		
3/2/2022		<0.1	<0.1				<0.1	0.097 (J)
3/3/2022				<0.1				
9/20/2022	<0.1					1.1 (J)		
9/21/2022		<0.1	<0.1	<0.1	0.48		0.18	0.11
3/1/2023		<0.1	<0.1	<0.1				0.101 (J)
3/2/2023	<0.1				0.388 (J)	0.419 (J)	0.44 (J)	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1.5	0.5		0.04 (J)				
10/25/2016					1.1			
11/30/2016	1.4	0.49		0.18 (J)	1.3			
2/15/2017	1.3	0.58		0.02 (J)	1.3			
5/31/2017	1.2	0.56			1.3			
6/1/2017				0.005 (J)				
6/2/2017			<0.1					
8/2/2017			0.05 (J)					
8/15/2017	1.2				1.2			
8/16/2017		0.45						
8/17/2017			<0.1	0.04 (J)				
4/4/2018			<0.1					
5/8/2018			<0.1					
6/19/2018	0.91	<0.1	0.057 (J)		0.6			
6/20/2018				0.038 (J)				
9/25/2018	1.1	<0.1						
9/26/2018			0.029	0.029	0.44 (D)			
11/6/2018		0.084 (J)			0.4			
11/7/2018	<0.1		<0.1	<0.1				
3/24/2019	0.99	0.14 (J)			0.31			
3/25/2019			0.036 (J)	0.041 (J)				
8/26/2019		<0.1						
8/27/2019	1.1		<0.1	<0.1	<0.1			
10/15/2019	1	<0.1	0.14 (J)					
10/16/2019				0.044 (J)	0.083 (J)			
11/7/2019						0.49	<0.1	1.4
11/18/2019						0.52		
11/19/2019							0.033 (J)	1.2
11/21/2019		<0.1			<0.1			
12/4/2019							0.22 (J)	1.4
12/5/2019						0.5		
12/17/2019							<0.1	
12/18/2019						0.33		1.5
1/8/2020							<0.1	<0.1
1/9/2020						0.12 (J)		
1/21/2020						0.13 (J)	0.11 (J)	0.53
2/4/2020						0.18 (J)	<0.1	<0.1
2/13/2020						0.077 (J)	<0.1	<0.1
3/27/2020	1.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)	<0.1	<0.1
10/12/2020	1.2					0.34		
10/13/2020		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
3/2/2021	1	<0.1	<0.1					
3/3/2021				<0.1	<0.1	0.32	<0.1	<0.1
9/13/2021	1.4	<0.1						
9/14/2021			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/1/2022							<0.1	<0.1
3/2/2022			<0.1			<0.1		
3/3/2022	0.95	<0.1		<0.1	<0.1			
9/20/2022						0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	1.3	0.12	<0.1	<0.1	0.78			
2/28/2023	1.21 (J)				0.815 (J)	0.407 (J)	0.38 (J)	3.32 (J)
3/1/2023				0.0397 (J)				

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
3/2/2023		0.188 (J)	0.0397 (J)					



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.005						
8/31/2016					<0.005	<0.005	<0.005	
11/30/2016		<0.005			0.0002 (J)	<0.005	<0.005	
2/15/2017		<0.005						
2/16/2017					<0.005	<0.005	0.0002 (J)	
5/31/2017			<0.005					<0.005
6/1/2017		<0.005		<0.005				
6/2/2017					<0.005	<0.005	<0.005	
8/2/2017			0.0001 (J)	<0.005				<0.005
8/15/2017								<0.005
8/16/2017		<0.005	<0.005					
8/17/2017				<0.005	<0.005	<0.005	8E-05 (J)	
4/4/2018				<0.005				<0.005
4/5/2018			<0.005					
5/8/2018				<0.005				<0.005
5/9/2018			<0.005					
6/19/2018		<0.005	<0.005					<0.005
6/20/2018				<0.005	<0.005	<0.005		
6/21/2018							<0.005	
9/25/2018								<0.005
9/26/2018		0.00027	0.00027					
9/27/2018				<0.005	<0.005	<0.005	<0.005	
11/6/2018				<0.005			<0.005	<0.005
11/7/2018		<0.005	<0.005		<0.005	<0.005		
3/6/2019						<0.005		
3/25/2019								<0.005
8/27/2019		<0.005		<0.005				
8/28/2019			<0.005		<0.005	<0.005	0.0001 (J)	<0.005
10/15/2019				<0.005				
10/16/2019		<0.005	<0.005		<0.005			<0.005
10/17/2019						0.00012 (J)	<0.005	
3/26/2020		<0.005						
3/27/2020			<0.005					<0.005
3/28/2020				<0.005	<0.005	<0.005	<0.005	
10/12/2020								<0.005
10/13/2020		<0.005	<0.005	<0.005				
10/14/2020						<0.005	<0.005	
10/15/2020	<0.005				<0.005			
1/4/2021					<0.005			
3/3/2021		<0.005	<0.005					<0.005
3/4/2021	<0.005			<0.005	<0.005	<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022	<0.005				<0.005	<0.005		
3/2/2022		<0.005	<0.005				<0.005	<0.005
3/3/2022				<0.005				
9/20/2022	<0.005					<0.005		
9/21/2022		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
3/1/2023		<0.005	<0.005	<0.005				<0.005
3/2/2023	<0.005				<0.005	<0.005	<0.005	

# Time Series

Constituent: Lead (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0001 (J)	<0.005		<0.005				
10/25/2016					<0.005			
11/30/2016	<0.005	<0.005		0.0002 (J)	<0.005			
2/15/2017	<0.005	<0.005		<0.005	<0.005			
5/31/2017	9E-05 (J)	<0.005			<0.005			
6/1/2017				<0.005				
6/2/2017			<0.005					
8/2/2017			0.0001 (J)					
8/15/2017	<0.005				0.0002 (J)			
8/16/2017		8E-05 (J)						
8/17/2017			0.0001 (J)	<0.005				
4/4/2018			<0.005					
5/8/2018			<0.005					
6/19/2018	<0.005	<0.005	<0.005		<0.005			
6/20/2018				<0.005				
9/25/2018	<0.005	<0.005						
9/26/2018			0.00027	0.00027	0.00027			
11/6/2018		<0.005			<0.005			
11/7/2018	<0.005		<0.005	<0.005				
8/26/2019		<0.005						
8/27/2019	0.00022 (J)		0.00011 (J)	<0.005	0.00014 (J)			
10/15/2019	5.6E-05 (J)	<0.005	0.00038 (J)					
10/16/2019				<0.005	0.00034 (J)			
11/7/2019						<0.005	0.00063 (J)	0.0019 (J)
11/18/2019						<0.005		
11/19/2019							<0.005	0.0013 (J)
12/4/2019							5.3E-05 (J)	0.00045 (J)
12/5/2019						<0.005		
12/17/2019							<0.005	
12/18/2019						<0.005		0.00023 (J)
1/8/2020							<0.005	0.00029 (J)
1/9/2020						<0.005		
1/21/2020						<0.005	<0.005	0.00033 (J)
2/4/2020						<0.005	<0.005	<0.005
2/13/2020						<0.005	<0.025 (o)	0.00023 (J)
3/27/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/12/2020	<0.005					<0.005		
10/13/2020		<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
3/2/2021	<0.005	<0.005	<0.005					
3/3/2021				<0.005	<0.005	<0.005	<0.005	<0.005
9/13/2021	<0.005	<0.005						
9/14/2021			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2022							<0.005	<0.005
3/2/2022			<0.005			<0.005		
3/3/2022	<0.005	<0.005		<0.005	<0.005			
9/20/2022						<0.005	<0.005	<0.005
9/21/2022	0.00083 (J)	<0.005	0.00092 (J)	<0.005	<0.005			
2/28/2023	<0.005				<0.005	<0.005	<0.005	<0.005
3/1/2023				<0.005				
3/2/2023		<0.005	<0.005					

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.025						
8/31/2016					0.0219 (J)	0.0389 (J)	0.0122 (J)	
11/30/2016		<0.025			0.0333 (J)	0.0303 (J)	0.011 (J)	
2/15/2017		<0.025						
2/16/2017					0.0376 (J)	0.05 (J)	0.0142 (J)	
5/31/2017			<0.025					0.0047 (J)
6/1/2017		<0.025		<0.025				
6/2/2017					0.0346 (J)	0.0477 (J)	0.0229 (J)	
8/2/2017			<0.025	<0.025				0.0036 (J)
8/15/2017								<0.025
8/16/2017		<0.025	<0.025					
8/17/2017				<0.025	0.0367 (J)	0.0645	0.0241 (J)	
4/4/2018				0.0013 (J)				0.0041 (J)
4/5/2018			<0.025					
5/8/2018				0.0012 (J)				0.0052 (J)
5/9/2018			<0.025					
6/19/2018		<0.025	<0.025					0.0017 (J)
6/20/2018				0.0015 (J)	0.034 (J)	0.066 (J)		
6/21/2018							0.03 (J)	
9/25/2018								0.0018 (J)
9/26/2018		0.00097	0.00097					
9/27/2018				0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)	
11/6/2018				0.0038 (J)			0.037 (J)	<0.025
11/7/2018		<0.025	<0.025		0.022 (J)	0.11		
3/6/2019						0.12		
8/27/2019		<0.025		0.002 (J)				
8/28/2019			<0.025		0.023 (J)	0.13	0.12	0.00082 (J)
10/15/2019				0.0019 (J)				
10/16/2019		<0.025	<0.025		0.021 (J)			<0.025
10/17/2019						0.12	0.096	
11/20/2019							0.12	
3/26/2020		<0.025						
3/27/2020			<0.025					<0.025
3/28/2020	0.078 (J)			<0.025	0.014 (J)	0.064	0.027 (J)	
6/16/2020	0.096 (J)							
10/12/2020								<0.025
10/13/2020		<0.025	<0.025	<0.025				
10/14/2020						0.11	0.039 (J)	
10/15/2020	0.093				0.57			
1/4/2021					0.043 (J)			
3/3/2021		<0.025	<0.025					<0.025
3/4/2021	0.094 (J)			<0.025	0.017 (J)	0.096 (J)	0.035 (J)	
9/14/2021	0.092	<0.025	<0.025	<0.025	0.042 (J)	0.084	0.035 (J)	0.0033 (J)
3/1/2022	0.088 (J)				0.028 (J)	0.074		
3/2/2022		0.00064 (J)	<0.025				0.022 (J)	0.0026
3/3/2022				0.0017 (J)				
9/20/2022	<0.025					0.043		
9/21/2022		<0.025	<0.025	<0.025	0.018 (J)		0.02 (J)	<0.025
3/1/2023		<0.025	<0.025	<0.025				<0.025
3/2/2023	0.0919				0.0237 (J)	0.0361 (J)	0.0217 (J)	

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0102 (J)	0.0112 (J)		<0.025				
10/25/2016					0.007 (J)			
11/30/2016	0.0106 (J)	<0.025		<0.025	0.0086 (J)			
2/15/2017	0.0115 (J)	0.0105 (J)		<0.025	0.0149 (J)			
5/31/2017	0.011 (J)	0.0106 (J)			0.019 (J)			
6/1/2017				<0.025				
6/2/2017			<0.025					
8/2/2017			<0.025					
8/15/2017	0.0123 (J)				0.016 (J)			
8/16/2017		0.0145 (J)						
8/17/2017			<0.025	<0.025				
4/4/2018			0.0015 (J)					
5/8/2018			0.0014 (J)					
6/19/2018	0.012 (J)	0.044 (J)	0.0016 (J)		0.021 (J)			
6/20/2018				<0.025				
9/25/2018	0.011 (J)	0.041 (J)						
9/26/2018			0.0018 (J)	0.00097	0.02 (J)			
11/6/2018		0.047 (J)			0.017 (J)			
11/7/2018	0.013 (J)		<0.025	<0.025				
8/26/2019		0.059						
8/27/2019	0.012 (J)		0.002 (J)	<0.025	0.023 (J)			
10/15/2019	0.012 (J)	0.056 (J)	0.0016 (J)					
10/16/2019				<0.025	0.024 (J)			
11/7/2019						0.0055 (J)	0.015 (J)	0.026 (J)
11/18/2019						<0.1 (o)		
11/19/2019							0.02 (J)	0.023 (J)
11/21/2019		0.052						
12/4/2019							0.016 (J)	0.019 (J)
12/5/2019						0.0042 (J)		
12/17/2019							0.018 (J)	
12/18/2019						0.0045 (J)		0.02 (J)
1/8/2020							0.022 (J)	0.024 (J)
1/9/2020						0.0041 (J)		
1/21/2020						<0.15 (o)	0.018 (J)	0.022 (J)
2/4/2020						<0.3 (o)	0.02 (J)	0.024 (J)
2/13/2020						0.004 (J)	0.018 (J)	0.021 (J)
3/27/2020	<0.025	0.052	<0.025	<0.025	0.033 (J)	<0.025	0.018 (J)	0.024 (J)
10/12/2020	0.011 (J)					<0.025		
10/13/2020		0.046 (J)	<0.025	<0.025	0.028 (J)		0.022 (J)	0.025 (J)
3/2/2021	<0.025	0.046 (J)	<0.025					
3/3/2021				<0.025	<0.025	<0.025	0.019 (J)	0.018 (J)
9/13/2021	0.01 (J)	0.047						
9/14/2021			<0.025	<0.025	0.035 (J)	<0.025	0.011 (J)	0.02 (J)
3/1/2022							<0.025	0.02 (J)
3/2/2022			0.0017 (J)			<0.025		
3/3/2022	<0.025	0.037 (J)		0.00061 (J)	0.02 (J)			
9/20/2022						<0.025	0.014 (J)	0.029
9/21/2022	0.0075 (J)	0.028	<0.025	<0.025	0.023 (J)			
2/28/2023	0.0104 (J)				0.0257 (J)	0.00327 (J)	0.019 (J)	0.0221 (J)
3/1/2023				<0.025				
3/2/2023		0.0218 (J)	<0.025					

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.0002						
8/31/2016					<0.0002	<0.0002	<0.0002	
11/30/2016		<0.0002			<0.0002	<0.0002	<0.0002	
2/15/2017		<0.0002						
2/16/2017					<0.0002	<0.0002	<0.0002	
5/31/2017			<0.0002					<0.0002
6/1/2017		<0.0002		<0.0002				
6/2/2017					4.2E-05 (J)	<0.0002	<0.0002	
8/2/2017			<0.0002	<0.0002				<0.0002
8/15/2017								<0.0002
8/16/2017		<0.0002	<0.0002					
8/17/2017				<0.0002	<0.0002	<0.0002	<0.0002	
4/4/2018				<0.0002				<0.0002
4/5/2018			<0.0002					
5/8/2018				<0.0002				<0.0002
5/9/2018			<0.0002					
6/19/2018		<0.0002	<0.0002					<0.0002
6/20/2018				<0.0002	<0.0002	<0.0002		
6/21/2018							<0.0002	
9/25/2018								<0.0002
9/26/2018		3.6E-05	3.6E-05					
9/27/2018				<0.0002	<0.0002	<0.0002	<0.0002	
11/6/2018				0.00071			0.00067	0.0007
11/7/2018		<0.0002	<0.0002		<0.0002	<0.0002		
3/6/2019						<0.0002		
8/27/2019		<0.0002		<0.0002				
8/28/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/26/2020		<0.0002						
3/27/2020			<0.0002					<0.0002
3/28/2020				<0.0002	<0.0002	<0.0002	<0.0002	
9/14/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00016 (J)	<0.0002	<0.0002
3/1/2022	<0.0002				<0.0002	<0.0002		
3/2/2022		<0.0002	<0.0002				<0.0002	<0.0002
3/3/2022				<0.0002				
9/20/2022	<0.0002					<0.0002		
9/21/2022		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
3/1/2023		<0.0002	<0.0002	<0.0002				<0.0002
3/2/2023	<0.0002				<0.0002	<0.0002	<0.0002	

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.0002	<0.0002		<0.0002				
10/25/2016					<0.0002			
11/30/2016	<0.0002	<0.0002		<0.0002	<0.0002			
2/15/2017	<0.0002	<0.0002		<0.0002	<0.0002			
5/31/2017	<0.0002	<0.0002			<0.0002			
6/1/2017				<0.0002				
6/2/2017			<0.0002					
8/2/2017			<0.0002					
8/15/2017	<0.0002				<0.0002			
8/16/2017		<0.0002						
8/17/2017			<0.0002	<0.0002				
4/4/2018			<0.0002					
5/8/2018			<0.0002					
6/19/2018	<0.0002	<0.0002	<0.0002		<0.0002			
6/20/2018				<0.0002				
9/25/2018	<0.0002	<0.0002						
9/26/2018			3.6E-05	3.6E-05	3.6E-05			
11/6/2018		0.00066			0.00064			
11/7/2018	<0.0002		<0.0002	<0.0002				
8/26/2019		<0.0002						
8/27/2019	<0.0002		<0.0002	<0.0002	<0.0002			
11/7/2019						<0.0002	<0.0002	<0.0002
11/18/2019						<0.0002		
11/19/2019							<0.0002	<0.0002
12/4/2019							<0.0002	<0.0002
12/5/2019						<0.0002		
12/17/2019							<0.0002	
12/18/2019						<0.0002		<0.0002
1/8/2020							<0.0002	<0.0002
1/9/2020						<0.0002		
1/21/2020						<0.0002	<0.0002	<0.0002
2/4/2020						<0.0002	<0.0002	<0.0002
2/13/2020						<0.0002	<0.0002	<0.0002
3/27/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/13/2021	<0.0002	<0.0002						
9/14/2021			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2022							<0.0002	<0.0002
3/2/2022			<0.0002			<0.0002		
3/3/2022	<0.0002	<0.0002		<0.0002	<0.0002			
9/20/2022						<0.0002	<0.0002	<0.0002
9/21/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
2/28/2023	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
3/1/2023				<0.0002				
3/2/2023		<0.0002	<0.0002					

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.01						
8/31/2016					<0.01	<0.01	<0.01	
11/30/2016		<0.01			<0.01	<0.01	<0.01	
2/15/2017		<0.01						
2/16/2017					<0.01	<0.01	<0.01	
5/31/2017			<0.01					<0.01
6/1/2017		<0.01		<0.01				
6/2/2017					<0.01	<0.01	<0.01	
8/2/2017			<0.01	<0.01				<0.01
8/15/2017								<0.01
8/16/2017		<0.01	<0.01					
8/17/2017				<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018				<0.01				<0.01
4/5/2018			<0.01					
5/8/2018				<0.01				<0.01
5/9/2018			<0.01					
6/19/2018		<0.01	<0.01					<0.01
6/20/2018				<0.01	<0.01	<0.01		
6/21/2018							<0.01	
9/25/2018								<0.01
9/26/2018		0.0019	0.0019					
9/27/2018				<0.01	<0.01	<0.01	<0.01	
11/6/2018				<0.01			<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01	0.0024 (J)		
3/6/2019						<0.01		
8/27/2019		<0.01		<0.01				
8/28/2019			<0.01		<0.01	0.0017 (J)	<0.01	<0.01
10/15/2019				<0.01				
10/16/2019		<0.01	<0.01		<0.01			<0.01
10/17/2019						0.0017 (J)	<0.01	
3/26/2020		<0.01						
3/27/2020			<0.01					<0.01
3/28/2020				<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	<0.01	0.0008 (J)	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022	<0.01				<0.01	<0.01		
3/2/2022		<0.01	<0.01				<0.01	<0.01
3/3/2022				0.00015 (J)				
9/20/2022	<0.01					0.0013 (J)		
9/21/2022		<0.01	<0.01	<0.01	0.00095 (J)		0.00095 (J)	<0.01
3/1/2023		0.000258 (J)	<0.01	<0.01				<0.01
3/2/2023	0.000245 (J)				0.000852 (J)	0.00131 (J)	0.000963 (J)	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.01	<0.01		<0.01				
10/25/2016					<0.01			
11/30/2016	<0.01	<0.01		<0.01	<0.01			
2/15/2017	<0.01	<0.01		<0.01	<0.01			
5/31/2017	<0.01	<0.01			<0.01			
6/1/2017				<0.01				
6/2/2017			<0.01					
8/2/2017			<0.01					
8/15/2017	<0.01				<0.01			
8/16/2017		<0.01						
8/17/2017			<0.01	<0.01				
4/4/2018			<0.01					
5/8/2018			0.002 (J)					
6/19/2018	<0.01	<0.01	<0.01		<0.01			
6/20/2018				<0.01				
9/25/2018	<0.01	<0.01						
9/26/2018			0.0019	0.0019	0.0019			
11/6/2018		<0.01			<0.01			
11/7/2018	<0.01 (D)		<0.01 (D)	<0.01				
8/26/2019		<0.01						
8/27/2019	<0.01		<0.01	<0.01	<0.01			
10/15/2019	<0.01	<0.01	<0.01					
10/16/2019				<0.01	<0.01			
11/7/2019						<0.01	<0.01	<0.01
11/18/2019						<0.01		
11/19/2019							<0.01	<0.01
12/4/2019							<0.01	<0.01
12/5/2019						<0.01		
12/17/2019							<0.01	
12/18/2019						<0.01		<0.01
1/8/2020							<0.01	<0.01
1/9/2020						<0.01		
1/21/2020						<0.01	<0.01	<0.01
2/4/2020						<0.01	<0.01	<0.01
2/13/2020						<0.01	<0.01	<0.01
3/27/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/13/2021	<0.01	<0.01						
9/14/2021			0.0009 (J)	<0.01	<0.01	<0.01	<0.01	<0.01
3/1/2022							<0.01	<0.01
3/2/2022			0.00078 (J)			<0.01		
3/3/2022	<0.01	<0.01		0.00021 (J)	<0.01			
9/20/2022						<0.01	<0.01	<0.01
9/21/2022	<0.01	<0.01	0.00094 (J)	<0.01	<0.01			
2/28/2023	0.000362 (J)				0.000313 (J)	<0.01	<0.01	<0.01
3/1/2023				0.000517 (J)				
3/2/2023		<0.01	0.00133 (J)					



# Time Series

Constituent: pH, field (Std. Units) Analysis Run 5/25/2023 9:15 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		5.66						
8/31/2016					6.93	7.21	6.66	
11/30/2016		5.36			6.77	7.23	6.69	
2/15/2017		5.25						
2/16/2017					6.89	7.27	6.72	
5/31/2017			5.06					5.29
6/1/2017		5.59		5.68				
6/2/2017					6.83	7.18	6.53	
8/2/2017			5	5.2				5.19
8/15/2017								5.19
8/16/2017		5.58	4.98					
8/17/2017				5.31	6.76	7.15	6.28	
4/4/2018				4.74				5.19
4/5/2018			5.02					
5/8/2018				4.78				5.3
5/9/2018			4.96					
6/19/2018		5.51	5.02					5.15
6/20/2018				4.79	6.83	7.19		
6/21/2018							6.45	
9/25/2018								5.13
9/26/2018		5.32	5.06					
9/27/2018				5.14	6.64	7.21	6.48	
11/6/2018				4.9			6.18	5.08
11/7/2018		5.72	5.03		6.6	6.91		
3/24/2019					6.1	6.98	6.38	
3/25/2019		5.75	5.08	4.93				5.05
8/27/2019		5.58		5.05				
8/28/2019			4.99		6.69	6.87	6.35	4.87
10/15/2019				4.89				
10/16/2019		5.72	4.98		6.64			5.05
10/17/2019						6.86	6.4	
11/19/2019			5.11					
11/20/2019		5.77		5.03	6.58		6.27	
3/26/2020		5.45						
3/27/2020			5.12					5.09
3/28/2020	7.11			5.27	6.6	6.8	6.35	
6/16/2020	7.22							
10/12/2020								5
10/13/2020		5.69	5.03	5.25				
10/14/2020						6.93	6.32	
10/15/2020	7.08				6.53			
1/4/2021					6.66			
3/3/2021		5.81	5.06					5.07
3/4/2021	7.21			5.31	6.52	6.94	6.33	
9/14/2021	7.11	5.13	5.04	5.09	6.67	6.94	6.28	5.5
3/1/2022	7.08				6.87	7.24		
3/2/2022		5.32	5.16				6.41	5.11
3/3/2022				4.98				
9/20/2022	7.07					7.29		
9/21/2022		4.95	5.14	5.34	6.93		6.27	4.97
3/1/2023		4.91	5.1	4.93				4.78
3/2/2023	7.12				6.55	7.38	6.28	

# Time Series

Constituent: pH, field (Std. Units) Analysis Run 5/25/2023 9:15 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	6.49	7.04		5.18				
10/25/2016					6.95			
11/30/2016	6.5	7.13		4.96	6.95			
2/15/2017	6.51	7.02		5.13	6.85			
5/31/2017	6.45	7			6.96			
6/1/2017				4.99				
6/2/2017			5.31					
8/2/2017			5.05					
8/15/2017	6.41				6.99			
8/16/2017		6.88						
8/17/2017			5.52	4.68				
4/4/2018			5.45					
5/8/2018			5.54					
6/19/2018	6.32	6.78	5.6		6.91			
6/20/2018				4.77				
9/25/2018	6.31	6.75						
9/26/2018			5.17	4.65	6.81			
11/6/2018		6.92			5.99			
11/7/2018	6.3		5.47	4.99				
3/24/2019	6.4	6.59	5.4		6.62			
3/25/2019				5.13				
8/26/2019		6.62						
8/27/2019	6.24		5.35	4.88	6.23			
10/15/2019	6.19	6.58	5.32					
10/16/2019				4.89	6.54			
11/7/2019						4.25	5.21	3.79
11/18/2019						4.12		
11/19/2019							5.15	3.78
11/21/2019		6.67			6.44			
12/4/2019							5.28 (D)	3.87 (D)
12/5/2019						4.17 (D)		
1/8/2020							5.04	3.77
1/9/2020						4.19		
1/21/2020						4.28	5.1	3.73
2/4/2020						4.26	5.15	3.72
2/13/2020						4.2	5.07	3.75
3/27/2020	6.33	6.59	5.3	5.12	6.93	4.34	5.14	3.81
10/12/2020	6.35					4.29		
10/13/2020		6.56	5.02	5.17	6.34		5.04	3.72
3/2/2021	6.34	6.55	5.16					
3/3/2021				5.71	6.58	4.37	5.1	3.36
9/13/2021	6.24	6.3						
9/14/2021			5.39	4.69	6.77	4.28	5.31	3.72
3/1/2022							5.38	3.69
3/2/2022			5.37			4.33		
3/3/2022	6.51	6.49		4.88	4.27			
9/20/2022						4.47	5.14	3.63
9/21/2022	6.3	6.61	5.23	4.91	6.72			
2/28/2023	6.28				6.62	4.42	5.08	3.7
3/1/2023				4.76				
3/2/2023		6.53	4.45					

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.05						
8/31/2016					0.002 (J)	0.0015 (J)	0.0021 (J)	
11/30/2016		0.0011 (J)			0.0023 (J)	0.0054 (J)	<0.005	
2/15/2017		<0.05						
2/16/2017					0.002 (J)	0.0022 (J)	0.0025 (J)	
5/31/2017			<0.05					<0.05
6/1/2017		<0.05		<0.05				
6/2/2017					<0.05	<0.05	<0.005	
8/2/2017			<0.05	<0.05				<0.05
8/15/2017								<0.05
8/16/2017		<0.05	<0.05					
8/17/2017				<0.05	<0.05	0.002 (J)	0.0033 (J)	
4/4/2018				<0.05				<0.05
4/5/2018			<0.05					
5/8/2018				<0.05				<0.05
5/9/2018			<0.05					
6/19/2018		<0.05	<0.05					<0.05
6/20/2018				<0.05	<0.05	<0.05		
6/21/2018							<0.005	
9/25/2018								<0.05
9/26/2018		0.0014	0.0014					
9/27/2018				<0.05	<0.05	<0.05	0.0023 (J)	
11/6/2018				0.0025 (J)			0.0048 (J)	<0.05
11/7/2018		<0.05	<0.05		<0.05	0.0075 (J)		
3/6/2019						0.0024 (J)		
3/25/2019								<0.05
8/27/2019		<0.05		<0.05				
8/28/2019			<0.05		<0.05	0.0014 (J)	0.0019 (J)	<0.05
10/15/2019				<0.05				
10/16/2019		<0.05	<0.05		<0.05			<0.05
10/17/2019						0.0066 (J)	0.0049 (J)	
3/26/2020		<0.05						
3/27/2020			<0.05					<0.05
3/28/2020				<0.05	<0.05	<0.05	<0.005	
10/12/2020								<0.05
10/13/2020		<0.05	<0.05	<0.05				
10/14/2020						<0.05	<0.005	
10/15/2020	<0.005				0.0028 (J)			
1/4/2021					<0.05			
3/3/2021		<0.05	<0.05					<0.05
3/4/2021	<0.005			0.00038 (J)	<0.05	<0.05	<0.005	
9/14/2021	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.005	<0.05
3/1/2022	<0.005				<0.05	<0.05		
3/2/2022		<0.05	<0.05				<0.005	0.00022 (J)
3/3/2022				0.00012 (J)				
9/20/2022	<0.005					<0.05		
9/21/2022		<0.05	<0.05	<0.05	<0.05		<0.005	<0.05
3/1/2023		<0.05	<0.05	<0.05				<0.05
3/2/2023	0.00205 (J)				<0.05	<0.05	0.00238 (J)	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.0011 (J)	<0.05		<0.05				
10/25/2016					0.003 (J)			
11/30/2016	0.0023 (J)	<0.05		0.0011 (J)	0.0087 (J)			
2/15/2017	0.0021 (J)	0.0014 (J)		<0.05	0.0067 (J)			
5/31/2017	<0.005	<0.05			0.0018 (J)			
6/1/2017				<0.05				
6/2/2017			<0.05					
8/2/2017			<0.05					
8/15/2017	0.0021 (J)				0.0025 (J)			
8/16/2017		0.0018 (J)						
8/17/2017			<0.05	<0.05				
4/4/2018			<0.05					
5/8/2018			0.0016 (J)					
6/19/2018	0.0017 (J)	<0.05	0.0022 (J)		<0.005			
6/20/2018				<0.05				
9/25/2018	0.002 (J)	0.0019 (J)						
9/26/2018			0.0015 (J)	0.0014	0.0016 (J)			
11/6/2018		0.0057 (J)			<0.005			
11/7/2018	<0.005		<0.05	<0.05				
8/26/2019		0.0025 (J)						
8/27/2019	0.0019 (J)		0.0018 (J)	<0.05	0.0018 (J)			
10/15/2019	<0.005	0.003 (J)	<0.05					
10/16/2019				<0.05	<0.005			
11/7/2019						0.036	0.063	0.12
11/18/2019						<0.005		
11/19/2019							0.039 (J)	0.047 (J)
12/4/2019							0.12	0.11
12/5/2019						0.032		
12/17/2019							0.031 (J)	
12/18/2019						0.01		0.032 (J)
1/8/2020							0.066	0.044 (J)
1/9/2020						0.01		
1/21/2020						0.023 (J)	0.13	0.089
2/4/2020						0.017 (J)	0.065 (J)	0.049 (J)
2/13/2020						0.015	0.15	0.11
3/27/2020	<0.005	<0.05	<0.05	<0.05	<0.005	0.0034 (J)	0.013	0.012
10/12/2020	<0.005					<0.005		
10/13/2020		<0.05	<0.05	<0.05	<0.005		0.0076 (J)	0.0056 (J)
3/2/2021	<0.005	<0.05	<0.05					
3/3/2021				<0.05	<0.005	0.0012 (J)	0.013 (J)	0.0094 (J)
9/13/2021	<0.005	<0.05						
9/14/2021			<0.05	<0.05	0.0021	<0.005	0.0022 (J)	0.0018 (J)
3/1/2022							<0.04	0.0058 (J)
3/2/2022			0.00028 (J)			<0.005		
3/3/2022	<0.005	<0.05		<0.05	<0.005			
9/20/2022						<0.005	0.0046 (J)	0.0027 (J)
9/21/2022	<0.005	<0.05	<0.05	<0.05	<0.005			
2/28/2023	0.00157 (J)				0.00184 (J)	0.00583 (J)	0.034 (J)	0.0225 (J)
3/1/2023				<0.05				
3/2/2023		<0.05	<0.05					

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		17						
8/31/2016					37	21	290	
11/30/2016		33			63	19	240	
2/15/2017		83						
2/16/2017					90	22	220	
5/31/2017			46					40
6/1/2017		51		42				
6/2/2017					210	28	500	
8/2/2017			43	120				34
8/15/2017								24
8/16/2017		36	41					
8/17/2017				110	80	69	510	
4/4/2018				70.6				33.9
4/5/2018			33.4					
5/8/2018				61.4				35.7
5/9/2018			36					
6/19/2018		50.3	35.5					23.7
6/20/2018				25.3	46 (J)	33		
6/21/2018							481	
9/25/2018								25.6
9/26/2018		54.1	39.6					
9/27/2018				63.4	58.5 (J)	29.4 (D)	777 (D)	
11/6/2018				136			926	25.2
11/7/2018		45.6	35.8		41.3 (J)	734		
3/6/2019						1220 (J)		
3/24/2019					131	413	1070	
3/25/2019		43	34.2	137				24.9
10/15/2019				105				
10/16/2019		31.9	24.4		122.5 (D)			17.4
10/17/2019						507	1230	
11/20/2019					132		1550	
3/26/2020		36.2						
3/27/2020			28.6					23.4
3/28/2020				86.6	63.8	701	1090	
4/23/2020	936							
6/16/2020	970							
10/12/2020								19.3
10/13/2020		32.3	27.6	92.3				
10/14/2020						510	904	
10/15/2020	1060				147			
1/4/2021					262			
3/3/2021		33.8	27.6					19.9
3/4/2021	1060			99.1	82.2	596	982	
9/14/2021	971	34.2	30.4	96.2 (M1)	459	490	819	33.1
3/1/2022	755				143	440		
3/2/2022		30.8	25.7				702	19.5
3/3/2022				50.6				
9/20/2022	820					320		
9/21/2022		39	29	52	100		660	23
3/1/2023		45.3	27.4	44.2				21.4
3/2/2023	859				84.2	157	640	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	4.3	6.4		24				
10/25/2016					84			
11/30/2016	7.6	4.5		26				
2/15/2017	3	37		30	190			
5/31/2017	2.5	61			260			
6/1/2017				24				
6/2/2017			13					
8/2/2017			14					
8/15/2017	3.2				210			
8/16/2017		130						
8/17/2017			14	26				
4/4/2018			13.4					
5/8/2018			14.8					
6/19/2018	1.6	498	15.5		218			
6/20/2018				31.2				
9/25/2018	1	790						
9/26/2018			23	36.8	333 (D)			
11/6/2018		875			182			
11/7/2018	0.41 (J)		22.2	35				
3/24/2019	1.5	1170			413			
3/25/2019			22.4	40.1				
10/15/2019	0.54 (J)	<1	17.9					
10/16/2019				28.5	312.5 (D)			
11/7/2019						379	832	1010
11/18/2019						737		
11/19/2019							795	1140
11/21/2019		1070			428			
12/4/2019							810	1020
12/5/2019						351		
12/17/2019							535	
12/18/2019								8.1
1/8/2020							603	747
1/9/2020						254		
1/21/2020						254	611	798
2/4/2020						432	599	1120
2/13/2020						300	761	833
3/27/2020	<5	899	14.6	31.2	504	219	836	700
10/12/2020	<5					191		
10/13/2020		695	7.6	26.8	378		609	638
3/2/2021	1.2	97.5	8					
3/3/2021				30.5	420	171	<1	743
9/13/2021	<5	680						
9/14/2021			16.7	24.4	460	134	995	659
3/1/2022							158	543
3/2/2022			16			186		
3/3/2022	<5	754		20.4	324			
9/20/2022						160	740	750
9/21/2022	<5	270	6.3	24	330			
2/28/2023	1.33				334	186	820	950
3/1/2023				25.8				
3/2/2023		2520	8.12					

# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		<0.002						
8/31/2016					<0.002	<0.002	<0.002	
11/30/2016		<0.002			<0.002	<0.002	<0.002	
2/15/2017		<0.002						
2/16/2017					<0.002	<0.002	<0.002	
5/31/2017			<0.002					<0.002
6/1/2017		<0.002		<0.002				
6/2/2017					<0.002	<0.002	<0.002	
8/2/2017			<0.002	<0.002				<0.002
8/15/2017								<0.002
8/16/2017		<0.002	<0.002					
8/17/2017				<0.002	<0.002	<0.002	<0.002	
4/4/2018				<0.002				<0.002
4/5/2018			<0.002					
5/8/2018				<0.002				<0.002
5/9/2018			<0.002					
6/19/2018		<0.002	<0.002					<0.002
6/20/2018				<0.002	<0.002	<0.002		
6/21/2018							<0.002	
9/25/2018								<0.002
9/26/2018		0.00014	0.00014					
9/27/2018				<0.002	<0.002	<0.002	<0.002	
11/6/2018				<0.002			<0.002	<0.002
11/7/2018		<0.002	<0.002		<0.002	<0.002		
3/6/2019						<0.002		
8/27/2019		<0.002		<0.002				
8/28/2019			<0.002		<0.002	<0.002	<0.002	<0.002
10/15/2019				<0.002				
10/16/2019		<0.002	<0.002		<0.002			<0.002
10/17/2019						7.6E-05 (J)	<0.002	
3/26/2020		<0.002						
3/27/2020			<0.002					<0.002
3/28/2020				<0.002	<0.002	<0.002	<0.002	
9/14/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/1/2022	<0.002				<0.002	<0.002		
3/2/2022		<0.002	<0.002				<0.002	<0.002
3/3/2022				<0.002				
9/20/2022	<0.002					<0.002		
9/21/2022		<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
3/1/2023		<0.002	<0.002	<0.002				<0.002
3/2/2023	<0.002				<0.002	<0.002	<0.002	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/25/2023 9:15 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	<0.002	<0.002		<0.002				
10/25/2016					<0.002			
11/30/2016	<0.002	<0.002		<0.002	<0.002			
2/15/2017	<0.002	<0.002		<0.002	<0.002			
5/31/2017	<0.002	<0.002			<0.002			
6/1/2017				6E-05 (J)				
6/2/2017			<0.002					
8/2/2017			<0.002					
8/15/2017	<0.002				<0.002			
8/16/2017		<0.002						
8/17/2017			<0.002	7E-05 (J)				
4/4/2018			<0.002					
5/8/2018			<0.002					
6/19/2018	<0.002	<0.002	<0.002		<0.002			
6/20/2018				<0.002				
9/25/2018	<0.002	<0.002						
9/26/2018			0.00014	0.00014	0.00014			
11/6/2018		<0.002			<0.002			
11/7/2018	<0.002		<0.002	<0.002				
8/26/2019		<0.002						
8/27/2019	<0.002		<0.002	6.6E-05 (J)	<0.002			
10/15/2019	<0.002	<0.002	<0.002					
10/16/2019				<0.002	<0.002			
11/7/2019						<0.002	<0.002	<0.002
11/18/2019						<0.002		
11/19/2019							<0.002	<0.002
12/4/2019							<0.002	<0.002
12/5/2019						<0.002		
12/17/2019							<0.002	
12/18/2019						<0.002		<0.002
1/8/2020							<0.002	<0.002
1/9/2020						<0.002		
1/21/2020						<0.002	<0.002	<0.002
2/4/2020						<0.002	<0.002	<0.002
2/13/2020						<0.002	<0.002	<0.002
3/27/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/13/2021	<0.002	<0.002						
9/14/2021			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/1/2022							<0.002	<0.002
3/2/2022			<0.002			<0.002		
3/3/2022	<0.002	<0.002		6.6E-05 (J)	<0.002			
9/20/2022						<0.002	<0.002	<0.002
9/21/2022	<0.002	<0.002	<0.002	<0.002	<0.002			
2/28/2023	<0.002				<0.002	<0.002	<0.002	<0.002
3/1/2023				<0.002				
3/2/2023		<0.002	<0.002					



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/25/2023 9:15 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-04	MCM-05	MCM-06	MCM-07	MCM-11 (bg)
8/30/2016		86						
8/31/2016					3620	4160	5100	
11/30/2016		131			4030	3950	4680	
2/15/2017		212						
2/16/2017					4080	4600	5080	
5/31/2017			123					257
6/1/2017		103		97				
6/2/2017					5560	4470	8000	
8/2/2017			136	538				183
8/15/2017								90
8/16/2017		65	124					
8/17/2017				445	4620	5450	8320	
4/4/2018				365				197
4/5/2018			128					
5/8/2018				304				225
5/9/2018			127					
6/19/2018		142	143					112
6/20/2018				114	3370	4940		
6/21/2018							7500	
9/25/2018								137
9/26/2018		133	132					
9/27/2018				255	2360	4480	10200	
11/6/2018				388			11000	89
11/7/2018		121	134		2230	15100		
3/6/2019						19000		
3/24/2019					1450	13700	13700	
3/25/2019		116	111	327				74
10/15/2019				237				
10/16/2019		104	96		2860			82
10/17/2019						16100	13200	
11/20/2019					2640		16700	
3/26/2020		114						
3/27/2020			119					87
3/28/2020				284	1470	18800	18300	
6/16/2020	20100							
10/12/2020								94
10/13/2020		113	118	<25				
10/14/2020						15200	18400	
10/15/2020	19300				5100			
1/4/2021					7750			
3/3/2021		99	84					66
3/4/2021	19000			285	1700	14200	17100	
9/14/2021	16400	66	76	193	8020	11800	13400	191
3/1/2022	15600				3780	9040		
3/2/2022		97	94				12600	124
3/3/2022				146				
9/20/2022	13000					3900		
9/21/2022		100	90	180	2100		9400	110
3/1/2023		78	73	142				67
3/2/2023	12300				1710	3120	10500	

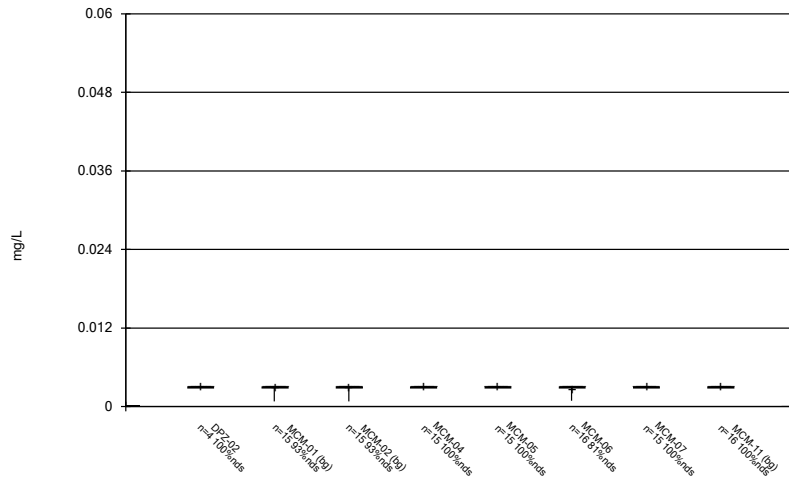
# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/25/2023 9:15 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-12	MCM-14	MCM-15 (bg)	MCM-16 (bg)	MCM-17	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	1910	1310		99				
10/25/2016					2900			
11/30/2016	1910	1050		111	3970			
2/15/2017	1870	1440		170	3820			
5/31/2017	1920	1740			5050			
6/1/2017				98				
6/2/2017			69					
8/2/2017			35					
8/15/2017	1840				4820			
8/16/2017		3010						
8/17/2017			51	84				
4/4/2018			90					
5/8/2018			89					
6/19/2018	1820	8630	110		5640			
6/20/2018				123				
9/25/2018	1760	10700						
9/26/2018			124	117	6920			
11/6/2018		11100			4160			
11/7/2018	1800		125	120				
3/24/2019	1770	14200			6840			
3/25/2019			98	101				
10/15/2019	1730	15400	107					
10/16/2019				95	7740			
11/7/2019						4140	10900	13500
11/18/2019						4030		
11/19/2019							10000	13300
11/21/2019		15800			7720			
12/4/2019							11000	13200
12/5/2019						3840		
12/17/2019							9860	
12/18/2019						3880		12500
1/8/2020							9760	12300
1/9/2020						3520		
1/21/2020						3280	10100	12000
2/4/2020						3220	10600	12300
2/13/2020						3580	10900	12400
3/27/2020	1970	16400	110	110	10200	3090	14300	14600
10/12/2020	1560					2920		
10/13/2020		15600	63	115	8750		6600	13900
3/2/2021	1430	12000	40					
3/3/2021				122	8830	2620	11000	11400
9/13/2021	1450	11400						
9/14/2021			96	<25	8820	2190	14600	10300
3/1/2022							4050	10500
3/2/2022			103			3100		
3/3/2022	1400	11500		104	8120			
9/20/2022						2000	10000	8600
9/21/2022	1300	7400	38	78	6200			
2/28/2023	1290				6810	2090	10400	8720
3/1/2023				56				
3/2/2023		3280	35					

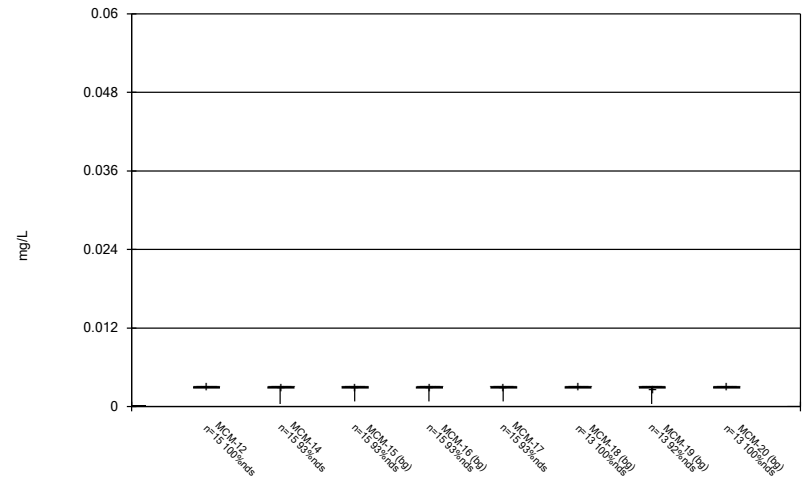
FIGURE B.

### Box & Whiskers Plot



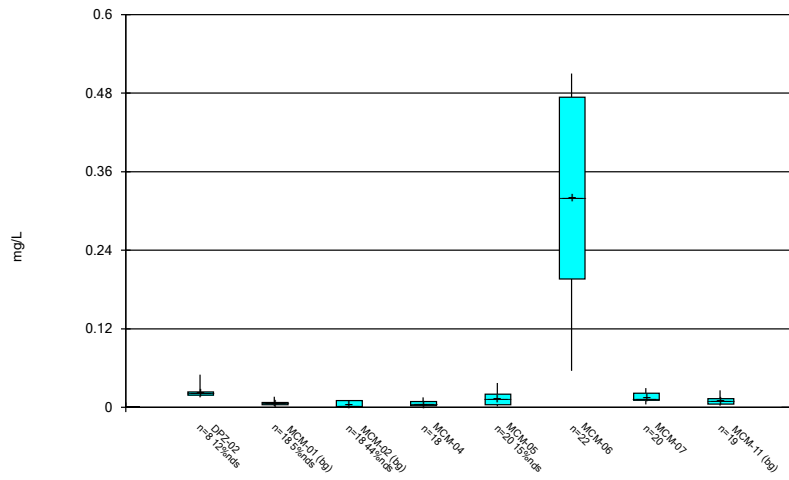
Constituent: Antimony Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



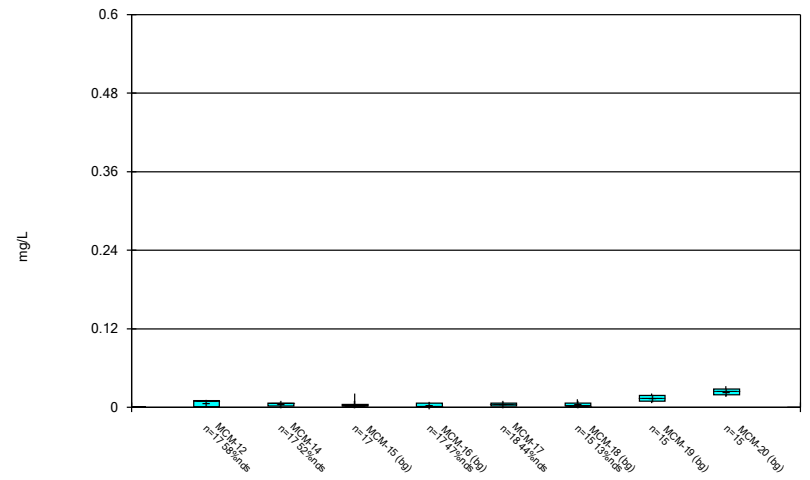
Constituent: Antimony Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



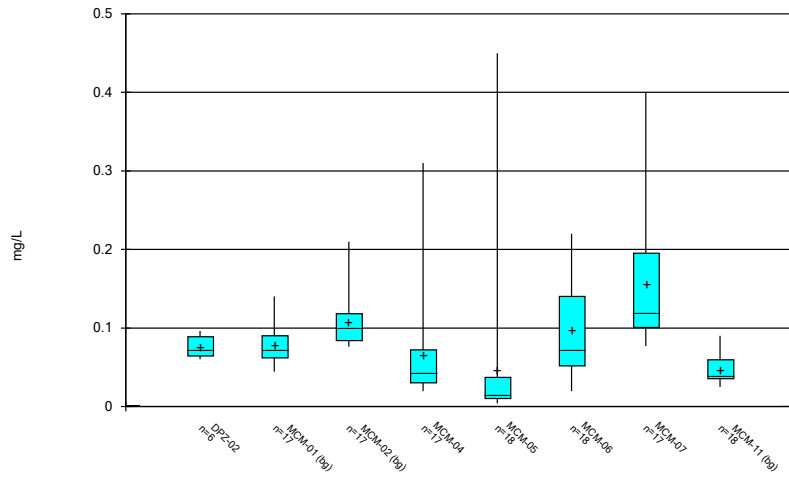
Constituent: Arsenic Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



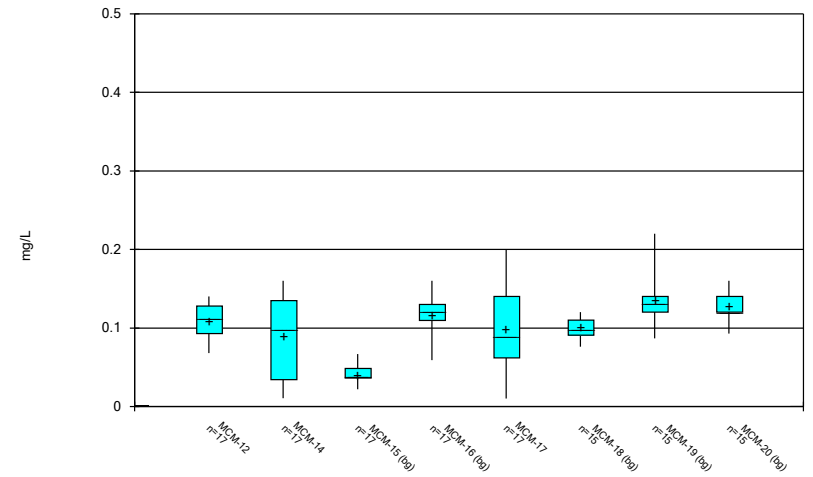
Constituent: Arsenic Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



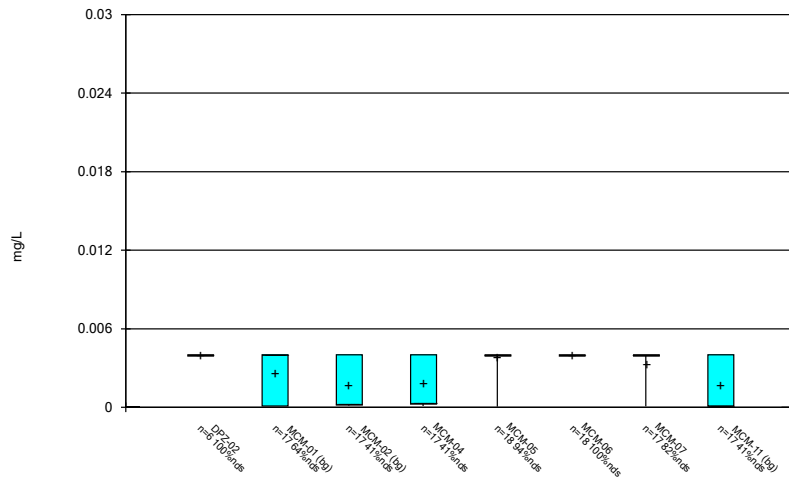
Constituent: Barium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



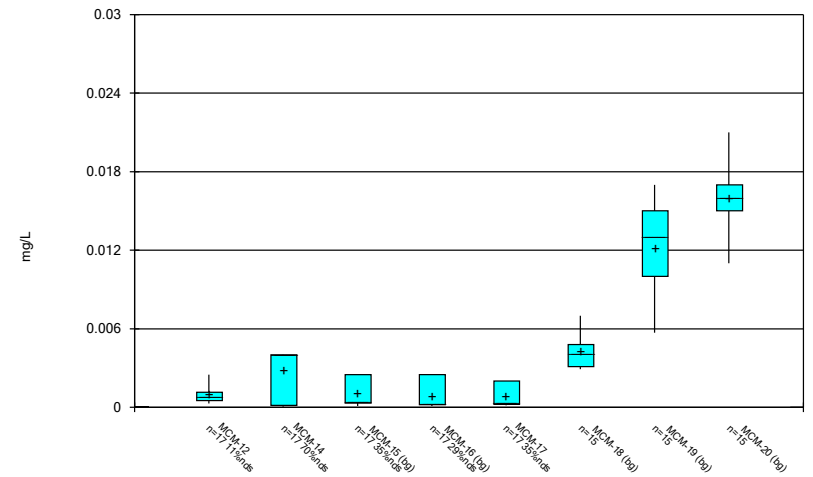
Constituent: Barium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



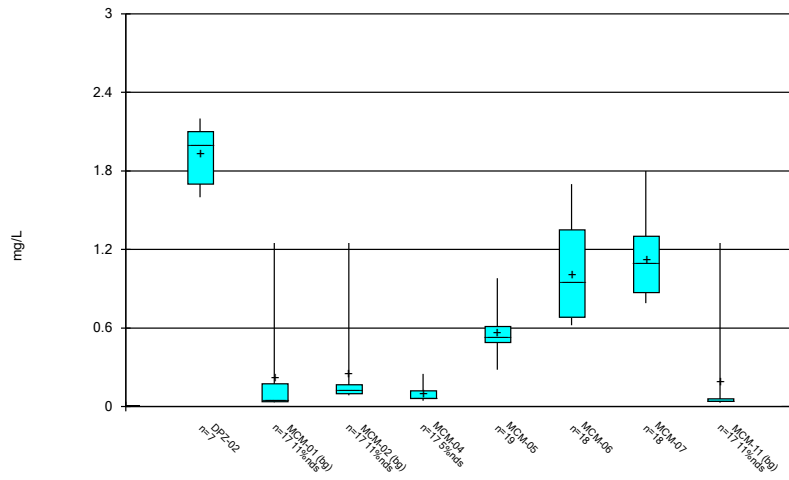
Constituent: Beryllium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



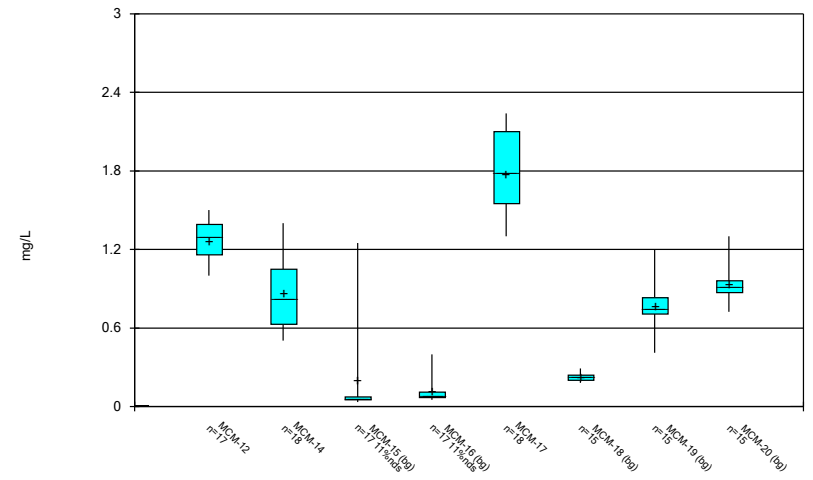
Constituent: Beryllium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



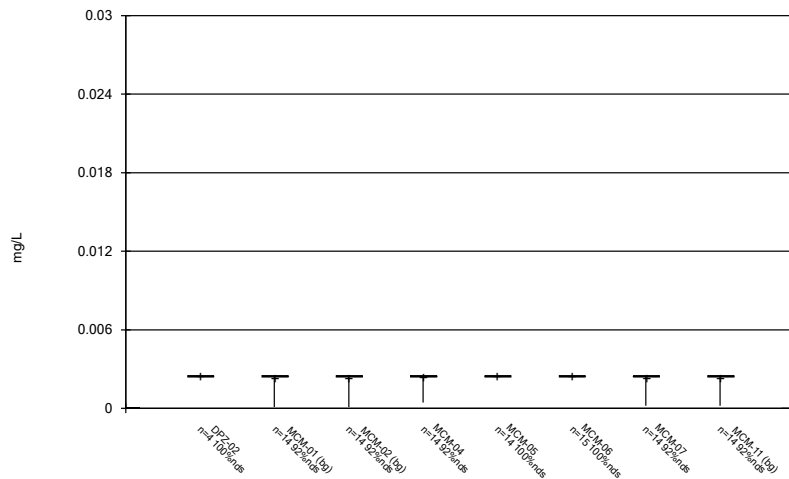
Constituent: Boron Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



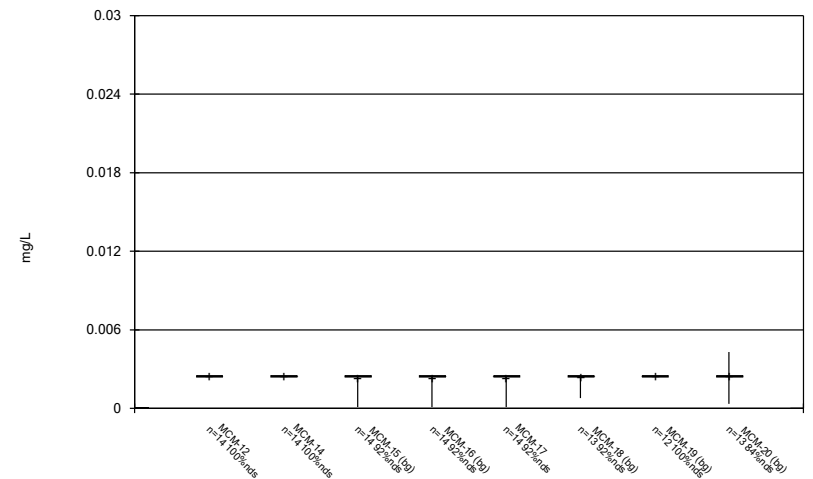
Constituent: Boron Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



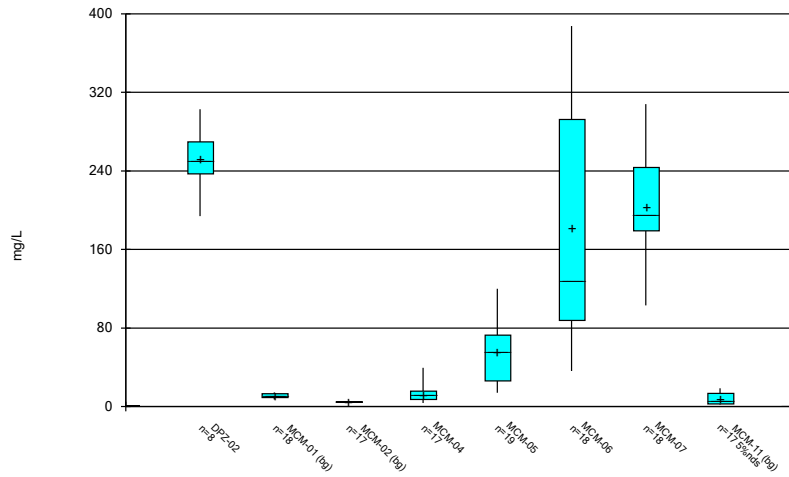
Constituent: Cadmium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



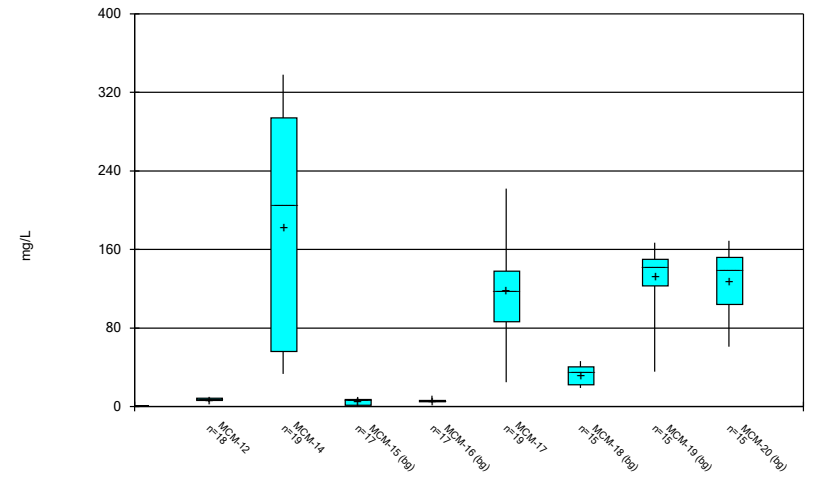
Constituent: Cadmium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



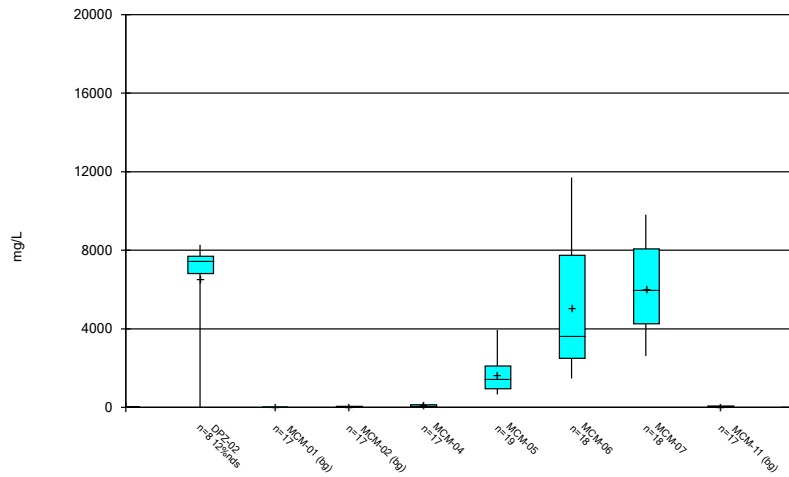
Constituent: Calcium Analysis Run 5/25/2023 9:26 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



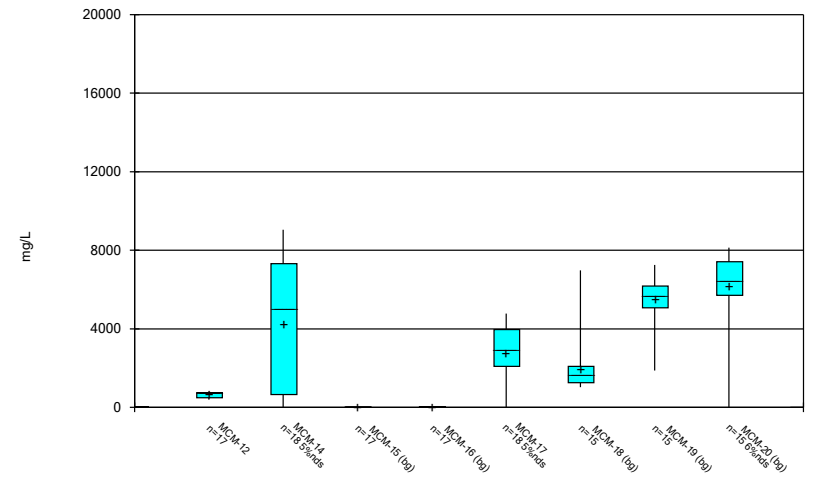
Constituent: Calcium Analysis Run 5/25/2023 9:26 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



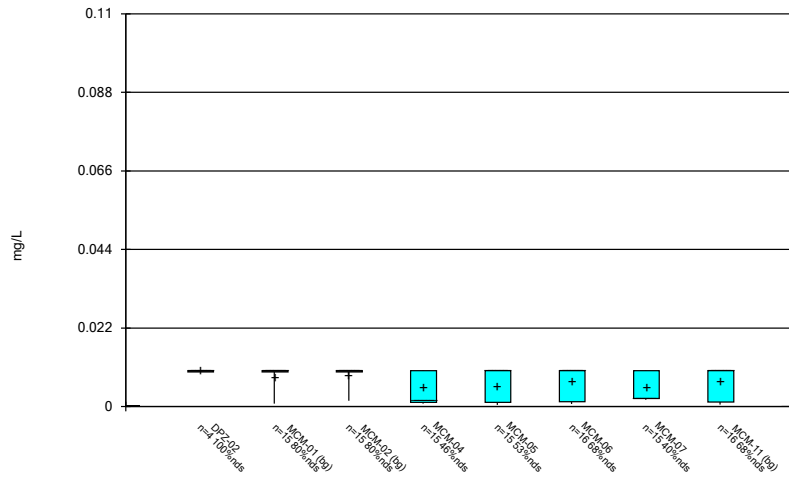
Constituent: Chloride Analysis Run 5/25/2023 9:26 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



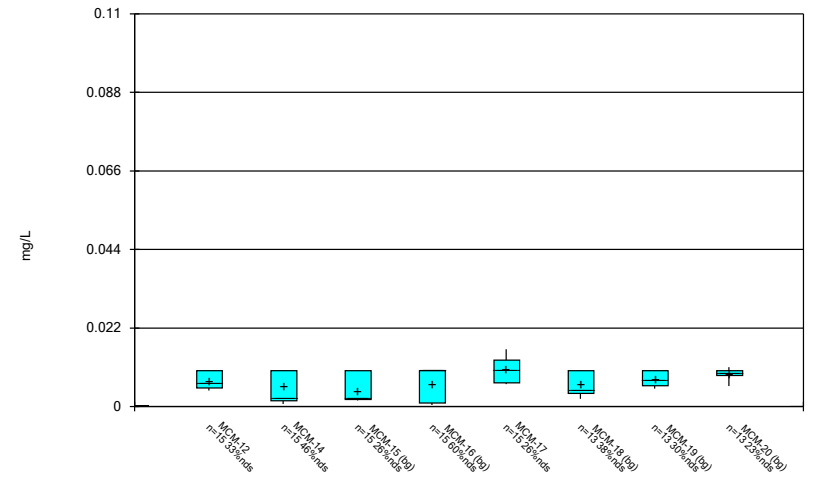
Constituent: Chloride Analysis Run 5/25/2023 9:26 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



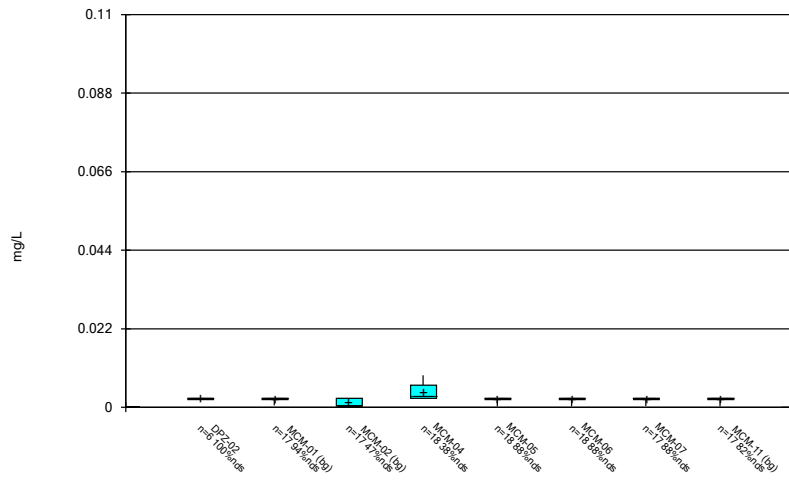
Constituent: Chromium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



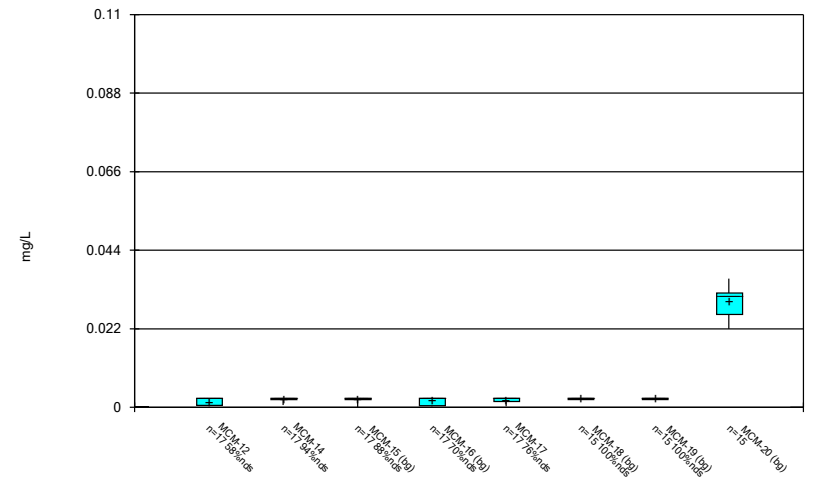
Constituent: Chromium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

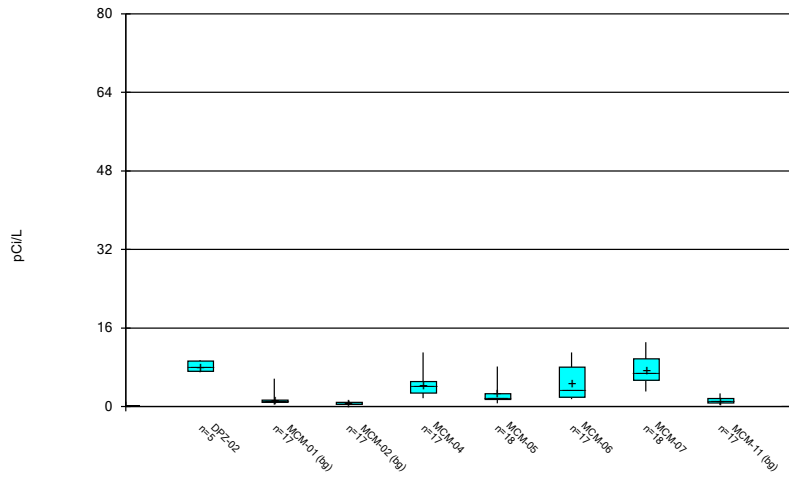
### Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

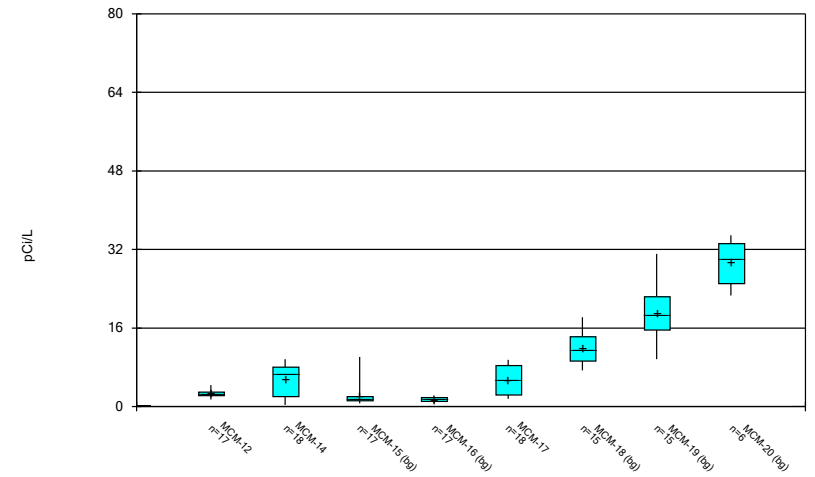


Box & Whiskers Plot



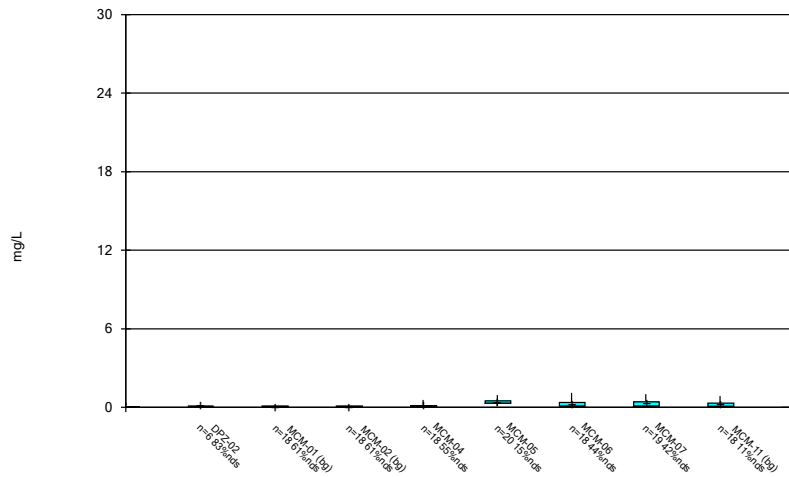
Constituent: Combined Radium 226 + 228 Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



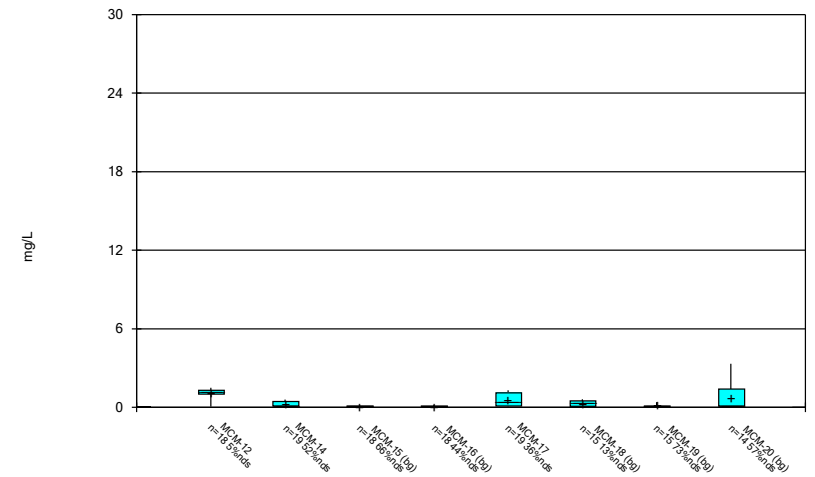
Constituent: Combined Radium 226 + 228 Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



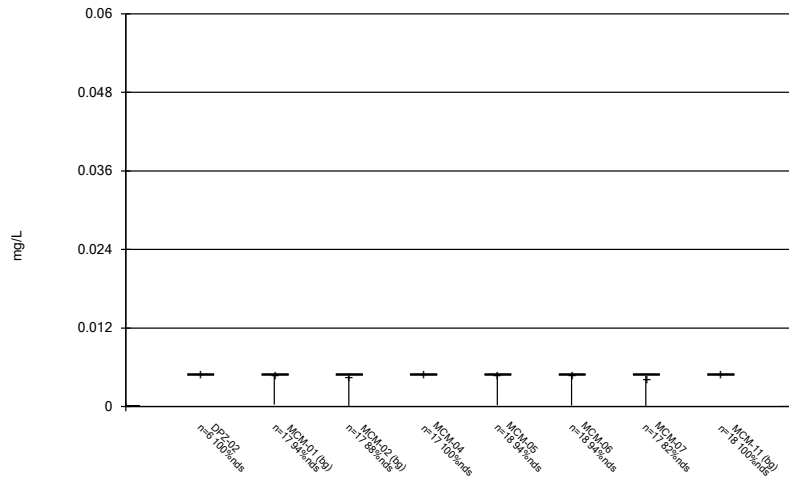
Constituent: Fluoride Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



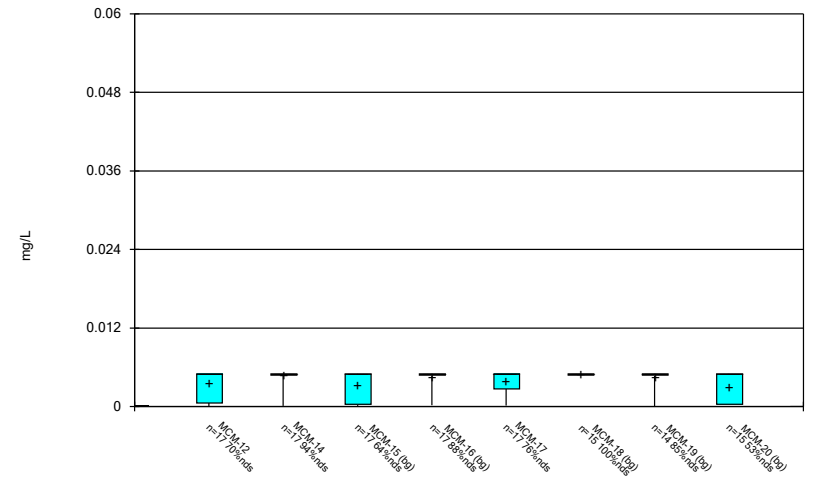
Constituent: Fluoride Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



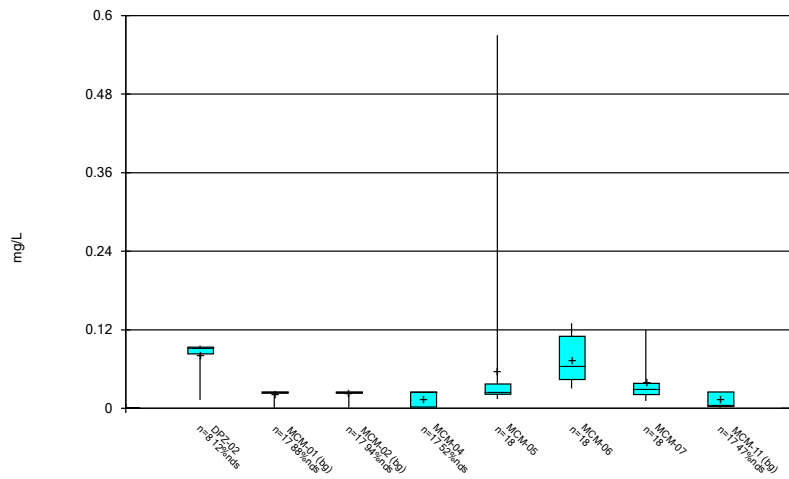
Constituent: Lead Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



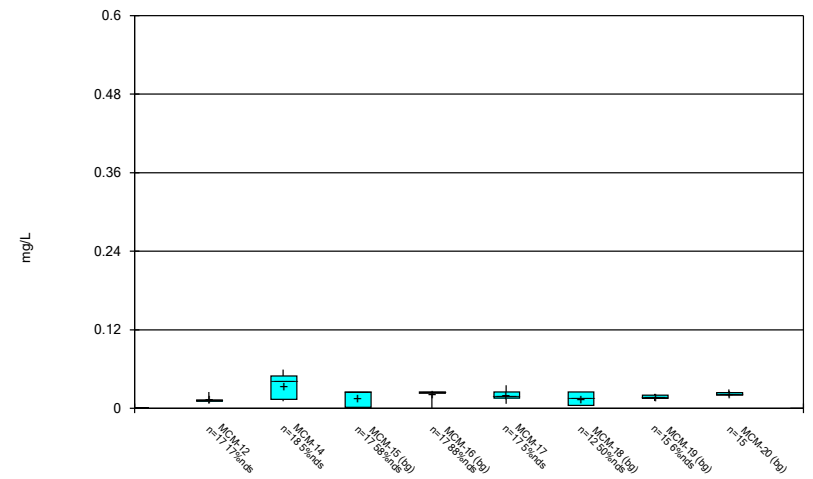
Constituent: Lead Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



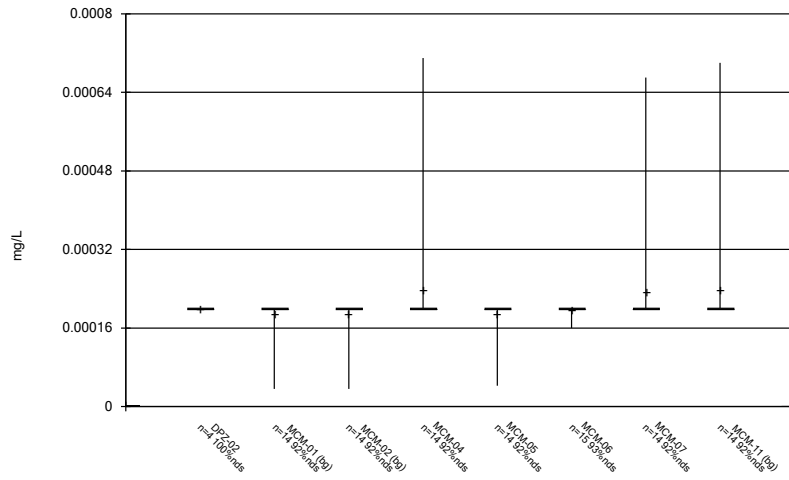
Constituent: Lithium Analysis Run 5/25/2023 9:26 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



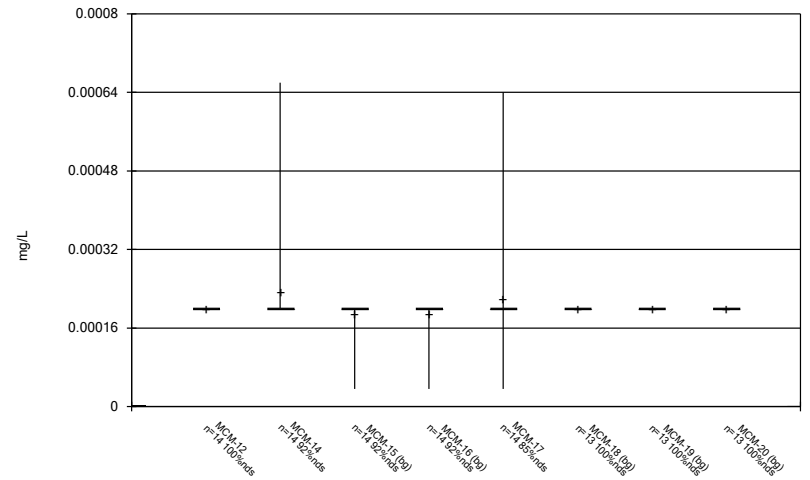
Constituent: Lithium Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



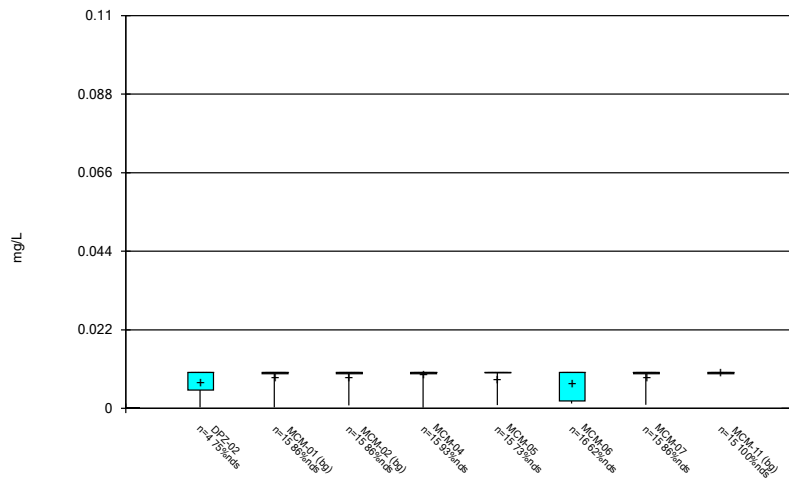
Constituent: Mercury Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



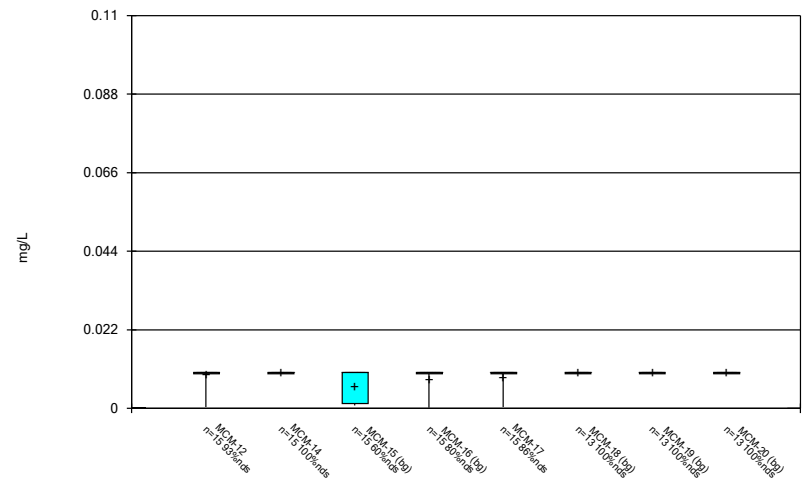
Constituent: Mercury Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



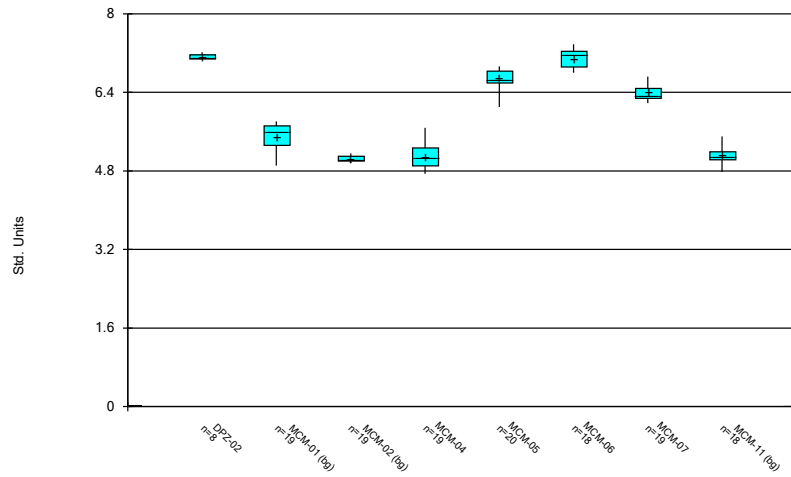
Constituent: Molybdenum Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



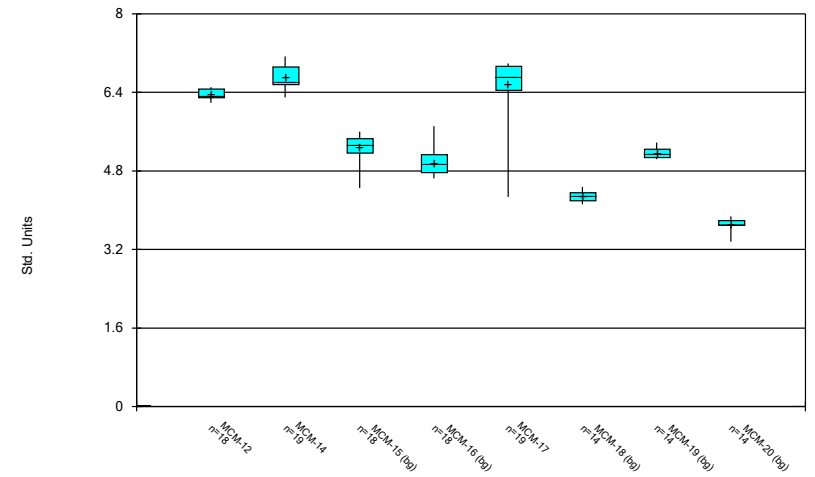
Constituent: Molybdenum Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



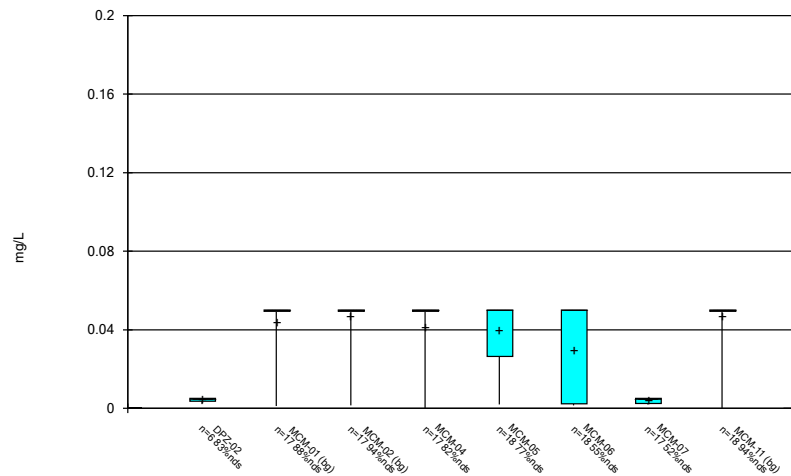
Constituent: pH, field Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



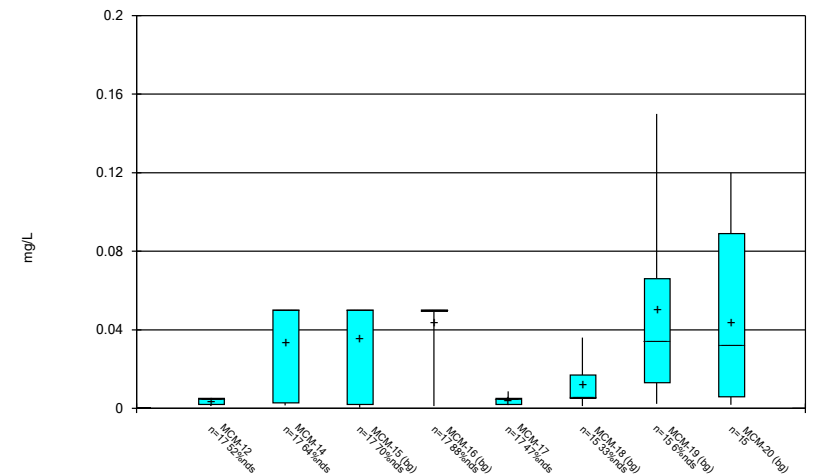
Constituent: pH, field Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



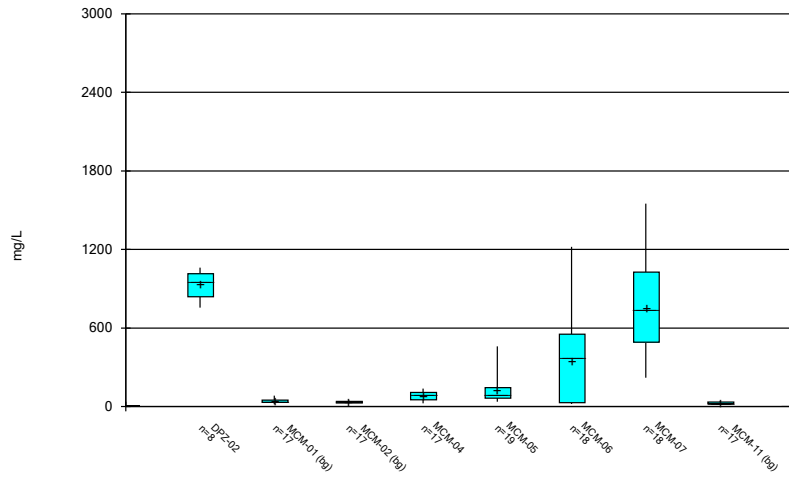
Constituent: Selenium Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



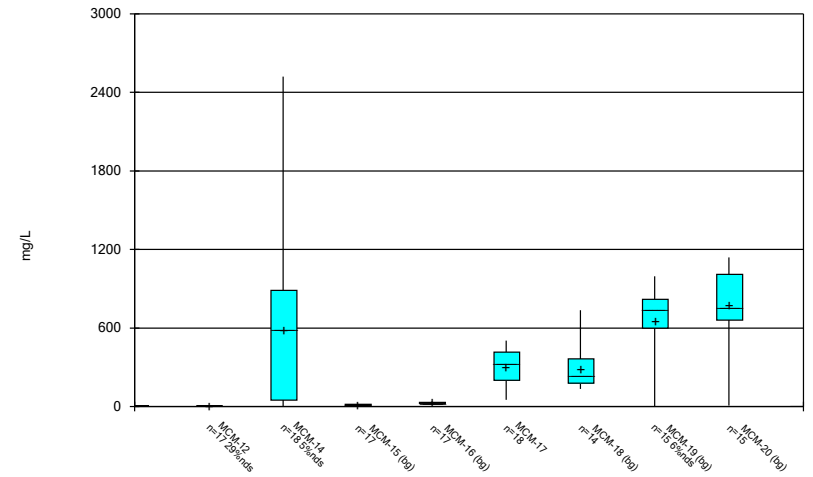
Constituent: Selenium Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



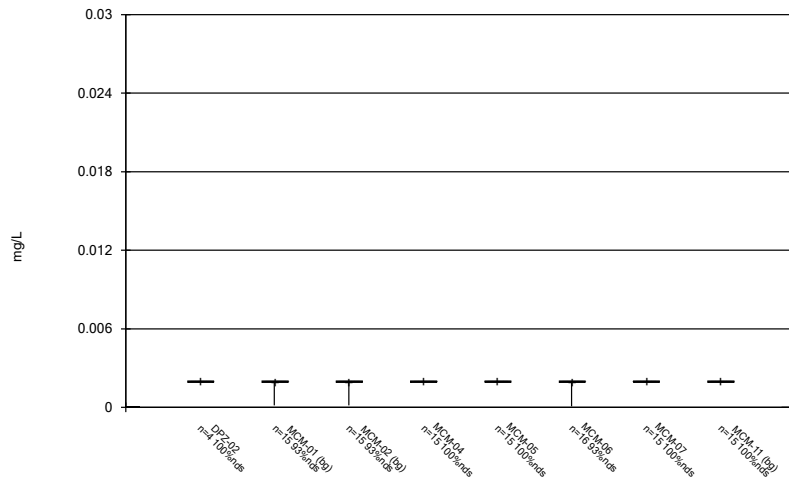
Constituent: Sulfate Analysis Run 5/25/2023 9:27 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



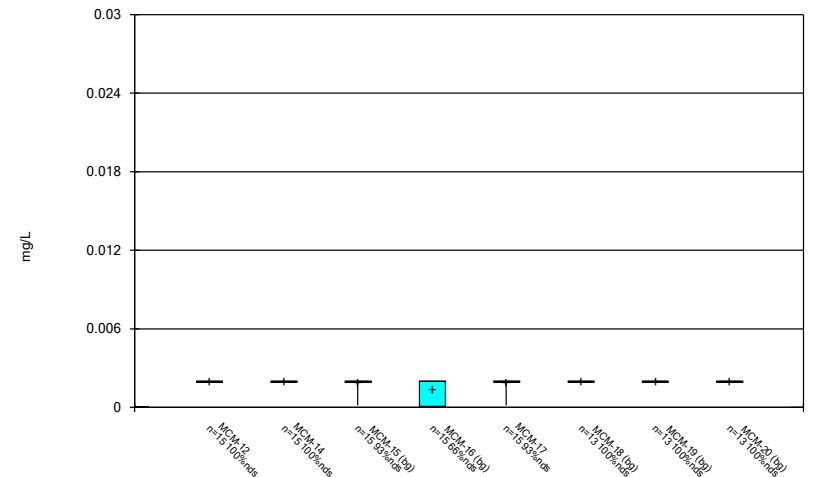
Constituent: Sulfate Analysis Run 5/25/2023 9:27 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



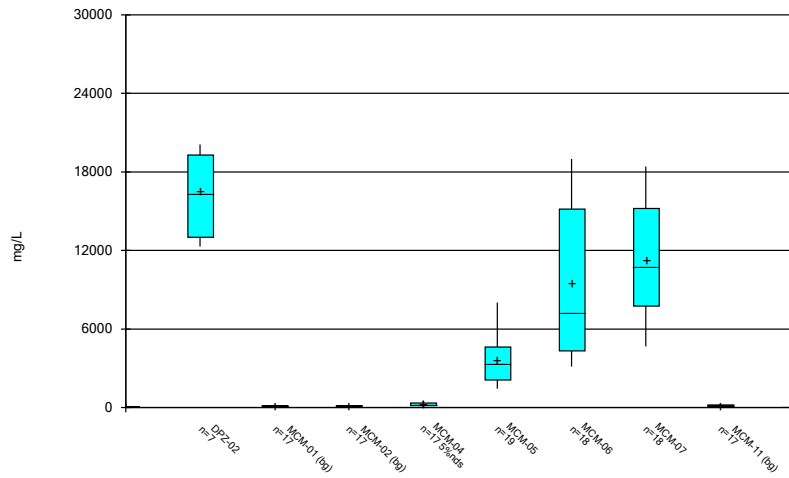
Constituent: Thallium Analysis Run 5/25/2023 9:27 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



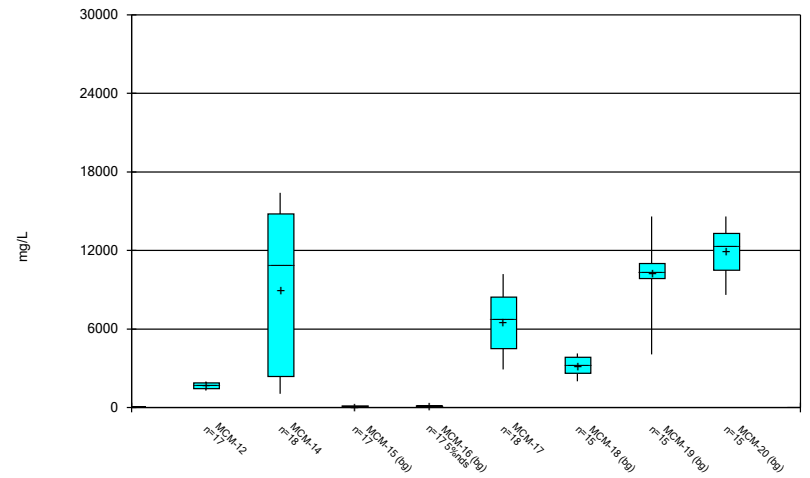
Constituent: Thallium Analysis Run 5/25/2023 9:27 AM  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/25/2023 9:27 AM  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE C.

# Outlier Summary

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/10/2023, 11:20 AM

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	MCM-19 Cadmium (mg/L)	MCM-20 Combined Radium 226 + 228 (pCi/L)	MCM-06 Fluoride (mg/L)	MCM-20 Fluoride (mg/L)	MCM-19 Lead (mg/L)	MCM-18 Lithium (mg/L)
11/7/2018		10.3 (o)				
11/18/2019					<0.1 (o)	
1/21/2020					<0.15 (o)	
2/4/2020					<0.3 (o)	
2/13/2020	76.3 (o)				<0.025 (o)	
9/20/2022	0.0083 (o)		4.3 (Jo)			



FIGURE D.

# Appendix III - Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:24 PM

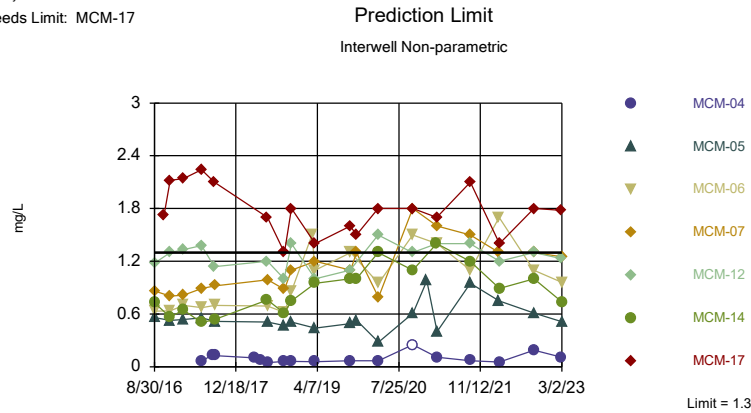
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MCM-17	1.3	n/a	2/28/2023	1.78	Yes	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-07	169	n/a	3/2/2023	194	Yes	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-05	5.81	3.36	3/2/2023	6.55	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-06	5.81	3.36	3/2/2023	7.38	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-07	5.81	3.36	3/2/2023	6.28	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-12	5.81	3.36	2/28/2023	6.28	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-14	5.81	3.36	3/2/2023	6.53	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-17	5.81	3.36	2/28/2023	6.62	Yes	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-14	1140	n/a	3/2/2023	2520	Yes	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2

# Appendix III - Interwell Prediction Limits - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 5/7/2023, 8:24 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)	MCM-04	1.3	n/a	3/1/2023	0.108	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-05	1.3	n/a	3/2/2023	0.511	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-06	1.3	n/a	3/2/2023	0.961	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-07	1.3	n/a	3/2/2023	1.25	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-12	1.3	n/a	2/28/2023	1.23	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Boron (mg/L)	MCM-14	1.3	n/a	3/2/2023	0.738	No	130	n/a	n/a	7.692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>MCM-17</b>	<b>1.3</b>	<b>n/a</b>	<b>2/28/2023</b>	<b>1.78</b>	<b>Yes</b>	<b>130</b>	<b>n/a</b>	<b>n/a</b>	<b>7.692</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001172</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-04	169	n/a	3/1/2023	7.75	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-05	169	n/a	3/2/2023	25.9	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-06	169	n/a	3/2/2023	36.1	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MCM-07</b>	<b>169</b>	<b>n/a</b>	<b>3/2/2023</b>	<b>194</b>	<b>Yes</b>	<b>131</b>	<b>n/a</b>	<b>n/a</b>	<b>0.7634</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001155</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MCM-12	169	n/a	2/28/2023	5.17	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-14	169	n/a	3/2/2023	48	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Calcium (mg/L)	MCM-17	169	n/a	2/28/2023	94.2	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-04	8130	n/a	3/1/2023	45.6	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-05	8130	n/a	3/2/2023	853	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-06	8130	n/a	3/2/2023	1470	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-07	8130	n/a	3/2/2023	5450	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-12	8130	n/a	2/28/2023	518	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-14	8130	n/a	3/2/2023	1810	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Chloride (mg/L)	MCM-17	8130	n/a	2/28/2023	2770	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-04	3.32	n/a	3/1/2023	0.1ND	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-05	3.32	n/a	3/2/2023	0.388J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.32	n/a	3/2/2023	0.419J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-07	3.32	n/a	3/2/2023	0.44J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-12	3.32	n/a	2/28/2023	1.21J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-14	3.32	n/a	3/2/2023	0.188J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-17	3.32	n/a	2/28/2023	0.815J	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
pH, field (Std. Units)	MCM-04	5.81	3.36	3/1/2023	4.93	No	134	n/a	n/a	0	n/a	n/a	0.0002203	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-05</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.55</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>7.38</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.28</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-12</b>	<b>5.81</b>	<b>3.36</b>	<b>2/28/2023</b>	<b>6.28</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>5.81</b>	<b>3.36</b>	<b>3/2/2023</b>	<b>6.53</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH, field (Std. Units)</b>	<b>MCM-17</b>	<b>5.81</b>	<b>3.36</b>	<b>2/28/2023</b>	<b>6.62</b>	<b>Yes</b>	<b>134</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002203</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-04	1140	n/a	3/1/2023	44.2	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-05	1140	n/a	3/2/2023	84.2	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-06	1140	n/a	3/2/2023	157	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-07	1140	n/a	3/2/2023	640	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MCM-12	1140	n/a	2/28/2023	1.33	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>MCM-14</b>	<b>1140</b>	<b>n/a</b>	<b>3/2/2023</b>	<b>2520</b>	<b>Yes</b>	<b>129</b>	<b>n/a</b>	<b>n/a</b>	<b>0.7752</b>	<b>n/a</b>	<b>n/a</b>	<b>0.000119</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-17	1140	n/a	2/28/2023	334	No	129	n/a	n/a	0.7752	n/a	n/a	0.000119	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-04	14600	n/a	3/1/2023	142	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-05	14600	n/a	3/2/2023	1710	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	3/2/2023	3120	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-07	14600	n/a	3/2/2023	10500	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-12	14600	n/a	2/28/2023	1290	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-14	14600	n/a	3/2/2023	3280	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-17	14600	n/a	2/28/2023	6810	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2

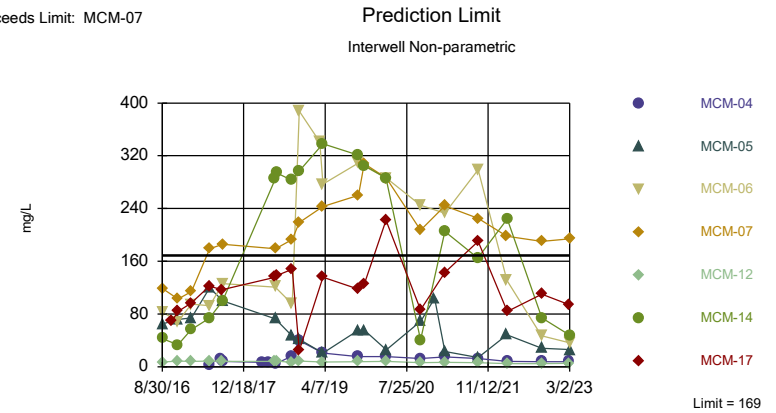
Sanitas™ v.9.6.37 . UG  
Hollow symbols indicate censored values.  
Exceeds Limit: MCM-17



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 7.692% NDs. Annual per-constituent alpha = 0.00164. Individual comparison alpha = 0.0001172 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

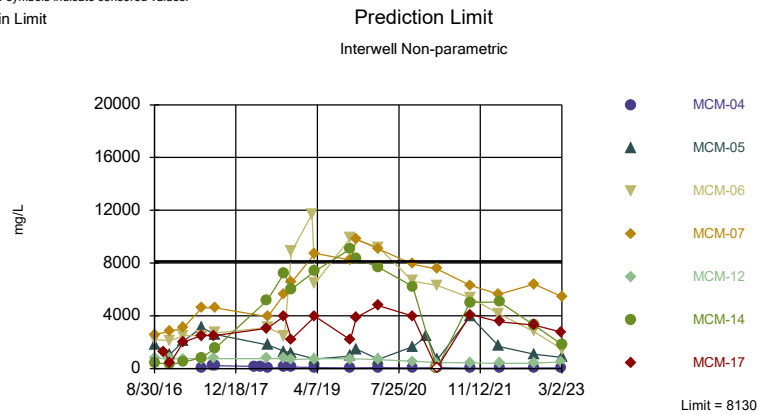
Sanitas™ v.9.6.37 . UG  
Exceeds Limit: MCM-07



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 131 background values. 0.7634% NDs. Annual per-constituent alpha = 0.001615. Individual comparison alpha = 0.0001155 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

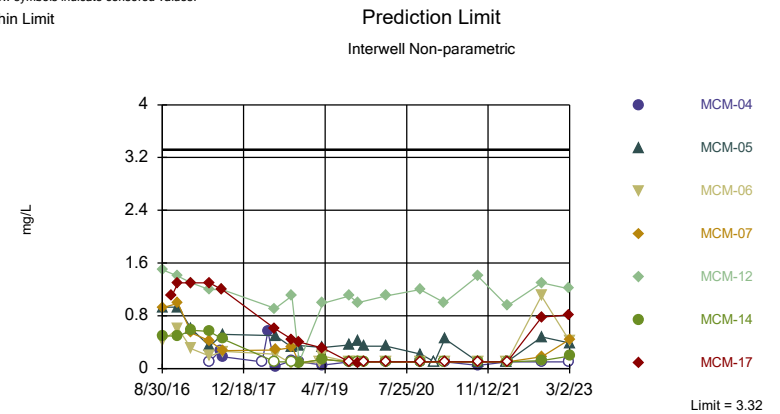
Sanitas™ v.9.6.37 . UG  
Hollow symbols indicate censored values.  
Within Limit



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 0.7692% NDs. Annual per-constituent alpha = 0.00164. Individual comparison alpha = 0.0001172 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.37 . UG  
Hollow symbols indicate censored values.  
Within Limit

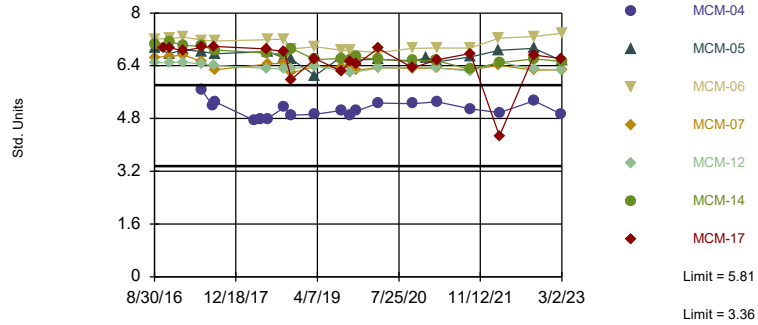


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 48.51% NDs. Annual per-constituent alpha = 0.001541. Individual comparison alpha = 0.0001102 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-17

### Prediction Limit Interwell Non-parametric

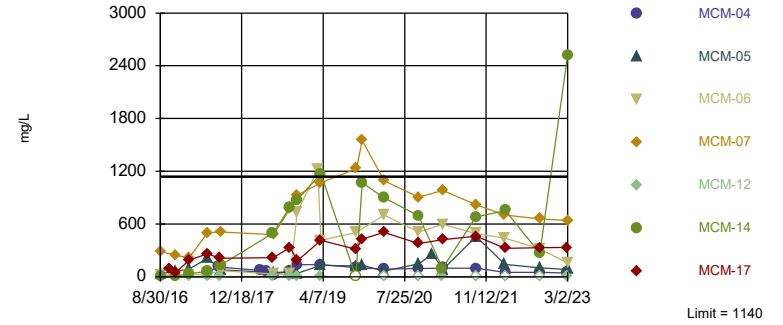


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 134 background values. Annual per-constituent alpha = 0.003082. Individual comparison alpha = 0.0002203 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.  
Exceeds Limit: MCM-14

### Prediction Limit Interwell Non-parametric



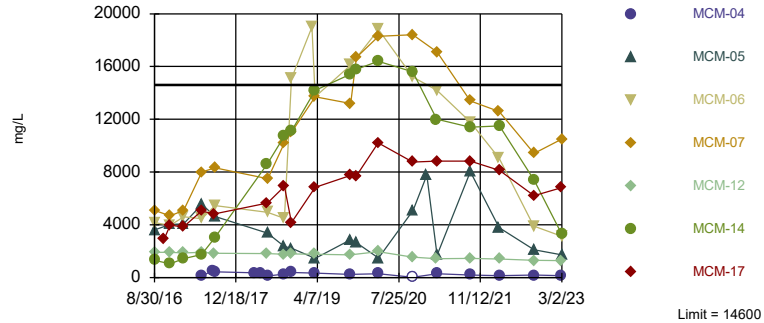
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 129 background values. 0.7752% NDs. Annual per-constituent alpha = 0.001665. Individual comparison alpha = 0.000119 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Within Limit

### Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 0.7692% NDs. Annual per-constituent alpha = 0.00164. Individual comparison alpha = 0.0001172 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/7/2023 8:20 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	0.0325 (J)	1.18	0.0972 (J)	0.726					
8/31/2016					0.56	0.632	0.863		
10/25/2016								1.73	
11/30/2016	0.0334 (J)	1.3	0.0964	0.565	0.529	0.637	0.804	2.12	
2/15/2017	0.254	1.33	0.398	0.647				2.14	
2/16/2017					0.539	0.698	0.815		
5/31/2017		1.38		0.503				2.24	0.0521
6/1/2017	0.0564		0.0776						
6/2/2017					0.555	0.674	0.891		
8/2/2017									0.0392 (J)
8/15/2017		1.14						2.1	0.0448
8/16/2017	0.0435			0.539					
8/17/2017			0.0853		0.516	0.7	0.922		
4/4/2018									0.046
4/5/2018									
5/8/2018									0.048
5/9/2018									
6/19/2018	0.04 (J)	1.2		0.76				1.7	0.04
6/20/2018			0.079		0.51	0.69			
6/21/2018							0.99		
9/25/2018		1		0.61					0.043
9/26/2018	0.038 (J)		0.072					1.3	
9/27/2018					0.47	0.62	0.88		
11/6/2018				0.75			1.1	1.8	0.046
11/7/2018	0.037 (J)	1.4	0.074		0.51	0.86			
3/6/2019						1.5			
3/24/2019		1		0.95	0.44	1.1	1.2	1.4	
3/25/2019	0.038 (J)		0.067						0.03 (J)
10/15/2019		1.1		1					
10/16/2019	0.036 (J)		0.051		0.49			1.6	0.032 (J)
10/17/2019						1.3	1.1		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					0.53		1.3		
11/21/2019				1				1.5	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	0.064 (J)								
3/27/2020		1.5	0.088 (J)	1.3				1.8	0.058 (J)
3/28/2020					0.28 (J)	0.95	0.79		
10/12/2020		1.3							<0.5
10/13/2020	<0.5		<0.5	1.1				1.8	
10/14/2020						1.5	1.8		
10/15/2020					0.61				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					0.98				
3/2/2021		1.4 (J)		1.4 (J)					
3/3/2021	<2.5		<0.5					1.7 (J)	<2.5
3/4/2021					0.4 (J)	1.4 (J)	1.6 (J)		
9/13/2021		1.4 (M1)		1.2					
9/14/2021	0.079 (J)		0.071 (J)		0.95 (J)	1.1	1.5	2.1 (M1)	0.06 (J)
3/1/2022					0.75 (J)	1.7			
3/2/2022	0.048 (J)						1.3		0.038 (J)
3/3/2022		1.2	0.057	0.89 (J)				1.4	
9/20/2022						1.1			
9/21/2022	0.35 (J)	1.3	0.12 (J)	1	0.61		1.3	1.8	0.17 (J)
2/28/2023		1.23						1.78	
3/1/2023	0.091		0.0669						0.0461
3/2/2023				0.738	0.511	0.961	1.25		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.161					
6/1/2017		0.0608				
6/2/2017			0.0495			
8/2/2017	0.158	0.137	0.0333 (J)			
8/15/2017						
8/16/2017	0.148					
8/17/2017		0.128	0.0593			
4/4/2018		0.1	0.065			
4/5/2018	0.13					
5/8/2018		0.074	0.062			
5/9/2018	0.12					
6/19/2018	0.13		0.064			
6/20/2018		0.045				
6/21/2018						
9/25/2018						
9/26/2018	0.1		0.06			
9/27/2018		0.06				
11/6/2018		0.06				
11/7/2018	0.1		0.062 (J)			
3/6/2019						
3/24/2019						
3/25/2019	0.091	0.058	0.057			
10/15/2019		0.068	0.046			
10/16/2019	0.085					
10/17/2019						
11/7/2019				0.27	1.1	0.84
11/18/2019				0.29 (J)		
11/19/2019					1.3	0.83
11/20/2019						
11/21/2019						
12/4/2019					0.81	0.68
12/5/2019				0.23		
12/17/2019						0.57
12/18/2019				0.23	0.77	
1/8/2020					0.9	0.73
1/9/2020				0.2		
1/21/2020				0.24 (J)	0.94	0.75
2/4/2020				0.24 (J)	0.96 (J)	0.79 (J)
2/13/2020				0.22	0.88	0.74
3/26/2020						
3/27/2020	0.17 (J)		0.076 (J)	0.24 (J)	0.94	0.96
3/28/2020		0.067 (J)				
10/12/2020				0.24 (J)		
10/13/2020	<0.5	<0.5	<0.5		1.1	0.73
10/14/2020						
10/15/2020						



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			<2.5			
3/3/2021	<2.5			0.21 (J)	0.91 (J)	0.79 (J)
3/4/2021		0.11 (J)				
9/13/2021						
9/14/2021	0.093 (J)	0.07 (J)	0.068 (J)	0.2 (J)	0.91 (J)	1.2
3/1/2022					0.87 (J)	0.41 (J)
3/2/2022	0.086		0.054	0.23 (J)		
3/3/2022		0.053				
9/20/2022				0.18 (J)	0.9	0.77
9/21/2022	0.23 (J)	0.19 (J)	0.14 (J)			
2/28/2023				0.185	0.723	0.707
3/1/2023	0.115	0.108				
3/2/2023			0.0416			

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-07	MCM-05	MCM-06	MCM-17	MCM-11 (bg)
8/30/2016	7.3	7.05	42.8	4.02					
8/31/2016					119	65	82.8		
10/25/2016								69.4	
11/30/2016	10.8	8.69	33.2	4.87	103	71.7	68.7	83.9	
2/15/2017	14.3	8.34	56.1	6.61				96.3	
2/16/2017					114	74	94.8		
5/31/2017		8.85	73.6					122	18.6
6/1/2017	12.7 (J)			6.42					
6/2/2017					179	120	92.5		
8/2/2017									18.5
8/15/2017		8.05						117	4.09
8/16/2017	8.7		99.6						
8/17/2017				5.62	186	100	126		
4/4/2018									<25
4/5/2018									
5/8/2018									18.4 (J)
5/9/2018									
6/19/2018	11.6 (J)	8.3	285					136	4.3
6/20/2018				5.7		72.8	121		
6/21/2018					179				
6/28/2018	13	8.9	294					138	
9/25/2018		6.8	283						6.2 (D)
9/26/2018	12.8 (J)			5.3				148	
9/27/2018					193	46.6	95.1		
11/6/2018			297		219			24.7	1.8
11/7/2018	11.9	8.5		5.3		41.8	387.5 (D)		
3/6/2019							341		
3/24/2019		7.4	338		243	20.9 (J)	277	136	
3/25/2019	12.6 (J)			5.7					2.5 (D)
10/15/2019		7.9	321						
10/16/2019	13.6			4.8		55.2		118	2.2
10/17/2019					260		309		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					308	55.8			
11/21/2019			305					125	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	10.1								
3/27/2020		8.3	286	5.4				222	3.3
3/28/2020					286	25.8	286		
10/12/2020		6.1							2.8
10/13/2020	9.8		40.9	5.7				86.4	
10/14/2020					207		245		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-14	MCM-16 (bg)	MCM-07	MCM-05	MCM-06	MCM-17	MCM-11 (bg)
10/15/2020						69.1			
1/4/2021						104			
3/3/2021	14								
3/4/2021		6.5	205	11.2	244	23.4	233	143	2.1
9/13/2021		6	165						
9/14/2021	9.6			6.5	225	13.9	299	190	14
3/1/2022						48.4	131		
3/2/2022	8.2				198				6.8
3/3/2022		4.6	224	5.4				84	
9/20/2022							47		
9/21/2022	9.2	4.7	74	4.6	190	28		110	7.6
2/28/2023		5.17						94.2	
3/1/2023	7.87			4.74					6.53
3/2/2023			48		194	25.9	36.1		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.9					
6/1/2017		3.65				
6/2/2017			2.77			
8/2/2017	4.69	12.4	1.27			
8/15/2017						
8/16/2017	5.25					
8/17/2017		8.17	5.53			
4/4/2018		6.8	6.5			
4/5/2018	5					
5/8/2018		5.7	6.7			
5/9/2018	4.7					
6/19/2018	4.8		7.4			
6/20/2018		4.3				
6/21/2018						
6/28/2018						
9/25/2018						
9/26/2018	4.6		8.5 (J)			
9/27/2018		16.4 (J)				
11/6/2018		39.5				
11/7/2018	4.6		9.8			
3/6/2019						
3/24/2019						
3/25/2019	4.7	20.8 (J)	7.8			
10/15/2019		15.5	6.7			
10/16/2019	4.9					
10/17/2019						
11/7/2019				158	46.2	163
11/18/2019					41.8	
11/19/2019				152		169
11/20/2019						
11/21/2019						
12/4/2019				142		140
12/5/2019					40.5	
12/17/2019				136		
12/18/2019					42	145
1/8/2020				147		157
1/9/2020					37.1	
1/21/2020				167	40.1	152
2/4/2020				142	36.2	139
2/13/2020				148	38.9	146
3/26/2020						
3/27/2020	4.9		5.9	122	23.2	113
3/28/2020		15.5				
10/12/2020					19.1	
10/13/2020	3.8	12.5	0.83	125		128
10/14/2020						

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-19 (bg)	MCM-18 (bg)	MCM-20 (bg)
10/15/2020						
1/4/2021						
3/3/2021	4					
3/4/2021		15.1	1.4	123	26	110
9/13/2021						
9/14/2021	4.2	12.5	6.7	93.6	18.8	61.1
3/1/2022				35.5		99.8
3/2/2022	4.1		7.2		22.3	
3/3/2022		8				
9/20/2022				150	20	100
9/21/2022	4.3	7.8	0.83			
2/28/2023				150	22.5	104
3/1/2023	5.26	7.75				
3/2/2023			1.41			

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	9.7	800	26	450					
8/31/2016					1800	2200	2600		
10/25/2016								1300	
11/30/2016	19	760	27	310	1100	2100	2800	400	
2/15/2017	21	740	30	490				2000	
2/16/2017					2100	2500	3100		
5/31/2017		740		820				2500	98
6/1/2017	12		27						
6/2/2017					3100	2500	4600		
8/2/2017									57
8/15/2017		750						2500	15
8/16/2017	14			1500					
8/17/2017			32		2600	2700	4600		
4/4/2018									69
4/5/2018									
5/8/2018									72.3
5/9/2018									
6/19/2018	24.4	760		5180				3050	17.3
6/20/2018			30		1800	3100			
6/21/2018							3920		
9/25/2018		752 (D)		7220					31.3
9/26/2018	23.4		28.4					3965 (D)	
9/27/2018					1300	2510 (D)	5660 (D)		
11/6/2018				6020			6520	2230	9.8
11/7/2018	21.8	665	25.1		1180	8860			
3/6/2019						11700			
3/24/2019		744		7400	717	6470	8720	3960	
3/25/2019	19.4		21.8						12.9
10/15/2019		744		9050					
10/16/2019	21.4		20		941 (D)			2181.5 (D)	12.2
10/17/2019						9930	8210		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					1480		9810		
11/21/2019				8330				3890	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	23								
3/27/2020		675	23.6	7680				4770	14.5
3/28/2020					693	9190	9070		
10/12/2020		552							13.9
10/13/2020	13.5		23.3	6230				3980	
10/14/2020						6630	7910		
10/15/2020					1660				

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					2460				
3/2/2021		459		<1					
3/3/2021	13.6		27.6					<1	9.4
3/4/2021					652	6310	7540		
9/13/2021		433		5010					
9/14/2021	16.7		30		3940	5360	6300	4090	62.8
3/1/2022					1680	4150			
3/2/2022	13.4						5630		28.4
3/3/2022		394	26.5	5040				3540	
9/20/2022						2800			
9/21/2022	17	400	17	3300	1100		6400	3300	32
2/28/2023		518						2770	
3/1/2023	14.9		14.2						17.7
3/2/2023				1810	853	1470	5450		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	39					
6/1/2017		22				
6/2/2017			11			
8/2/2017	42	230	3.2			
8/15/2017						
8/16/2017	41					
8/17/2017		210	12			
4/4/2018		156	13.4			
4/5/2018	40.2					
5/8/2018		140	13.2			
5/9/2018	40.6					
6/19/2018	37.7		13.7			
6/20/2018		27.5				
6/21/2018						
9/25/2018						
9/26/2018	33.4		18.5			
9/27/2018		101				
11/6/2018		107				
11/7/2018	30.7		20.2			
3/6/2019						
3/24/2019						
3/25/2019	33.5	78.5	19.7			
10/15/2019		46	17.1			
10/16/2019	33.1					
10/17/2019						
11/7/2019				2360	7880	6170
11/18/2019				6970		
11/19/2019					8130	5650
11/20/2019						
11/21/2019						
12/4/2019					7410	6100
12/5/2019				2130		
12/17/2019						5660
12/18/2019				2090	7170	
1/8/2020					6480	5070
1/9/2020				1750		
1/21/2020				1630	6000	5010
2/4/2020				1760	5700	5030
2/13/2020				1850	7060	6140
3/26/2020						
3/27/2020	32.9		14.1	1450	7110	6870
3/28/2020		71.4				
10/12/2020				1340		
10/13/2020	25.7	54.4	3.8		5980	5260
10/14/2020						
10/15/2020						



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			4.2			
3/3/2021	20.5			1230	<1	5170
3/4/2021		69.6				
9/13/2021						
9/14/2021	21.8	28.5	13.6	1020	5100	7250
3/1/2022					4900	1870
3/2/2022	20.6		14.3	1420		
3/3/2022		12.2				
9/20/2022				1200	5700	6200
9/21/2022	23	47	3.3			
2/28/2023				1250	7930	5760
3/1/2023	21.8	45.6				
3/2/2023			4.88			

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	0.03 (J)	1.5	0.04 (J)	0.5					
8/31/2016					0.93	0.41	0.92		
10/25/2016								1.1	
11/30/2016	0.04 (J)	1.4	0.18 (J)	0.49	0.93	0.61	0.99	1.3	
2/15/2017	0.007 (J)	1.3	0.02 (J)	0.58				1.3	
2/16/2017					0.6	0.3 (J)	0.54		
5/31/2017		1.2		0.56				1.3	0.85
6/1/2017	<0.1		0.005 (J)						
6/2/2017					0.34	0.19 (J)	0.42		
8/2/2017									0.69
8/15/2017		1.2						1.2	0.29 (J)
8/16/2017	0.03 (J)			0.45					
8/17/2017			0.04 (J)		0.52	0.26 (J)	0.27 (J)		
4/4/2018									0.32
4/5/2018									
5/8/2018									0.63
5/9/2018									
6/19/2018	<0.1	0.91		<0.1				0.6	0.17 (J)
6/20/2018			0.038 (J)		0.5	0.22 (J)			
6/21/2018							0.28 (J)		
9/25/2018		1.1		<0.1					0.15 (J)
9/26/2018	0.12 (J)		0.029					0.44 (D)	
9/27/2018					0.32	0.068 (J)	0.32 (D)		
11/6/2018				0.084 (J)			0.086 (J)	0.4	<0.1
11/7/2018	<0.1	<0.1	<0.1		0.35	10.3 (o)			
3/6/2019						<0.1			
3/24/2019		0.99		0.14 (J)	0.32	0.19 (J)	0.14 (J)	0.31	
3/25/2019	0.038 (J)		0.041 (J)						0.12 (J)
8/26/2019				<0.1					
8/27/2019	<0.1	1.1	<0.1					<0.1	
8/28/2019					0.36	<0.1	<0.1		0.068 (J)
10/15/2019		1		<0.1					
10/16/2019	0.046 (JD)		0.044 (J)		0.41			0.083 (J)	0.1 (J)
10/17/2019						<0.1	<0.1		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					0.34		<0.1		
11/21/2019				<0.1				<0.1	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	<0.1								
3/27/2020		1.1	<0.1	<0.1				<0.1	0.066 (J)
3/28/2020					0.34	<0.1	<0.1		
10/12/2020		1.2							<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
10/13/2020	<0.1		<0.1	<0.1				<0.1	
10/14/2020						<0.1	<0.1		
10/15/2020					0.22				
1/4/2021					<0.1				
3/2/2021		1		<0.1					
3/3/2021	<0.1		<0.1					<0.1	0.082 (J)
3/4/2021					0.45	<0.1	<0.1		
9/13/2021		1.4		<0.1					
9/14/2021	<0.1		<0.1		<0.1	<0.1	<0.1	<0.1	0.18
3/1/2022					<0.1	<0.1			
3/2/2022	<0.1						<0.1		0.097 (J)
3/3/2022		0.95	<0.1	<0.1				<0.1	
9/20/2022						1.1 (J)			
9/21/2022	<0.1	1.3	<0.1	0.12	0.48		0.18	0.78	0.11
2/28/2023		1.21 (J)						0.815 (J)	
3/1/2023	<0.1		0.0397 (J)						0.101 (J)
3/2/2023				0.188 (J)	0.388 (J)	0.419 (J)	0.44 (J)		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	0.01 (J)					
6/1/2017		<0.1				
6/2/2017			<0.1			
8/2/2017	0.14 (J)	0.27 (J)	0.05 (J)			
8/15/2017						
8/16/2017	0.13 (J)					
8/17/2017		0.18 (J)	<0.1			
4/4/2018		<0.1	<0.1			
4/5/2018	<0.1					
5/8/2018		0.56	<0.1			
5/9/2018	<0.1					
6/19/2018	0.065 (J)		0.057 (J)			
6/20/2018		0.033 (J)				
6/21/2018						
9/25/2018						
9/26/2018	0.029		0.029			
9/27/2018		0.12 (J)				
11/6/2018		<0.1				
11/7/2018	<0.1		<0.1			
3/6/2019						
3/24/2019						
3/25/2019	0.039 (J)	0.055 (J)	0.036 (J)			
8/26/2019						
8/27/2019		<0.1	<0.1			
8/28/2019	<0.1					
10/15/2019		0.095 (J)	0.14 (J)			
10/16/2019	0.044 (JD)					
10/17/2019						
11/7/2019				1.4	<0.1	0.49
11/18/2019						0.52
11/19/2019				1.2	0.033 (J)	
11/20/2019						
11/21/2019						
12/4/2019				1.4	0.22 (J)	
12/5/2019						0.5
12/17/2019					<0.1	
12/18/2019				1.5		0.33
1/8/2020				<0.1	<0.1	
1/9/2020						0.12 (J)
1/21/2020				0.53	0.11 (J)	0.13 (J)
2/4/2020				<0.1	<0.1	0.18 (J)
2/13/2020				<0.1	<0.1	0.077 (J)
3/26/2020						
3/27/2020	<0.1		<0.1	<0.1	<0.1	0.06 (J)
3/28/2020		<0.1				
10/12/2020						0.34

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-19 (bg)	MCM-18 (bg)
10/13/2020	<0.1	<0.1	<0.1	<0.1	<0.1	
10/14/2020						
10/15/2020						
1/4/2021						
3/2/2021			<0.1			
3/3/2021	<0.1			<0.1	<0.1	0.32
3/4/2021		<0.1				
9/13/2021						
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1	<0.1
3/1/2022				<0.1	<0.1	
3/2/2022	<0.1		<0.1			<0.1
3/3/2022		<0.1				
9/20/2022				4.3 (Jo)	<0.1	0.61 (J)
9/21/2022	<0.1	<0.1	<0.1			
2/28/2023				3.32 (J)	0.38 (J)	0.407 (J)
3/1/2023	<0.1	<0.1				
3/2/2023			0.0397 (J)			

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	5.66	5.18	7.04	6.49					
8/31/2016					6.93	7.21	6.66		
10/25/2016								6.95	
11/30/2016	5.36	4.96	7.13	6.5	6.77	7.23	6.69	6.95	
2/15/2017	5.25	5.13	7.02	6.51				6.85	
2/16/2017					6.89	7.27	6.72		
5/31/2017			7	6.45				6.96	5.29
6/1/2017	5.59	4.99							
6/2/2017					6.83	7.18	6.53		
8/2/2017									5.19
8/15/2017				6.41				6.99	5.19
8/16/2017	5.58		6.88						
8/17/2017		4.68			6.76	7.15	6.28		
4/4/2018									5.19
4/5/2018									
5/8/2018									5.3
5/9/2018									
6/19/2018	5.51		6.78	6.32				6.91	5.15
6/20/2018		4.77			6.83	7.19			
6/21/2018							6.45		
9/25/2018			6.75	6.31					5.13
9/26/2018	5.32	4.65						6.81	
9/27/2018					6.64	7.21	6.48		
11/6/2018			6.92				6.18	5.99	5.08
11/7/2018	5.72	4.99		6.3	6.6	6.91			
3/24/2019			6.59	6.4	6.1	6.98	6.38	6.62	
3/25/2019	5.75	5.13							5.05
8/26/2019			6.62						
8/27/2019	5.58	4.88		6.24				6.23	
8/28/2019					6.69	6.87	6.35		4.87
10/15/2019			6.58	6.19					
10/16/2019	5.72	4.89			6.64			6.54	5.05
10/17/2019						6.86	6.4		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019	5.77				6.58		6.27		
11/21/2019			6.67					6.44	
12/4/2019									
12/5/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	5.45								
3/27/2020		5.12	6.59	6.33				6.93	5.09
3/28/2020					6.6	6.8	6.35		
10/12/2020				6.35					5
10/13/2020	5.69	5.17	6.56					6.34	
10/14/2020						6.93	6.32		
10/15/2020					6.53				

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-14	MCM-12	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					6.66				
3/2/2021			6.55	6.34					
3/3/2021	5.81	5.71						6.58	5.07
3/4/2021					6.52	6.94	6.33		
9/13/2021			6.3	6.24					
9/14/2021	5.13	4.69			6.67	6.94	6.28	6.77	5.5
3/1/2022					6.87	7.24			
3/2/2022	5.32						6.41		5.11
3/3/2022		4.88	6.49	6.51				4.27	
9/20/2022						7.29			
9/21/2022	4.95	4.91	6.61	6.3	6.93		6.27	6.72	4.97
2/28/2023				6.28				6.62	
3/1/2023	4.91	4.76							4.78
3/2/2023			6.53		6.55	7.38	6.28		

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	5.06					
6/1/2017		5.68				
6/2/2017			5.31			
8/2/2017	5	5.2	5.05			
8/15/2017						
8/16/2017	4.98					
8/17/2017		5.31	5.52			
4/4/2018		4.74	5.45			
4/5/2018	5.02					
5/8/2018		4.78	5.54			
5/9/2018	4.96					
6/19/2018	5.02		5.6			
6/20/2018		4.79				
6/21/2018						
9/25/2018						
9/26/2018	5.06		5.17			
9/27/2018		5.14				
11/6/2018		4.9				
11/7/2018	5.03		5.47			
3/24/2019			5.4			
3/25/2019	5.08	4.93				
8/26/2019						
8/27/2019		5.05	5.35			
8/28/2019	4.99					
10/15/2019		4.89	5.32			
10/16/2019	4.98					
10/17/2019						
11/7/2019				4.25	3.79	5.21
11/18/2019				4.12		
11/19/2019	5.11				3.78	5.15
11/20/2019		5.03				
11/21/2019						
12/4/2019					3.87 (D)	5.28 (D)
12/5/2019				4.17 (D)		
1/8/2020					3.77	5.04
1/9/2020				4.19		
1/21/2020				4.28	3.73	5.1
2/4/2020				4.26	3.72	5.15
2/13/2020				4.2	3.75	5.07
3/26/2020						
3/27/2020	5.12		5.3	4.34	3.81	5.14
3/28/2020		5.27				
10/12/2020				4.29		
10/13/2020	5.03	5.25	5.02		3.72	5.04
10/14/2020						
10/15/2020						



# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			5.16			
3/3/2021	5.06			4.37	3.36	5.1
3/4/2021		5.31				
9/13/2021						
9/14/2021	5.04	5.09	5.39	4.28	3.72	5.31
3/1/2022					3.69	5.38
3/2/2022	5.16		5.37	4.33		
3/3/2022		4.98				
9/20/2022				4.47	3.63	5.14
9/21/2022	5.14	5.34	5.23			
2/28/2023				4.42	3.7	5.08
3/1/2023	5.1	4.93				
3/2/2023			4.45			

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	17	4.3	24	6.4					
8/31/2016					37	21	290		
10/25/2016								84	
11/30/2016	33	7.6	26	4.5	63	19	240	52	
2/15/2017	83	3	30	37				190	
2/16/2017					90	22	220		
5/31/2017		2.5		61				260	40
6/1/2017	51		24						
6/2/2017					210	28	500		
8/2/2017									34
8/15/2017		3.2						210	24
8/16/2017	36			130					
8/17/2017			26		80	69	510		
4/4/2018									33.9
4/5/2018									
5/8/2018									35.7
5/9/2018									
6/19/2018	50.3	1.6		498				218	23.7
6/20/2018			31.2		46 (J)	33			
6/21/2018							481		
9/25/2018		1		790					25.6
9/26/2018	54.1		36.8					333 (D)	
9/27/2018					58.5 (J)	29.4 (D)	777 (D)		
11/6/2018				875			926	182	25.2
11/7/2018	45.6	0.41 (J)	35		41.3 (J)	734			
3/6/2019						1220 (J)			
3/24/2019		1.5		1170	131	413	1070	413	
3/25/2019	43		40.1						24.9
10/15/2019		0.54 (J)		<1					
10/16/2019	31.9		28.5		122.5 (D)			312.5 (D)	17.4
10/17/2019						507	1230		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					132		1550		
11/21/2019				1070				428	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	36.2								
3/27/2020		<1	31.2	899				504	23.4
3/28/2020					63.8	701	1090		
10/12/2020		<1							19.3
10/13/2020	32.3		26.8	695				378	
10/14/2020						510	904		
10/15/2020					147				

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					262				
3/2/2021		1.2		97.5					
3/3/2021	33.8		30.5					420	19.9
3/4/2021					82.2	596	982		
9/13/2021		<1		680					
9/14/2021	34.2		24.4		459	490	819	460	33.1
3/1/2022					143	440			
3/2/2022	30.8						702		19.5
3/3/2022		<5	20.4	754				324	
9/20/2022						320			
9/21/2022	39	<5	24	270	100		660	330	23
2/28/2023		1.33						334	
3/1/2023	45.3		25.8						21.4
3/2/2023				2520	84.2	157	640		

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	46					
6/1/2017		42				
6/2/2017			13			
8/2/2017	43	120	14			
8/15/2017						
8/16/2017	41					
8/17/2017		110	14			
4/4/2018		70.6	13.4			
4/5/2018	33.4					
5/8/2018		61.4	14.8			
5/9/2018	36					
6/19/2018	35.5		15.5			
6/20/2018		25.3				
6/21/2018						
9/25/2018						
9/26/2018	39.6		23			
9/27/2018		63.4				
11/6/2018		136				
11/7/2018	35.8		22.2			
3/6/2019						
3/24/2019						
3/25/2019	34.2	137	22.4			
10/15/2019		105	17.9			
10/16/2019	24.4					
10/17/2019						
11/7/2019				1010	379	832
11/18/2019					737	
11/19/2019				1140		795
11/20/2019						
11/21/2019						
12/4/2019				1020		810
12/5/2019					351	
12/17/2019						535
12/18/2019				8.1		
1/8/2020				747		603
1/9/2020					254	
1/21/2020				798	254	611
2/4/2020				1120	432	599
2/13/2020				833	300	761
3/26/2020						
3/27/2020	28.6		14.6	700	219	836
3/28/2020		86.6				
10/12/2020					191	
10/13/2020	27.6	92.3	7.6	638		609
10/14/2020						
10/15/2020						

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-20 (bg)	MCM-18 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			8			
3/3/2021	27.6			743	171	<1
3/4/2021		99.1				
9/13/2021						
9/14/2021	30.4	96.2 (M1)	16.7	659	134	995
3/1/2022				543		158
3/2/2022	25.7		16		186	
3/3/2022		50.6				
9/20/2022				750	160	740
9/21/2022	29	52	6.3			
2/28/2023				950	186	820
3/1/2023	27.4	44.2				
3/2/2023			8.12			

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
8/30/2016	86	1910	99	1310					
8/31/2016					3620	4160	5100		
10/25/2016								2900	
11/30/2016	131	1910	111	1050	4030	3950	4680	3970	
2/15/2017	212	1870	170	1440				3820	
2/16/2017					4080	4600	5080		
5/31/2017		1920		1740				5050	257
6/1/2017	103		98						
6/2/2017					5560	4470	8000		
8/2/2017									183
8/15/2017		1840						4820	90
8/16/2017	65			3010					
8/17/2017			84		4620	5450	8320		
4/4/2018									197
4/5/2018									
5/8/2018									225
5/9/2018									
6/19/2018	142	1820		8630				5640	112
6/20/2018			123		3370	4940			
6/21/2018							7500		
9/25/2018		1760		10700					137
9/26/2018	133		117					6920	
9/27/2018					2360	4480	10200		
11/6/2018				11100			11000	4160	89
11/7/2018	121	1800	120		2230	15100			
3/6/2019						19000			
3/24/2019		1770		14200	1450	13700	13700	6840	
3/25/2019	116		101						74
10/15/2019		1730		15400					
10/16/2019	104		95		2860			7740	82
10/17/2019						16100	13200		
11/7/2019									
11/18/2019									
11/19/2019									
11/20/2019					2640		16700		
11/21/2019				15800				7720	
12/4/2019									
12/5/2019									
12/17/2019									
12/18/2019									
1/8/2020									
1/9/2020									
1/21/2020									
2/4/2020									
2/13/2020									
3/26/2020	114								
3/27/2020		1970	110	16400				10200	87
3/28/2020					1470	18800	18300		
10/12/2020		1560							94
10/13/2020	113		115	15600				8750	
10/14/2020						15200	18400		
10/15/2020					5100				

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-12	MCM-16 (bg)	MCM-14	MCM-05	MCM-06	MCM-07	MCM-17	MCM-11 (bg)
1/4/2021					7750				
3/2/2021		1430		12000					
3/3/2021	99		122					8830	66
3/4/2021					1700	14200	17100		
9/13/2021		1450		11400					
9/14/2021	66		<25		8020	11800	13400	8820	191
3/1/2022					3780	9040			
3/2/2022	97						12600		124
3/3/2022		1400	104	11500				8120	
9/20/2022						3900			
9/21/2022	100	1300	78	7400	2100		9400	6200	110
2/28/2023		1290						6810	
3/1/2023	78		56						67
3/2/2023				3280	1710	3120	10500		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016						
8/31/2016						
10/25/2016						
11/30/2016						
2/15/2017						
2/16/2017						
5/31/2017	123					
6/1/2017		97				
6/2/2017			69			
8/2/2017	136	538	35			
8/15/2017						
8/16/2017	124					
8/17/2017		445	51			
4/4/2018		365	90			
4/5/2018	128					
5/8/2018		304	89			
5/9/2018	127					
6/19/2018	143		110			
6/20/2018		114				
6/21/2018						
9/25/2018						
9/26/2018	132		124			
9/27/2018		255				
11/6/2018		388				
11/7/2018	134		125			
3/6/2019						
3/24/2019						
3/25/2019	111	327	98			
10/15/2019		237	107			
10/16/2019	96					
10/17/2019						
11/7/2019				4140	13500	10900
11/18/2019				4030		
11/19/2019					13300	10000
11/20/2019						
11/21/2019						
12/4/2019					13200	11000
12/5/2019				3840		
12/17/2019						9860
12/18/2019				3880	12500	
1/8/2020					12300	9760
1/9/2020				3520		
1/21/2020				3280	12000	10100
2/4/2020				3220	12300	10600
2/13/2020				3580	12400	10900
3/26/2020						
3/27/2020	119		110	3090	14600	14300
3/28/2020		284				
10/12/2020				2920		
10/13/2020	118	<25	63		13900	6600
10/14/2020						
10/15/2020						



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/7/2023 8:24 PM View: Appendix III  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-02 (bg)	MCM-04	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
1/4/2021						
3/2/2021			40			
3/3/2021	84			2620	11400	11000
3/4/2021		285				
9/13/2021						
9/14/2021	76	193	96	2190	10300	14600
3/1/2022					10500	4050
3/2/2022	94		103	3100		
3/3/2022		146				
9/20/2022				2000	8600	10000
9/21/2022	90	180	38			
2/28/2023				2090	8720	10400
3/1/2023	73	142				
3/2/2023			35			

FIGURE E.

# Appendix III - Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MCM-18 (bg)	-9.695	-75	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-20 (bg)	-26.66	-73	-53	Yes	15	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-02 (bg)	0.02124	75	74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-07	-0.05268	-84	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-11 (bg)	-0.05227	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-14	-0.1072	-132	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-18 (bg)	0.07993	62	48	Yes	14	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-20 (bg)	-0.04646	-56	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-02 (bg)	-2.937	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-11 (bg)	-1.959	-70	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-18 (bg)	-74.43	-63	-48	Yes	14	0	n/a	n/a	0.01	NP

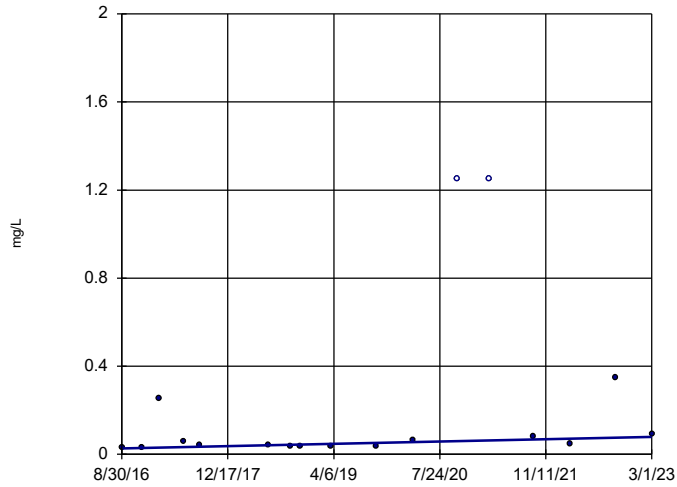
# Appendix III - Trend Tests - All Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 5/7/2023, 8:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MCM-01 (bg)	0.008035	50	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-02 (bg)	-0.00785	-23	-63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-11 (bg)	0.002622	28	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-15 (bg)	0.004228	28	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-16 (bg)	-0.004286	-37	-63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-17	-0.04304	-28	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-18 (bg)	-0.01789	-51	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-19 (bg)	-0.007612	-5	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	MCM-20 (bg)	-0.0269	-27	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-01 (bg)	-0.4686	-33	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-02 (bg)	-0.157	-45	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-07	14.97	64	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-11 (bg)	-0.9529	-30	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-15 (bg)	-0.0698	-6	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MCM-16 (bg)	-0.008888	-5	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-9.695</b>	<b>-75</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	MCM-19 (bg)	-23.7	-35	-53	No	15	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>MCM-20 (bg)</b>	<b>-26.66</b>	<b>-73</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-01 (bg)	-0.048	-22	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-02 (bg)</b>	<b>0.02124</b>	<b>75</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-05	-0.04499	-56	-81	No	20	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-06	-0.02053	-11	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-07</b>	<b>-0.05268</b>	<b>-84</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, field (Std. Units)</b>	<b>MCM-11 (bg)</b>	<b>-0.05227</b>	<b>-77</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-12	-0.03134	-62	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-14</b>	<b>-0.1072</b>	<b>-132</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-15 (bg)	-0.06195	-51	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-16 (bg)	-0.009918	-14	-68	No	18	0	n/a	n/a	0.01	NP
pH, field (Std. Units)	MCM-17	-0.0729	-67	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-18 (bg)</b>	<b>0.07993</b>	<b>62</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, field (Std. Units)	MCM-19 (bg)	-0.003523	-5	-48	No	14	0	n/a	n/a	0.01	NP
<b>pH, field (Std. Units)</b>	<b>MCM-20 (bg)</b>	<b>-0.04646</b>	<b>-56</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-01 (bg)	-1.074	-20	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MCM-02 (bg)</b>	<b>-2.937</b>	<b>-89</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MCM-11 (bg)</b>	<b>-1.959</b>	<b>-70</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-14	142.6	61	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-15 (bg)	-0.7341	-9	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-16 (bg)	-0.339	-13	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MCM-18 (bg)</b>	<b>-74.43</b>	<b>-63</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MCM-19 (bg)	-5.468	-5	-53	No	15	6.667	n/a	n/a	0.01	NP
Sulfate (mg/L)	MCM-20 (bg)	-90.55	-29	-53	No	15	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

MCM-01 (bg)

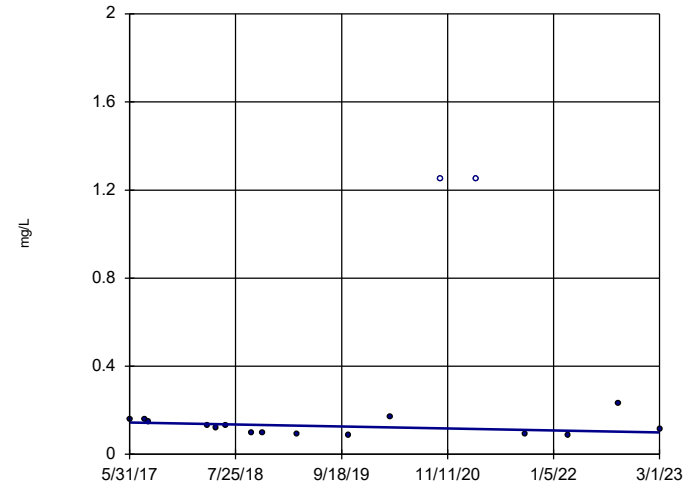


n = 17  
Slope = 0.008035  
units per year.  
Mann-Kendall  
statistic = 50  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:39 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-02 (bg)

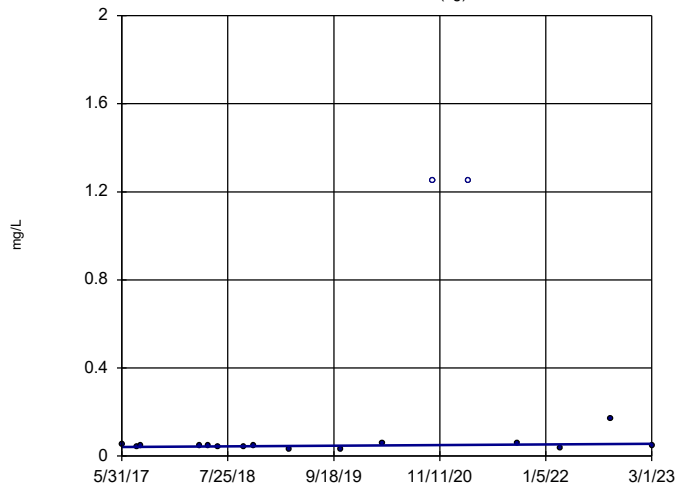


n = 17  
Slope = -0.00785  
units per year.  
Mann-Kendall  
statistic = -23  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:39 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

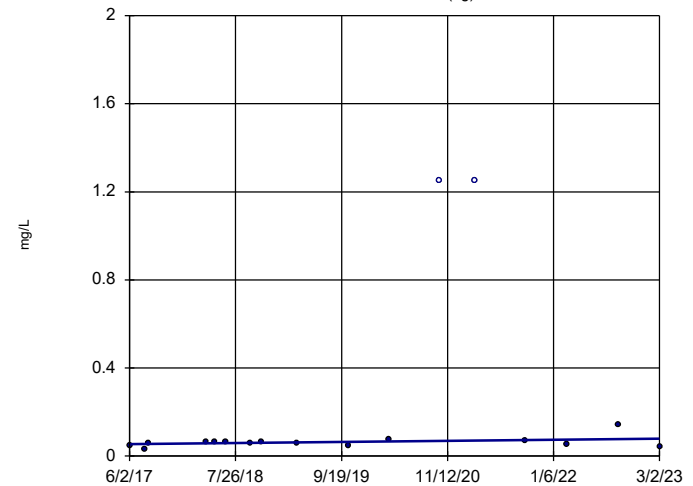


n = 17  
Slope = 0.002622  
units per year.  
Mann-Kendall  
statistic = 28  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:39 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

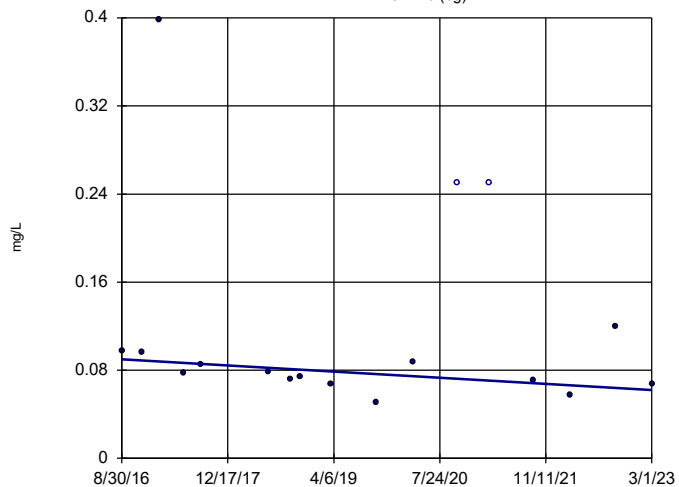


n = 17  
Slope = 0.004228  
units per year.  
Mann-Kendall  
statistic = 28  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:39 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

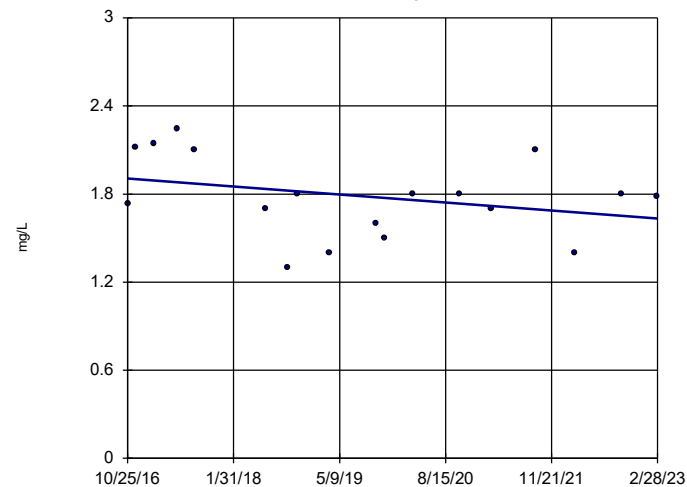


n = 17  
Slope = -0.004286  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:39 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-17

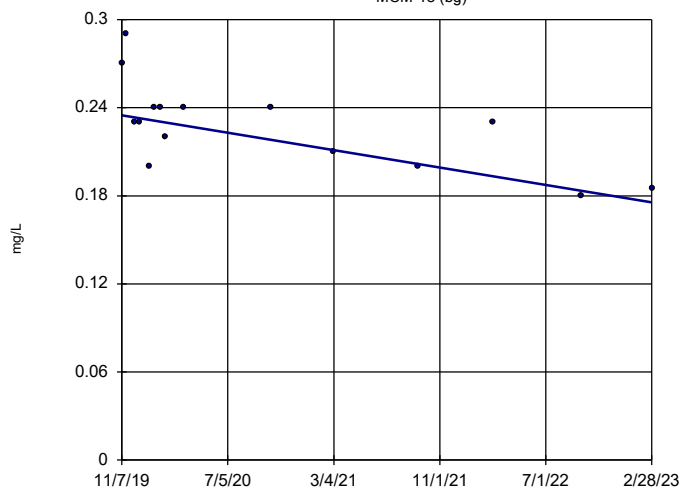


n = 18  
Slope = -0.04304  
units per year.  
Mann-Kendall  
statistic = -28  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-18 (bg)

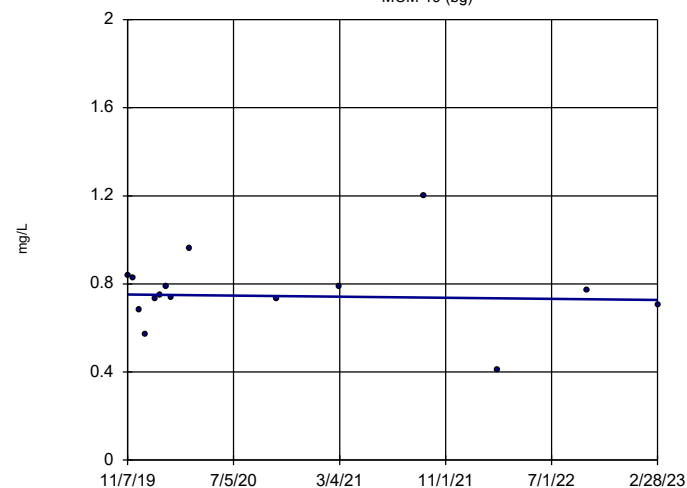


n = 15  
Slope = -0.01789  
units per year.  
Mann-Kendall  
statistic = -51  
critical = -53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-19 (bg)

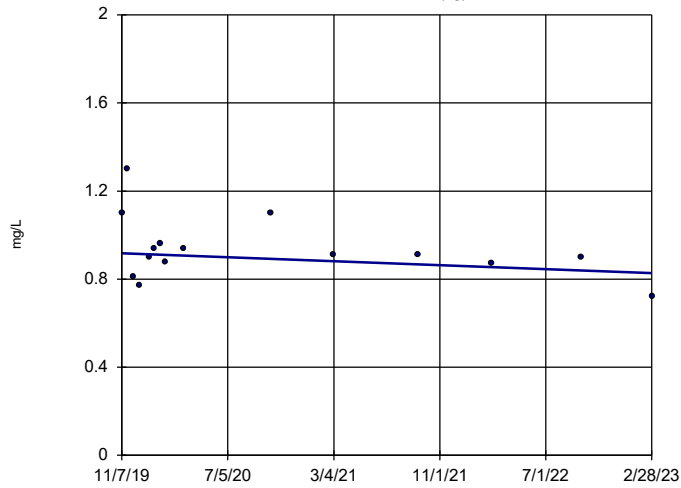


n = 15  
Slope = -0.007612  
units per year.  
Mann-Kendall  
statistic = -5  
critical = -53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

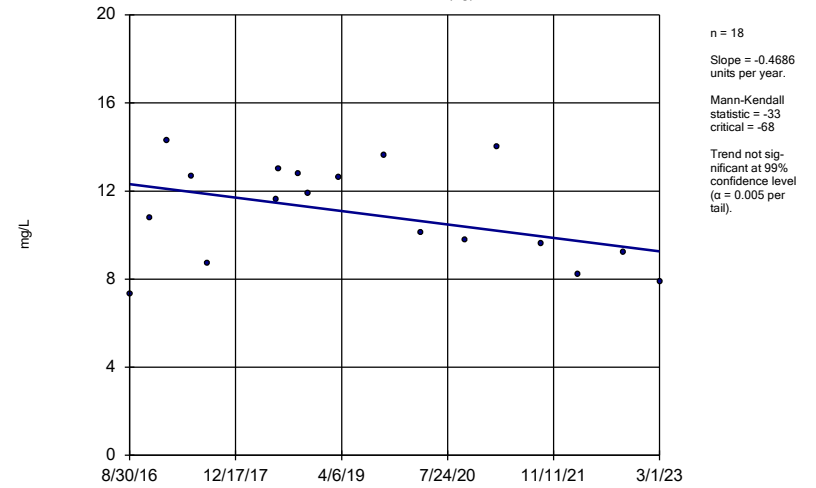
MCM-20 (bg)



Constituent: Boron Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

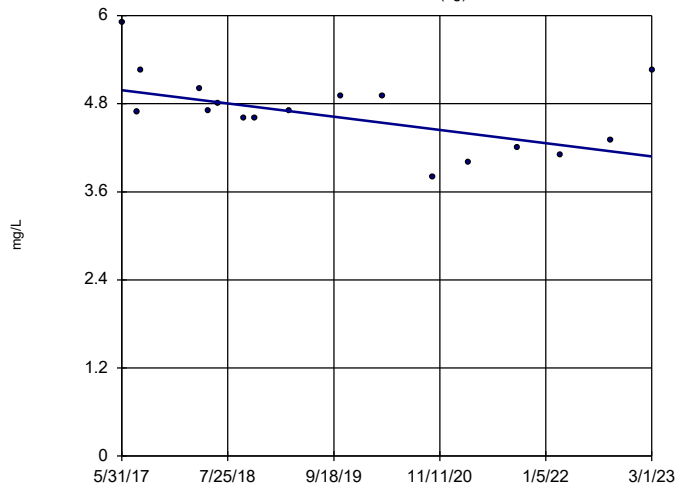
MCM-01 (bg)



Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

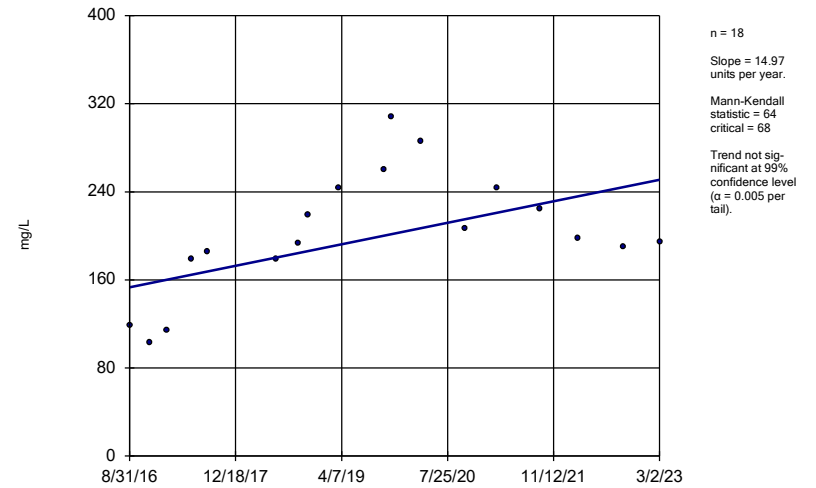
MCM-02 (bg)



Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

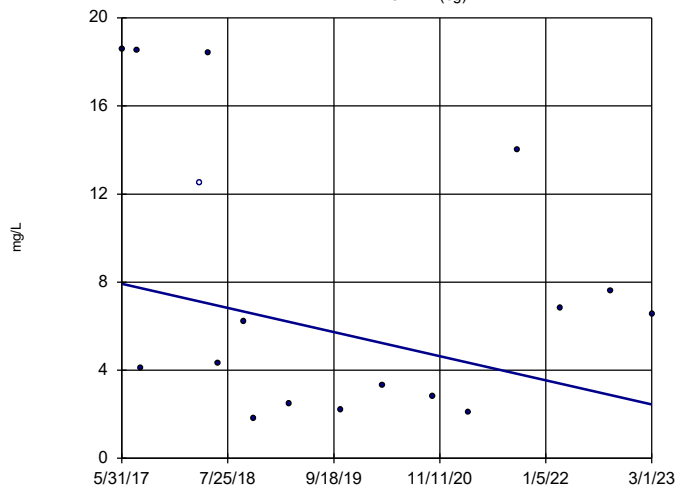
MCM-07



Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

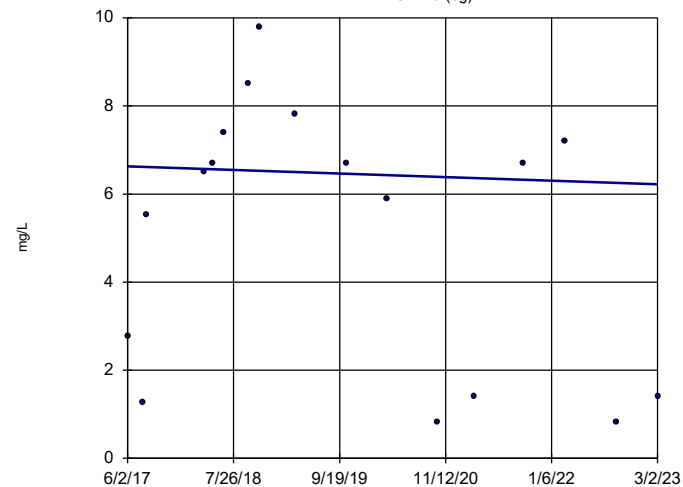


n = 17  
Slope = -0.9529  
units per year.  
Mann-Kendall  
statistic = -30  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

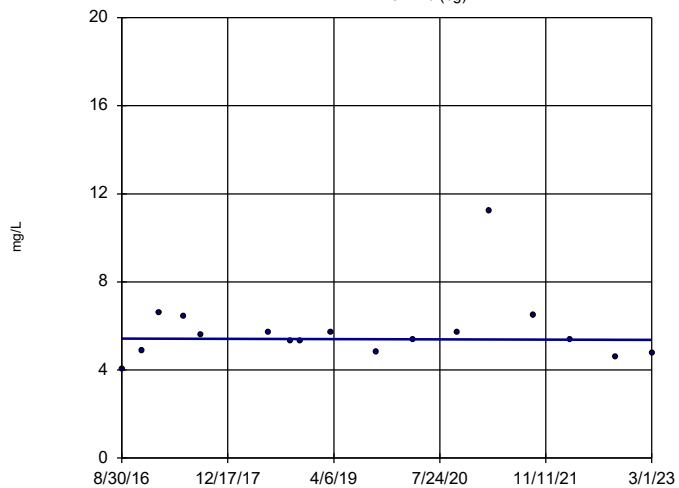


n = 17  
Slope = -0.0698  
units per year.  
Mann-Kendall  
statistic = -6  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

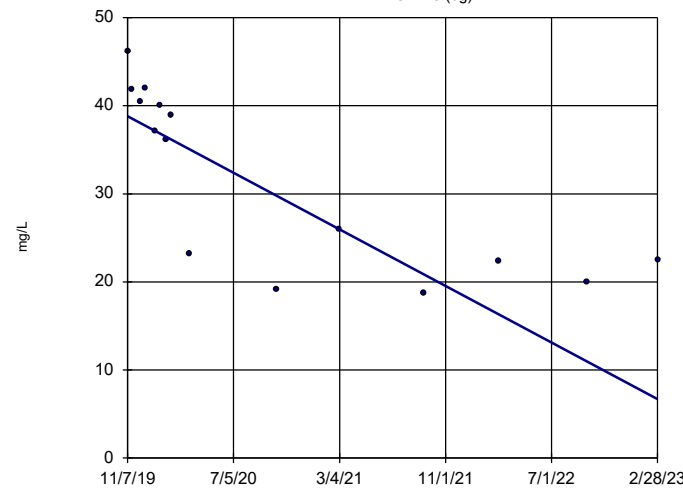


n = 17  
Slope = -0.008888  
units per year.  
Mann-Kendall  
statistic = -5  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-18 (bg)



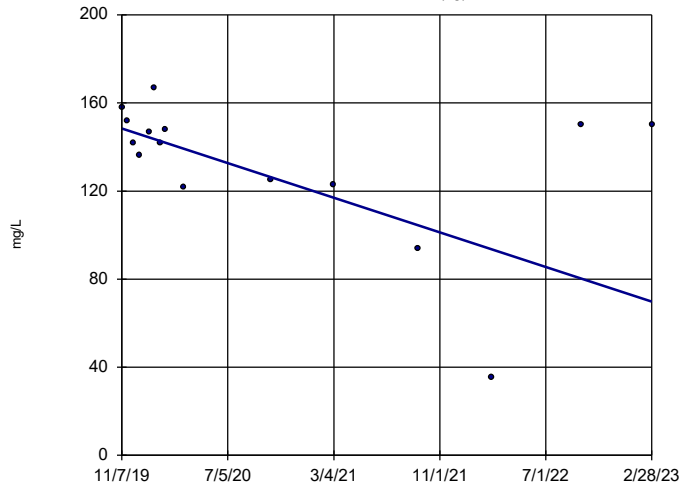
n = 15  
Slope = -9.695  
units per year.  
Mann-Kendall  
statistic = -75  
critical = -53  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Sen's Slope Estimator

MCM-19 (bg)

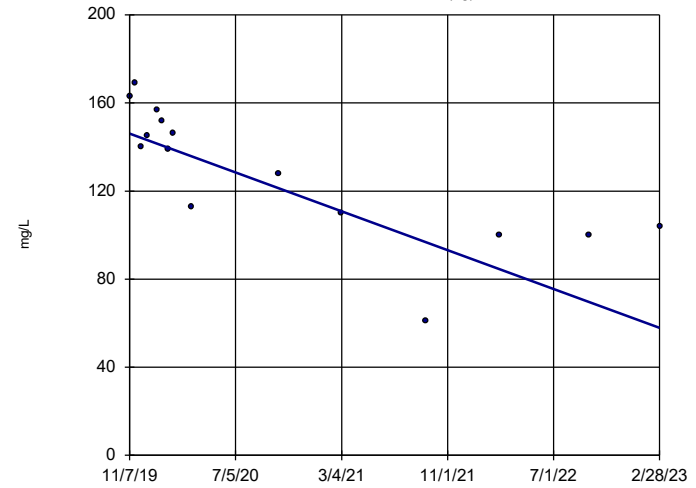


n = 15  
 Slope = -23.7  
 units per year.  
 Mann-Kendall  
 statistic = -35  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

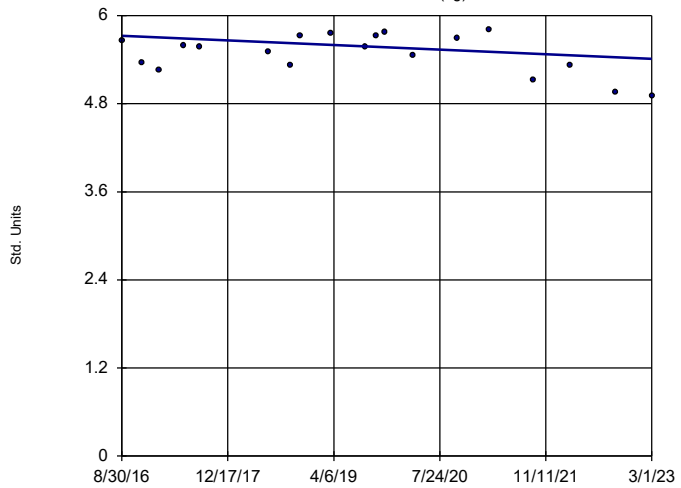


n = 15  
 Slope = -26.66  
 units per year.  
 Mann-Kendall  
 statistic = -73  
 critical = -53  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-01 (bg)

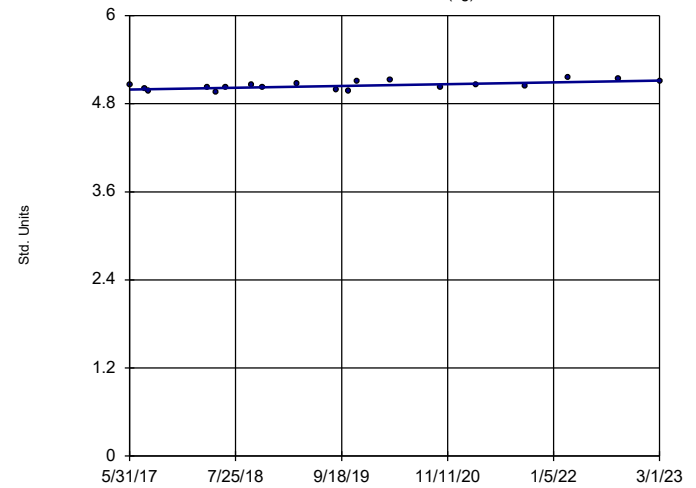


n = 19  
 Slope = -0.048  
 units per year.  
 Mann-Kendall  
 statistic = -22  
 critical = -74  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-02 (bg)

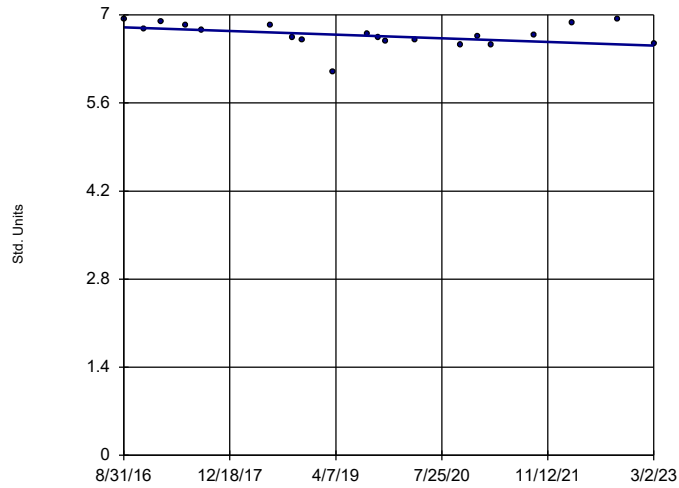


n = 19  
 Slope = 0.02124  
 units per year.  
 Mann-Kendall  
 statistic = 75  
 critical = 74  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-05

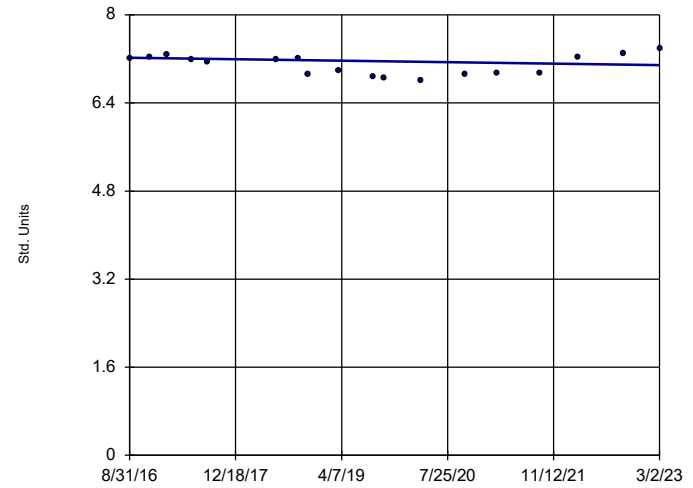


n = 20  
 Slope = -0.04499 units per year.  
 Mann-Kendall statistic = -56  
 critical = -81  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-06

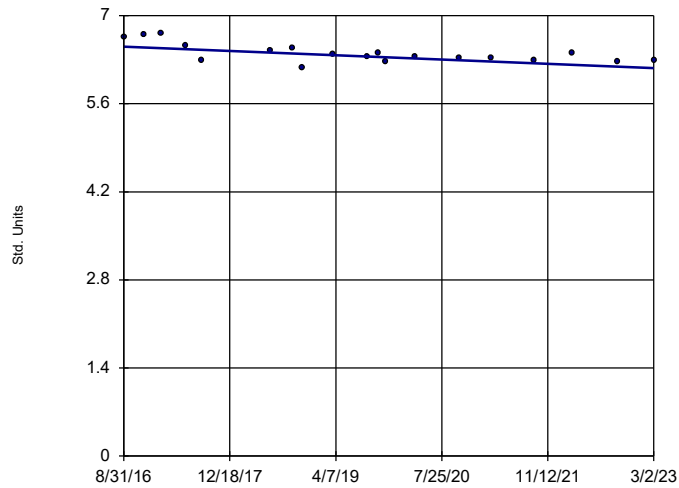


n = 18  
 Slope = -0.02053 units per year.  
 Mann-Kendall statistic = -11  
 critical = -68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-07

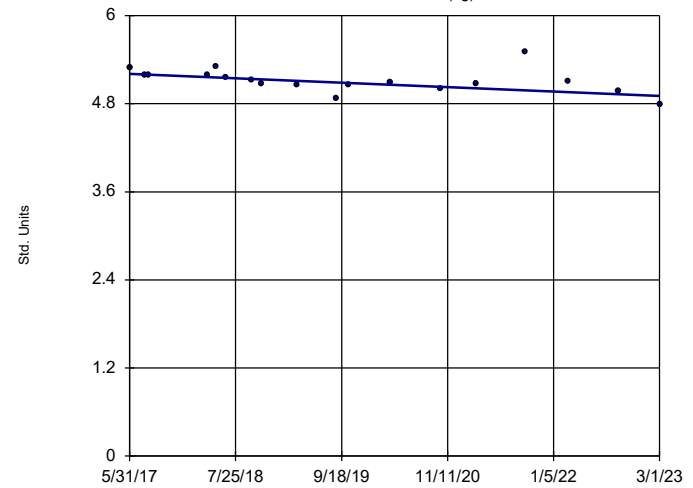


n = 19  
 Slope = -0.05268 units per year.  
 Mann-Kendall statistic = -84  
 critical = -74  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

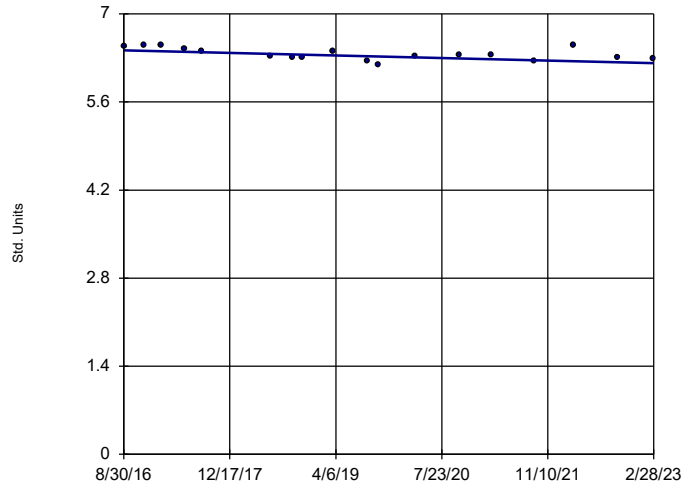


n = 18  
 Slope = -0.05227 units per year.  
 Mann-Kendall statistic = -77  
 critical = -68  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

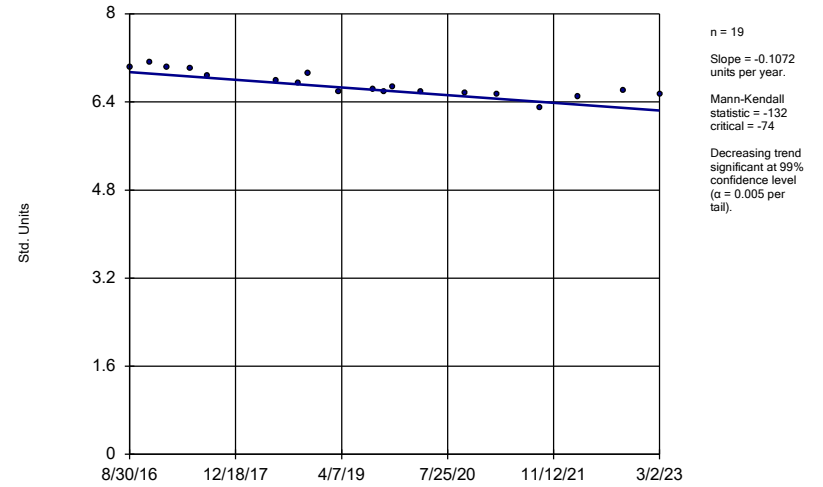
MCM-12



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

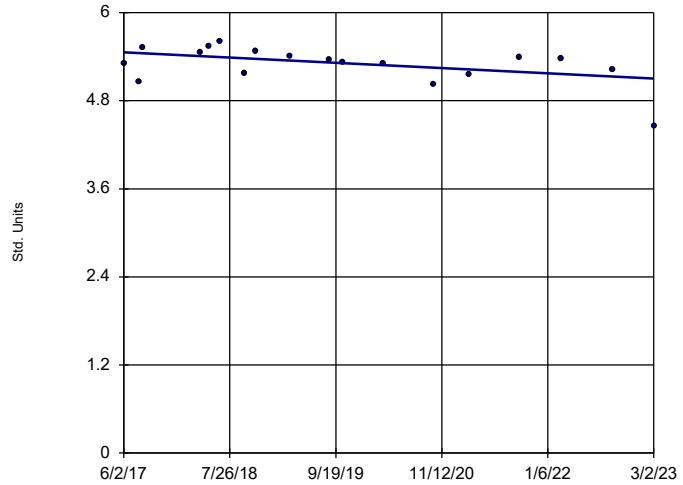
MCM-14



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

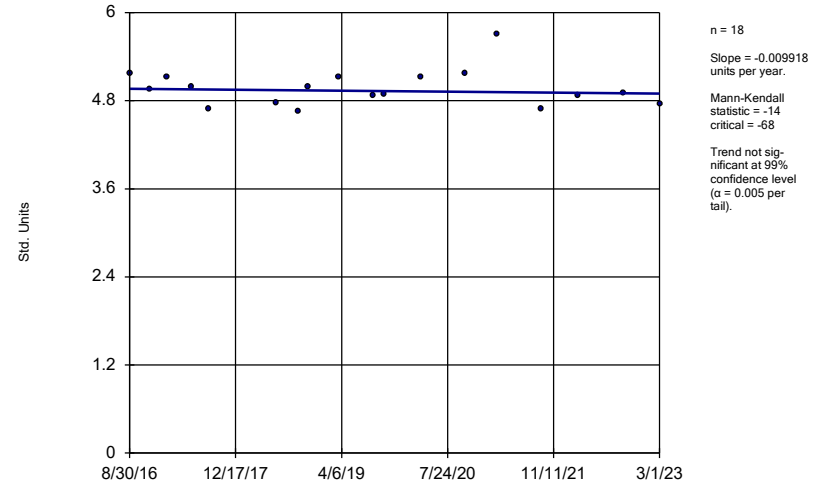
MCM-15 (bg)



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

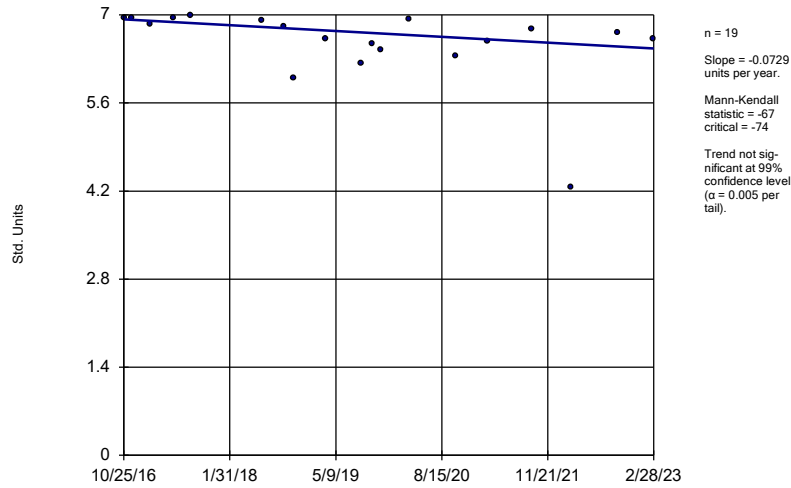
MCM-16 (bg)



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

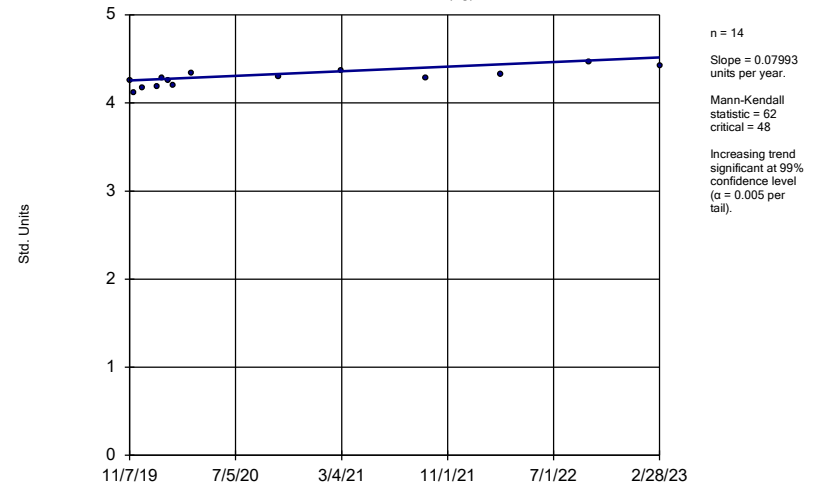
MCM-17



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

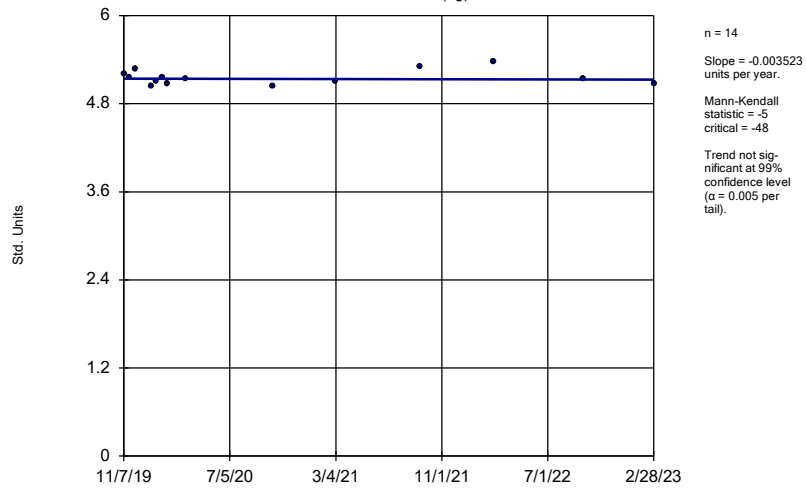
MCM-18 (bg)



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

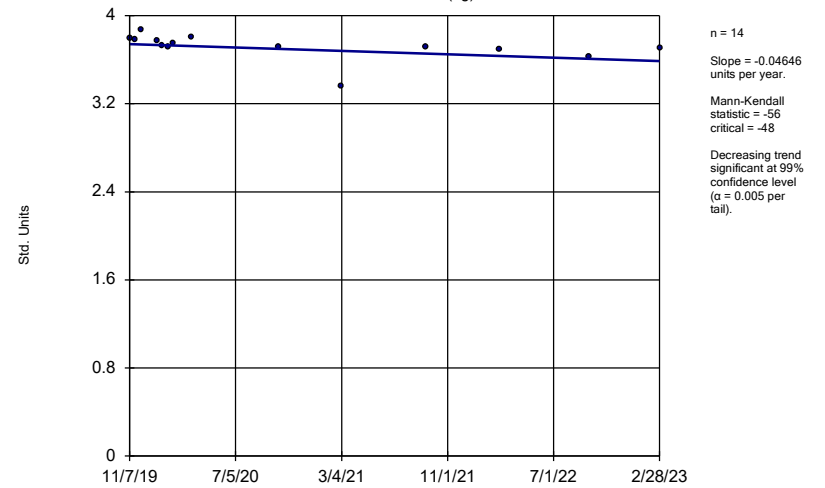
MCM-19 (bg)



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

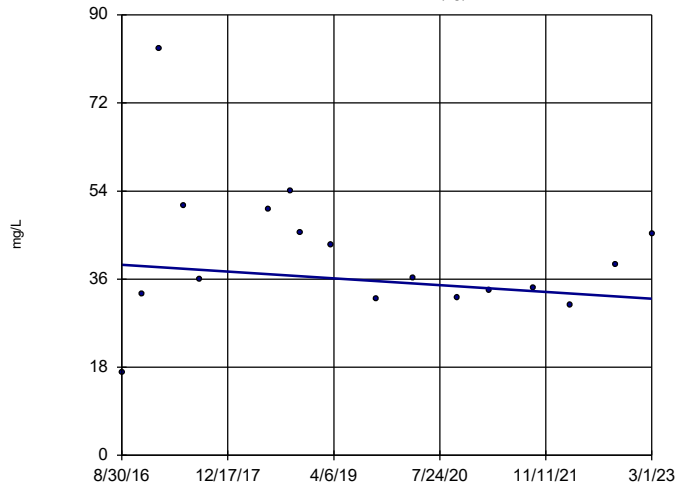
MCM-20 (bg)



Constituent: pH, field Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

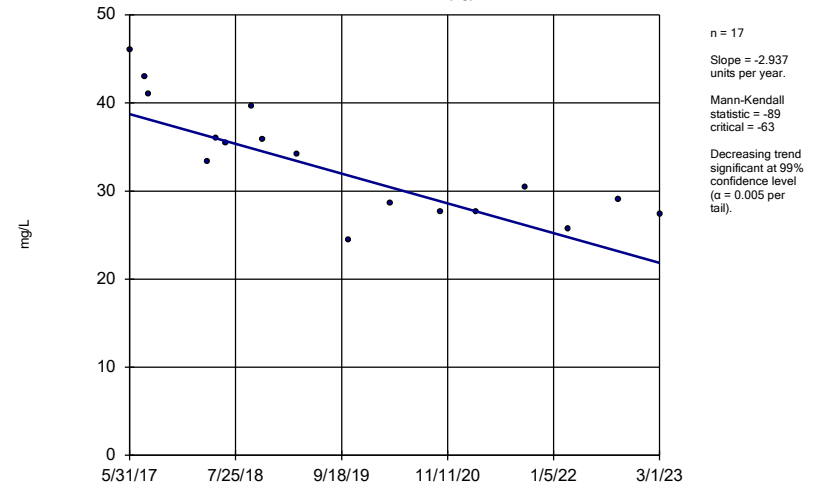
MCM-01 (bg)



Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

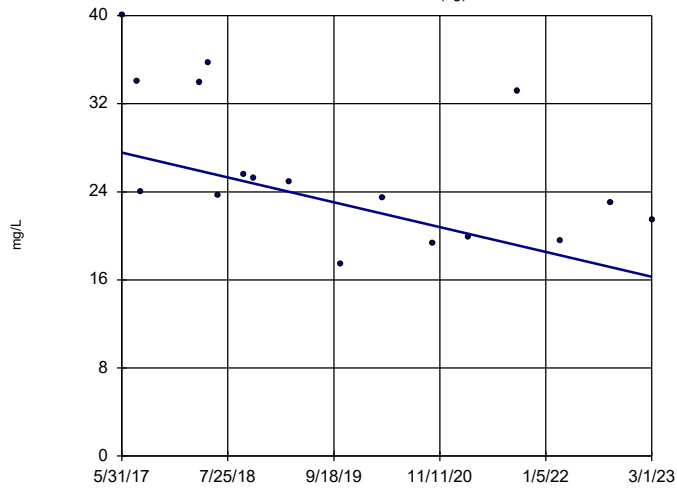
MCM-02 (bg)



Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

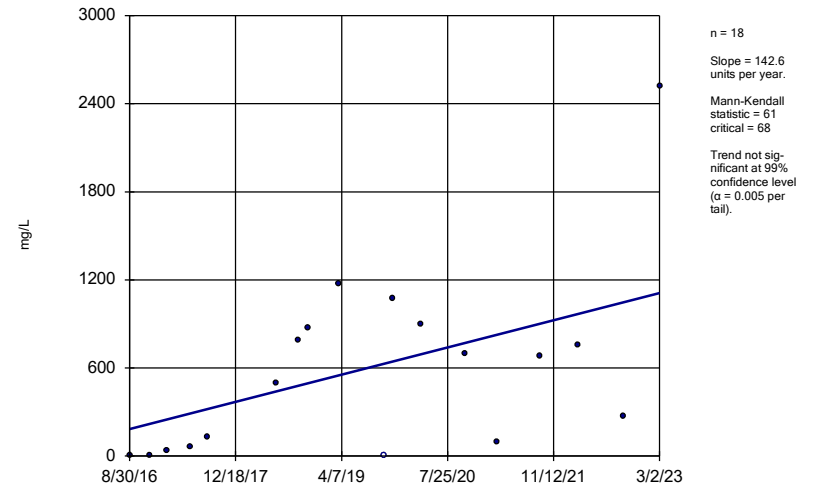


Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

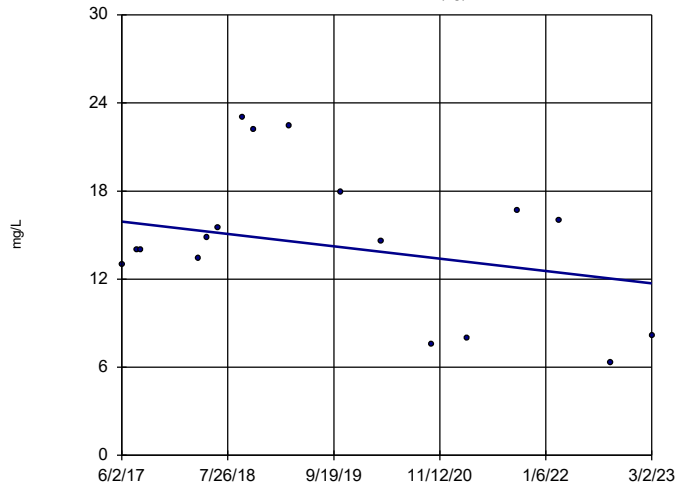
MCM-14



Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

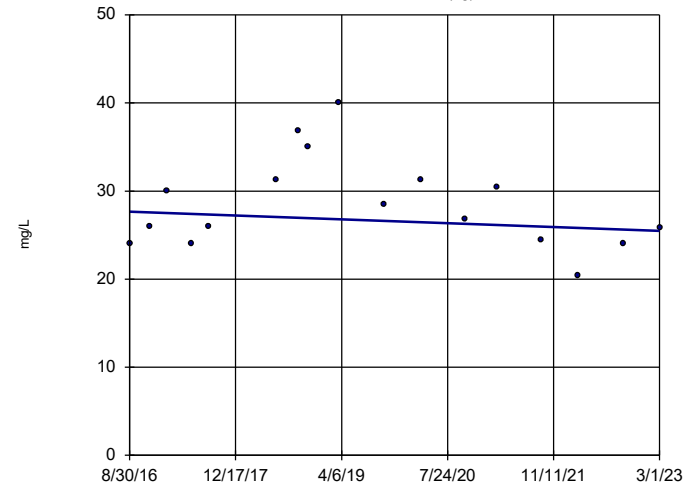


n = 17  
 Slope = -0.7341  
 units per year.  
 Mann-Kendall  
 statistic = -9  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

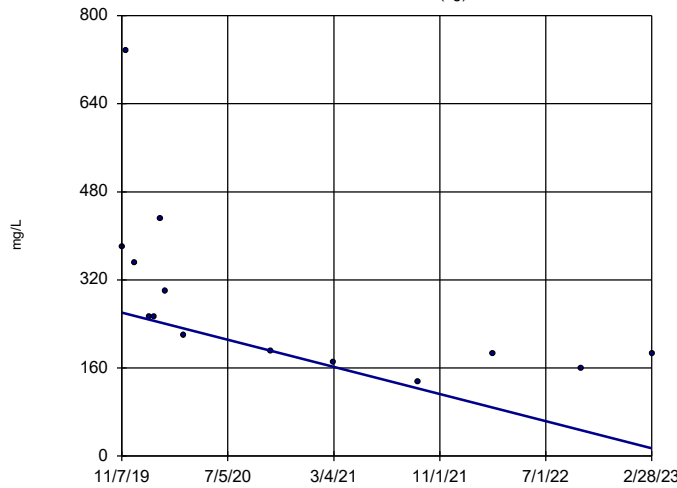


n = 17  
 Slope = -0.339  
 units per year.  
 Mann-Kendall  
 statistic = -13  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-18 (bg)



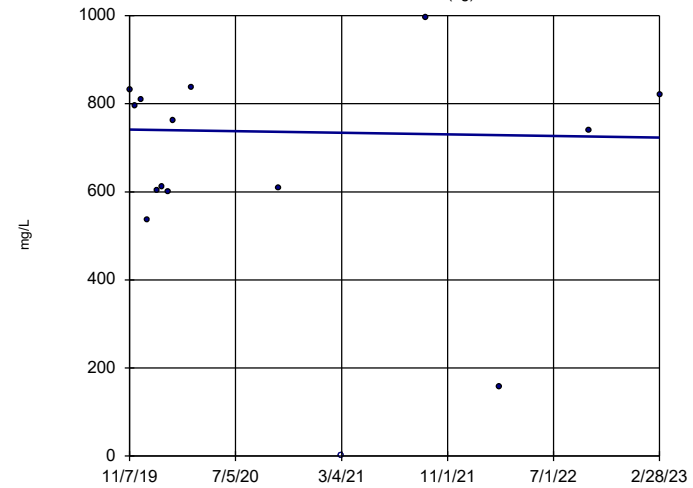
n = 14  
 Slope = -74.43  
 units per year.  
 Mann-Kendall  
 statistic = -63  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

MCM-19 (bg)

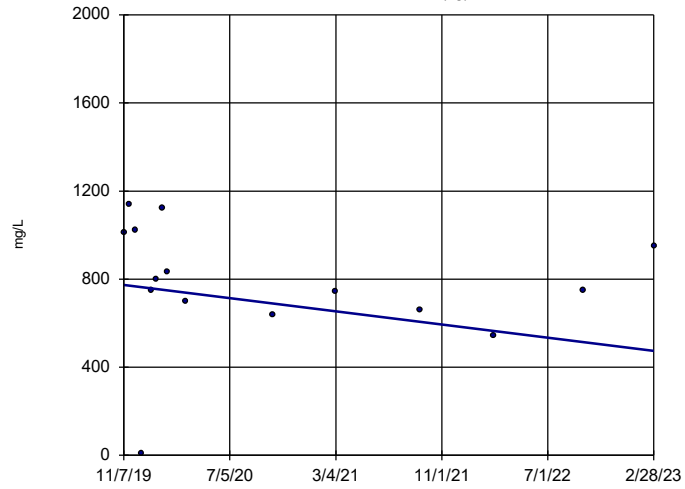


n = 15  
 Slope = -5.468  
 units per year.  
 Mann-Kendall  
 statistic = -5  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 5/7/2023 8:40 PM View: Appendix III - Trend Test  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-20 (bg)



n = 15  
Slope = -90.55  
units per year.  
Mann-Kendall  
statistic = -29  
critical = -53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate    Analysis Run 5/7/2023 8:40 PM    View: Appendix III - Trend Test  
Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data

FIGURE F.



# Upper Tolerance Limits

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/7/2023, 8:48 PM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	115	95.65	n/a	0.002743	NP Inter(NDs)
Arsenic (mg/L)	0.032	n/a	n/a	n/a	n/a	134	14.18	n/a	0.001035	NP Inter(normality)
Barium (mg/L)	0.22	n/a	n/a	n/a	n/a	131	0	n/a	0.001207	NP Inter(normality)
Beryllium (mg/L)	0.021	n/a	n/a	n/a	n/a	130	27.69	n/a	0.001271	NP Inter(normality)
Cadmium (mg/L)	0.0043	n/a	n/a	n/a	n/a	108	92.59	n/a	0.003928	NP Inter(NDs)
Chromium (mg/L)	0.011	n/a	n/a	n/a	n/a	115	52.17	n/a	0.002743	NP Inter(NDs)
Cobalt (mg/L)	0.036	n/a	n/a	n/a	n/a	130	73.08	n/a	0.001271	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	34.9	n/a	n/a	n/a	n/a	121	0	n/a	0.002016	NP Inter(normality)
Fluoride (mg/L)	3.32	n/a	n/a	n/a	n/a	134	48.51	n/a	0.001035	NP Inter(normality)
Lead (mg/L)	0.005	n/a	n/a	n/a	n/a	130	84.62	n/a	0.001271	NP Inter(NDs)
Lithium (mg/L)	0.029	n/a	n/a	n/a	n/a	127	55.91	n/a	0.001482	NP Inter(NDs)
Mercury (mg/L)	0.0007	n/a	n/a	n/a	n/a	109	95.41	n/a	0.003731	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	114	88.6	n/a	0.002887	NP Inter(NDs)
Selenium (mg/L)	0.15	n/a	n/a	n/a	n/a	131	61.83	n/a	0.001207	NP Inter(NDs)
Thallium (mg/L)	0.002	n/a	n/a	n/a	n/a	114	92.98	n/a	0.002887	NP Inter(NDs)

FIGURE G.

<b>MCMANUS ASH POND GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0043	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		34.9	34.9
Fluoride, Total (mg/L)	4		3.32	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.029	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.

# Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MCM-06	0.3998	0.2437	0.032	Yes	22	0.3217	0.1455	0	None	No	0.01	Param.
Lithium (mg/L)	DPZ-02	0.09598	0.07787	0.04	Yes	8	0.08068	0.0281	12.5	None	x^6	0.01	Param.
Lithium (mg/L)	MCM-06	0.09379	0.05393	0.04	Yes	18	0.07386	0.03294	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MCM-06	0.003	0.0029	0.006	No	16	0.002736	0.0007018	81.25	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-14	0.003	0.0004	0.006	No	15	0.002827	0.0006713	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MCM-17	0.003	0.00078	0.006	No	15	0.002852	0.0005732	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	DPZ-02	0.05	0.015	0.032	No	8	0.0239	0.01098	12.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	MCM-04	0.006326	0.002757	0.032	No	18	0.005293	0.004045	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	MCM-05	0.02093	0.007842	0.032	No	20	0.01438	0.01152	15	None	No	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.3998</b>	<b>0.2437</b>	<b>0.032</b>	<b>Yes</b>	<b>22</b>	<b>0.3217</b>	<b>0.1455</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	MCM-07	0.01992	0.01111	0.032	No	20	0.01552	0.007754	0	None	No	0.01	Param.
Arsenic (mg/L)	MCM-12	0.01	0.001	0.032	No	17	0.006624	0.004306	58.82	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-14	0.0063	0.00201	0.032	No	17	0.004695	0.002338	52.94	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MCM-17	0.0063	0.0018	0.032	No	18	0.004392	0.002171	44.44	None	No	0.01	NP (normality)
Barium (mg/L)	DPZ-02	0.09233	0.05837	2	No	6	0.07535	0.01236	0	None	No	0.01	Param.
Barium (mg/L)	MCM-04	0.07576	0.03201	2	No	17	0.06553	0.06957	0	None	ln(x)	0.01	Param.
Barium (mg/L)	MCM-05	0.0393	0.0097	2	No	18	0.04614	0.1025	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-06	0.1323	0.06201	2	No	18	0.09717	0.05811	0	None	No	0.01	Param.
Barium (mg/L)	MCM-07	0.2	0.1	2	No	17	0.1553	0.09089	0	None	No	0.01	NP (normality)
Barium (mg/L)	MCM-12	0.1237	0.09407	2	No	17	0.1089	0.02364	0	None	No	0.01	Param.
Barium (mg/L)	MCM-14	0.1222	0.05657	2	No	17	0.08939	0.05239	0	None	No	0.01	Param.
Barium (mg/L)	MCM-17	0.1295	0.06745	2	No	17	0.09845	0.04948	0	None	No	0.01	Param.
Beryllium (mg/L)	MCM-04	0.004	0.00021	0.021	No	17	0.001827	0.001879	41.18	None	No	0.01	NP (normality)
Beryllium (mg/L)	MCM-05	0.004	0.000054	0.021	No	18	0.003781	0.0009301	94.44	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-07	0.004	0.00012	0.021	No	17	0.00331	0.001536	82.35	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-12	0.00127	0.0005636	0.021	No	17	0.0009665	0.0006539	11.76	None	sqrt(x)	0.01	Param.
Beryllium (mg/L)	MCM-14	0.004	0.0001	0.021	No	17	0.002856	0.001827	70.59	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MCM-17	0.002	0.0002	0.021	No	17	0.0008711	0.0008614	35.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	MCM-04	0.0025	0.00043	0.005	No	14	0.002352	0.0005532	92.86	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-07	0.0025	0.0002	0.005	No	14	0.002336	0.0006147	92.86	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MCM-17	0.0025	0.000093	0.005	No	14	0.002328	0.0006433	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-04	0.01	0.0012	0.1	No	15	0.005357	0.004503	46.67	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-05	0.01	0.0007	0.1	No	15	0.005803	0.004653	53.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-06	0.01	0.001	0.1	No	16	0.007197	0.004297	68.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	MCM-07	0.01	0.0022	0.1	No	15	0.005393	0.0039	40	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-12	0.01	0.005	0.1	No	15	0.007182	0.002239	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-14	0.01	0.0015	0.1	No	15	0.005518	0.004362	46.67	None	No	0.01	NP (normality)
Chromium (mg/L)	MCM-17	0.01187	0.007143	0.1	No	15	0.01034	0.003168	26.67	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	MCM-04	0.0063	0.0025	0.036	No	18	0.004409	0.002294	38.89	None	No	0.01	NP (normality)
Cobalt (mg/L)	MCM-05	0.0025	0.0019	0.036	No	18	0.002342	0.0005385	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-06	0.0025	0.0009	0.036	No	18	0.002289	0.000623	88.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-07	0.0025	0.0011	0.036	No	17	0.002289	0.0006123	88.24	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-12	0.0025	0.00052	0.036	No	17	0.001689	0.001001	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-14	0.0025	0.0006	0.036	No	17	0.002388	0.0004608	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MCM-17	0.0025	0.0007	0.036	No	17	0.002022	0.0008925	76.47	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	DPZ-02	9.957	6.423	34.9	No	5	8.19	1.054	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-04	5.475	2.98	34.9	No	17	4.359	2.213	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-05	2.71	1.43	34.9	No	18	2.69	2.102	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-06	8.11	1.83	34.9	No	17	4.991	3.247	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MCM-07	9.071	5.669	34.9	No	18	7.37	2.811	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-12	3.031	2.137	34.9	No	17	2.584	0.7136	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-14	7.583	4.656	34.9	No	18	5.547	3.056	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MCM-17	8.82	2.22	34.9	No	18	5.281	2.922	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	6	0.1017	0.004082	83.33	None	No	0.0155	NP (NDs)
Fluoride (mg/L)	MCM-04	0.12	0.095	4	No	18	0.1313	0.1185	55.56	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-05	0.5329	0.2769	4	No	20	0.4049	0.2254	15	None	No	0.01	Param.
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No	18	0.2537	0.2578	44.44	None	No	0.01	NP (normality)
Fluoride (mg/L)	MCM-07	0.44	0.1	4	No	19	0.2835	0.2743	42.11	None	No	0.01	NP (normality)

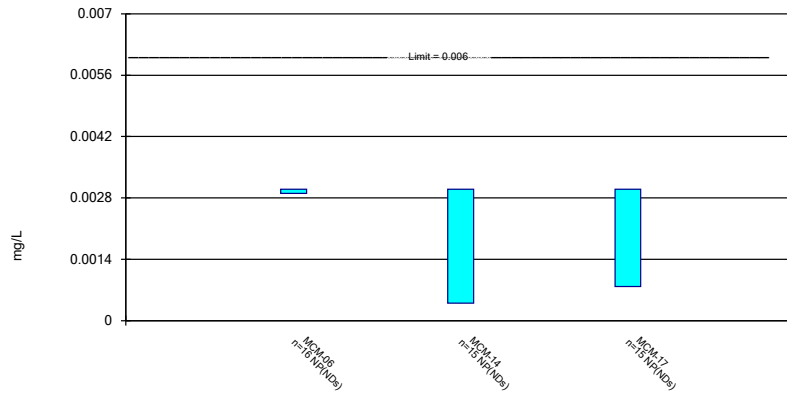
# Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/25/2023, 10:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	MCM-12	1.276	1.002	4	No	18	1.106	0.312	5.556	None	x^2	0.01	Param.
Fluoride (mg/L)	MCM-14	0.49	0.1	4	No	19	0.2164	0.1869	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MCM-17	1.2	0.1	4	No	19	0.5436	0.4868	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	MCM-05	0.005	0.0002	0.015	No	18	0.004733	0.001131	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-06	0.005	0.00012	0.015	No	18	0.004729	0.00115	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-07	0.005	0.0002	0.015	No	17	0.00414	0.001915	82.35	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-12	0.005	0.00022	0.015	No	17	0.003606	0.002233	70.59	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-14	0.005	0.00008	0.015	No	17	0.004711	0.001193	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	MCM-17	0.005	0.00034	0.015	No	17	0.003879	0.002083	76.47	None	No	0.01	NP (NDs)
<b>Lithium (mg/L)</b>	<b>DPZ-02</b>	<b>0.09598</b>	<b>0.07787</b>	<b>0.04</b>	<b>Yes</b>	<b>8</b>	<b>0.08068</b>	<b>0.0281</b>	<b>12.5</b>	<b>None</b>	<b>x^6</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-04	0.025	0.0017	0.04	No	17	0.01415	0.01188	52.94	None	No	0.01	NP (NDs)
Lithium (mg/L)	MCM-05	0.0376	0.021	0.04	No	18	0.05793	0.1281	0	None	No	0.01	NP (normality)
<b>Lithium (mg/L)</b>	<b>MCM-06</b>	<b>0.09379</b>	<b>0.05393</b>	<b>0.04</b>	<b>Yes</b>	<b>18</b>	<b>0.07386</b>	<b>0.03294</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	MCM-07	0.04714	0.02031	0.04	No	18	0.04006	0.03446	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	MCM-12	0.013	0.0104	0.04	No	17	0.0135	0.005619	17.65	None	No	0.01	NP (normality)
Lithium (mg/L)	MCM-14	0.0472	0.02903	0.04	No	18	0.03534	0.01741	5.556	None	x^2	0.01	Param.
Lithium (mg/L)	MCM-17	0.02523	0.01568	0.04	No	17	0.02045	0.007621	5.882	None	No	0.01	Param.
Mercury (mg/L)	MCM-04	0.00071	0.0002	0.002	No	14	0.0002364	0.0001363	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-05	0.0002	0.000042	0.002	No	14	0.0001887	0.00004223	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-06	0.0002	0.00016	0.002	No	15	0.0001973	0.00001033	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-07	0.00067	0.0002	0.002	No	14	0.0002336	0.0001256	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-14	0.00066	0.0002	0.002	No	14	0.0002329	0.0001229	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	MCM-17	0.00064	0.000036	0.002	No	14	0.0002197	0.0001286	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-04	0.01	0.00015	0.1	No	15	0.009343	0.002543	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-05	0.01	0.0012	0.1	No	15	0.008193	0.003723	73.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-06	0.01	0.0017	0.1	No	16	0.006932	0.004102	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-07	0.01	0.000963	0.1	No	15	0.008794	0.003182	86.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MCM-17	0.01	0.0019	0.1	No	15	0.008814	0.003144	86.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-04	0.05	0.0025	0.15	No	17	0.04135	0.01926	82.35	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-05	0.05	0.0028	0.15	No	18	0.03939	0.02042	77.78	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-06	0.05	0.0022	0.15	No	18	0.02939	0.02376	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-07	0.005	0.00238	0.15	No	17	0.004069	0.00129	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-12	0.005	0.0019	0.15	No	17	0.003516	0.001642	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-14	0.05	0.0025	0.15	No	17	0.03331	0.02331	64.71	None	No	0.01	NP (NDs)
Selenium (mg/L)	MCM-17	0.0067	0.00184	0.15	No	17	0.00412	0.002002	47.06	None	No	0.01	NP (normality)
Thallium (mg/L)	MCM-06	0.002	0.000076	0.002	No	16	0.00188	0.000481	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	MCM-17	0.002	0.00014	0.002	No	15	0.001876	0.0004802	93.33	None	No	0.01	NP (NDs)

### Non-Parametric Confidence Interval

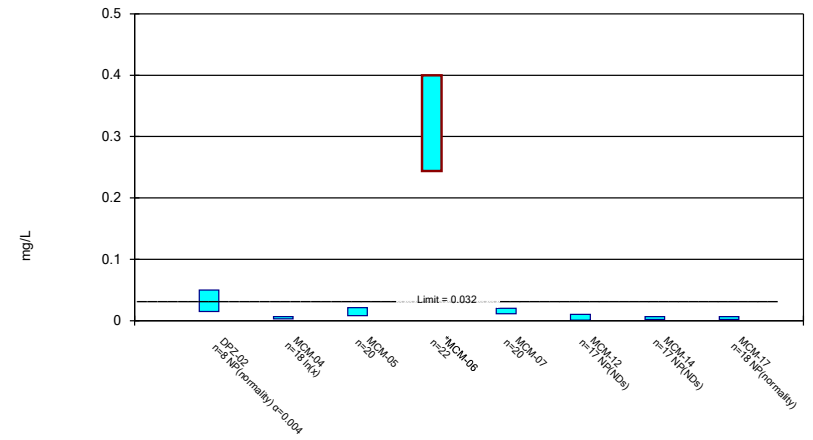
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

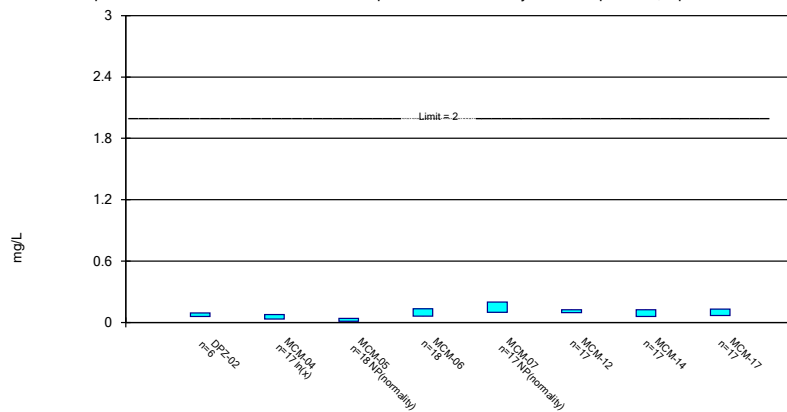
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

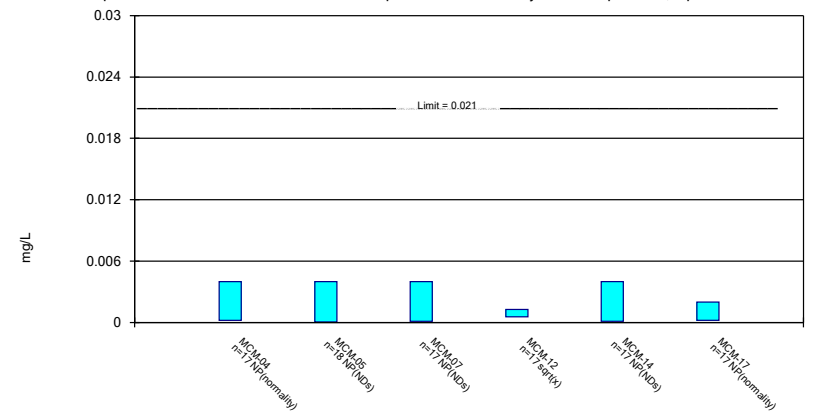
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### 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.

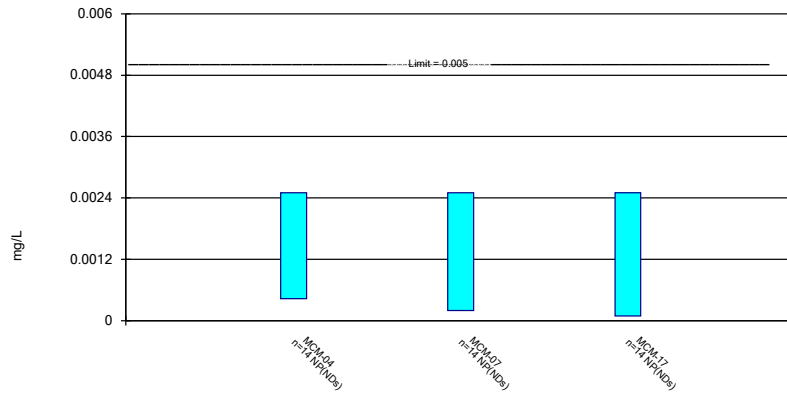


Constituent: Beryllium Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



### Non-Parametric Confidence Interval

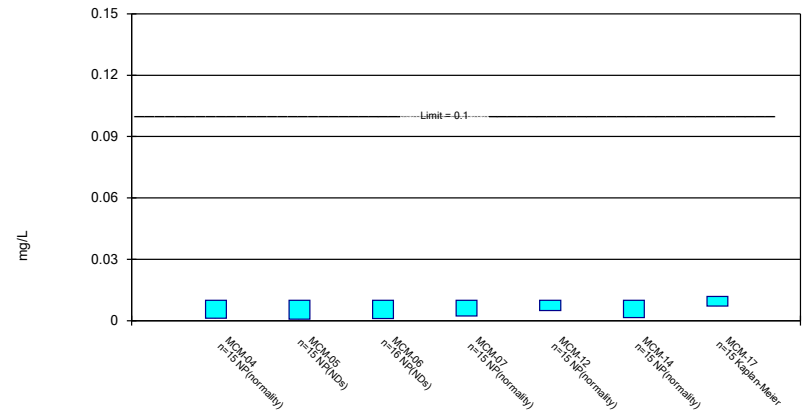
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

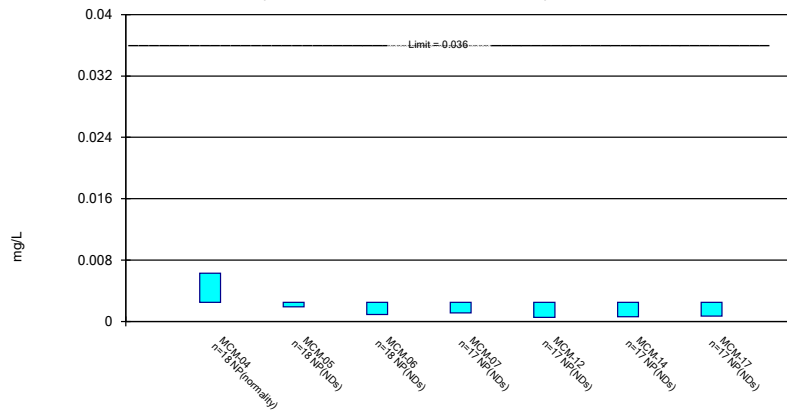
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

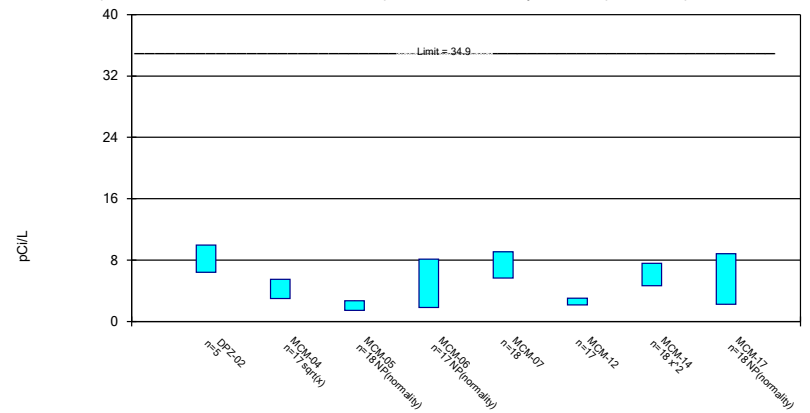
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

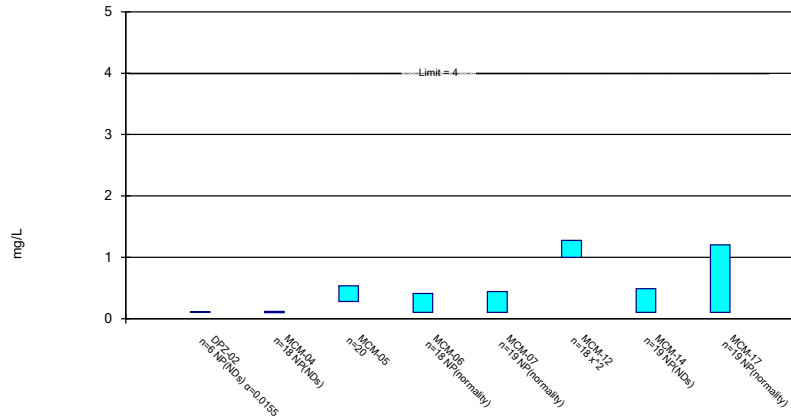
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confide  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

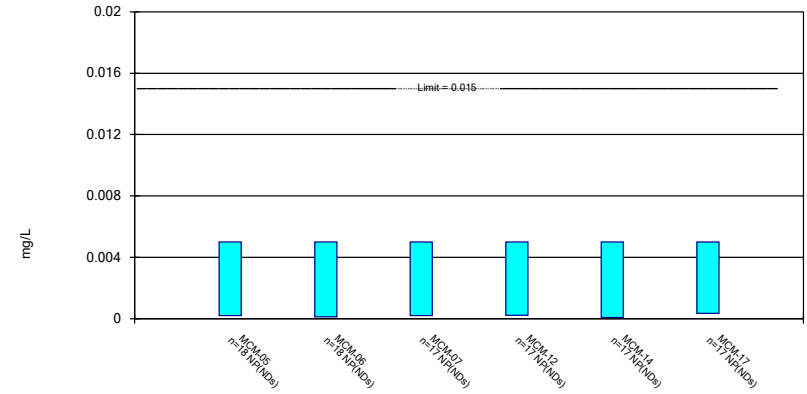
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

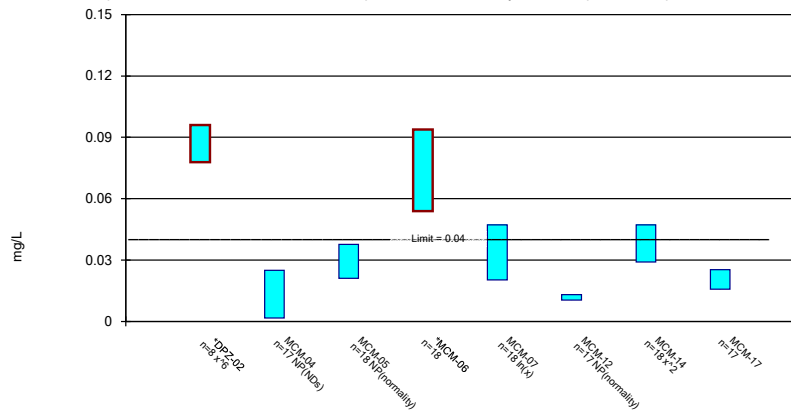
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Parametric and Non-Parametric (NP) Confidence Interval

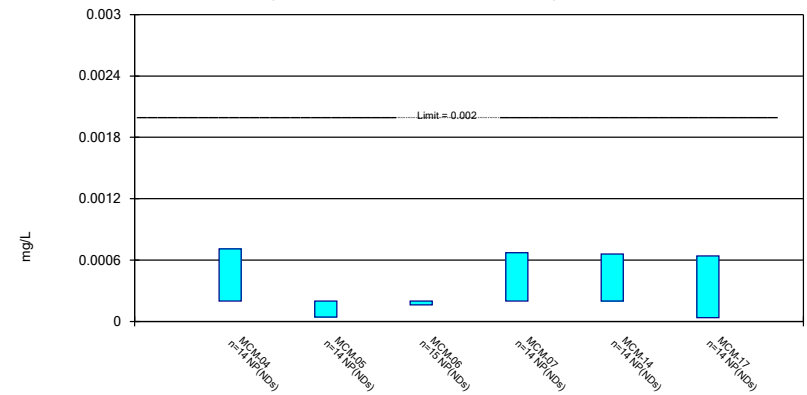
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

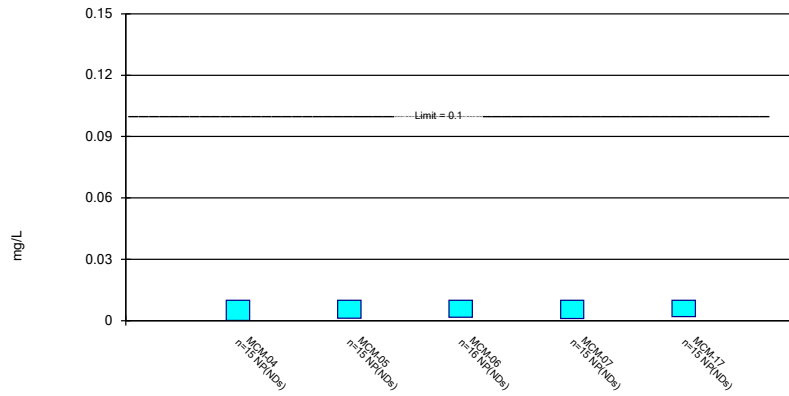
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/25/2023 10:22 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

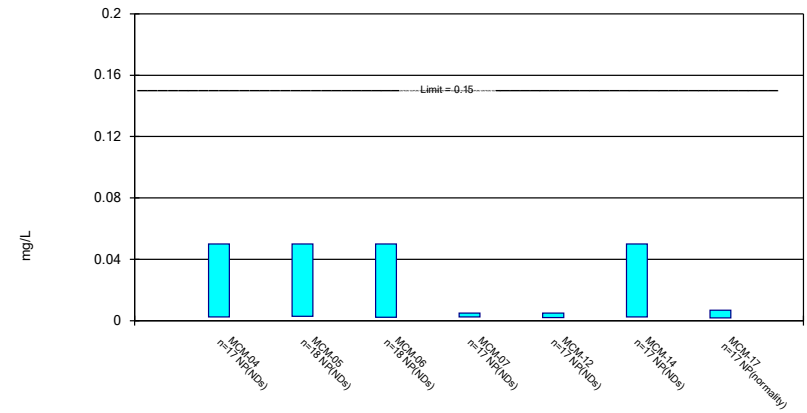
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 5/25/2023 10:23 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

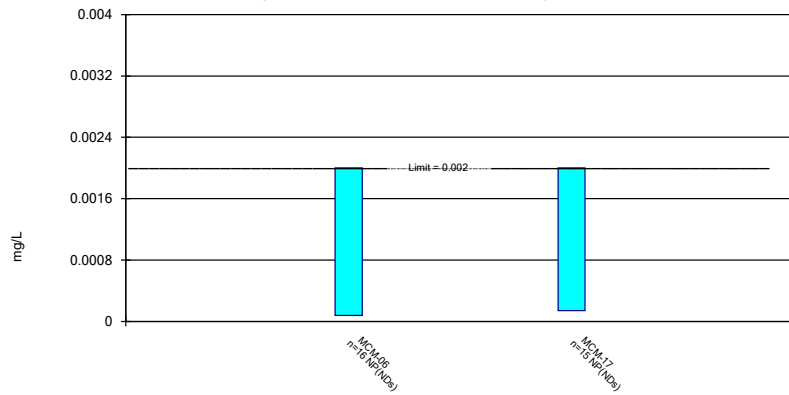
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 5/25/2023 10:23 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 5/25/2023 10:23 AM View: Appendix IV - Confidence Intervals  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-14	MCM-17
8/30/2016		<0.003	
8/31/2016	<0.003		
10/25/2016			<0.003
11/30/2016	<0.003	<0.003	<0.003
2/15/2017		<0.003	<0.003
2/16/2017	<0.003		
5/31/2017		<0.003	<0.003
6/2/2017	<0.003		
8/15/2017			<0.003
8/16/2017		<0.003	
8/17/2017	<0.003		
6/19/2018		<0.003	<0.003
6/20/2018	<0.003		
9/25/2018		<0.003	
9/26/2018			0.00078
9/27/2018	<0.003		
11/6/2018		<0.003	<0.003
11/7/2018	<0.003		
3/6/2019	<0.003		
8/26/2019		0.0004 (J)	
8/27/2019			<0.003
8/28/2019	0.00098 (J)		
10/15/2019		<0.003	
10/16/2019			<0.003
10/17/2019	0.0009 (J)		
3/27/2020		<0.003	<0.003
3/28/2020	0.0029 (J)		
9/13/2021		<0.003	
9/14/2021	<0.003		<0.003
3/1/2022	<0.003		
3/3/2022		<0.003	<0.003
9/20/2022	<0.003		
9/21/2022		<0.003	<0.003
2/28/2023			<0.003
3/2/2023	<0.003	<0.003	
Mean	0.002736	0.002827	0.002852
Std. Dev.	0.0007018	0.0006713	0.0005732
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.0029	0.0004	0.00078

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						<0.01	<0.0063	
8/31/2016			<0.02	0.212	0.0066			
10/25/2016								<0.0063
11/30/2016			0.0132	0.129	0.0281	<0.01	<0.0063	0.0072
2/15/2017						<0.01	<0.0063	0.0017 (J)
2/16/2017			0.0372	0.257	0.0295			
5/31/2017						0.0007 (J)	0.0008 (J)	0.0018 (J)
6/1/2017		0.004 (J)						
6/2/2017			0.0335	0.0559	0.0286			
8/2/2017		0.0028 (J)						
8/15/2017						0.0006 (J)		0.0015 (J)
8/16/2017							0.0007 (J)	
8/17/2017		0.0021 (J)	0.0336	0.458	0.0211			
4/4/2018		0.0023 (J)						
5/8/2018		0.0048 (J)						
6/19/2018						0.001 (J)	0.0062 (J)	0.0029 (J)
6/20/2018		0.0099	0.019	0.44				
6/21/2018					0.022 (J)			
9/25/2018						0.0011 (J)	0.0031 (J)	
9/26/2018								0.0015 (J)
9/27/2018		0.01	0.0035 (J)	0.27	0.015			
11/6/2018		0.013			0.012		0.0014 (J)	<0.0063
11/7/2018			0.002 (J)	0.5		0.0057		
11/27/2018			0.0016 (J)	0.5	0.011			
3/6/2019				0.49				
3/26/2019			0.0018 (J)	0.3	0.0078			
7/2/2019		0.015 (J)		0.37	0.027			
8/26/2019							0.0022 (J)	
8/27/2019		0.0072				0.0011 (J)		0.0024 (J)
8/28/2019			0.0019 (J)	0.5	0.011			
10/15/2019		0.0038 (J)				0.0024 (J)	0.0067	
10/16/2019			0.0047 (J)					0.0043 (J)
10/17/2019				0.34	0.0046 (J)			
11/21/2019								0.0031 (J)
3/27/2020						<0.01	<0.0063	<0.0063
3/28/2020	<0.1	0.0034 (J)	<0.02	0.3	0.012			
10/12/2020						<0.01		
10/13/2020		0.0022 (J)					<0.0063	<0.0063
10/14/2020				0.43	0.013			
10/15/2020	0.021		0.024					
1/4/2021			0.0072					
3/2/2021						<0.01	<0.0063	
3/3/2021								<0.0063
3/4/2021	0.017 (J)	0.0018 (J)	<0.02	0.35	0.015 (J)			
9/13/2021						<0.01	<0.0063	
9/14/2021	0.022	0.0047 (J)	0.02 (J)	0.51	0.013 (J)			<0.0063
3/1/2022	0.015 (J)		0.011 (J)	0.24				
3/2/2022					0.009 (J)			
3/3/2022		0.0041				<0.01	<0.0063	<0.0063
6/28/2022	0.025			0.17				
9/20/2022	0.021			0.18				
9/21/2022		0.0017 (J)	0.0077		0.01	<0.01	<0.0063	<0.0063

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
2/28/2023						<0.01		0.00226 (J)
3/1/2023		0.00247 (J)						
3/2/2023	0.0202		0.00578 (J)	0.0764	0.014		0.00201 (J)	
Mean	0.0239	0.005293	0.01438	0.3217	0.01552	0.006624	0.004695	0.004392
Std. Dev.	0.01098	0.004045	0.01152	0.1455	0.007754	0.004306	0.002338	0.002171
Upper Lim.	0.05	0.006326	0.02093	0.3998	0.01992	0.01	0.0063	0.0063
Lower Lim.	0.015	0.002757	0.007842	0.2437	0.01111	0.001	0.00201	0.0018

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.108	0.0131	
8/31/2016			0.0289	0.0498	0.0771			
10/25/2016								0.063
11/30/2016			0.0168	0.0528	0.101	0.121	0.0105	0.0628
2/15/2017						0.111	0.0786	0.0102
2/16/2017			0.016	0.0555	0.0865			
5/31/2017						0.131	0.0199	0.061
6/1/2017		0.0195						
6/2/2017			0.0393 (J)	0.0508	0.123			
8/2/2017		0.053						
8/15/2017						0.126		0.0579
8/16/2017							0.033	
8/17/2017		0.0475	0.0188	0.0596	0.124			
4/4/2018		0.035						
5/8/2018		0.027						
6/19/2018						0.13	0.092	0.076
6/20/2018		0.027	0.014	0.06				
6/21/2018					0.1			
9/25/2018						0.12	0.098	
9/26/2018								0.099
9/27/2018		0.14	0.0097 (J)	0.06	0.12			
11/6/2018		0.31			0.12		0.1	0.052
11/7/2018			0.0085 (J)	0.19		0.11		
3/6/2019				0.16				
8/26/2019							0.12	
8/27/2019		0.083				0.14		0.11
8/28/2019			0.011	0.13	0.4			
10/15/2019		0.082				0.14	0.12	
10/16/2019			0.012					0.14
10/17/2019				0.13	0.35			
3/27/2020						0.12	0.13	0.16
3/28/2020		0.039	0.0041 (J)	0.12	0.11			
10/12/2020						0.1		
10/13/2020		0.055					0.14	0.14
10/14/2020				0.14	0.19			
10/15/2020	0.071		0.45					
1/4/2021			0.051					
3/2/2021						0.1	0.16	
3/3/2021								0.17
3/4/2021	0.096	0.062	0.0082 (J)	0.14	0.2			
9/13/2021						0.086	0.16	
9/14/2021	0.082	0.043	0.08	0.22	0.2			0.2 (M1)
3/1/2022	0.074		0.035	0.084				
3/2/2022					0.12			
3/3/2022		0.031				0.069	0.15	0.1
9/20/2022	0.069			0.027				
9/21/2022		0.029	0.014		0.12	0.068	0.059	0.089
2/28/2023						0.071 (J)		0.0828 (J)
3/1/2023		0.031 (J)						
3/2/2023	0.0601 (J)		0.0133 (J)	0.0195 (J)	0.0982 (J)		0.0356 (J)	
Mean	0.07535	0.06553	0.04614	0.09717	0.1553	0.1089	0.08939	0.09845
Std. Dev.	0.01236	0.06957	0.1025	0.05811	0.09089	0.02364	0.05239	0.04948

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Upper Lim.	0.09233	0.07576	0.0393	0.1323	0.2	0.1237	0.1222	0.1295
Lower Lim.	0.05837	0.03201	0.0097	0.06201	0.1	0.09407	0.05657	0.06745



# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0003 (J)	<0.004	
8/31/2016		<0.004	<0.004			
10/25/2016						0.0004 (J)
11/30/2016		<0.004	<0.004	0.0004 (J)	<0.004	0.0003 (J)
2/15/2017				0.0004 (J)	<0.004	<0.002
2/16/2017		<0.004	<0.004			
5/31/2017				0.0005 (J)	0.0001 (J)	0.0002 (J)
6/1/2017	0.0001 (J)					
6/2/2017		<0.004	<0.004			
8/2/2017	0.0003 (J)					
8/15/2017				0.0005 (J)		0.0002 (J)
8/16/2017					0.0002 (J)	
8/17/2017	0.0002 (J)	<0.004	<0.004			
4/4/2018	<0.004					
5/8/2018	0.00025 (J)					
6/19/2018				0.00065 (J)	<0.004	0.00032 (J)
6/20/2018	0.00021 (J)	<0.004				
6/21/2018			<0.004			
9/25/2018				0.00066 (J)	5E-05 (J)	
9/26/2018						0.00024 (J)
9/27/2018	0.00031 (J)	<0.004	7.4E-05 (J)			
11/6/2018	0.00077 (J)		0.00012 (J)		9.7E-05 (J)	0.00026 (J)
11/7/2018		5.4E-05 (J)		0.00058 (J)		
8/26/2019					0.0001 (J)	
8/27/2019	0.00032 (J)			0.0009 (J)		0.00018 (J)
8/28/2019		<0.004	<0.004			
10/15/2019	0.00035 (J)			0.00079 (J)	<0.004	
10/16/2019		<0.004				0.00014 (J)
10/17/2019			7.8E-05 (J)			
3/27/2020				<0.005	<0.004	<0.002
3/28/2020	<0.004	<0.004	<0.004			
10/12/2020				0.001 (J)		
10/13/2020	<0.004				<0.004	<0.002
10/14/2020			<0.004			
10/15/2020		<0.004				
1/4/2021		<0.004				
3/2/2021				<0.005	<0.004	
3/3/2021						<0.002
3/4/2021	<0.004	<0.004	<0.004			
9/13/2021				0.0011	<0.004	
9/14/2021	<0.004	<0.004	<0.004			<0.002
3/1/2022		<0.004				
3/2/2022			<0.004			
3/3/2022	0.00025			0.0012 (J)	<0.004	<0.002
9/21/2022	<0.004	<0.004	<0.004	0.0011 (J)	<0.004	0.00029 (J)
2/28/2023				0.00135 (J)		0.000279 (J)
3/1/2023	<0.004					
3/2/2023		<0.004	<0.004		<0.004	
Mean	0.001827	0.003781	0.00331	0.0009665	0.002856	0.0008711
Std. Dev.	0.001879	0.0009301	0.001536	0.0006539	0.001827	0.0008614
Upper Lim.	0.004	0.004	0.004	0.00127	0.004	0.002
Lower Lim.	0.00021	5.4E-05	0.00012	0.0005636	0.0001	0.0002

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-07	MCM-17
8/31/2016		<0.0025	
10/25/2016			<0.0025
11/30/2016		<0.0025	<0.0025
2/15/2017			<0.0025
2/16/2017		<0.0025	
5/31/2017			<0.0025
6/1/2017	<0.0025		
6/2/2017		<0.0025	
8/2/2017	<0.0025		
8/15/2017			<0.0025
8/17/2017	<0.0025	<0.0025	
4/4/2018	<0.0025		
5/8/2018	<0.0025		
6/19/2018			<0.0025
6/20/2018	<0.0025		
6/21/2018		<0.0025	
9/26/2018			9.3E-05
9/27/2018	<0.0025	<0.0025	
11/6/2018	<0.0025	<0.0025	<0.0025
8/27/2019	<0.0025		<0.0025
8/28/2019		<0.0025	
3/27/2020			<0.0025
3/28/2020	<0.0025	<0.0025	
9/14/2021	<0.0025	<0.0025	<0.0025
3/2/2022		<0.0025	
3/3/2022	0.00043		<0.0025
9/21/2022	<0.0025	0.0002 (J)	<0.0025
2/28/2023			<0.0025
3/1/2023	<0.0025		
3/2/2023		<0.0025	
Mean	0.002352	0.002336	0.002328
Std. Dev.	0.0005532	0.0006147	0.0006433
Upper Lim.	0.0025	0.0025	0.0025
Lower Lim.	0.00043	0.0002	9.3E-05

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0054 (J)	0.0026 (J)	
8/31/2016		0.0013 (J)	0.001 (J)	0.0022 (J)			
10/25/2016							0.016
11/30/2016		0.0012 (J)	<0.01	<0.01	0.0073 (J)	0.0016 (J)	0.0151 (J)
2/15/2017					0.0045 (J)	0.0018 (J)	0.0137
2/16/2017		0.0012 (J)	0.0011 (J)	0.0028 (J)			
5/31/2017					0.0052 (J)	0.0019 (J)	0.0109
6/1/2017	0.0008 (J)						
6/2/2017		<0.01	<0.01	0.0023 (J)			
8/2/2017	0.0012 (J)						
8/15/2017					0.005 (J)		0.0117
8/16/2017						0.0019 (J)	
8/17/2017	0.0013 (J)	0.0007 (J)	0.0007 (J)	0.0022 (J)			
4/4/2018	<0.01						
5/8/2018	<0.01						
6/19/2018					0.0047 (J)	<0.01	0.013 (J)
6/20/2018	<0.01	<0.01	<0.01				
6/21/2018				<0.01			
9/25/2018					<0.01	<0.01	
9/26/2018							0.0092 (J)
9/27/2018	<0.01	<0.01	<0.01	0.0024 (J)			
11/6/2018	0.0017 (J)			0.002 (J)		<0.01	<0.01
11/7/2018		<0.01	<0.01		<0.01		
3/6/2019			<0.01				
8/26/2019						0.00071 (J)	
8/27/2019	0.0018 (J)				0.0056 (J)		0.0066 (J)
8/28/2019		0.00047 (J)	0.00085 (J)	0.0024 (J)			
10/15/2019	0.0012 (J)				0.0057 (J)	0.00076 (J)	
10/16/2019		0.00057 (J)					0.0063 (J)
10/17/2019			0.0015 (J)	0.0019 (J)			
3/27/2020					<0.01	<0.01	<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01			
9/13/2021					<0.01	<0.01	
9/14/2021	<0.01	<0.01	<0.01	<0.01			<0.01
3/1/2022		<0.01	<0.01				
3/2/2022				<0.01			
3/3/2022	0.00085 (J)				<0.01	<0.01	<0.01
9/20/2022			<0.01				
9/21/2022	0.0015 (J)	0.0016 (J)		0.0027 (J)	0.0077 (J)	0.0015 (J)	0.0063 (J)
2/28/2023					0.00663 (J)		0.00623 (J)
3/1/2023	<0.01						
3/2/2023		<0.01	<0.01	<0.01		<0.01	
Mean	0.005357	0.005803	0.007197	0.005393	0.007182	0.005518	0.01034
Std. Dev.	0.004503	0.004653	0.004297	0.0039	0.002239	0.004362	0.003168
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01187
Lower Lim.	0.0012	0.0007	0.001	0.0022	0.005	0.0015	0.007143

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					<0.0025	0.0006 (J)	
8/31/2016		<0.0025	<0.0025	<0.0025			
10/25/2016							<0.0025
11/30/2016		<0.0025	0.0009 (J)	0.0011 (J)	<0.0025	<0.0025	0.0007 (J)
2/15/2017					<0.0025	<0.0025	<0.0025
2/16/2017		<0.0025	<0.0025	<0.0025			
5/31/2017					0.0005 (J)	<0.0025	<0.0025
6/1/2017	<0.0025						
6/2/2017		<0.0025	<0.0025	<0.0025			
8/2/2017	<0.0025						
8/15/2017					0.0005 (J)		0.0004 (J)
8/16/2017						<0.0025	
8/17/2017	<0.0025	<0.0025	0.0003 (J)	<0.0025			
4/4/2018	<0.0025						
5/8/2018	<0.0025						
6/19/2018					0.00053 (J)	<0.0025	<0.0025
6/20/2018	<0.0025	<0.0025	<0.0025				
6/21/2018				<0.0025			
9/25/2018					<0.0025	<0.0025	
9/26/2018							0.00052
9/27/2018	<0.0025	<0.0025	<0.0025	<0.0025			
11/6/2018	0.0048 (J)			<0.0025		<0.0025	<0.0025
11/7/2018		<0.0025	<0.0025		<0.0025		
3/6/2019			<0.0025				
8/26/2019						<0.0025	
8/27/2019	0.0078				0.0007 (J)		<0.0025
8/28/2019		<0.0025	<0.0025	<0.0025			
10/15/2019	0.0085				0.00054 (J)	<0.0025	
10/16/2019		<0.0025					<0.0025
10/17/2019			<0.0025	<0.0025			
11/20/2019	0.009						
3/27/2020					<0.0025	<0.0025	<0.0025
3/28/2020	0.0041 (J)	<0.0025	<0.0025	<0.0025			
10/12/2020					<0.0025		
10/13/2020	0.0063					<0.0025	<0.0025
10/14/2020			<0.0025	<0.0025			
10/15/2020		0.0019 (J)					
1/4/2021		<0.0025					
3/2/2021					<0.0025	<0.0025	
3/3/2021							<0.0025
3/4/2021	0.006	<0.0025	<0.0025	<0.0025			
9/13/2021					<0.0025	<0.0025	
9/14/2021	0.0054	<0.0025	<0.0025	<0.0025			<0.0025
3/1/2022		<0.0025	<0.0025				
3/2/2022				<0.0025			
3/3/2022	0.0049				<0.0025	<0.0025	<0.0025
9/20/2022			<0.0025				
9/21/2022	0.0025	0.00026 (J)		0.00031 (J)	0.00042 (J)	<0.0025	0.00025 (J)
2/28/2023					0.00052 (J)		<0.0025
3/1/2023	0.00256 (J)						
3/2/2023		<0.0025	<0.0025	<0.0025		<0.0025	
Mean	0.004409	0.002342	0.002289	0.002289	0.001689	0.002388	0.002022

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Std. Dev.	0.002294	0.0005385	0.000623	0.0006123	0.001001	0.0004608	0.0008925
Upper Lim.	0.0063	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0019	0.0009	0.0011	0.00052	0.0006	0.0007

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.4	1.31	
8/31/2016			2.39 (D)	2.47 (D)	5.4 (D)			
10/25/2016								2.22
11/30/2016			1.66	1.6	3.13	4.37	0.438 (U)	2.01
2/15/2017						2.21	0.3 (U)	1.56
2/16/2017			2.71	1.83	3.09			
5/31/2017						2.62	1.77	1.92
6/1/2017		1.9						
6/2/2017			1.99	2.45	7.56			
8/2/2017		5.01						
8/15/2017						2.69		2.47
8/16/2017							2.26	
8/17/2017		5.35	1.87	3.33	6.38			
4/4/2018		5.05						
5/8/2018		3.25						
6/19/2018						2.96	5.39	2.82
6/20/2018		3.53	1.95	2.84				
6/21/2018					5.24			
9/25/2018						2.23	6.22	
9/26/2018								3.15 (D)
9/27/2018		7.07	0.629 (U)	1.94	6.11			
11/6/2018		11			6.1		5.38	2.95
11/7/2018			1.41 (U)	8.58		2.14		
8/26/2019							7.68	
8/27/2019		4.4				2.91		5.82
8/28/2019			1.67	6.86	8.73			
10/15/2019		4.92				3.28	8.7	
10/16/2019			1.92					7.5
10/17/2019				7.85	7.97			
11/20/2019					9.8			
11/21/2019							7.34	8.89
3/27/2020						2.33	9.63	9.54
3/28/2020		4.16	1.44 (U)	11 (U)	11.7			
10/12/2020						2.66		
10/13/2020		3.71					7.43	7.75
10/14/2020				8.97	13.1			
10/15/2020			2.56					
1/4/2021			5.84					
4/6/2021	7.33	2.83	1.43 (U)	7.89	9.66	2.2	7.02	7.8
9/13/2021						2.54	8.38	
9/14/2021	6.97	2.69	7.15	8.11	10.3			8.82
3/1/2022	9.03		8.16 (U)	5.83 (U)				
3/2/2022					5.66 (U)			
3/3/2022		2.51				3.56 (U)	8	9.1
9/20/2022	8.2			1.51				
9/21/2022		1.67	1.42		8.23	1.54	4.52	5.26
2/28/2023						2.29		5.48
3/1/2023		5.05						
3/2/2023	9.42		2.22	1.79	4.5		8.08	
Mean	8.19	4.359	2.69	4.991	7.37	2.584	5.547	5.281
Std. Dev.	1.054	2.213	2.102	3.247	2.811	0.7136	3.056	2.922
Upper Lim.	9.957	5.475	2.71	8.11	9.071	3.031	7.583	8.82

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Lower Lim.	6.423	2.98	1.43	1.83	5.669	2.137	4.656	2.22

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						1.5	0.5	
8/31/2016			0.93	0.41	0.92			
10/25/2016								1.1
11/30/2016			0.93	0.61	0.99	1.4	0.49	1.3
2/15/2017						1.3	0.58	1.3
2/16/2017			0.6	0.3 (J)	0.54			
5/31/2017						1.2	0.56	1.3
6/1/2017		<0.1						
6/2/2017			0.34	0.19 (J)	0.42			
8/2/2017		0.27 (J)						
8/15/2017						1.2		1.2
8/16/2017							0.45	
8/17/2017		0.18 (J)	0.52	0.26 (J)	0.27 (J)			
4/4/2018		<0.1						
5/8/2018		0.56						
6/19/2018						0.91	<0.1	0.6
6/20/2018		0.033 (J)	0.5	0.22 (J)				
6/21/2018					0.28 (J)			
9/25/2018						1.1	<0.1	
9/26/2018								0.44 (D)
9/27/2018		0.12 (J)	0.32	0.068 (J)	0.32 (D)			
11/6/2018		<0.1			0.086 (J)		0.084 (J)	0.4
11/7/2018			0.35	10.3 (o)	<0.1			
3/6/2019				<0.1				
3/24/2019			0.32	0.19 (J)	0.14 (J)	0.99	0.14 (J)	0.31
3/25/2019		0.055 (J)						
8/26/2019							<0.1	
8/27/2019		<0.1				1.1		<0.1
8/28/2019			0.36	<0.1	<0.1			
10/15/2019		0.095 (J)				1	<0.1	
10/16/2019			0.41					0.083 (J)
10/17/2019				<0.1	<0.1			
11/20/2019			0.34		<0.1			
11/21/2019							<0.1	<0.1
3/27/2020						1.1	<0.1	<0.1
3/28/2020		<0.1	0.34	<0.1	<0.1			
10/12/2020						1.2		
10/13/2020		<0.1					<0.1	<0.1
10/14/2020				<0.1	<0.1			
10/15/2020	0.11		0.22					
1/4/2021			<0.1					
3/2/2021						1	<0.1	
3/3/2021								<0.1
3/4/2021	<0.1	<0.1	0.45	<0.1	<0.1			
9/13/2021						1.4	<0.1	
9/14/2021	<0.1	0.05	<0.1	<0.1	<0.1			<0.1
3/1/2022	<0.1		<0.1	<0.1				
3/2/2022					<0.1			
3/3/2022		<0.1				0.95	<0.1	<0.1
9/20/2022	<0.1			1.1 (J)				
9/21/2022		<0.1	0.48		0.18	1.3	0.12	0.78
2/28/2023						1.21 (J)		0.815 (J)



# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
3/1/2023		<0.1						
3/2/2023	<0.1		0.388 (J)	0.419 (J)	0.44 (J)		0.188 (J)	
Mean	0.1017	0.1313	0.4049	0.2537	0.2835	1.106	0.2164	0.5436
Std. Dev.	0.004082	0.1185	0.2254	0.2578	0.2743	0.312	0.1869	0.4868
Upper Lim.	0.11	0.12	0.5329	0.41	0.44	1.276	0.49	1.2
Lower Lim.	0.1	0.095	0.2769	0.1	0.1	1.002	0.1	0.1

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016				0.0001 (J)	<0.005	
8/31/2016	<0.005	<0.005	<0.005			
10/25/2016						<0.005
11/30/2016	0.0002 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2017				<0.005	<0.005	<0.005
2/16/2017	<0.005	<0.005	0.0002 (J)			
5/31/2017				9E-05 (J)	<0.005	<0.005
6/2/2017	<0.005	<0.005	<0.005			
8/15/2017				<0.005		0.0002 (J)
8/16/2017					8E-05 (J)	
8/17/2017	<0.005	<0.005	8E-05 (J)			
6/19/2018				<0.005	<0.005	<0.005
6/20/2018	<0.005	<0.005				
6/21/2018			<0.005			
9/25/2018				<0.005	<0.005	
9/26/2018						0.00027
9/27/2018	<0.005	<0.005	<0.005			
11/6/2018			<0.005		<0.005	<0.005
11/7/2018	<0.005	<0.005		<0.005		
3/6/2019		<0.005				
8/26/2019					<0.005	
8/27/2019				0.00022 (J)		0.00014 (J)
8/28/2019	<0.005	<0.005	0.0001 (J)			
10/15/2019				5.6E-05 (J)	<0.005	
10/16/2019	<0.005					0.00034 (J)
10/17/2019		0.00012 (J)	<0.005			
3/27/2020				<0.005	<0.005	<0.005
3/28/2020	<0.005	<0.005	<0.005			
10/12/2020				<0.005		
10/13/2020					<0.005	<0.005
10/14/2020		<0.005	<0.005			
10/15/2020	<0.005					
1/4/2021	<0.005					
3/2/2021				<0.005	<0.005	
3/3/2021						<0.005
3/4/2021	<0.005	<0.005	<0.005			
9/13/2021				<0.005	<0.005	
9/14/2021	<0.005	<0.005	<0.005			<0.005
3/1/2022	<0.005	<0.005				
3/2/2022			<0.005			
3/3/2022				<0.005	<0.005	<0.005
9/20/2022		<0.005				
9/21/2022	<0.005		<0.005	0.00083 (J)	<0.005	<0.005
2/28/2023				<0.005		<0.005
3/2/2023	<0.005	<0.005	<0.005		<0.005	
Mean	0.004733	0.004729	0.00414	0.003606	0.004711	0.003879
Std. Dev.	0.001131	0.00115	0.001915	0.002233	0.001193	0.002083
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0002	0.00012	0.0002	0.00022	8E-05	0.00034

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016						0.0102 (J)	0.0112 (J)	
8/31/2016			0.0219 (J)	0.0389 (J)	0.0122 (J)			
10/25/2016								0.007 (J)
11/30/2016			0.0333 (J)	0.0303 (J)	0.011 (J)	0.0106 (J)	<0.025	0.0086 (J)
2/15/2017						0.0115 (J)	0.0105 (J)	0.0149 (J)
2/16/2017			0.0376 (J)	0.05 (J)	0.0142 (J)			
5/31/2017						0.011 (J)	0.0106 (J)	0.019 (J)
6/1/2017		<0.025						
6/2/2017			0.0346 (J)	0.0477 (J)	0.0229 (J)			
8/2/2017		<0.025						
8/15/2017						0.0123 (J)		0.016 (J)
8/16/2017							0.0145 (J)	
8/17/2017		<0.025	0.0367 (J)	0.0645	0.0241 (J)			
4/4/2018		0.0013 (J)						
5/8/2018		0.0012 (J)						
6/19/2018						0.012 (J)	0.044 (J)	0.021 (J)
6/20/2018		0.0015 (J)	0.034 (J)	0.066 (J)				
6/21/2018					0.03 (J)			
9/25/2018						0.011 (J)	0.041 (J)	
9/26/2018								0.02 (J)
9/27/2018		0.0021 (J)	0.023 (J)	0.045 (J)	0.034 (J)			
11/6/2018		0.0038 (J)			0.037 (J)		0.047 (J)	0.017 (J)
11/7/2018			0.022 (J)	0.11		0.013 (J)		
3/6/2019				0.12				
8/26/2019							0.059	
8/27/2019		0.002 (J)				0.012 (J)		0.023 (J)
8/28/2019			0.023 (J)	0.13	0.12			
10/15/2019		0.0019 (J)				0.012 (J)	0.056 (J)	
10/16/2019			0.021 (J)					0.024 (J)
10/17/2019				0.12	0.096			
11/20/2019					0.12			
11/21/2019							0.052	
3/27/2020						<0.025	0.052	0.033 (J)
3/28/2020	0.078 (J)	<0.025	0.014 (J)	0.064	0.027 (J)			
6/16/2020	0.096 (J)							
10/12/2020						0.011 (J)		
10/13/2020		<0.025					0.046 (J)	0.028 (J)
10/14/2020				0.11	0.039 (J)			
10/15/2020	0.093		0.57					
1/4/2021			0.043 (J)					
3/2/2021						<0.025	0.046 (J)	
3/3/2021								<0.025
3/4/2021	0.094 (J)	<0.025	0.017 (J)	0.096 (J)	0.035 (J)			
9/13/2021						0.01 (J)	0.047	
9/14/2021	0.092	<0.025	0.042 (J)	0.084	0.035 (J)			0.035 (J)
3/1/2022	0.088 (J)		0.028 (J)	0.074				
3/2/2022					0.022 (J)			
3/3/2022		0.0017 (J)				<0.025	0.037 (J)	0.02 (J)
9/20/2022	<0.025			0.043				
9/21/2022		<0.025	0.018 (J)		0.02 (J)	0.0075 (J)	0.028	0.023 (J)
2/28/2023						0.0104 (J)		0.0257 (J)
3/1/2023		<0.025						

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
3/2/2023	0.0919		0.0237 (J)	0.0361 (J)	0.0217 (J)		0.0218 (J)	
Mean	0.08068	0.01415	0.05793	0.07386	0.04006	0.0135	0.03534	0.02045
Std. Dev.	0.0281	0.01188	0.1281	0.03294	0.03446	0.005619	0.01741	0.007621
Upper Lim.	0.09598	0.025	0.0376	0.09379	0.04714	0.013	0.0472	0.02523
Lower Lim.	0.07787	0.0017	0.021	0.05393	0.02031	0.0104	0.02903	0.01568

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-14	MCM-17
8/30/2016					<0.0002	
8/31/2016		<0.0002	<0.0002	<0.0002		
10/25/2016						<0.0002
11/30/2016		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/15/2017					<0.0002	<0.0002
2/16/2017		<0.0002	<0.0002	<0.0002		
5/31/2017					<0.0002	<0.0002
6/1/2017	<0.0002					
6/2/2017		4.2E-05 (J)	<0.0002	<0.0002		
8/2/2017	<0.0002					
8/15/2017						<0.0002
8/16/2017					<0.0002	
8/17/2017	<0.0002	<0.0002	<0.0002	<0.0002		
4/4/2018	<0.0002					
5/8/2018	<0.0002					
6/19/2018					<0.0002	<0.0002
6/20/2018	<0.0002	<0.0002	<0.0002			
6/21/2018				<0.0002		
9/25/2018					<0.0002	
9/26/2018						3.6E-05
9/27/2018	<0.0002	<0.0002	<0.0002	<0.0002		
11/6/2018	0.00071			0.00067	0.00066	0.00064
11/7/2018		<0.0002	<0.0002			
3/6/2019			<0.0002			
8/26/2019					<0.0002	
8/27/2019	<0.0002					<0.0002
8/28/2019		<0.0002	<0.0002	<0.0002		
3/27/2020					<0.0002	<0.0002
3/28/2020	<0.0002	<0.0002	<0.0002	<0.0002		
9/13/2021					<0.0002	
9/14/2021	<0.0002	<0.0002	0.00016 (J)	<0.0002		<0.0002
3/1/2022		<0.0002	<0.0002			
3/2/2022				<0.0002		
3/3/2022	<0.0002				<0.0002	<0.0002
9/20/2022			<0.0002			
9/21/2022	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002
2/28/2023						<0.0002
3/1/2023	<0.0002					
3/2/2023		<0.0002	<0.0002	<0.0002	<0.0002	
Mean	0.0002364	0.0001887	0.0001973	0.0002336	0.0002329	0.0002197
Std. Dev.	0.0001363	4.223E-05	1.033E-05	0.0001256	0.0001229	0.0001286
Upper Lim.	0.00071	0.0002	0.0002	0.00067	0.00066	0.00064
Lower Lim.	0.0002	4.2E-05	0.00016	0.0002	0.0002	3.6E-05

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-17
8/31/2016		<0.01	<0.01	<0.01	
10/25/2016					<0.01
11/30/2016		<0.01	<0.01	<0.01	<0.01
2/15/2017					<0.01
2/16/2017		<0.01	<0.01	<0.01	
5/31/2017					<0.01
6/1/2017	<0.01				
6/2/2017		<0.01	<0.01	<0.01	
8/2/2017	<0.01				
8/15/2017					<0.01
8/17/2017	<0.01	0.0012 (J)	0.0025 (J)	<0.01	
4/4/2018	<0.01				
5/8/2018	<0.01				
6/19/2018					<0.01
6/20/2018	<0.01	<0.01	<0.01		
6/21/2018				<0.01	
9/26/2018					0.0019
9/27/2018	<0.01	<0.01	<0.01	<0.01	
11/6/2018	<0.01			<0.01	<0.01
11/7/2018		<0.01	0.0024 (J)		
3/6/2019			<0.01		
8/27/2019	<0.01				<0.01
8/28/2019		<0.01	0.0017 (J)	<0.01	
10/15/2019	<0.01				
10/16/2019		<0.01			<0.01
10/17/2019			0.0017 (J)	<0.01	
3/27/2020					<0.01
3/28/2020	<0.01	<0.01	<0.01	<0.01	
9/14/2021	<0.01	0.0099 (J)	<0.01	<0.01	<0.01
3/1/2022		<0.01	<0.01		
3/2/2022				<0.01	
3/3/2022	0.00015 (J)				<0.01
9/20/2022			0.0013 (J)		
9/21/2022	<0.01	0.00095 (J)		0.00095 (J)	<0.01
2/28/2023					0.000313 (J)
3/1/2023	<0.01				
3/2/2023		0.000852 (J)	0.00131 (J)	0.000963 (J)	
Mean	0.009343	0.008193	0.006932	0.008794	0.008814
Std. Dev.	0.002543	0.003723	0.004102	0.003182	0.003144
Upper Lim.	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.00015	0.0012	0.0017	0.000963	0.0019

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
8/30/2016					0.0011 (J)	<0.05	
8/31/2016		0.002 (J)	0.0015 (J)	0.0021 (J)			
10/25/2016							0.003 (J)
11/30/2016		0.0023 (J)	0.0054 (J)	<0.005	0.0023 (J)	<0.05	0.0087 (J)
2/15/2017					0.0021 (J)	0.0014 (J)	0.0067 (J)
2/16/2017		0.002 (J)	0.0022 (J)	0.0025 (J)			
5/31/2017					<0.005	<0.05	0.0018 (J)
6/1/2017	<0.05						
6/2/2017		<0.05	<0.05	<0.005			
8/2/2017	<0.05						
8/15/2017					0.0021 (J)		0.0025 (J)
8/16/2017						0.0018 (J)	
8/17/2017	<0.05	<0.05	0.002 (J)	0.0033 (J)			
4/4/2018	<0.05						
5/8/2018	<0.05						
6/19/2018					0.0017 (J)	<0.05	<0.005
6/20/2018	<0.05	<0.05	<0.05				
6/21/2018				<0.005			
9/25/2018					0.002 (J)	0.0019 (J)	
9/26/2018							0.0016 (J)
9/27/2018	<0.05	<0.05	<0.05	0.0023 (J)			
11/6/2018	0.0025 (J)			0.0048 (J)		0.0057 (J)	<0.005
11/7/2018		<0.05	0.0075 (J)		<0.005		
3/6/2019			0.0024 (J)				
8/26/2019						0.0025 (J)	
8/27/2019	<0.05				0.0019 (J)		0.0018 (J)
8/28/2019		<0.05	0.0014 (J)	0.0019 (J)			
10/15/2019	<0.05				<0.005	0.003 (J)	
10/16/2019		<0.05					<0.005
10/17/2019			0.0066 (J)	0.0049 (J)			
3/27/2020					<0.005	<0.05	<0.005
3/28/2020	<0.05	<0.05	<0.05	<0.005			
10/12/2020					<0.005		
10/13/2020	<0.05					<0.05	<0.005
10/14/2020			<0.05	<0.005			
10/15/2020		0.0028 (J)					
1/4/2021		<0.05					
3/2/2021					<0.005	<0.05	
3/3/2021							<0.005
3/4/2021	0.00038 (J)	<0.05	<0.05	<0.005			
9/13/2021					<0.005	<0.05	
9/14/2021	<0.05	<0.05	<0.05	<0.005			0.0021
3/1/2022		<0.05	<0.05				
3/2/2022				<0.005			
3/3/2022	0.00012 (J)				<0.005	<0.05	<0.005
9/20/2022			<0.05				
9/21/2022	<0.05	<0.05		<0.005	<0.005	<0.05	<0.005
2/28/2023					0.00157 (J)		0.00184 (J)
3/1/2023	<0.05						
3/2/2023		<0.05	<0.05	0.00238 (J)		<0.05	
Mean	0.04135	0.03939	0.02939	0.004069	0.003516	0.03331	0.00412
Std. Dev.	0.01926	0.02042	0.02376	0.00129	0.001642	0.02331	0.002002

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-04	MCM-05	MCM-06	MCM-07	MCM-12	MCM-14	MCM-17
Upper Lim.	0.05	0.05	0.05	0.005	0.005	0.05	0.0067
Lower Lim.	0.0025	0.0028	0.0022	0.00238	0.0019	0.0025	0.00184



# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 5/25/2023 10:24 AM View: Appendix IV - Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-06	MCM-17
8/31/2016	<0.002	
10/25/2016		<0.002
11/30/2016	<0.002	<0.002
2/15/2017		<0.002
2/16/2017	<0.002	
5/31/2017		<0.002
6/2/2017	<0.002	
8/15/2017		<0.002
8/17/2017	<0.002	
6/19/2018		<0.002
6/20/2018	<0.002	
9/26/2018		0.00014
9/27/2018	<0.002	
11/6/2018		<0.002
11/7/2018	<0.002	
3/6/2019	<0.002	
8/27/2019		<0.002
8/28/2019	<0.002	
10/16/2019		<0.002
10/17/2019	7.6E-05 (J)	
3/27/2020		<0.002
3/28/2020	<0.002	
9/14/2021	<0.002	<0.002
3/1/2022	<0.002	
3/3/2022		<0.002
9/20/2022	<0.002	
9/21/2022		<0.002
2/28/2023		<0.002
3/2/2023	<0.002	
Mean	0.00188	0.001876
Std. Dev.	0.000481	0.0004802
Upper Lim.	0.002	0.002
Lower Lim.	7.6E-05	0.00014

FIGURE I.

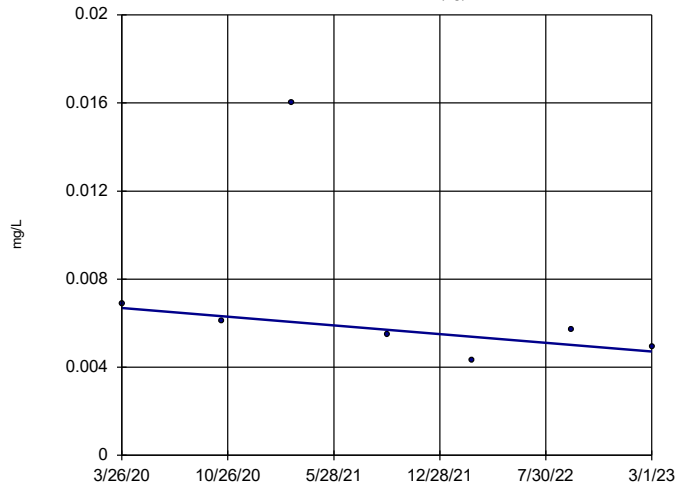
# Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 7/11/2023, 9:13 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	MCM-01 (bg)	-0.000672	-11	-18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-02 (bg)	0	-1	-18	No	7	71.43	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-06	-0.1329	-24	-25	No	9	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-11 (bg)	0.001803	10	18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-15 (bg)	0.001045	7	18	No	7	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-16 (bg)	0	-5	-18	No	7	57.14	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-18 (bg)	-0.0002005	-18	-43	No	13	15.38	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-19 (bg)	0.00005126	2	43	No	13	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	MCM-20 (bg)	-0.0005887	-7	-48	No	14	0	n/a	n/a	0.01	NP
Lithium (mg/L)	DPZ-02	-0.002155	-10	-21	No	8	12.5	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-01 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-02 (bg)	0	0	18	No	7	100	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-06	-0.02612	-13	-18	No	7	0	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-11 (bg)	0	-3	-18	No	7	71.43	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-15 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-16 (bg)	0	-2	-18	No	7	85.71	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-18 (bg)	0	10	34	No	11	54.55	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-19 (bg)	-0.0001629	-8	-43	No	13	7.692	n/a	n/a	0.01	NP
Lithium (mg/L)	MCM-20 (bg)	0.0006089	14	43	No	13	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

MCM-01 (bg)

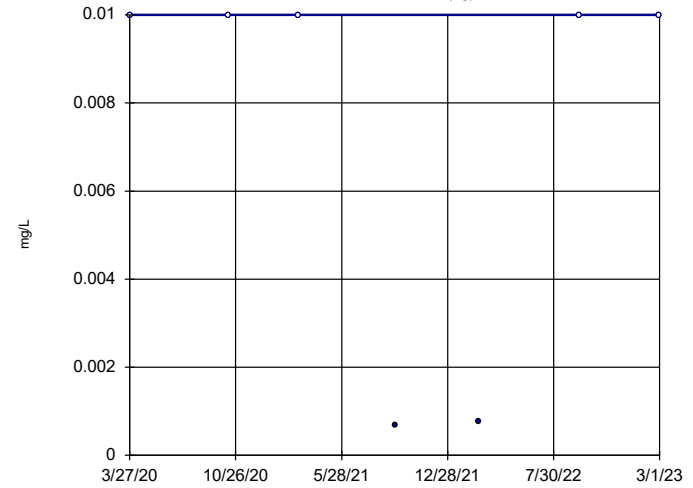


n = 7  
 Slope = -0.000672  
 units per year.  
 Mann-Kendall  
 statistic = -11  
 critical = -18  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-02 (bg)

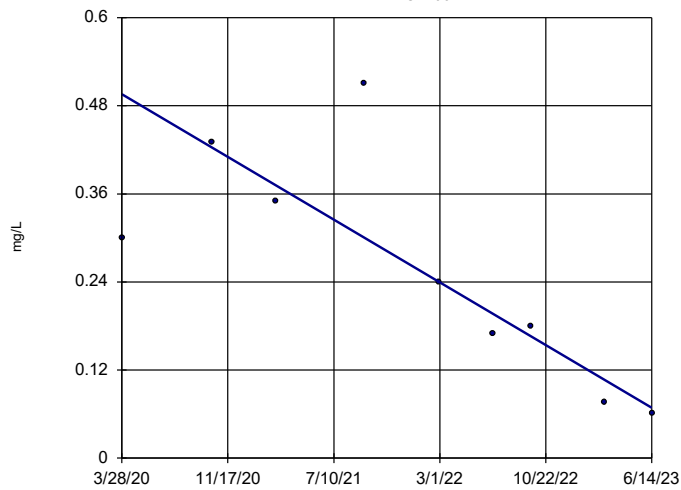


n = 7  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = -1  
 critical = -18  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-06

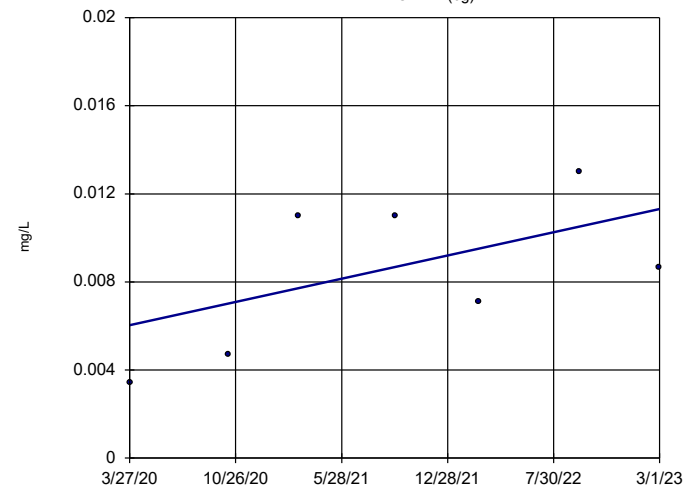


n = 9  
 Slope = -0.1329  
 units per year.  
 Mann-Kendall  
 statistic = -24  
 critical = -25  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

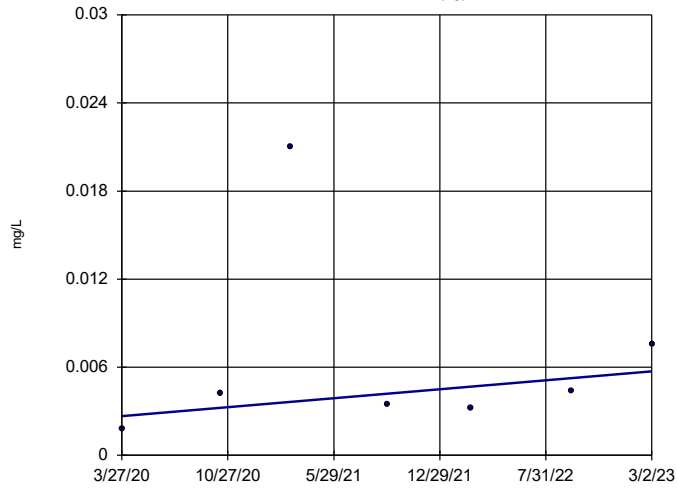


n = 7  
 Slope = 0.001803  
 units per year.  
 Mann-Kendall  
 statistic = 10  
 critical = 18  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

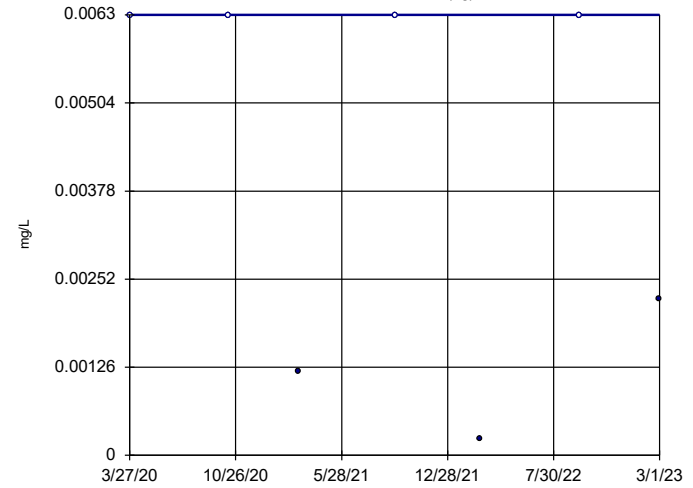


n = 7  
 Slope = 0.001045 units per year.  
 Mann-Kendall statistic = 7  
 critical = 18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

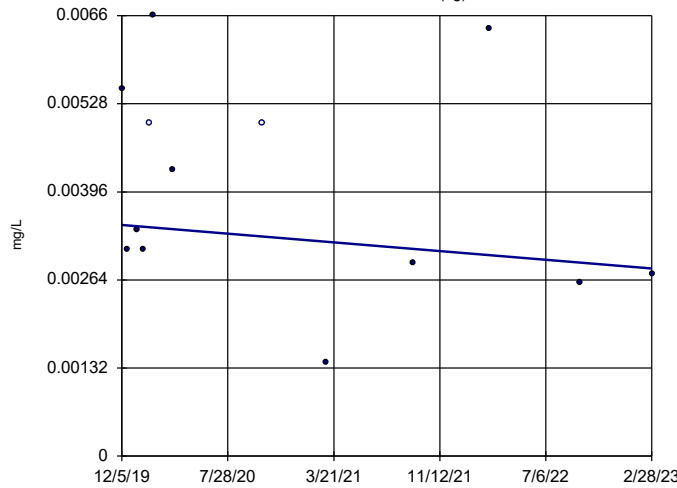


n = 7  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -5  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-18 (bg)

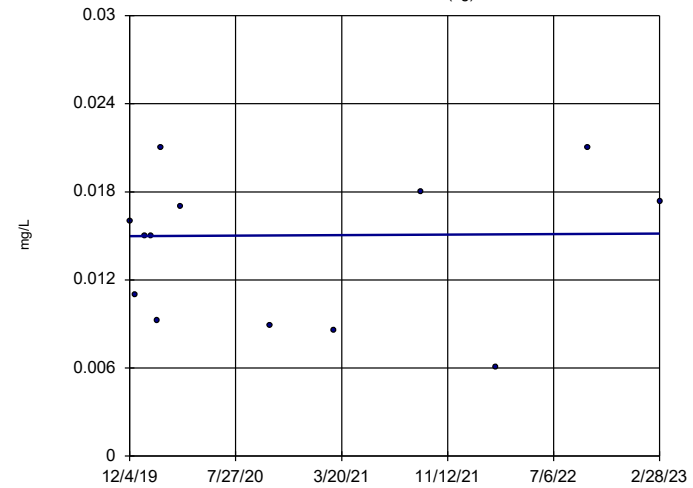


n = 13  
 Slope = -0.0002005 units per year.  
 Mann-Kendall statistic = -18  
 critical = -43  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:12 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-19 (bg)

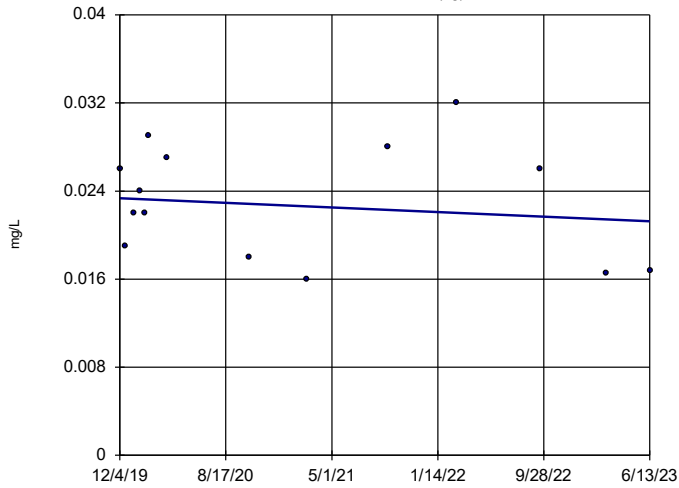


n = 13  
 Slope = 0.00005126 units per year.  
 Mann-Kendall statistic = 2  
 critical = 43  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-20 (bg)



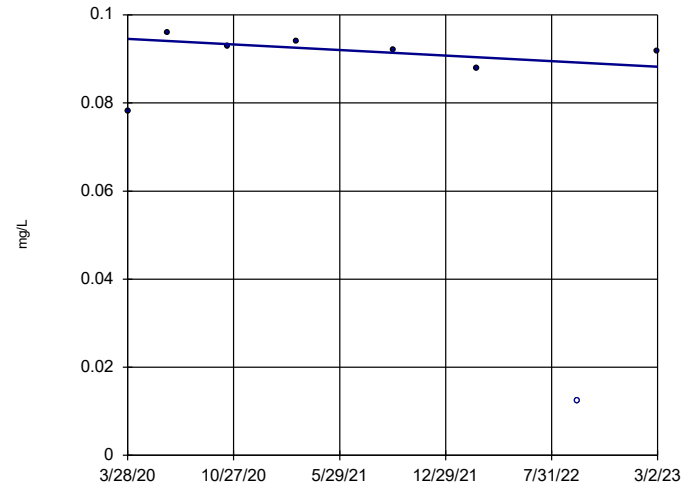
n = 14  
Slope = -0.0005887  
units per year.  
Mann-Kendall  
statistic = -7  
critical = -48  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

### Sen's Slope Estimator

DPZ-02

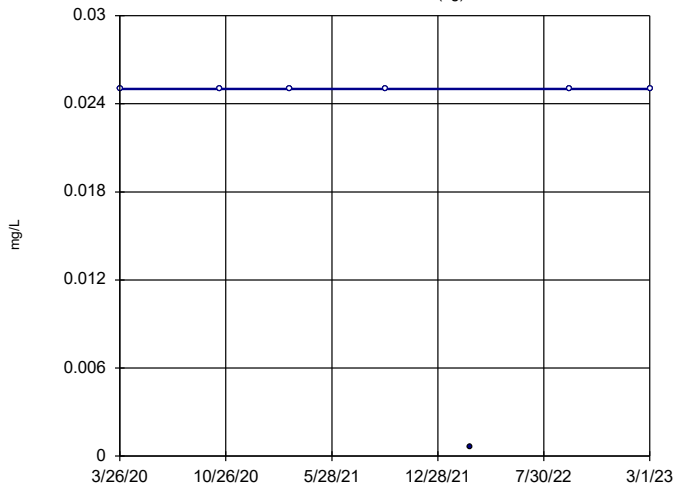


n = 8  
Slope = -0.002155  
units per year.  
Mann-Kendall  
statistic = -10  
critical = -21  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-01 (bg)

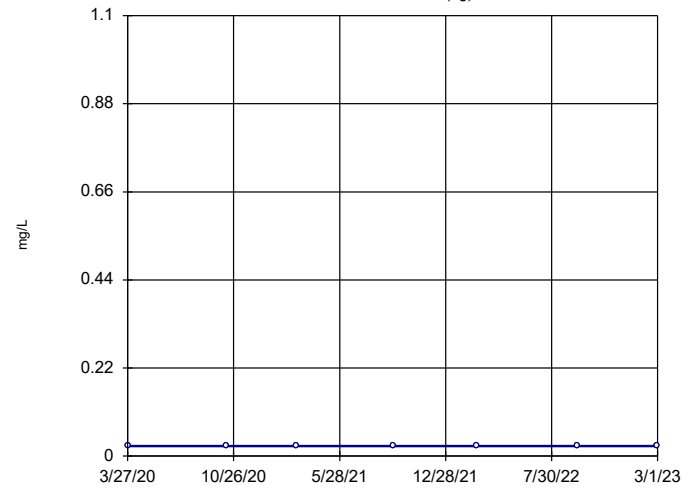


n = 7  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -2  
critical = -18  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-02 (bg)

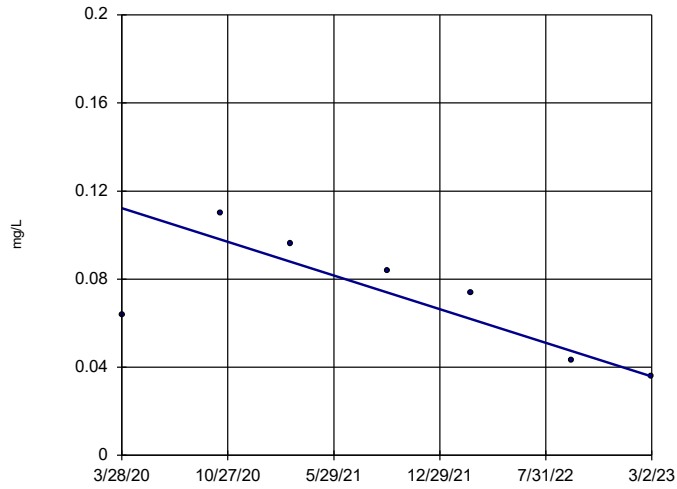


n = 7  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 18  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-06

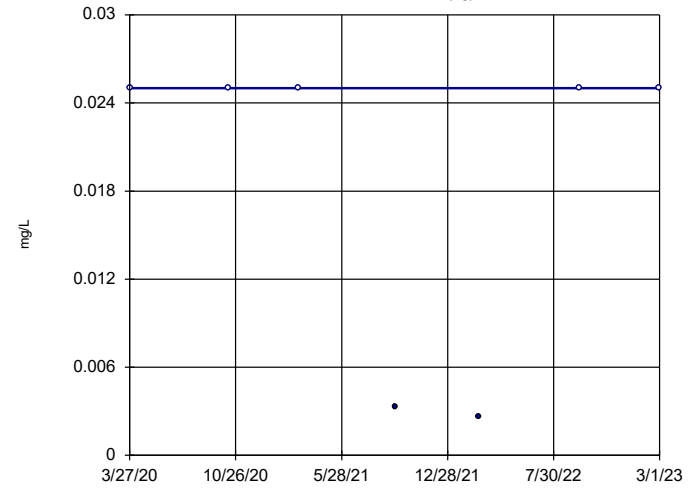


n = 7  
 Slope = -0.02612 units per year.  
 Mann-Kendall statistic = -13  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-11 (bg)

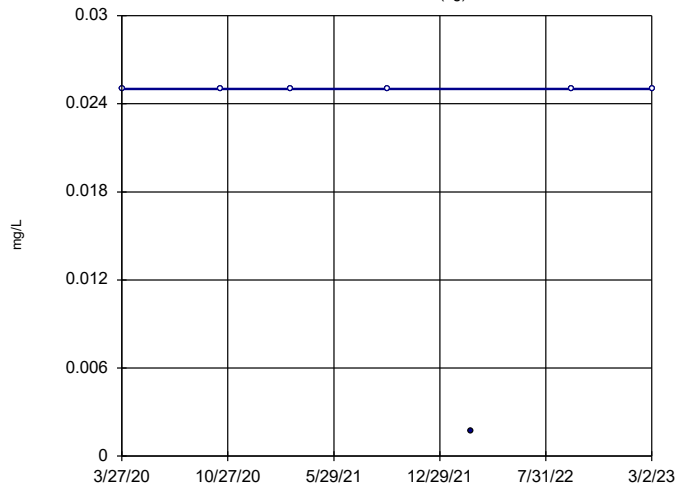


n = 7  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -3  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-15 (bg)

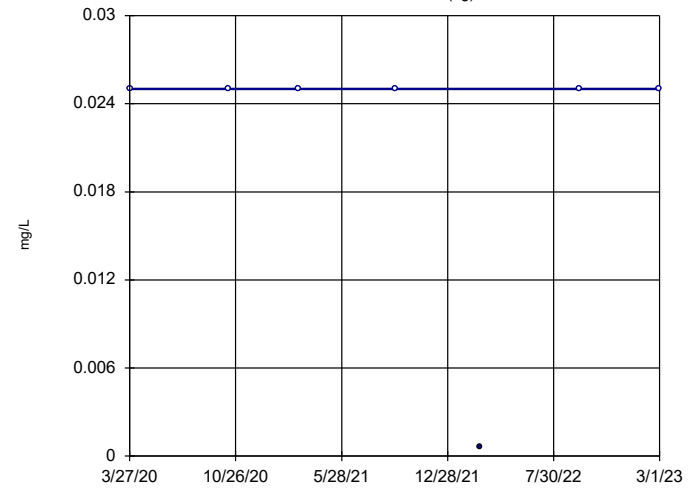


n = 7  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -2  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-16 (bg)

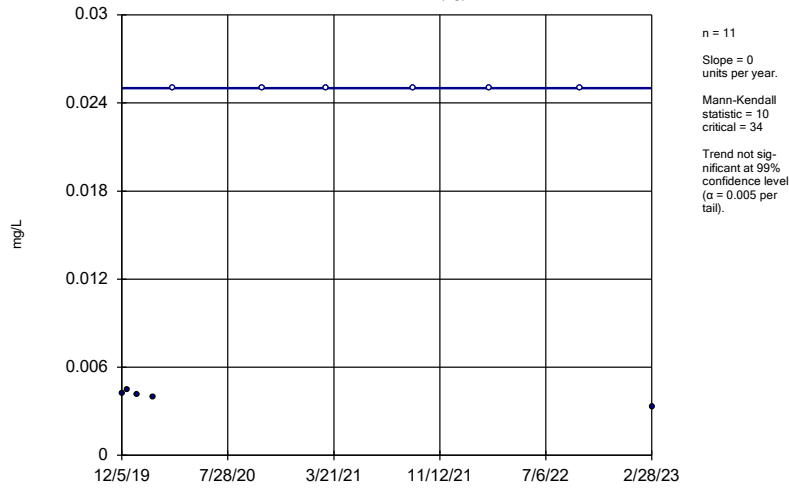


n = 7  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -2  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

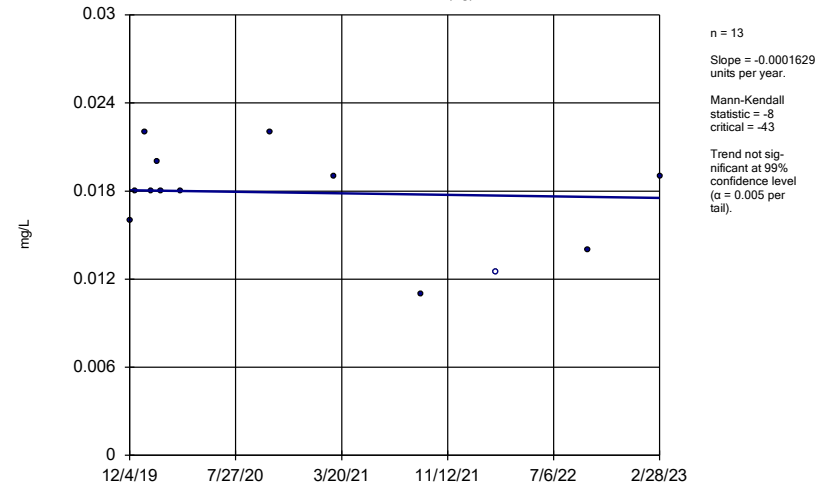
MCM-18 (bg)



Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

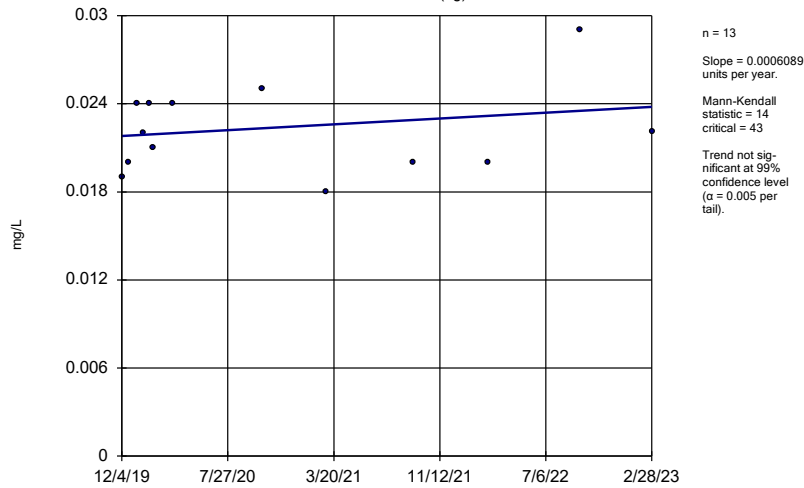
MCM-19 (bg)



Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Sen's Slope Estimator

MCM-20 (bg)

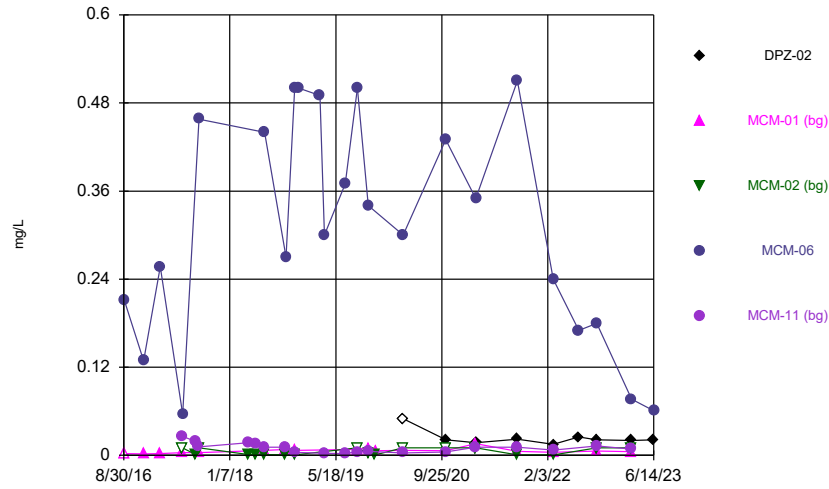


Constituent: Lithium Analysis Run 7/11/2023 9:13 AM View: Appendix IV - Trend Tests  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



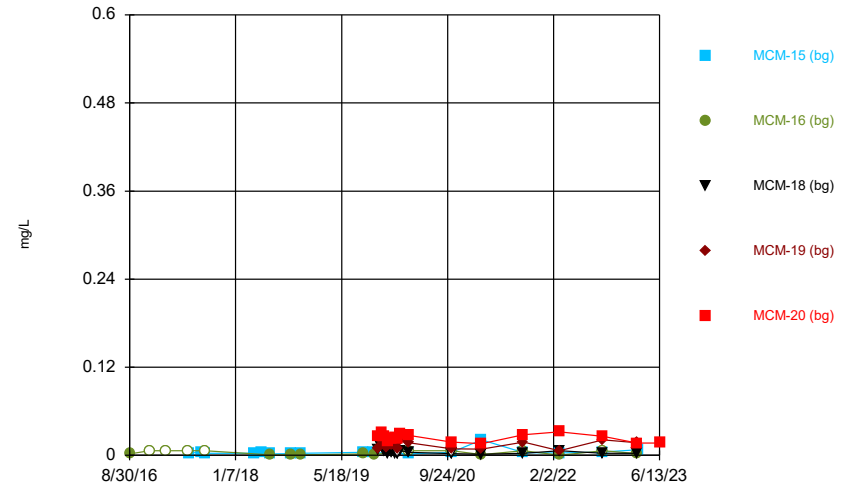
FIGURE J.

Time Series



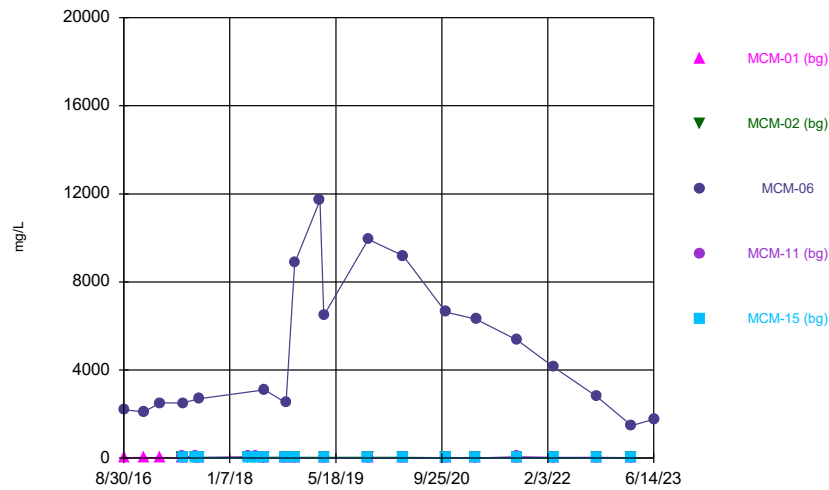
Constituent: Arsenic Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



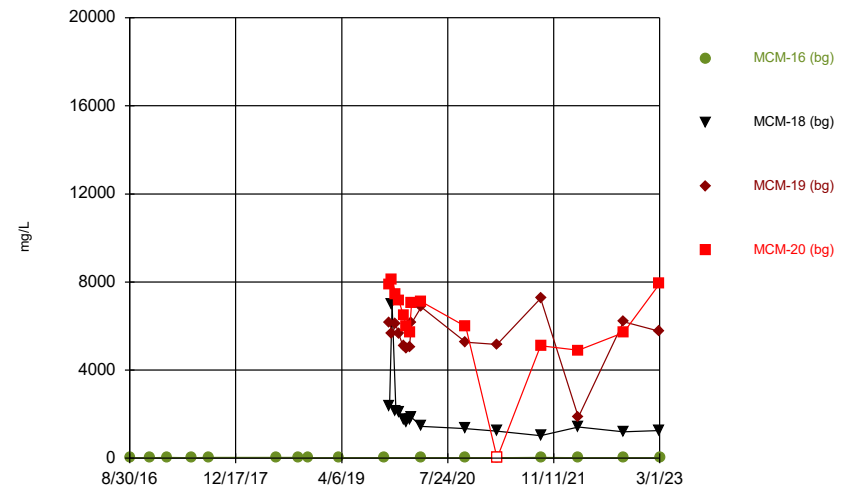
Constituent: Arsenic Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



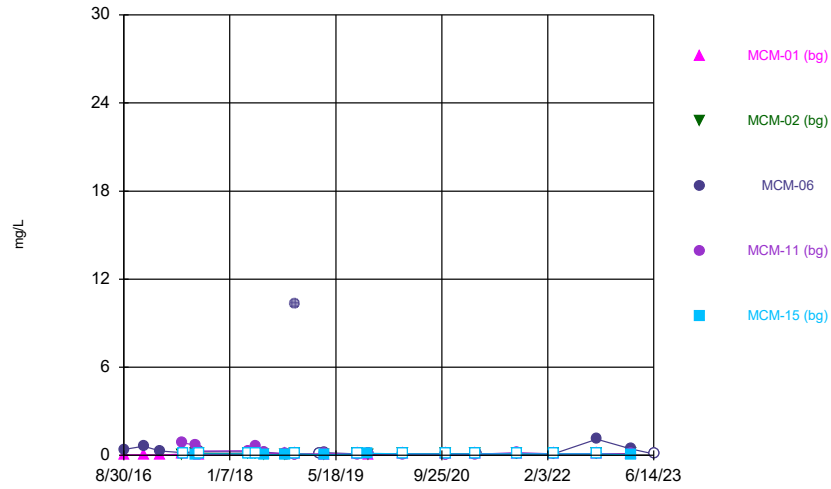
Constituent: Chloride Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



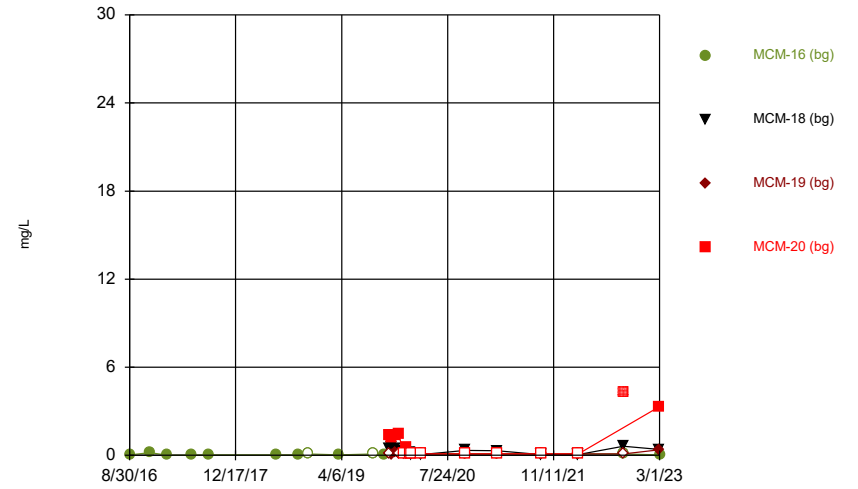
Constituent: Chloride Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



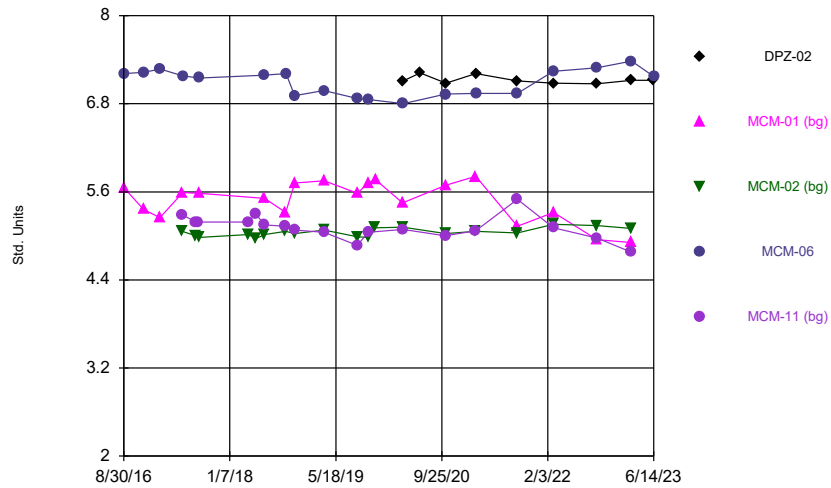
Constituent: Fluoride Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



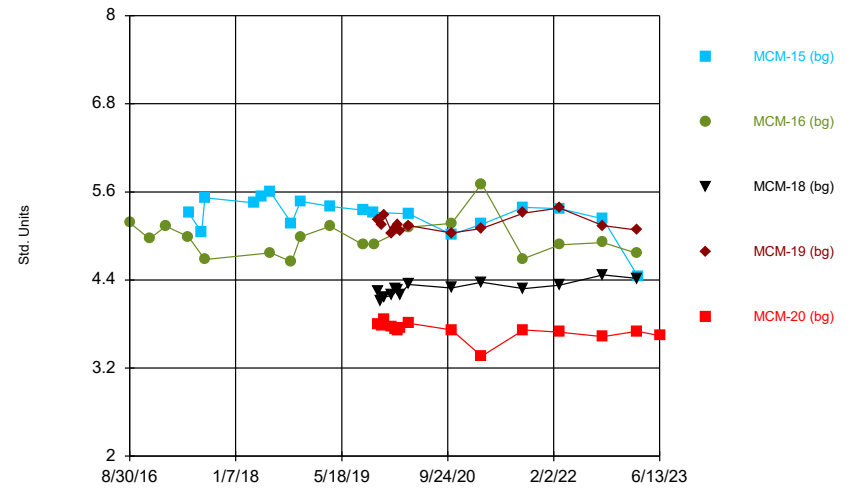
Constituent: Fluoride Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



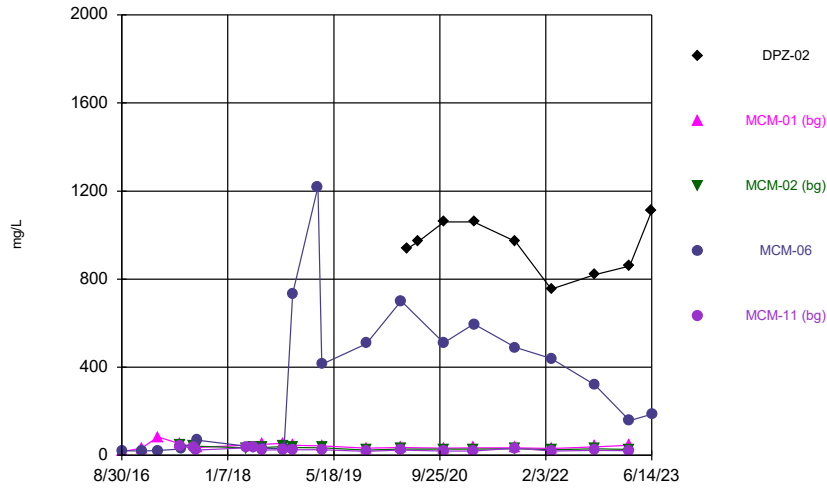
Constituent: pH, field Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



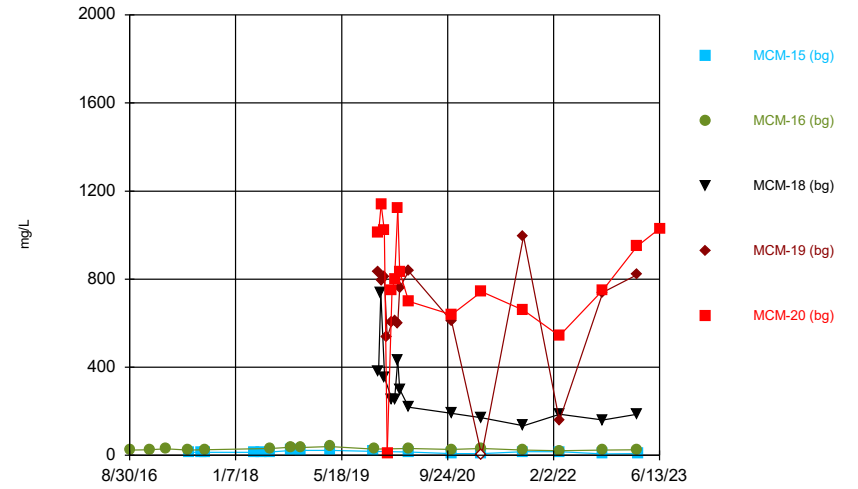
Constituent: pH, field Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



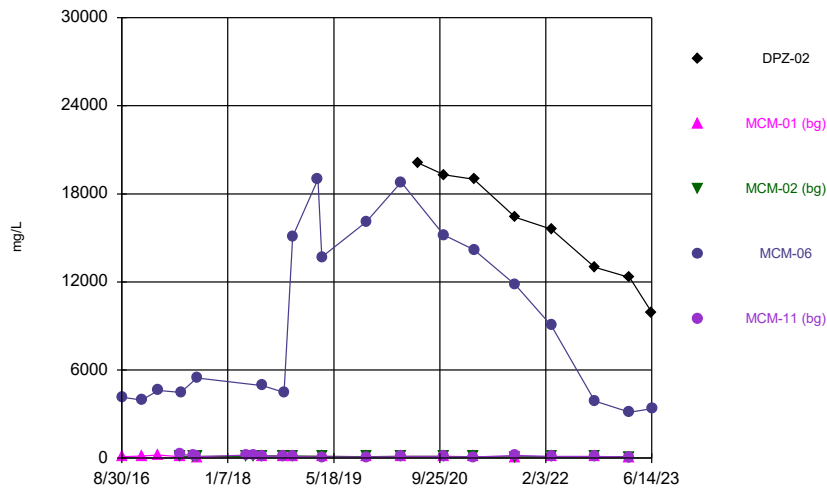
Constituent: Sulfate Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



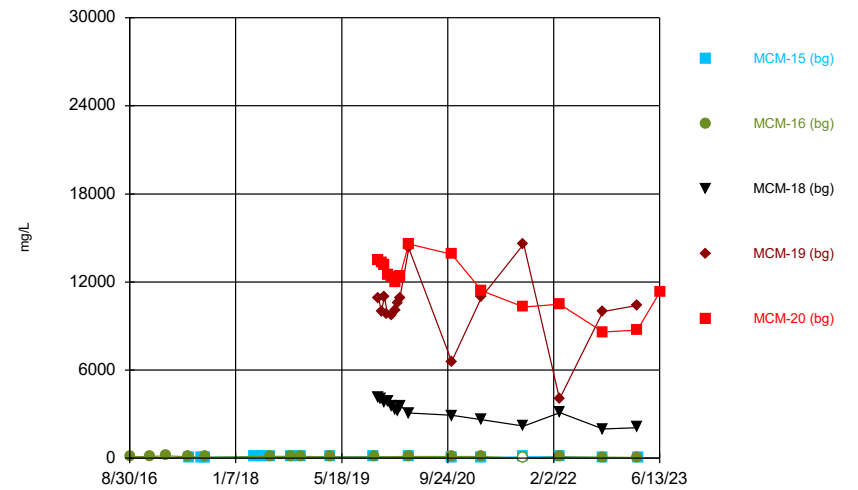
Constituent: Sulfate Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 3:07 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)
8/30/2016		<0.005			
8/31/2016				0.212	
11/30/2016		0.0018 (J)		0.129	
2/15/2017		0.0022 (J)			
2/16/2017				0.257	
5/31/2017			<0.01		0.0259
6/1/2017		0.0036 (J)			
6/2/2017				0.0559	
8/2/2017			0.0011 (J)		0.0188
8/15/2017					0.0117
8/16/2017		0.0038 (J)	<0.01		
8/17/2017				0.458	
4/4/2018					0.017
4/5/2018			0.00098 (J)		
5/8/2018					0.016
5/9/2018			0.0014 (J)		
6/19/2018		0.0069	0.0011 (J)		0.011
6/20/2018				0.44	
9/25/2018					0.011
9/26/2018		0.0081	0.00057		
9/27/2018				0.27	
11/6/2018					0.0043 (J)
11/7/2018		0.0069	0.00059 (J)	0.5	
11/27/2018				0.5	
3/6/2019				0.49	
3/25/2019					0.0029 (J)
3/26/2019				0.3	
7/2/2019				0.37	0.0024 (J)
8/27/2019		0.0079			
8/28/2019			<0.01	0.5	0.005 (J)
10/16/2019		0.01	0.003 (J)		0.0054
10/17/2019				0.34	
11/19/2019			0.00057 (J)		
11/20/2019		0.0064			
3/26/2020		0.0069			
3/27/2020			<0.01		0.0034 (J)
3/28/2020	<0.1			0.3	
10/12/2020					0.0047 (J)
10/13/2020		0.0061	<0.01		
10/14/2020				0.43	
10/15/2020	0.021				
3/3/2021		0.016 (J)	<0.01		0.011 (J)
3/4/2021	0.017 (J)			0.35	
9/14/2021	0.022	0.0055	0.00067 (J)	0.51	0.011
3/1/2022	0.015 (J)			0.24	
3/2/2022		0.0043	0.00077 (J)		0.0071
6/28/2022	0.025			0.17	
9/20/2022	0.021			0.18	
9/21/2022		0.0057 (J)	<0.01		0.013
3/1/2023		0.00493 (J)	<0.01		0.00868 (J)
3/2/2023	0.0202			0.0764	
6/13/2023	0.0213				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)
6/14/2023				0.0607	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016		0.0018 (J)			
11/30/2016		<0.0063			
2/15/2017		<0.0063			
6/1/2017		<0.0063			
6/2/2017	0.0026 (J)				
8/2/2017	0.0047 (J)				
8/17/2017	0.0028 (J)	<0.0063			
4/4/2018	0.0029 (J)				
5/8/2018	0.0048 (J)				
6/19/2018	0.0019 (J)				
6/20/2018		0.00058 (J)			
9/26/2018	0.0023 (J)	0.00057			
11/7/2018	0.0028	0.00057			
8/27/2019	0.0041 (J)	0.0019 (J)			
10/15/2019	0.0038 (J)				
10/16/2019		0.001 (J)			
11/7/2019			0.0067	0.0094 (J)	0.026
11/18/2019			0.012 (J)		
11/19/2019				0.019 (J)	0.031 (J)
12/4/2019				0.016	0.026
12/5/2019			0.0055		
12/17/2019				0.011 (J)	
12/18/2019			0.0031 (J)		0.019 (J)
1/8/2020				0.015 (J)	0.022 (J)
1/9/2020			0.0034 (J)		
1/21/2020			0.0031 (J)	0.015 (J)	0.024 (J)
2/4/2020			<0.005	0.0092 (J)	0.022 (J)
2/13/2020			0.0066	0.021 (J)	0.029
3/27/2020	0.0018 (J)	<0.0063	0.0043 (J)	0.017	0.027
10/12/2020			<0.005		
10/13/2020	0.0042 (J)	<0.0063		0.0089	0.018
3/2/2021	0.021 (J)				
3/3/2021		0.0012 (J)	0.0014 (J)	0.0086 (J)	0.016 (J)
9/14/2021	0.0035 (J)	<0.0063	0.0029 (J)	0.018 (J)	0.028
3/1/2022				0.0061 (J)	0.032
3/2/2022	0.0032		0.0064 (J)		
3/3/2022		0.00024 (J)			
9/20/2022			0.0026 (J)	0.021	0.026
9/21/2022	0.0044 (J)	<0.0063			
2/28/2023			0.00273 (J)	0.0173	0.0166
3/1/2023		0.00223 (J)			
3/2/2023	0.00756 (J)				
6/13/2023					0.0168

# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)
8/30/2016	9.7				
8/31/2016			2200		
11/30/2016	19		2100		
2/15/2017	21				
2/16/2017			2500		
5/31/2017		39		98	
6/1/2017	12				
6/2/2017			2500		11
8/2/2017		42		57	3.2
8/15/2017				15	
8/16/2017	14	41			
8/17/2017			2700		12
4/4/2018				69	13.4
4/5/2018		40.2			
5/8/2018				72.3	13.2
5/9/2018		40.6			
6/19/2018	24.4	37.7		17.3	13.7
6/20/2018			3100		
9/25/2018				31.3	
9/26/2018	23.4	33.4			18.5
9/27/2018			2510 (D)		
11/6/2018				9.8	
11/7/2018	21.8	30.7	8860		20.2
3/6/2019			11700		
3/24/2019			6470		
3/25/2019	19.4	33.5		12.9	19.7
10/15/2019					17.1
10/16/2019	21.4	33.1		12.2	
10/17/2019			9930		
3/26/2020	23				
3/27/2020		32.9		14.5	14.1
3/28/2020			9190		
10/12/2020				13.9	
10/13/2020	13.5	25.7			3.8
10/14/2020			6630		
3/2/2021					4.2
3/3/2021	13.6	20.5		9.4	
3/4/2021			6310		
9/14/2021	16.7	21.8	5360	62.8	13.6
3/1/2022			4150		
3/2/2022	13.4	20.6		28.4	14.3
9/20/2022			2800		
9/21/2022	17	23		32	3.3
3/1/2023	14.9	21.8		17.7	
3/2/2023			1470		4.88
6/14/2023			1770		



# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	26			
11/30/2016	27			
2/15/2017	30			
6/1/2017	27			
8/17/2017	32			
6/20/2018	30			
9/26/2018	28.4			
11/7/2018	25.1			
3/25/2019	21.8			
10/16/2019	20			
11/7/2019		2360	6170	7880
11/18/2019		6970		
11/19/2019			5650	8130
12/4/2019			6100	7410
12/5/2019		2130		
12/17/2019			5660	
12/18/2019		2090		7170
1/8/2020			5070	6480
1/9/2020		1750		
1/21/2020		1630	5010	6000
2/4/2020		1760	5030	5700
2/13/2020		1850	6140	7060
3/27/2020	23.6	1450	6870	7110
10/12/2020		1340		
10/13/2020	23.3		5260	5980
3/3/2021	27.6	1230	5170	<1
9/14/2021	30	1020	7250	5100
3/1/2022			1870	4900
3/2/2022		1420		
3/3/2022	26.5			
9/20/2022		1200	6200	5700
9/21/2022	17			
2/28/2023		1250	5760	7930
3/1/2023	14.2			

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)	MCM-15 (bg)
8/30/2016	0.03 (J)				
8/31/2016			0.41		
11/30/2016	0.04 (J)		0.61		
2/15/2017	0.007 (J)				
2/16/2017			0.3 (J)		
5/31/2017		0.01 (J)		0.85	
6/1/2017	<0.1				
6/2/2017			0.19 (J)		<0.1
8/2/2017		0.14 (J)		0.69	0.05 (J)
8/15/2017				0.29 (J)	
8/16/2017	0.03 (J)	0.13 (J)			
8/17/2017			0.26 (J)		<0.1
4/4/2018				0.32	<0.1
4/5/2018		<0.1			
5/8/2018				0.63	<0.1
5/9/2018		<0.1			
6/19/2018	<0.1	0.065 (J)		0.17 (J)	0.057 (J)
6/20/2018			0.22 (J)		
9/25/2018				0.15 (J)	
9/26/2018	0.12 (J)	0.029			0.029
9/27/2018			0.068 (J)		
11/6/2018				<0.1	
11/7/2018	<0.1	<0.1	10.3 (o)		<0.1
3/6/2019			<0.1		
3/24/2019			0.19 (J)		
3/25/2019	0.038 (J)	0.039 (J)		0.12 (J)	0.036 (J)
8/27/2019	<0.1				<0.1
8/28/2019		<0.1	<0.1	0.068 (J)	
10/15/2019					0.14 (J)
10/16/2019	0.046 (JD)	0.044 (JD)		0.1 (J)	
10/17/2019			<0.1		
3/26/2020	<0.1				
3/27/2020		<0.1		0.066 (J)	<0.1
3/28/2020			<0.1		
10/12/2020				<0.1	
10/13/2020	<0.1	<0.1			<0.1
10/14/2020			<0.1		
3/2/2021					<0.1
3/3/2021	<0.1	<0.1		0.082 (J)	
3/4/2021			<0.1		
9/14/2021	<0.1	<0.1	<0.1	0.18	<0.1
3/1/2022			<0.1		
3/2/2022	<0.1	<0.1		0.097 (J)	<0.1
9/20/2022			1.1 (J)		
9/21/2022	<0.1	<0.1		0.11	<0.1
3/1/2023	<0.1	<0.1		0.101 (J)	
3/2/2023			0.419 (J)		0.0397 (J)
6/14/2023			<0.1		

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	0.04 (J)			
11/30/2016	0.18 (J)			
2/15/2017	0.02 (J)			
6/1/2017	0.005 (J)			
8/17/2017	0.04 (J)			
6/20/2018	0.038 (J)			
9/26/2018	0.029			
11/7/2018	<0.1			
3/25/2019	0.041 (J)			
8/27/2019	<0.1			
10/16/2019	0.044 (J)			
11/7/2019		0.49	<0.1	1.4
11/18/2019		0.52		
11/19/2019			0.033 (J)	1.2
12/4/2019			0.22 (J)	1.4
12/5/2019		0.5		
12/17/2019			<0.1	
12/18/2019		0.33		1.5
1/8/2020			<0.1	<0.1
1/9/2020		0.12 (J)		
1/21/2020		0.13 (J)	0.11 (J)	0.53
2/4/2020		0.18 (J)	<0.1	<0.1
2/13/2020		0.077 (J)	<0.1	<0.1
3/27/2020	<0.1	0.06 (J)	<0.1	<0.1
10/12/2020		0.34		
10/13/2020	<0.1		<0.1	<0.1
3/3/2021	<0.1	0.32	<0.1	<0.1
9/14/2021	<0.1	<0.1	<0.1	<0.1
3/1/2022			<0.1	<0.1
3/2/2022		<0.1		
3/3/2022	<0.1			
9/20/2022		0.61 (J)	<0.1	4.3 (Jo)
9/21/2022	<0.1			
2/28/2023		0.407 (J)	0.38 (J)	3.32 (J)
3/1/2023	0.0397 (J)			

# Time Series

Constituent: pH, field (Std. Units) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)
8/30/2016		5.66			
8/31/2016				7.21	
11/30/2016		5.36		7.23	
2/15/2017		5.25			
2/16/2017				7.27	
5/31/2017			5.06		5.29
6/1/2017		5.59			
6/2/2017				7.18	
8/2/2017			5		5.19
8/15/2017					5.19
8/16/2017		5.58	4.98		
8/17/2017				7.15	
4/4/2018					5.19
4/5/2018			5.02		
5/8/2018					5.3
5/9/2018			4.96		
6/19/2018		5.51	5.02		5.15
6/20/2018				7.19	
9/25/2018					5.13
9/26/2018		5.32	5.06		
9/27/2018				7.21	
11/6/2018					5.08
11/7/2018		5.72	5.03	6.91	
3/24/2019				6.98	
3/25/2019		5.75	5.08		5.05
8/27/2019		5.58			
8/28/2019			4.99	6.87	4.87
10/16/2019		5.72	4.98		5.05
10/17/2019				6.86	
11/19/2019			5.11		
11/20/2019		5.77			
3/26/2020		5.45			
3/27/2020			5.12		5.09
3/28/2020	7.11			6.8	
6/16/2020	7.22				
10/12/2020					5
10/13/2020		5.69	5.03		
10/14/2020				6.93	
10/15/2020	7.08				
3/3/2021		5.81	5.06		5.07
3/4/2021	7.21			6.94	
9/14/2021	7.11	5.13	5.04	6.94	5.5
3/1/2022	7.08			7.24	
3/2/2022		5.32	5.16		5.11
9/20/2022	7.07			7.29	
9/21/2022		4.95	5.14		4.97
3/1/2023		4.91	5.1		4.78
3/2/2023	7.12			7.38	
6/13/2023	7.12				
6/14/2023				7.17	

# Time Series

Constituent: pH, field (Std. Units) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016		5.18			
11/30/2016		4.96			
2/15/2017		5.13			
6/1/2017		4.99			
6/2/2017	5.31				
8/2/2017	5.05				
8/17/2017	5.52	4.68			
4/4/2018	5.45				
5/8/2018	5.54				
6/19/2018	5.6				
6/20/2018		4.77			
9/26/2018	5.17	4.65			
11/7/2018	5.47	4.99			
3/24/2019	5.4				
3/25/2019		5.13			
8/27/2019	5.35	4.88			
10/15/2019	5.32				
10/16/2019		4.89			
11/7/2019			4.25	5.21	3.79
11/18/2019			4.12		
11/19/2019				5.15	3.78
12/4/2019				5.28 (D)	3.87 (D)
12/5/2019			4.17 (D)		
1/8/2020				5.04	3.77
1/9/2020			4.19		
1/21/2020			4.28	5.1	3.73
2/4/2020			4.26	5.15	3.72
2/13/2020			4.2	5.07	3.75
3/27/2020	5.3	5.12	4.34	5.14	3.81
10/12/2020			4.29		
10/13/2020	5.02	5.17		5.04	3.72
3/2/2021	5.16				
3/3/2021		5.71	4.37	5.1	3.36
9/14/2021	5.39	4.69	4.28	5.31	3.72
3/1/2022				5.38	3.69
3/2/2022	5.37		4.33		
3/3/2022		4.88			
9/20/2022			4.47	5.14	3.63
9/21/2022	5.23	4.91			
2/28/2023			4.42	5.08	3.7
3/1/2023		4.76			
3/2/2023	4.45				
6/13/2023					3.64

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)
8/30/2016		17			
8/31/2016				21	
11/30/2016		33		19	
2/15/2017		83			
2/16/2017				22	
5/31/2017			46		40
6/1/2017		51			
6/2/2017				28	
8/2/2017			43		34
8/15/2017					24
8/16/2017		36	41		
8/17/2017				69	
4/4/2018					33.9
4/5/2018			33.4		
5/8/2018					35.7
5/9/2018			36		
6/19/2018		50.3	35.5		23.7
6/20/2018				33	
9/25/2018					25.6
9/26/2018		54.1	39.6		
9/27/2018				29.4 (D)	
11/6/2018					25.2
11/7/2018		45.6	35.8	734	
3/6/2019				1220 (J)	
3/24/2019				413	
3/25/2019		43	34.2		24.9
10/16/2019		31.9	24.4		17.4
10/17/2019				507	
3/26/2020		36.2			
3/27/2020			28.6		23.4
3/28/2020				701	
4/23/2020	936				
6/16/2020	970				
10/12/2020					19.3
10/13/2020		32.3	27.6		
10/14/2020				510	
10/15/2020	1060				
3/3/2021		33.8	27.6		19.9
3/4/2021	1060			596	
9/14/2021	971	34.2	30.4	490	33.1
3/1/2022	755			440	
3/2/2022		30.8	25.7		19.5
9/20/2022	820			320	
9/21/2022		39	29		23
3/1/2023		45.3	27.4		21.4
3/2/2023	859			157	
6/13/2023	1110				
6/14/2023				187	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016		24			
11/30/2016		26			
2/15/2017		30			
6/1/2017		24			
6/2/2017	13				
8/2/2017	14				
8/17/2017	14	26			
4/4/2018	13.4				
5/8/2018	14.8				
6/19/2018	15.5				
6/20/2018		31.2			
9/26/2018	23	36.8			
11/7/2018	22.2	35			
3/25/2019	22.4	40.1			
10/15/2019	17.9				
10/16/2019		28.5			
11/7/2019			379	832	1010
11/18/2019			737		
11/19/2019				795	1140
12/4/2019				810	1020
12/5/2019			351		
12/17/2019				535	
12/18/2019					8.1
1/8/2020				603	747
1/9/2020			254		
1/21/2020			254	611	798
2/4/2020			432	599	1120
2/13/2020			300	761	833
3/27/2020	14.6	31.2	219	836	700
10/12/2020			191		
10/13/2020	7.6	26.8		609	638
3/2/2021	8				
3/3/2021		30.5	171	<1	743
9/14/2021	16.7	24.4	134	995	659
3/1/2022				158	543
3/2/2022	16		186		
3/3/2022		20.4			
9/20/2022			160	740	750
9/21/2022	6.3	24			
2/28/2023			186	820	950
3/1/2023		25.8			
3/2/2023	8.12				
6/13/2023					1030

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-01 (bg)	MCM-02 (bg)	MCM-06	MCM-11 (bg)
8/30/2016		86			
8/31/2016				4160	
11/30/2016		131		3950	
2/15/2017		212			
2/16/2017				4600	
5/31/2017			123		257
6/1/2017		103			
6/2/2017				4470	
8/2/2017			136		183
8/15/2017					90
8/16/2017		65	124		
8/17/2017				5450	
4/4/2018					197
4/5/2018			128		
5/8/2018					225
5/9/2018			127		
6/19/2018		142	143		112
6/20/2018				4940	
9/25/2018					137
9/26/2018		133	132		
9/27/2018				4480	
11/6/2018					89
11/7/2018		121	134	15100	
3/6/2019				19000	
3/24/2019				13700	
3/25/2019		116	111		74
10/16/2019		104	96		82
10/17/2019				16100	
3/26/2020		114			
3/27/2020			119		87
3/28/2020				18800	
6/16/2020	20100				
10/12/2020					94
10/13/2020		113	118		
10/14/2020				15200	
10/15/2020	19300				
3/3/2021		99	84		66
3/4/2021	19000			14200	
9/14/2021	16400	66	76	11800	191
3/1/2022	15600			9040	
3/2/2022		97	94		124
9/20/2022	13000			3900	
9/21/2022		100	90		110
3/1/2023		78	73		67
3/2/2023	12300			3120	
6/13/2023	9920				
6/14/2023				3370	



# Time Series

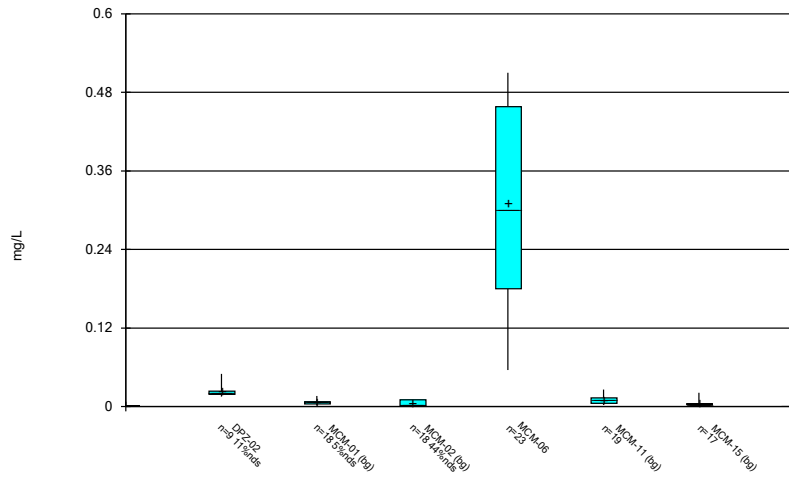
Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/23/2023 3:08 PM View: Resample Reports

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-15 (bg)	MCM-16 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016		99			
11/30/2016		111			
2/15/2017		170			
6/1/2017		98			
6/2/2017	69				
8/2/2017	35				
8/17/2017	51	84			
4/4/2018	90				
5/8/2018	89				
6/19/2018	110				
6/20/2018		123			
9/26/2018	124	117			
11/7/2018	125	120			
3/25/2019	98	101			
10/15/2019	107				
10/16/2019		95			
11/7/2019			4140	10900	13500
11/18/2019			4030		
11/19/2019				10000	13300
12/4/2019				11000	13200
12/5/2019			3840		
12/17/2019				9860	
12/18/2019			3880		12500
1/8/2020				9760	12300
1/9/2020			3520		
1/21/2020			3280	10100	12000
2/4/2020			3220	10600	12300
2/13/2020			3580	10900	12400
3/27/2020	110	110	3090	14300	14600
10/12/2020			2920		
10/13/2020	63	115		6600	13900
3/2/2021	40				
3/3/2021		122	2620	11000	11400
9/14/2021	96	<25	2190	14600	10300
3/1/2022				4050	10500
3/2/2022	103		3100		
3/3/2022		104			
9/20/2022			2000	10000	8600
9/21/2022	38	78			
2/28/2023			2090	10400	8720
3/1/2023		56			
3/2/2023	35				
6/13/2023					11300

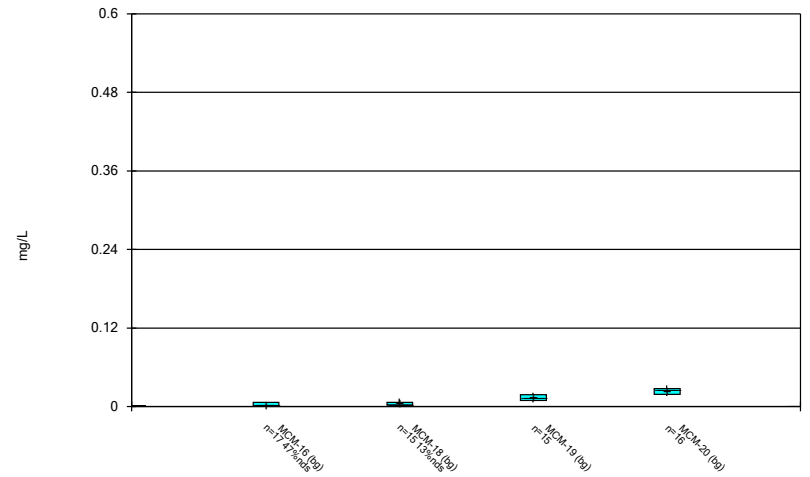
FIGURE K.

Box & Whiskers Plot



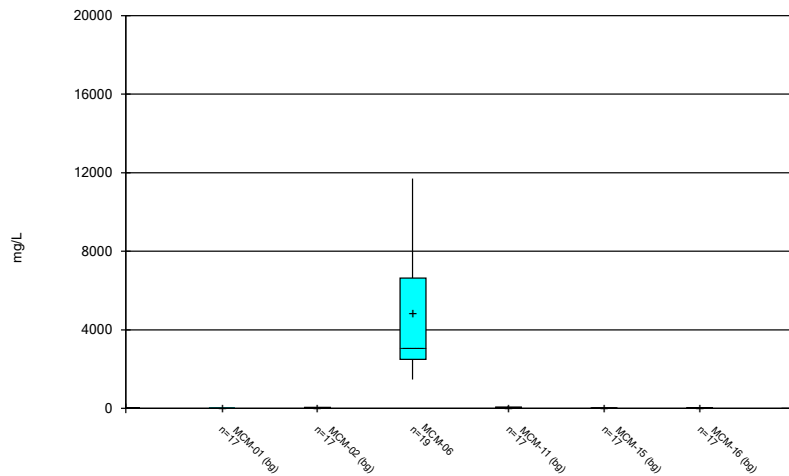
Constituent: Arsenic Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



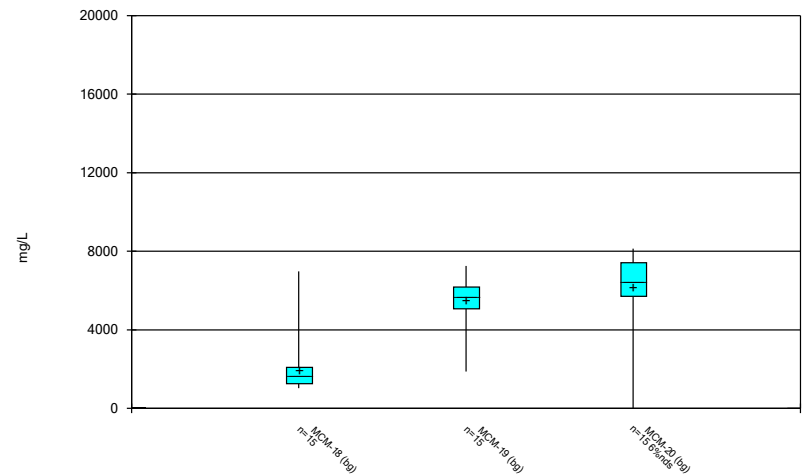
Constituent: Arsenic Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



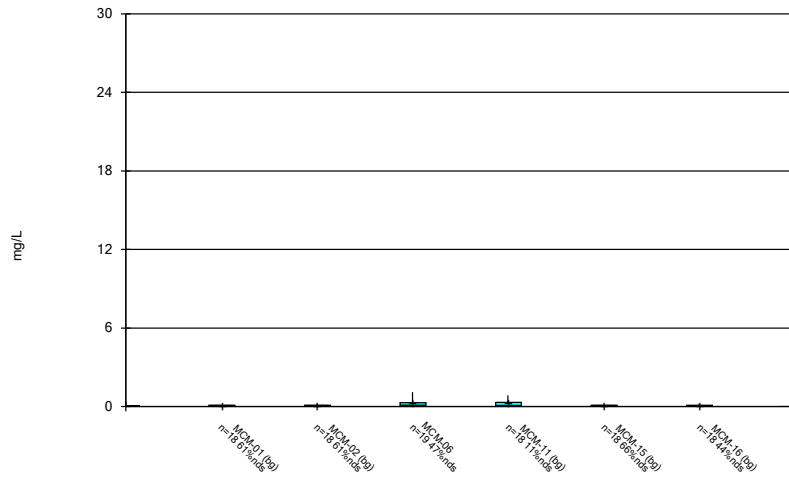
Constituent: Chloride Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



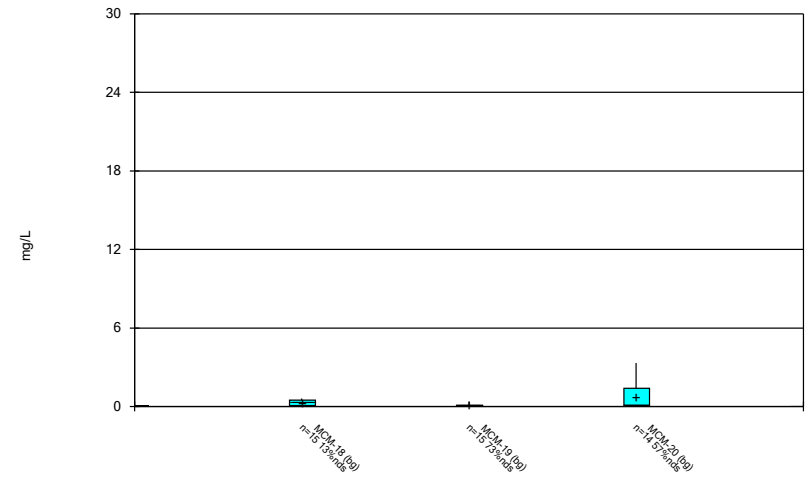
Constituent: Chloride Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



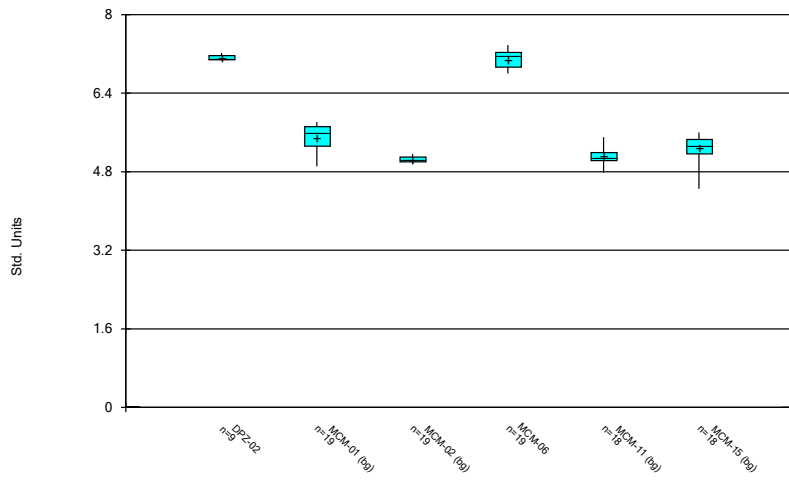
Constituent: Fluoride Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



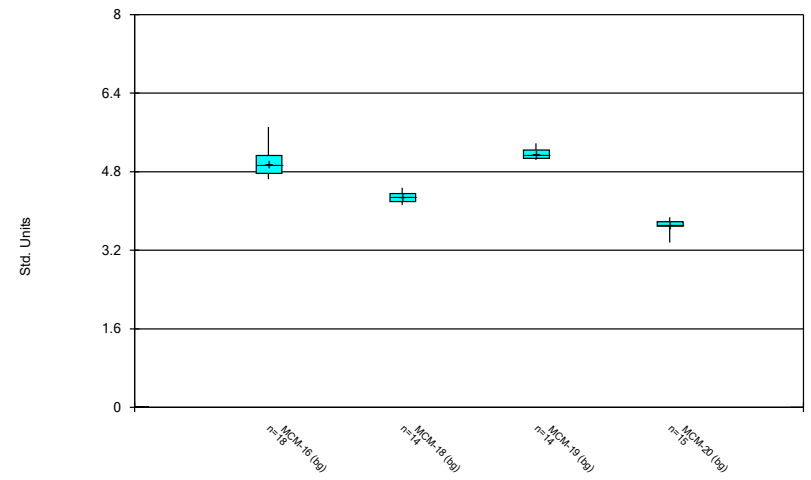
Constituent: Fluoride Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



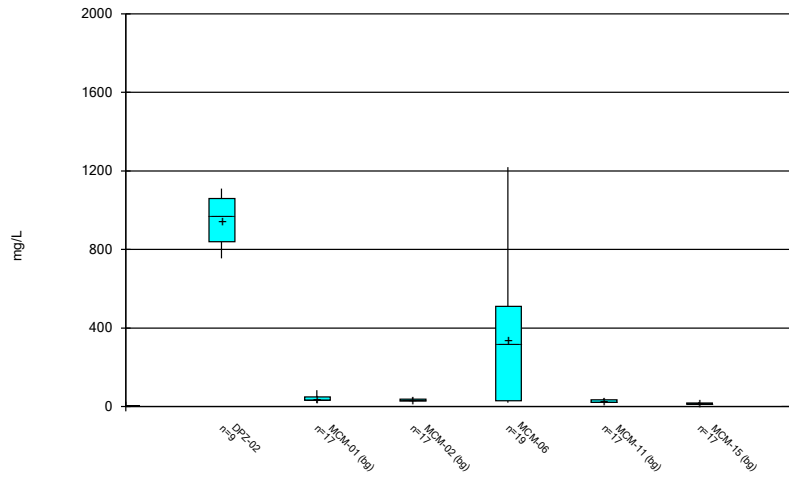
Constituent: pH, field Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



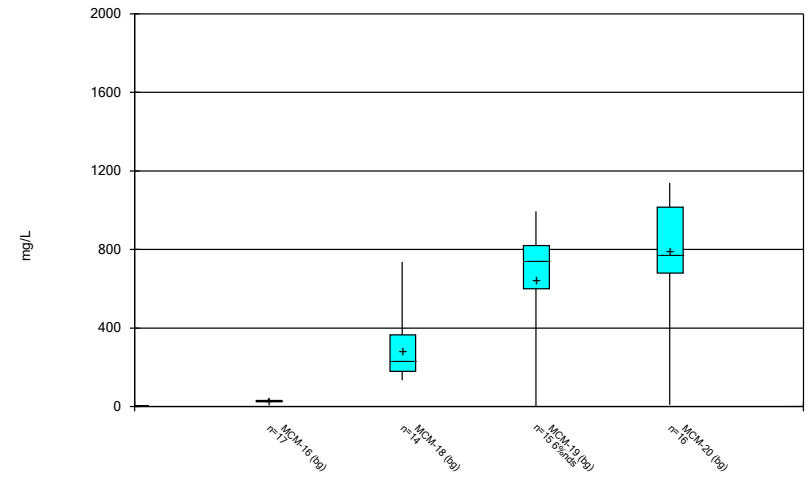
Constituent: pH, field Analysis Run 6/23/2023 3:09 PM View: Resample Reports  
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



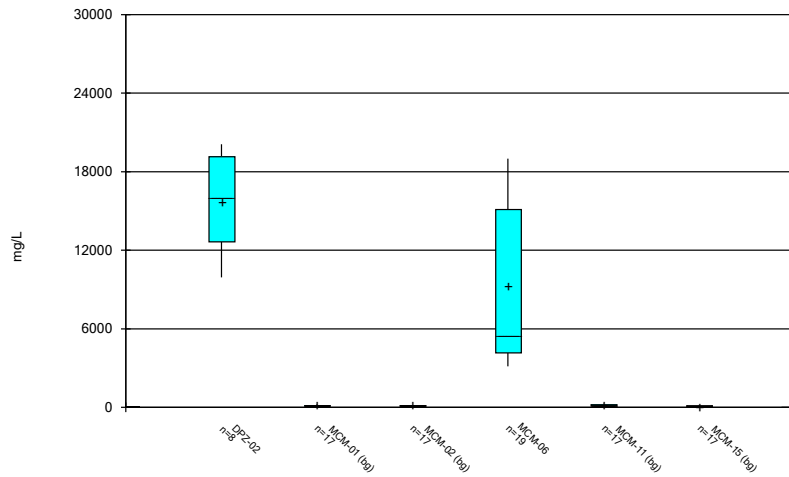
Constituent: Sulfate Analysis Run 6/23/2023 3:10 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



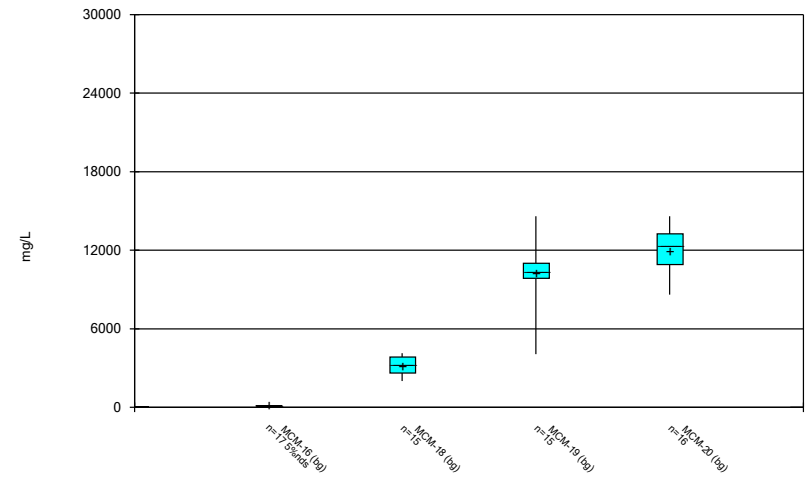
Constituent: Sulfate Analysis Run 6/23/2023 3:10 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 3:10 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 3:10 PM View: Resample Reports  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE L.

# Interwell Prediction Limits - June 2023 Resample - Significant Results

Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data    Printed 6/23/2023, 3:12 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (Std. Units)	MCM-06	5.81	3.36	6/14/2023	7.17	Yes	135	n/a	n/a	0	n/a	n/a	0.0002168	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - June 2023 Resample - All Results

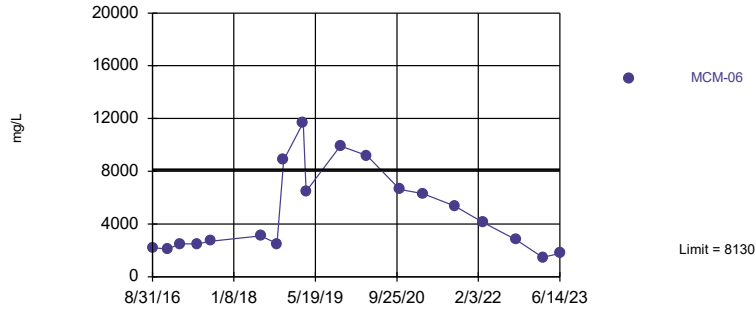
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:12 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	MCM-06	8130	n/a	6/14/2023	1770	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MCM-06	3.32	n/a	6/14/2023	0.1ND	No	134	n/a	n/a	48.51	n/a	n/a	0.0001102	NP Inter (normality) 1 of 2
<b>pH, field (Std. Units)</b>	<b>MCM-06</b>	<b>5.81</b>	<b>3.36</b>	<b>6/14/2023</b>	<b>7.17</b>	<b>Yes</b>	<b>135</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0002168</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	MCM-06	1140	n/a	6/14/2023	187	No	130	n/a	n/a	0.7692	n/a	n/a	0.0001172	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MCM-06	14600	n/a	6/14/2023	3370	No	131	n/a	n/a	0.7634	n/a	n/a	0.0001155	NP Inter (normality) 1 of 2



Within Limit

### Prediction Limit Interwell Non-parametric

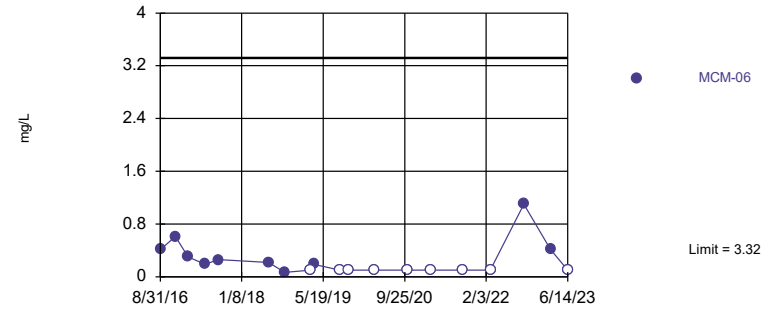


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 0.7692% NDs. Annual per-constituent alpha = 0.00164. Individual comparison alpha = 0.0001172 (1 of 2). Assumes 6 future values.

Constituent: Chloride Analysis Run 6/23/2023 3:11 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

### Prediction Limit Interwell Non-parametric

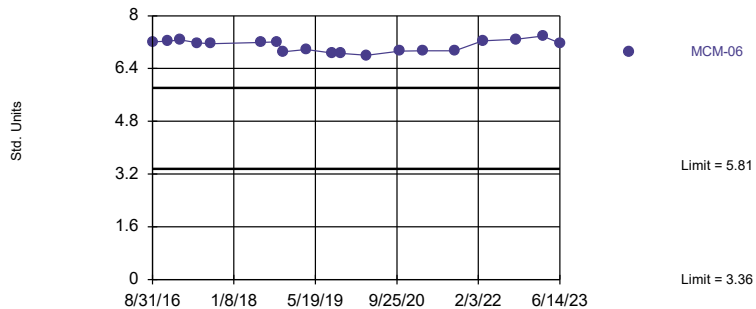


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 48.51% NDs. Annual per-constituent alpha = 0.001541. Individual comparison alpha = 0.0001102 (1 of 2). Assumes 6 future values.

Constituent: Fluoride Analysis Run 6/23/2023 3:11 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-06

### Prediction Limit Interwell Non-parametric

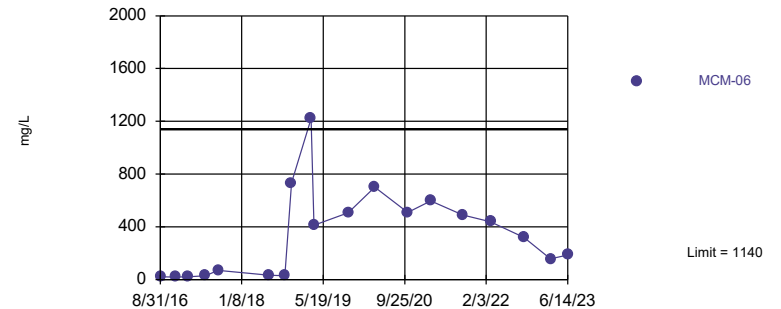


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 135 background values. Annual per-constituent alpha = 0.003033. Individual comparison alpha = 0.0002168 (1 of 2). Assumes 6 future values.

Constituent: pH, field Analysis Run 6/23/2023 3:11 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

### Prediction Limit Interwell Non-parametric



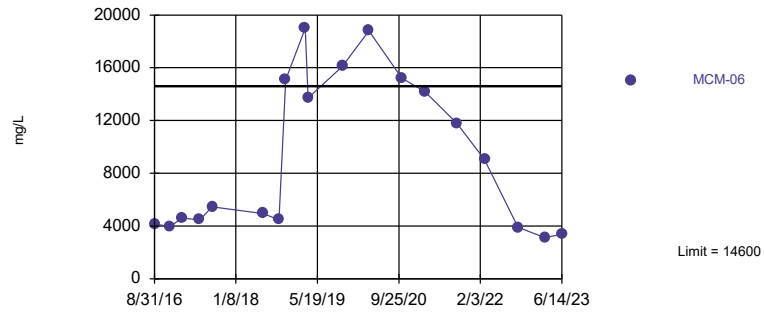
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 0.7692% NDs. Annual per-constituent alpha = 0.00164. Individual comparison alpha = 0.0001172 (1 of 2). Assumes 6 future values.

Constituent: Sulfate Analysis Run 6/23/2023 3:11 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

### Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 131 background values. 0.7634% NDs. Annual per-constituent alpha = 0.001615. Individual comparison alpha = 0.0001155 (1 of 2). Assumes 6 future values.

Constituent: Total Dissolved Solids    Analysis Run 6/23/2023 3:11 PM    View: Resample Interwell PLs  
Plant McManus    Client: Southern Company    Data: McManus Ash Pond Data

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
8/30/2016	9.7	26							
8/31/2016			2200						
11/30/2016	19	27	2100						
2/15/2017	21	30							
2/16/2017			2500						
5/31/2017				98	39				
6/1/2017	12	27							
6/2/2017			2500			11			
8/2/2017				57	42	3.2			
8/15/2017				15					
8/16/2017	14				41				
8/17/2017		32	2700			12			
4/4/2018				69		13.4			
4/5/2018					40.2				
5/8/2018				72.3		13.2			
5/9/2018					40.6				
6/19/2018	24.4			17.3	37.7	13.7			
6/20/2018		30	3100						
9/25/2018				31.3					
9/26/2018	23.4	28.4			33.4	18.5			
9/27/2018			2510 (D)						
11/6/2018				9.8					
11/7/2018	21.8	25.1	8860		30.7	20.2			
3/6/2019			11700						
3/24/2019			6470						
3/25/2019	19.4	21.8		12.9	33.5	19.7			
10/15/2019						17.1			
10/16/2019	21.4	20		12.2	33.1				
10/17/2019			9930						
11/7/2019						6170	7880		2360
11/18/2019									6970
11/19/2019						5650	8130		
12/4/2019						6100	7410		
12/5/2019									2130
12/17/2019						5660			
12/18/2019							7170		2090
1/8/2020						5070	6480		
1/9/2020									1750
1/21/2020						5010	6000		1630
2/4/2020						5030	5700		1760
2/13/2020						6140	7060		1850
3/26/2020	23								
3/27/2020		23.6		14.5	32.9	14.1	6870	7110	1450
3/28/2020			9190						
10/12/2020				13.9					1340
10/13/2020	13.5	23.3			25.7	3.8	5260	5980	
10/14/2020			6630						
3/2/2021						4.2			
3/3/2021	13.6	27.6		9.4	20.5		5170	<1	1230
3/4/2021			6310						
9/14/2021	16.7	30	5360	62.8	21.8	13.6	7250	5100	1020
3/1/2022			4150				1870	4900	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
3/2/2022	13.4			28.4	20.6	14.3			1420
3/3/2022		26.5							
9/20/2022			2800				6200	5700	1200
9/21/2022	17	17		32	23	3.3			
2/28/2023							5760	7930	1250
3/1/2023	14.9	14.2		17.7	21.8				
3/2/2023			1470			4.88			
6/14/2023			1770						

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
8/30/2016	0.03 (J)	0.04 (J)							
8/31/2016			0.41						
11/30/2016	0.04 (J)	0.18 (J)	0.61						
2/15/2017	0.007 (J)	0.02 (J)							
2/16/2017			0.3 (J)						
5/31/2017				0.01 (J)	0.85				
6/1/2017	<0.1	0.005 (J)							
6/2/2017			0.19 (J)				<0.1		
8/2/2017				0.14 (J)	0.69		0.05 (J)		
8/15/2017					0.29 (J)				
8/16/2017	0.03 (J)			0.13 (J)					
8/17/2017		0.04 (J)	0.26 (J)				<0.1		
4/4/2018					0.32		<0.1		
4/5/2018				<0.1					
5/8/2018					0.63		<0.1		
5/9/2018				<0.1					
6/19/2018	<0.1			0.065 (J)	0.17 (J)	0.057 (J)			
6/20/2018		0.038 (J)	0.22 (J)						
9/25/2018					0.15 (J)				
9/26/2018	0.12 (J)	0.029		0.029		0.029			
9/27/2018			0.068 (J)						
11/6/2018					<0.1				
11/7/2018	<0.1	<0.1	10.3 (o)	<0.1		<0.1			
3/6/2019			<0.1						
3/24/2019			0.19 (J)						
3/25/2019	0.038 (J)	0.041 (J)		0.039 (J)	0.12 (J)	0.036 (J)			
8/27/2019	<0.1	<0.1				<0.1			
8/28/2019			<0.1	<0.1	0.068 (J)				
10/15/2019							0.14 (J)		
10/16/2019	0.046 (JD)	0.044 (J)		0.044 (JD)	0.1 (J)				
10/17/2019			<0.1						
11/7/2019							0.49	1.4	<0.1
11/18/2019							0.52		
11/19/2019								1.2	0.033 (J)
12/4/2019								1.4	0.22 (J)
12/5/2019							0.5		
12/17/2019									<0.1
12/18/2019							0.33	1.5	
1/8/2020								<0.1	<0.1
1/9/2020							0.12 (J)		
1/21/2020							0.13 (J)	0.53	0.11 (J)
2/4/2020							0.18 (J)	<0.1	<0.1
2/13/2020							0.077 (J)	<0.1	<0.1
3/26/2020	<0.1								
3/27/2020		<0.1		<0.1	0.066 (J)	<0.1	0.06 (J)	<0.1	<0.1
3/28/2020			<0.1						
10/12/2020					<0.1		0.34		
10/13/2020	<0.1	<0.1		<0.1		<0.1		<0.1	<0.1
10/14/2020			<0.1						
3/2/2021						<0.1			
3/3/2021	<0.1	<0.1		<0.1	0.082 (J)		0.32	<0.1	<0.1
3/4/2021			<0.1						

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-02 (bg)	MCM-11 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-20 (bg)	MCM-19 (bg)
9/14/2021	<0.1	<0.1	<0.1	<0.1	0.18	<0.1	<0.1	<0.1	<0.1
3/1/2022			<0.1					<0.1	<0.1
3/2/2022	<0.1			<0.1	0.097 (J)	<0.1	<0.1		
3/3/2022		<0.1							
9/20/2022			1.1 (J)				0.61 (J)	4.3 (Jo)	<0.1
9/21/2022	<0.1	<0.1		<0.1	0.11	<0.1			
2/28/2023							0.407 (J)	3.32 (J)	0.38 (J)
3/1/2023	<0.1	0.0397 (J)		<0.1	0.101 (J)				
3/2/2023			0.419 (J)			0.0397 (J)			
6/14/2023			<0.1						

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
8/30/2016	5.66	5.18							
8/31/2016			7.21						
11/30/2016	5.36	4.96	7.23						
2/15/2017	5.25	5.13							
2/16/2017			7.27						
5/31/2017				5.29	5.06				
6/1/2017	5.59	4.99							
6/2/2017			7.18			5.31			
8/2/2017				5.19	5	5.05			
8/15/2017				5.19					
8/16/2017	5.58				4.98				
8/17/2017		4.68	7.15			5.52			
4/4/2018				5.19		5.45			
4/5/2018					5.02				
5/8/2018				5.3		5.54			
5/9/2018					4.96				
6/19/2018	5.51			5.15	5.02	5.6			
6/20/2018		4.77	7.19						
9/25/2018				5.13					
9/26/2018	5.32	4.65			5.06	5.17			
9/27/2018			7.21						
11/6/2018				5.08					
11/7/2018	5.72	4.99	6.91		5.03	5.47			
3/24/2019			6.98			5.4			
3/25/2019	5.75	5.13		5.05	5.08				
8/27/2019	5.58	4.88				5.35			
8/28/2019			6.87	4.87	4.99				
10/15/2019						5.32			
10/16/2019	5.72	4.89		5.05	4.98				
10/17/2019			6.86						
11/7/2019						4.25	5.21	3.79	
11/18/2019						4.12			
11/19/2019					5.11		5.15	3.78	
11/20/2019	5.77								
12/4/2019							5.28 (D)	3.87 (D)	
12/5/2019						4.17 (D)			
1/8/2020							5.04	3.77	
1/9/2020						4.19			
1/21/2020						4.28	5.1	3.73	
2/4/2020						4.26	5.15	3.72	
2/13/2020						4.2	5.07	3.75	
3/26/2020	5.45								
3/27/2020		5.12		5.09	5.12	5.3	4.34	5.14	3.81
3/28/2020			6.8						
10/12/2020				5			4.29		
10/13/2020	5.69	5.17			5.03	5.02		5.04	3.72
10/14/2020			6.93						
3/2/2021						5.16			
3/3/2021	5.81	5.71		5.07	5.06		4.37	5.1	3.36
3/4/2021			6.94						
9/14/2021	5.13	4.69	6.94	5.5	5.04	5.39	4.28	5.31	3.72
3/1/2022			7.24					5.38	3.69

# Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-18 (bg)	MCM-19 (bg)	MCM-20 (bg)
3/2/2022	5.32			5.11	5.16	5.37	4.33		
3/3/2022		4.88							
9/20/2022			7.29				4.47	5.14	3.63
9/21/2022	4.95	4.91		4.97	5.14	5.23			
2/28/2023							4.42	5.08	3.7
3/1/2023	4.91	4.76		4.78	5.1				
3/2/2023			7.38			4.45			
6/13/2023									3.64
6/14/2023			7.17						



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
8/30/2016	17	24							
8/31/2016			21						
11/30/2016	33	26	19						
2/15/2017	83	30							
2/16/2017			22						
5/31/2017				40	46				
6/1/2017	51	24							
6/2/2017			28			13			
8/2/2017				34	43	14			
8/15/2017				24					
8/16/2017	36				41				
8/17/2017		26	69			14			
4/4/2018				33.9		13.4			
4/5/2018					33.4				
5/8/2018				35.7		14.8			
5/9/2018					36				
6/19/2018	50.3			23.7	35.5	15.5			
6/20/2018		31.2	33						
9/25/2018				25.6					
9/26/2018	54.1	36.8			39.6	23			
9/27/2018			29.4 (D)						
11/6/2018				25.2					
11/7/2018	45.6	35	734		35.8	22.2			
3/6/2019			1220 (J)						
3/24/2019			413						
3/25/2019	43	40.1		24.9	34.2	22.4			
10/15/2019						17.9			
10/16/2019	31.9	28.5		17.4	24.4				
10/17/2019			507						
11/7/2019							832	1010	379
11/18/2019									737
11/19/2019							795	1140	
12/4/2019							810	1020	
12/5/2019									351
12/17/2019							535		
12/18/2019								8.1	
1/8/2020							603	747	
1/9/2020									254
1/21/2020							611	798	254
2/4/2020							599	1120	432
2/13/2020							761	833	300
3/26/2020	36.2								
3/27/2020		31.2		23.4	28.6	14.6	836	700	219
3/28/2020			701						
10/12/2020				19.3					191
10/13/2020	32.3	26.8			27.6	7.6	609	638	
10/14/2020			510						
3/2/2021						8			
3/3/2021	33.8	30.5		19.9	27.6		<1	743	171
3/4/2021			596						
9/14/2021	34.2	24.4	490	33.1	30.4	16.7	995	659	134
3/1/2022			440				158	543	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

---

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
3/2/2022	30.8			19.5	25.7	16			186
3/3/2022		20.4							
9/20/2022			320				740	750	160
9/21/2022	39	24		23	29	6.3			
2/28/2023							820	950	186
3/1/2023	45.3	25.8		21.4	27.4				
3/2/2023			157			8.12			
6/13/2023								1030	
6/14/2023			187						

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
8/30/2016	86	99							
8/31/2016			4160						
11/30/2016	131	111	3950						
2/15/2017	212	170							
2/16/2017			4600						
5/31/2017				257	123				
6/1/2017	103	98							
6/2/2017			4470			69			
8/2/2017				183	136	35			
8/15/2017				90					
8/16/2017	65				124				
8/17/2017		84	5450			51			
4/4/2018				197		90			
4/5/2018					128				
5/8/2018				225		89			
5/9/2018					127				
6/19/2018	142			112	143	110			
6/20/2018		123	4940						
9/25/2018				137					
9/26/2018	133	117			132	124			
9/27/2018			4480						
11/6/2018				89					
11/7/2018	121	120	15100		134	125			
3/6/2019			19000						
3/24/2019			13700						
3/25/2019	116	101		74	111	98			
10/15/2019						107			
10/16/2019	104	95		82	96				
10/17/2019			16100						
11/7/2019							10900	13500	4140
11/18/2019									4030
11/19/2019							10000	13300	
12/4/2019							11000	13200	
12/5/2019									3840
12/17/2019							9860		
12/18/2019								12500	3880
1/8/2020							9760	12300	
1/9/2020									3520
1/21/2020							10100	12000	3280
2/4/2020							10600	12300	3220
2/13/2020							10900	12400	3580
3/26/2020	114								
3/27/2020		110		87	119	110	14300	14600	3090
3/28/2020			18800						
10/12/2020				94					2920
10/13/2020	113	115			118	63	6600	13900	
10/14/2020			15200						
3/2/2021						40			
3/3/2021	99	122		66	84		11000	11400	2620
3/4/2021			14200						
9/14/2021	66	<25	11800	191	76	96	14600	10300	2190
3/1/2022			9040				4050	10500	

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/23/2023 3:12 PM View: Resample Interwell PLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	MCM-01 (bg)	MCM-16 (bg)	MCM-06	MCM-11 (bg)	MCM-02 (bg)	MCM-15 (bg)	MCM-19 (bg)	MCM-20 (bg)	MCM-18 (bg)
3/2/2022	97			124	94	103			3100
3/3/2022		104							
9/20/2022			3900				10000	8600	2000
9/21/2022	100	78		110	90	38			
2/28/2023							10400	8720	2090
3/1/2023	78	56		67	73				
3/2/2023			3120			35			
6/13/2023								11300	
6/14/2023			3370						

FIGURE M.

# Upper Tolerance Limits Summary Table - June 2023 Resample

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform Alpha	Method
Arsenic (mg/L)	n/a	0.032	n/a	n/a	n/a	n/a 135	n/a	n/a	14.07	n/a	n/a	0.0009833 NP Inter(normality)
Fluoride (mg/L)	n/a	3.32	n/a	n/a	n/a	n/a 134	n/a	n/a	48.51	n/a	n/a	0.001035 NP Inter(normality)

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 135 background values. 14.07% NDs. 96.68% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.0009833.

Constituent: Arsenic Analysis Run 6/23/2023 3:13 PM View: Resample UTLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 134 background values. 48.51% NDs. 96.68% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001035.

Constituent: Fluoride Analysis Run 6/23/2023 3:13 PM View: Resample UTLs  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE N.



# Confidence Intervals - June 2023 Resample - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.39</b>	<b>0.2308</b>	<b>0.032</b>	<b>Yes</b>	<b>23</b>	<b>0.3104</b>	<b>0.1522</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>

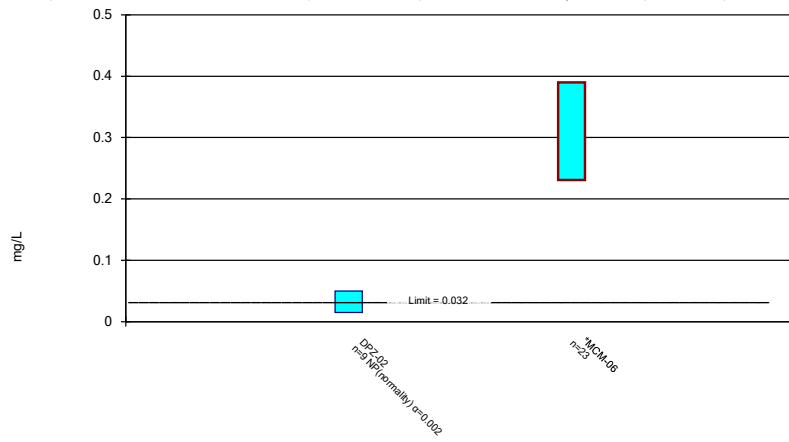
# Confidence Intervals - June 2023 Resample - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/23/2023, 3:16 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	DPZ-02	0.05	0.015	0.032	No	9	0.02361	0.0103	11.11	None	No	0.002	NP (normality)
<b>Arsenic (mg/L)</b>	<b>MCM-06</b>	<b>0.39</b>	<b>0.2308</b>	<b>0.032</b>	<b>Yes</b>	<b>23</b>	<b>0.3104</b>	<b>0.1522</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Fluoride (mg/L)	DPZ-02	0.11	0.1	4	No	6	0.1017	0.004082	83.33	None	No	0.0155	NP (NDs)
Fluoride (mg/L)	MCM-06	0.41	0.1	4	No	19	0.2456	0.253	47.37	None	No	0.01	NP (normality)

### Parametric and Non-Parametric (NP) Confidence Interval

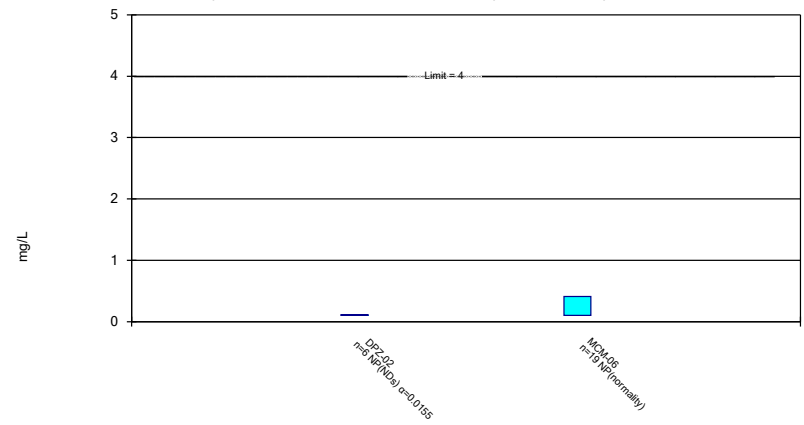
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/23/2023 3:16 PM View: Resample Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Non-Parametric Confidence Interval

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



Constituent: Fluoride Analysis Run 6/23/2023 3:16 PM View: Resample Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 3:16 PM View: Resample Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-06
8/31/2016		0.212
11/30/2016		0.129
2/16/2017		0.257
6/2/2017		0.0559
8/17/2017		0.458
6/20/2018		0.44
9/27/2018		0.27
11/7/2018		0.5
11/27/2018		0.5
3/6/2019		0.49
3/26/2019		0.3
7/2/2019		0.37
8/28/2019		0.5
10/17/2019		0.34
3/28/2020	<0.1	0.3
10/14/2020		0.43
10/15/2020	0.021	
3/4/2021	0.017 (J)	0.35
9/14/2021	0.022	0.51
3/1/2022	0.015 (J)	0.24
6/28/2022	0.025	0.17
9/20/2022	0.021	0.18
3/2/2023	0.0202	0.0764
6/13/2023	0.0213	
6/14/2023		0.0607
Mean	0.02361	0.3104
Std. Dev.	0.0103	0.1522
Upper Lim.	0.05	0.39
Lower Lim.	0.015	0.2308

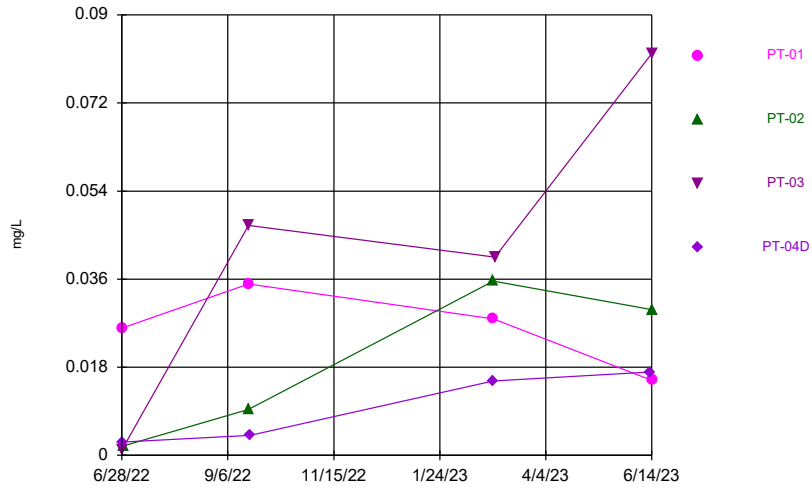
# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:16 PM View: Resample Confidence Intervals  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

	DPZ-02	MCM-06
8/31/2016		0.41
11/30/2016		0.61
2/16/2017		0.3 (J)
6/2/2017		0.19 (J)
8/17/2017		0.26 (J)
6/20/2018		0.22 (J)
9/27/2018		0.068 (J)
11/7/2018		10.3 (o)
3/6/2019		<0.1
3/24/2019		0.19 (J)
8/28/2019		<0.1
10/17/2019		<0.1
3/28/2020		<0.1
10/14/2020		<0.1
10/15/2020	0.11	
3/4/2021	<0.1	<0.1
9/14/2021	<0.1	<0.1
3/1/2022	<0.1	<0.1
9/20/2022	<0.1	1.1 (J)
3/2/2023	<0.1	0.419 (J)
6/14/2023		<0.1
Mean	0.1017	0.2456
Std. Dev.	0.004082	0.253
Upper Lim.	0.11	0.41
Lower Lim.	0.1	0.1

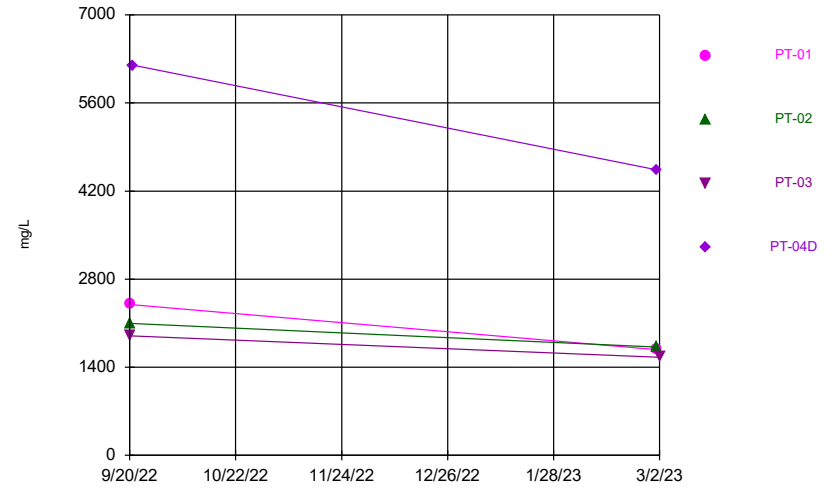
FIGURE O.

Time Series



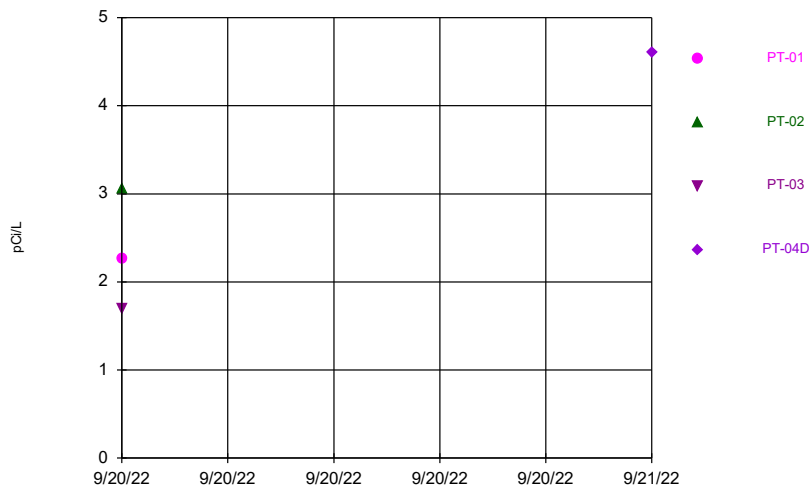
Constituent: Arsenic Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



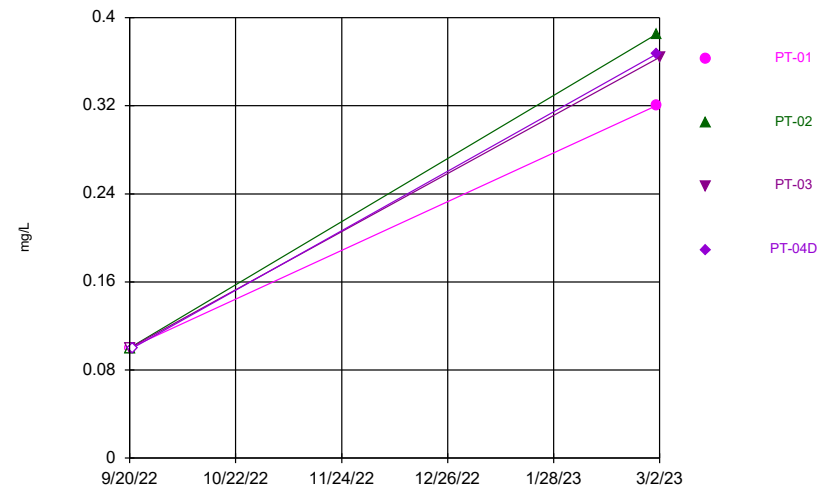
Constituent: Chloride Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



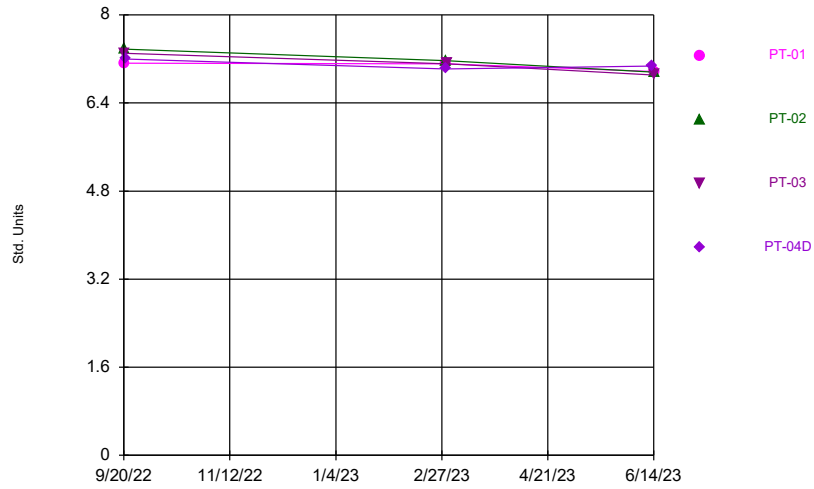
Constituent: Combined Radium 226 + 228 Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



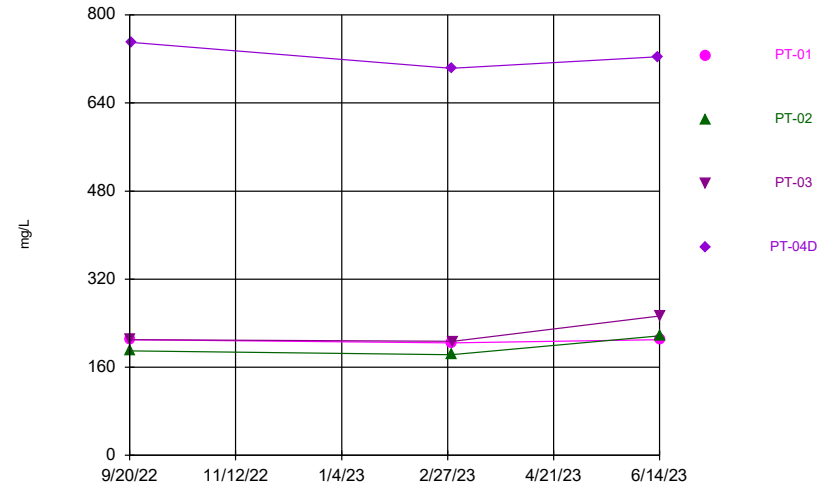
Constituent: Fluoride Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



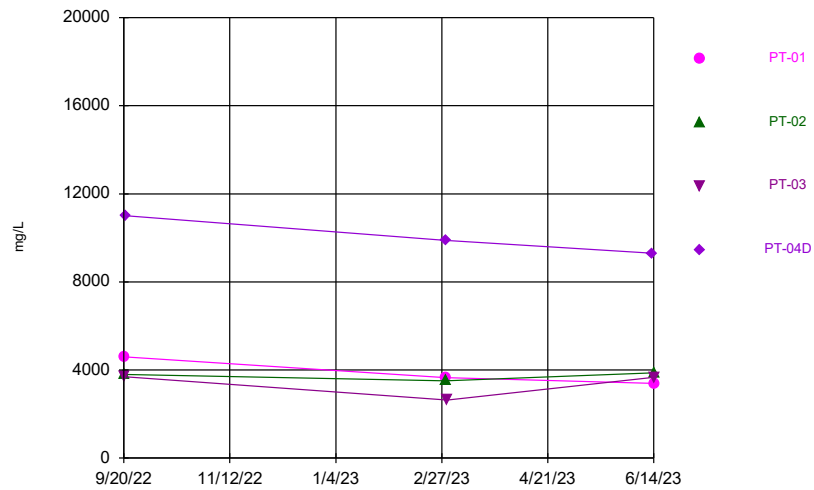
Constituent: pH, field Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Sulfate Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

### Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
6/28/2022	0.026		0.0011	0.0027
6/29/2022		0.0019		
9/20/2022	0.035	0.0094	0.047	
9/21/2022				0.0041
3/1/2023	0.0279	0.0356		0.0152
3/2/2023			0.0405	
6/13/2023				0.017
6/14/2023	0.0153	0.0298	0.0821	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	2400	2100	1900	
9/21/2022				6200
3/1/2023	1680	1720		4540
3/2/2023			1560	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	2.26	3.06	1.69	
9/21/2022				4.61

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	<0.1	<0.1	<0.1	
9/21/2022				<0.1
3/1/2023	0.32 (J)	0.385 (J)		0.367 (J)
3/2/2023			0.364 (J)	

# Time Series

Constituent: pH, field (Std. Units) Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	7.12	7.38	7.3	
9/21/2022				7.2
3/1/2023	7.11	7.17		7.02
3/2/2023			7.11	
6/13/2023				7.07
6/14/2023	6.97	6.96	6.91	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers  
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	210	190	210	
9/21/2022				750
3/1/2023	204	183		703
3/2/2023			207	
6/13/2023				724
6/14/2023	210	217	253	

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/23/2023 3:18 PM View: Piezometers

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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	PT-01	PT-02	PT-03	PT-04D
9/20/2022	4600	3800	3700	
9/21/2022				11000
3/1/2023	3660	3510		9890
3/2/2023			2640	
6/13/2023				9300
6/14/2023	3390	3870	3670	

# APPENDIX E

## ALTERNATE SOURCE DEMONSTRATION UPDATE, APRIL 2023





# 2023 Lithium Alternative Source Demonstration Update

**Plant McManus Former Ash Pond 1,  
Brunswick, Georgia**

April 21, 2023

# 2023 Lithium Alternative Source Demonstration Update

**Plant McManus Former Ash Pond 1, Brunswick, Georgia**

April 21, 2023

**Prepared By:**

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**Prepared For:**

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Environmental Engineer

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**Figure 8. Conceptual Diagram of Saltwater Wedge under Different Pond Water Elevations with MCM-06 Lithium and TDS Concentrations**

**Figure 9. Conceptual Diagram of Saltwater Wedge under Different Pond Water Elevations with DPZ-02 Lithium and TDS Concentrations**

## Appendices

**Appendix A. Potentiometric Maps (2019-2022)**

**Appendix B. Historical Lithium Concentrations (2020-2022)**

## Professional Certification

This 2023 Lithium Alternative Source Demonstration update for MCM-06 and DPZ-02 at the Georgia Power Company Plant McManus Former Ash Pond 1 has been prepared in compliance with applicable United States Environmental Protection Agency Coal Combustion Residuals Rule (40 Code of Federal Regulations 257 Subpart D) and the Georgia Environmental Protection Division Rules of Solid Waste Management 391-3-4.10 by a qualified groundwater scientist or engineer with Arcadis U.S., Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).



---

J. Geoffrey Gay, P.E.  
Technical Expert (Eng)  
Georgia Registration No. PE 27801

9.24.23  
Date

## Acronyms and Abbreviations

AP-1	former Ash Pond 1
Arcadis	Arcadis U.S., Inc.
ASD	alternate source demonstration
bgs	below ground surface
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
GAEPD	Georgia Environmental Protection Division
GWPS	Groundwater Protection Standard
mg/L	milligrams per liter
Resolute	Resolute Environmental & Water Resources Consulting
SSL	statistically significant level
TDS	total dissolved solids

# 1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this alternate source demonstration (ASD) update in accordance with the United States Environmental Protection Agency Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] Part 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This report presents an update to the conditionally approved ASDs for the statistically significant levels (SSLs) of lithium, an Appendix IV groundwater monitoring constituent, observed in groundwater at detection well MCM-06 (formerly known as “monitoring well”) and vertical assessment well DPZ-02 (formerly known as “delineation well”) at Georgia Power Company’s Plant McManus former Ash Pond 1 (AP-1) (the site; **Figure 1**). The site and current groundwater monitoring well network for the CCR unit are shown on **Figure 1** and well construction details are presented in **Table 1**.

In the ASD dated November 17, 2020 (“2020 ASD”), the lithium SSL at detection well MCM-06 was attributed to a natural source – the influx of brackish surface water during dewatering activities (Arcadis 2020). Since the submission of the 2020 ASD, the conceptual model for lithium on site was expanded to support an additional ASD (“2022 ASD”) for the lithium SSL in vertical assessment well DPZ-02 (Arcadis 2022), located adjacent to MCM-06. Both ASDs were conditionally approved by GAEPD provided future monitoring data continue to support the original ASDs (GAEPD 2021b, GAEPD 2022). As described in this ASD update, data collected since 2020 continue to support that the source of lithium at both MCM-06 and DPZ-02 is naturally occurring, and that the source is due to a natural saltwater wedge inherent to brackish coastal estuary environments.

Updates to the 2020 and 2022 ASDs include the following, presented in Section 3.0:

1. An evaluation of total dissolved solids (TDS), sodium, and chloride concentrations in groundwater demonstrating the presence of saltwater wedge.
2. An evaluation of the site groundwater geochemistry to demonstrate that site conditions match the pattern for saltwater intrusion documented in the literature and identifying constituent ratios that support saltwater as the source of the lithium observed in site monitoring wells.
3. An evaluation of recent decreasing lithium and TDS concentrations trends observed as pond elevations have risen that supports that an increase in freshwater thickness (difference in elevation between top of freshwater water table to saltwater boundary) in the pond is pushing the saltwater wedge deeper.

Combined, these lines of evidence verify the previous demonstrations that the former CCR unit is not the source of the lithium SSLs observed in wells MCM-06 and DPZ-02.

# 2 Site Background

Plant McManus is an electrical power generation plant located on Crispin Island, near Brunswick, Georgia. The island was separated from the mainland to the northeast by tidal marsh and is bounded to the west and southwest by the Turtle River. The Turtle River is a tidally influenced brackish estuary that can vary in elevation by more than 8 feet during a tidal cycle (Resolute Environmental & Water Resources Consulting [Resolute] 2020a).

The plant was originally constructed in 1952. Use of coal for power production ceased in 1972, and Georgia Power Company retired all coal power generating assets at Plant McManus prior to April 16, 2015. During operation of the coal-fired units from 1959 until 1972, CCRs were disposed in an approximately 80-acre surface impoundment (AP-1) on the Plant McManus site northeast of the plant (**Figure 1**).

## 2.1 Coal Ash Removal

CCR placement in AP-1 ceased in 1972 after Plant McManus retired its coal units. Prior to unit closure-related construction activities, Georgia Power Company completed a notification of intent to initiate closure of the former CCR Unit on December 7, 2015. Closure construction for AP-1 consisted of closure by removal and included the removal of all visible CCR within the surface impoundment, as well as removal of an additional six or more inches of soil below the limits of ash. Removed CCR and soil excavated beneath the CCR was disposed at an approved solid waste management facility.

Following the completion of closure-related construction activities, the final CCR removal certification report was submitted in November 2019 (Arcadis 2019). GAEPD acknowledged the report and that the removal activities within the identified boundaries of former AP-1 had occurred in a letter dated January 10, 2020 (GAEPD 2020). Closure Permit No. 063-030D(CCR) was issued by GAEPD on June 18, 2021 (GAEPD 2021a).

## 2.2 Site Geology

Plant McManus is located within the Coastal Plain Province of Georgia. The soils that make up the surficial aquifer system are comprised of very fine sands and discontinuous clay units within the sands, from land surface (or beneath a shallow fill layer) to depths up to approximately 40 feet below ground surface (bgs) in the area nearest DPZ-02, with no presence of a clear aquitard.

These very fine sands and discontinuous clay units are interpreted to be the Upper Satilla Formation, which fines downward to a silty fine sand of either the Lower Satilla Formation (ATC Associates, Inc. 1997) or the Cypresshead Formation (Huddleston 1988).

Gamma logs performed in on-site borings indicate a lower permeability layer starting between 40 and 52 feet bgs (Resolute 2020a). This is consistent with the depths of the upper confining unit of the Ebenezer Formation, described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones, extending down to approximately 185 feet bgs.

The surface of the tidal marsh is covered by silt and vegetation, except where scoured by tidal creeks with fine sands in their channels. The surficial aquifer formed in a similar depositional environment, with paleo tidal channels likely present throughout. The surficial aquifer is generally unconfined, but there may be localized layers of lower permeability soils, resulting in semi-confined conditions in some locations.

## 2.3 Site Hydrogeology

There are two primary components of groundwater flow at the site, determined by geography and the tidal river. The first is along a northeast to southwest axis and originates from the mainland to the northeast and Crispin Island to the southwest. The groundwater elevations in the monitoring wells and piezometers on the mainland (MCM-01, -02, -15, and -16) and Crispin Island (MCM-08 and -11) are consistently higher than the surface water elevation in former AP-1 and the monitoring wells along both dikes, despite tidal fluctuations. This indicates that groundwater flow is consistently towards former AP-1 from the northeast and southwest.

The second component of groundwater flow is along a northwest to southeast axis between former AP-1 and the tidal marsh and is sensitive to the elevation of the water in former AP-1. Dewatering of former AP-1 was required for CCR for removal and pond closure construction activities. Dewatering wells (RW-1 through RW-10) were



installed along the northern dike (**Figure 1**) and dewatering activities progressed with excavation activities. **Appendix A** provides a series of groundwater potentiometric maps during and after dewatering and excavation which have been previously submitted (Resolute 2019, Resolute 2020b, Resolute 2021a, Resolute 2021b). Dewatering activities began in December 2016 and operated nearly continuously until April 2019, a period of over 2 years. During that period, a net-inward hydraulic gradient was present, and no significant water was present in the pond. **Appendix A – Figures A1** and **A2** show the hydraulic gradient and an aerial photograph during this time. Following pond closure construction activities, the dewatering wells were shut off, and the pond was allowed to fill with water, but the pond elevation was generally kept between 1.5 feet North American Vertical Datum of 1988 (NAVD88) and 3.0 feet NAVD88 until summer 2021 (**Appendix A – Figures A3** through **A6**). Since the summer of 2021, the pond elevation has increased to generally greater than 4 feet NAVD88 (**Figure 2**). The hydraulic gradient across the northern dike has been more consistently outward since then (**Appendix A – Figures A7** and **A8**). As discussed in Section 2.4, this increase in the elevation of freshwater in the pond can influence sea water intrusion. Section 3.3 discusses this further in relation to lithium concentrations at MCM-06 and DPZ-02.

## 2.4 Seawater Intrusion and Mixing in Coastal Aquifers and Estuaries

Because the site is located adjacent to a brackish tidal marsh within 13 miles of the Atlantic Ocean, it is likely that the site is influenced by its regional brackish environment. In coastal aquifers such as the Coastal Plain, fresh groundwater from inland recharge zones flows toward coastal discharge areas. Once at the coast, fresh groundwater then encounters and mixes with saline ocean-sourced tidally influenced groundwater (**Figure 3**). Because of freshwater's lower density, the water column within these mixing zones is typically stratified, with freshwater/less saline water remaining above the more saline/brackish deeper zones of the aquifer, creating what is called a saltwater wedge. The interface between the lower-salinity freshwater and the underlying saltwater wedge is called the transition zone and depth of this zone is controlled by several factors, including the amount of freshwater recharge, the thickness of the freshwater aquifer, and the relative densities of saltwater and freshwater (U.S. Geological Survey 2003). For example, the presence of a thicker zone of freshwater will push the transition zone deeper, whereas pumping of the freshwater will raise the elevation of the transition zone. Brackish waters, defined as waters having TDS concentrations greater than 1,000 milligrams per liter (mg/L), but less than 35,000 mg/L, are characteristic of this transitional zone between the fresh inland-derived groundwater and saline ocean-derived groundwater (U.S. Geological Survey 2003).

Transition zones between freshwater and brackish surface water are observed in coastal estuaries. Estuaries are partially enclosed, coastal water bodies where fresh surface water from rivers and streams mix with salt water from the ocean. Typically, lower density fresh/slightly brackish water will be present in the shallower zones of the surface water, with increasing salinity through the deeper surface water zones and into groundwater (**Figure 4**). In areas close to the coast, shallow surface water can exhibit brackish characteristics, but will still demonstrate stratification and increasing salinity with depth. In transition zones, tidal fluctuations enhance the mixing of freshwater and saltwater through a continual push and pull the freshwater-saltwater interface towards the land, and then seaward throughout the tidal cycle (**Figure 4**).

### 3 Alternative Source Demonstration

Since the submission of the 2020 MCM-06 ASD, the conceptual model for lithium on site was expanded to support an ASD for the lithium SSL at vertical assessment well DPZ-02 (Arcadis 2022), located adjacent to MCM-06. Data collected since 2020 continue to support that the source of lithium on site is naturally occurring, and that the source is due to a natural saltwater wedge inherent to brackish coastal estuary environments. In addition, recent saltwater indicator parameter concentrations indicate that shifts in pond surface water elevation appears to have pushed the saltwater transition zone deeper, resulting in a substantial decrease in lithium concentrations.

#### 3.1 Groundwater Signatures of Saltwater Intrusion and Mixing

An evaluation of TDS concentrations continues to support that site surface and groundwater, including groundwater at MCM-06 and DPZ-02, is brackish and influenced by the nearby Atlantic Ocean. **Table 2** presents a subset of surface water and groundwater data collected during the 2022 routine monitoring events including the low tide and high tide background water sampling locations BG-1LT and BG-2HT, the transect 2 (T-2) surface water sampling transect, located nearest to MCM-06 and DPZ-02, and other site detection monitoring wells. Sample locations are shown on **Figures 1** and **5**. Analytical reports and sampling information for these monitoring events are provided in the *Semiannual and Annual Groundwater Monitoring and Corrective Action Reports* (Resolute 2022, 2023). As shown on **Table 2**, TDS concentrations ranged from 17,000 to 29,000 mg/L (median 20,500 mg/L) in surface water and from 38 to 15,600 mg/L (median 2,600 mg/L) in groundwater. Based on these data, much groundwater across the site would be considered brackish, having a TDS concentration greater than 1,000 mg/L. Only mainland wells MCM-01, MCM-02, MCM-04, MCM-11, MCM-15, and MCM-16 had groundwater TDS concentrations that would be considered freshwater (less than 1000 mg/L; **Table 2**). The widespread presence of brackish water is characteristic of an area influenced by a saltwater wedge. In addition, a historical review of specific conductivity data for paired wells DPZ-02 and MCM-06 shows that DPZ-02 has a consistently higher specific conductivity compared to shallower well MCM-06, as shown on the graph on **Figure 2**. This type of salinity gradient is also characteristic of a saltwater wedge.

Sodium-to-chloride (molar) ratios, also shown on **Figure 6**, provided further support for the influence of a saltwater wedge at MCM-06. Sodium-to-chloride (molar) ratios can help differentiate different water types. For example, a sodium-to-chloride (molar) ratio of approximately 0.86 has been reported for average seawater composition (e.g., Hem 1989) and for brackish water in coastal regions (Klassen et al. 2014; Shin et al. 2020). Waters with higher ratios, greater than one, are indicative of a land-derived groundwater signature due to silica weathering or ion exchange reactions resulting in the greater release of dissolved sodium. A review of sodium and chloride ratios versus TDS was completed using the September 2022 data for the assessment well DPZ-02, detection wells MCM-01, -02, -05, -06, -07, -11, -12, -14, -15, -16, -17, -18, -19, and MCM-20) and surface water samples. Groundwater collected in September 2022 has a sodium-to-chloride ratio of 0.77 and 0.85 and TDS concentrations of 3,900 mg/L and 13,000 mg/L for MCM-06 and DPZ-02, respectively. These are consistent with a brackish water signature. As shown on **Figure 6**, MCM-06 and DPZ-02 share similar ratios to other wells located along the dike, transect and background surface water samples, which also presented higher, brackish TDS concentrations (1,000 to 35,000 mg/L). Mainland wells such MCM-01, MCM-12, MCM-02 yielded a higher sodium-to-chloride ratio. These results provide further support that the chemistry at MCM-06 and DPZ-02 is consistent with an ocean-derived source.

As shown in **Figure 4**, the brackish water conditions encountered in the surface water extend to groundwater, and so surface water can be used to approximate the geochemical conditions of the saltwater wedge. Historical lithium surface water data from previously submitted ASDs (Arcadis 2020, Arcadis 2021, Arcadis 2022) are presented in **Appendix B**. Since surface water monitoring began in February 2020, surface water lithium concentrations have shown slight seasonal variations over time. Low tide and high tide background surface water samples have ranged from 0.01 mg/L, estimated, to 0.14 mg/L (median 0.096 mg/L) since 2020. Surface water along transect T-2 lithium results are similar, ranging from less than the detection limit (0.0084 mg/L) to 0.12 mg/L (median 0.09 mg/L). Lithium concentrations at MCM-06 and DPZ-02 were compared to background and transect surface water lithium results in the 2020 and 2022 ASDs, respectively. The lithium results for the March and September 2022 monitoring events are shown on **Table 2**. The March and September lithium concentrations at MCM-06 (0.074 mg/L and 0.043 mg/L) and the March 2022 lithium concentration at DPZ-02 (0.088 mg/L, estimated) are within the range of lithium concentrations encountered in the background and transect surface water samples (0.087 mg/L to 0.11 mg/L). These results are consistent with previous data (**Appendix B**) and anticipated as lithium is the fourteenth most abundant element in seawater and is documented to range from 0.1 to 0.2 mg/L (Riley and Tongudai, 1964). The September 2022 lithium result at DPZ-02 was less than the detection limit of 0.0049 mg/L and may be anomalous based on a comparison to other results from MCM-06 and DPZ-02.

## 3.2 Geochemical Indicator Ion Ratios

A comparison of ratios of ions can be used to differentiate groundwater impacted by CCR from other sources. A comparison of ion ratios was presented in the 2020 ASD to analyze several CCR indicator ions in conjunction with lithium simultaneously using star plots and was updated in this ASD. This method assumes that select ions in groundwater from a CCR source, such as boron, sulfate, calcium, chloride, and lithium, are conservative in groundwater and not retarded due to processes such as sorption or precipitation. The star plots visualize the relative amounts of ions present at varying orders of magnitude. A similarity in shape represents similar ratios of ions, indicating a similar source.

As shown on **Figure 7**, the similarity among the star plots for background surface water and groundwater at DPZ-02 and MCM-06 in June 2020 and September 2022 suggests the ions in the water are of a similar saltwater source, consistent with the saltwater wedge conceptual model (**Figure 7**). Compared to 2020, the overall shape of the September 2022 MCM-06-star plot is generally consistent, but smaller in size. This indicates a uniform decrease in concentration of each parameter, potentially due to dilution with lower salinity groundwater. This observation and how it relates to lithium concentrations is discussed further in Section 3.3. The shape of the DPZ-02 star plot is also similar in shape in the 2022 sample, with the exception that lithium was non-detect at a relatively low detection limit (less than 0.0049 mg/L) compared the other ions. This low lithium result is potentially anomalous.

The comparison of geochemistry markers in surface waters and groundwater demonstrates that the groundwater chemistry at the MCM-06 has remained generally consistent since the submission of the 2020 ASD and yields a similar geochemistry to estuary surface water. This supports the understanding that the brackish estuary water and saltwater wedge influences the groundwater chemistry at MCM-06.

### 3.3 Lithium and TDS Trends in Groundwater at MCM-06 and DPZ-02

As presented in the 2020 ASD, water quality conditions at MCM-06 appear to be linked to shifts in hydraulic conditions, with higher lithium concentrations observed during dewatering activities conducted as part of pond construction-related closure activities (Arcadis 2020). Since the conclusion of construction activities, the hydraulic conditions of the area nearest MCM-06 have continued to evolve, as presented in Section 2.3, and have resulted in further declines in lithium concentrations at MCM-06 and DPZ-02.

As discussed in Section 2.4, the thickness of freshwater above a saltwater wedge can control the depth at which the transition to brackish water occurs. The thicker the freshwater lens, the deeper the transition to brackish water. The thickness of the freshwater in former AP-1 has varied, influencing hydraulic conditions and lithium concentrations at MCM-06. **Figure 8** provides a graphic of how the pond elevation influences the saltwater wedge and the corresponding changes in TDS and lithium concentrations at MCM-06. Data included on this figure are provided in **Table 3**. Prior to dewatering and ash removal (baseline conditions), the pond was filled with water and lithium and TDS concentrations at MCM-06 were generally low, but still considered brackish (approximately 4,000 mg/L). Lithium concentrations were around the Groundwater Protection Standard (GWPS) of 0.04 mg/L. During dewatering activities, including extraction from dewater wells labeled “RW” on **Figure 8**, the freshwater in the pond was removed, allowing for intrusion of the brackish water from the deeper more saline portions of the aquifer. This is reflected by the increase in TDS and lithium concentrations at MCM-06 while the pond was completely dewatered (**Figure 8**). TDS concentrations rapidly increased to greater than 14,000 mg/L, and lithium concentrations during this period ranged from 0.064 to 0.13 mg/L at MCM-06. These lithium and TDS results were similar to results collected from surface water. Following the cessation of excavation dewatering, groundwater and precipitation filled the pond. However, the pond elevation was managed at elevations between 1.5 and 3 feet NAVD88. The freshwater thickness during this time was less than baseline conditions, and, while a slight decline in lithium and TDS concentrations was observed during this time, concentrations of both parameters were variable and relatively elevated. In the summer of 2021, the pond elevation was allowed to increase to elevations greater than 4 feet NAVD88. Since then, a substantial decline in TDS and lithium has been observed. DPZ-02 was installed in March 2020 and data collection began in May 2020, after the dewatering for excavation had ended and when pond water levels were between 1.5 and 3 feet NAVD88. TDS concentrations at DPZ-02 since summer 2021 have shown a decrease from 19,000 mg/L in March 2021 to 13,000 mg/L in September 2022, while lithium decreased from 0.094 mg/L (estimated) in March 2021 to 0.088 mg/L in March 2022 before significantly decreasing to less than the detection limit of 0.0049 mg/L in September 2022 (**Figure 9**). This inverse relationship between pond water elevation saltwater influence in groundwater is demonstrated by the specific conductivity data collected by a multiparameter sonde at MCM-06 between 2021 and 2023 and DPZ-02 between 2022 and 2023 (**Figure 2**). The TDS concentration at monitoring well MCM-06 during the September 2022 monitoring event (3,900 mg/L) was within the baseline TDS concentrations. Lithium has also similarly decreased in groundwater at MCM-06 and DPZ-02. The most recent lithium concentration detected in the September 2022 groundwater sample at MCM-06 (0.043 mg/L) is within the range of concentrations measured prior to dewatering activities, and only slightly above the GWPS. The most recent lithium result at DPZ-02 of less than the detection limit of 0.0049 mg/L is less than the GWPS, however this result is potentially anomalous based on a comparison to other results from MCM-06 and DPZ-02 and will be verified as additional data is collected.

## 4 Conclusion and Recommendation

This report serves as an update to the 2020 ASD and 2022 ASD prepared in accordance with 40 CFR § 257.95(g)(3)(ii) which demonstrated that the SSLs for lithium at Plant McManus former AP-1 detection well MCM-06 and assessment well DPZ-02 are attributed to the regional brackish coastal environment, and not to a release from former AP-1. Updates to this ASD include:

1. An evaluation of TDS, sodium, and chloride concentrations in groundwater demonstrating the presence of saltwater wedge.
2. Lithium concentrations in background and Transect 2 surface water samples consistent over time and similar to the concentration ranges measured in MCM-06 and DPZ-02.
3. An evaluation of the site groundwater geochemistry to demonstrate that site conditions match the pattern for saltwater intrusion documented in the literature and identifying constituent ratios that support saltwater as the source of the lithium observed in site monitoring wells.
4. An evaluation of recent decreasing lithium and TDS trends, which continued to support the link between site hydraulic conditions and lithium concentrations, which is consistent with the presence of a saltwater wedge.

The evidence supports the conclusion that the lithium SSL is attributable to the presence of a saltwater mixing, which is characteristic of the regional coastal environment, and is not attributable to CCR storage or a release from former AP-1. Therefore, no further action for lithium is warranted.

There is large body of surface water data lithium data that has been collected since 2020. It is recommended that lithium be removed from the surface water sampling program with the submittal of this ASD, given prior data collection has served the purpose of demonstrating an alternative source of lithium.

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# Tables



**Table 1**  
**Monitoring Well Network Summary**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**



Well ID	Well Function	Northing <sup>1</sup> (ft)	Easting <sup>1</sup> (ft)	Top of Casing Elevation <sup>2</sup> (ft NAVD 88)	Ground Surface Elevation <sup>2,3</sup> (ft NAVD 88)	Total Depth <sup>4</sup> (ft BTOC)	Top of Screen Elevation <sup>2</sup> (ft NAVD 88)	Bottom of Screen Elevation <sup>2</sup> (ft NAVD 88)
<b>Detection Wells</b>								
MCM-01	Upgradient Monitoring	443727.31	852732.08	8.63	5.70	27.32	-7.93	-17.93
MCM-02	Upgradient Monitoring	444496.53	852663.64	11.25	8.25	27.35	-5.22	-15.22
MCM-04	Downgradient Monitoring	444804.73	851695.27	12.39	9.50	28.57	-5.18	-15.18
MCM-05	Downgradient Monitoring	444716.63	851309.91	10.04	7.80	28.05	-7.25	-17.25
MCM-06	Downgradient Monitoring	444407.22	850782.11	10.15	7.87	27.20	-6.27	-16.27
MCM-07	Downgradient Monitoring	444059.38	850195.96	10.20	7.52	23.75	-2.76	-12.76
MCM-11	Upgradient Monitoring	442429.80	851072.91	10.23	7.52	24.00	-3.34	-13.34
MCM-12	Sidegradient Monitoring	442821.17	851312.45	11.87	8.99	29.00	-6.12	-16.12
MCM-14	Sidegradient Monitoring	443358.82	852317.59	11.50	8.66	28.11	-6.23	-16.23
MCM-15	Upgradient Monitoring	444825.53	851949.02	12.84	10.18	26.60	-4.53	-14.53
MCM-16	Upgradient Monitoring	444551.32	852716.60	16.02	13.04	28.39	-1.72	-11.72
MCM-17	Sidegradient Monitoring	443074.41	851899.68	11.49	9.09	27.44	-4.81	-14.81
MCM-18	Upgradient Monitoring	442067.07	851698.41	9.00	6.01	27.86	-8.76	-18.76
MCM-19	Upgradient Monitoring	441157.82	852338.86	8.71	5.77	28.32	-9.53	-19.53
MCM-20	Upgradient Monitoring	440944.40	852185.15	10.07	7.07	23.05	-2.98	-12.98
<b>Assessment Wells</b>								
DPZ-02	Vertical Assessment Well	444391.02	850757.94	9.54	7.34	43.46	-28.84	-33.84
<b>Dewatering Wells/Piezometers</b>								
MCM-09	Piezometer	443252.16	850147.75			Abandoned		
MCM-10	Piezometer	442791.88	850453.05	11.75	8.61	23.96	-1.25	-11.25
MCM-13	Piezometer	443030.23	851826.19	12.56	9.79	27.46	-4.90	-14.90
PZ-09	Piezometer	444082.13	849471.64	9.41	6.57	24.05	-4.56	-14.56
PZ-10	Piezometer	444949.09	851673.98	12.17	9.74	22.91	-0.66	-10.66
PZ-12	Piezometer	443593.34	849396.87	7.90	5.02	18.70	-5.72	-10.72
DR-01	Piezometer	444407.62	850777.93	7.58	7.86	30.72	-8.14	-23.14
DR-02	Piezometer	444411.68	850784.46	7.49	7.90	30.59	-8.10	-23.10
PT-01	Piezometer	444408.70	850768.53	7.49	7.82	24.67	-7.18	-17.18
PT-02	Piezometer	444414.19	850777.91	7.64	7.91	24.73	-6.59	-16.59
PT-03	Piezometer	444418.92	850785.95	7.45	7.93	24.72	-7.27	-17.27
DPZ-01	Deep Piezometer	444695.71	851277.40	9.71	7.36	40.78	-25.99	-30.99
DPZ-03	Deep Piezometer	444073.16	850218.83	9.46	7.04	47.57	-33.03	-38.03
DPZ-04	Deep Piezometer	443062.60	851881.94	11.45	8.96	51.23	-34.70	-39.70
DPZ-05	Deep Piezometer	443376.32	852342.11	11.00	8.60	51.20	-35.12	-40.12
DPZ-06	Deep Piezometer	444614.79	851846.27	12.04	9.59	40.50	-23.38	-28.38
PT-04D	Deep Piezometer	444400.23	850753.07	7.51	7.80	40.71	-28.20	-33.20

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<b>Dewatering Wells/Piezometers</b>								
RW-1	Dewatering for Construction	444094.00	850251.16	9.39	NA	26.42	-2.61	-12.61
RW-2	Dewatering for Construction	444161.84	850367.20	9.96	NA	27.27	-2.83	-12.83
RW-3	Dewatering for Construction	444228.43	850479.77	9.89	NA	32.29	-3.07	-13.07
RW-4	Dewatering for Construction	444299.33	850599.26	9.49	NA	26.88	-2.97	-12.97
RW-5	Dewatering for Construction	444369.68	850714.24	10.11	NA	37.22	-2.92	-22.92
RW-6	Dewatering for Construction	444436.37	850831.72	10.25	NA	36.58	-2.67	-22.67
RW-7	Dewatering for Construction	444504.59	850949.35	10.19	NA	38.17	-7.69	-22.69
RW-8	Dewatering for Construction	444572.91	851064.47	10.22	NA	31.62	-2.80	-17.80
RW-9	Dewatering for Construction	444641.60	851181.30	10.26	NA	37.71	-7.66	-22.66
RW-10	Dewatering for Construction	444706.87	851295.50	10.56	NA	37.80	-7.54	-22.54
PZ-1	Piezometer for Dewatering	444127.68	850308.32			Abandoned		
PZ-2	Piezometer for Dewatering	444196.66	850423.46			Abandoned		
PZ-3	Piezometer for Dewatering	444264.81	850540.09			Abandoned		
PZ-4	Piezometer for Dewatering	444335.45	850656.48			Abandoned		
PZ-5	Piezometer for Dewatering	444471.11	850888.80			Abandoned		
PZ-6	Piezometer for Dewatering	444538.49	851005.46			Abandoned		
PZ-7	Piezometer for Dewatering	444605.96	851121.65			Abandoned		
PZ-8	Piezometer for Dewatering	444674.43	851238.67			Abandoned		

Notes:

1. Georgia State Plane - NAD 83 East Zone.
2. NAVD 88 - North American Vertical Datum of 1988
3. Ground surface measured at the mag nail in the concrete pad.
4. ft BTOC - feet below top of casing

Table 2  
Analytical Results Summary of Select Wells and Background Surface Water  
Georgia Power Company  
Plant McManus Former Ash Pond 1  
Brunswick, Georgia



Sample Type	Sample Location	Analyte Units	Total Alkalinity	Alkalinity (bicarbonate)	Alkalinity (carbonate)	Boron	Calcium	Chloride	Fluoride	Lithium	Magnesium	Potassium	Sodium	Sulfate	Total Dissolved Solids (TDS)
			mg/L as CaCO <sub>3</sub>	mg/L as CaCO <sub>3</sub>	mg/L as CaCO <sub>3</sub>	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Background Surface Water	BG-1LT	3/1/2022	106	106	<1.8	2.8	245	9150	<5.0	0.10	732	286	5680	1180	20800
		9/28/2022	110	110	<5.0	2.8	260	13000	<8.0	0.10	780	200	6000	1600	20000
	BG-2HT	3/3/2022	109	109	<1.8	3.1	274	10400	<5.0	0.11	821	325	6530	1310	29000
		9/22/2022	110	110	<5.0	2.9 J	280	14000	<1.6	0.11	840	250	7200	1900	24000
Surface Water	T2-1HT	3/2/2022	108	108	<1.8	2.8	243	9210	<5.0	0.10	722	290	5780	1190	21900
		9/22/2022	100	100	<5.0	2.1 J	230	15000	<1.6	0.09	700	240	5500	1500	17000
	T2-2HT	3/2/2022	107	107	<1.8	3.0	246	9090	<5.0	0.10	736	292	5940	1190	20500
		9/22/2022	108	108	<1.8	2.0 J	251	9190	<5.0	0.10	761	300	5850	1200	21300
	T2-2HTS	3/2/2022	107	107	<1.8	3.0	262	9140	<5.0	0.11	783	302	5830	1200	20500
		9/22/2022	100	100	<5.0	1.9 J	230	12000	<1.6	0.09	690	230	5400	1500	19000
	T2-3HT	3/2/2022	106	106	<1.8	2.9	248	9450	<5.0	0.11	730	290	5940	1220	19800
		9/22/2022	100	100	<5.0	2.2 J	250	13000	<1.6	0.097	760	250	6000	1600	20000
	T2-3HTS	3/2/2022	107	107	<1.8	3.0	242	9080	<5.0	0.11	710	281	5920	1180	20500
		9/22/2022	100	100	<5.0	1.9 J	240	12000	<1.6	0.087	710	240	5600	1400	17000
	T2-4HT	3/2/2022	106	106	<1.8	2.9	239	9150	<5.0	0.11	701	277	5760	1180	20900
		9/22/2022	100	100	<5.0	2.1 J	240	12000	<1.6	0.09	720	240	5700	1600	17000
	T2-4HTS	3/2/2022	107	107	<1.8	2.9	240	9030	<5.0	0.10	701	278	5840	1170	22200
		9/22/2022	100	100	<5.0	1.7 J	240	11000	<1.6	0.091	730	250	5700	1500	22000
	T2-4LT	3/1/2022	106	106	<1.8	2.7	246	8640	<5.0	0.089	718	279	5710	1100	21900
		9/28/2022	110	110	<5.0	2.5	260	14000	<8.0	0.10	760	190	5900	1700	19000
Groundwater	DPZ-02	3/1/2022	372	372	<1.8	1.6 J	303	6750	<0.050	0.088 J	506	171	4320	755	15600
		9/20/2022	410	410	<5.0	1.7	240	7400	<4.0	<0.0049	450	140	4100	820	13000
	MCM-01	3/2/2022	--	--	--	0.048 J	8.2	13.4	<0.050	0.00064 J	--	--	--	30.8	97
		9/21/2022	5.0	5.0	<5.0	0.35 J	9.2	17	<0.040	<0.0049	1.9	2.2	17	39	100
	MCM-02	3/2/2022	--	--	--	0.086	4.1	20.6	<0.050	<0.00050	--	--	--	25.7	94
		9/21/2022	5.9	5.9	<5.0	0.23 J	4.3	23	<0.040	<0.0049	2.1	0.81 J	19	29	90
	MCM-04	3/3/2022	--	--	--	0.053	8.0	12.2	<0.050	0.0017 J	--	--	--	50.6	146
		9/21/2022	12	12	<5.0	0.19 J	7.8	47	<0.040	<0.0049	2.4	7.7	39	52	180
	MCM-05	3/1/2022	262	262	<1.8	0.75 J	48.4	1680	<1.2	0.028 J	135	63.6 J	1160	143	3780
		9/21/2022	210	210	<5.0	0.61	28	1100	0.48	0.018 J	60	33	620	100	2100
MCM-06	3/1/2022	377	377	<1.8	1.7	131	4150	<5.0	0.074	254	106	2440	440	9040	
	9/21/2022	270	270	<5.0	1.1	47	2800	1.1 J	0.043	91	56	1400	320	3900	

Please see page 2 for notes

**Table 2**  
**Analytical Results Summary of Select Wells and Background Surface Water**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**

Sample Type	Sample Location	Analyte Units	Total Alkalinity	Alkalinity (bicarbonate)	Alkalinity (carbonate)	Boron	Calcium	Chloride	Fluoride	Lithium	Magnesium	Potassium	Sodium	Sulfate	Total Dissolved Solids (TDS)
			mg/L as CaCO <sub>3</sub>	mg/L as CaCO <sub>3</sub>	mg/L as CaCO <sub>3</sub>	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Groundwater	MCM-07	3/2/2022	279	279	<1.8	1.3	198	5630	<5.0	0.022 J	431	131	3260	702	12600
		9/21/2022	300	300	<5.0	1.3	190	6400	0.18	0.02 J	410	100	3100	660	9400
	MCM-11	3/2/2022	--	--	--	0.038 J	6.8	28.4	0.097 J	0.0026	--	--	--	19.5	124
		9/21/2022	26	26	<5.0	0.17 J	7.6	32.0	0.11	<0.0049	1.8	0.69 J	23	23	110
	MCM-12	3/3/2022	--	--	--	1.2	4.6	394	0.95	<0.010	--	--	--	<2.5	1400
		9/21/2022	450	450	<5.0	1.3	4.7	400	1.3	0.0075 J	8.7	19	400	<2.0	1300
	MCM-14	3/3/2022	264	264	<1.8	0.89 J	224	5040	<5.0	0.037 J	387	134	2950	754	11500
		9/21/2022	210	210	<5.0	1.0	74	3300	0.12	0.028	150	61	1600	270	7400
	MCM-15	3/2/2022	--	--	--	0.054	7.2	14.3	<0.050	0.0017 J	--	--	--	16	103
		9/21/2022	6.7	6.7	<5.0	0.14 J	0.83	3.3	<0.040	<0.0049	0.33 J	7.3	2.6	6.3	38
	MCM-16	3/3/2022	--	--	--	0.057	5.4	26.5	<0.050	0.00061 J	--	--	--	20.4	104
		9/21/2022	3.4 J	<5.0	<5.0	0.12 J	4.6	17.0	<0.040	<0.0049	2.3	1.0	11	24	78
MCM-17	3/3/2022	257	257	<1.8	1.4	84	3540	<0.05	0.02 J	222	106	2180	324	8120	
	9/21/2022	570	570	<5.0	1.8	110	3300	0.78	0.023 J	170	86	1800	330	6200	
Background Groundwater	MCM-18	3/2/2022	--	--	--	0.23 J	22.3	1420	<1.0	<0.010	--	--	--	186	3100
		9/20/2022	<2.2	<5.0	<5.0	0.18 J	20	1200	0.61 J	<0.0049	62	9.0	690	160	2000
	MCM-19	3/1/2022	--	--	--	0.41 J	35.5	1870	<5.0	<0.010	--	--	--	158	4050
		9/20/2022	29	29	<5.0	0.77	150	6200	<4.0	0.014 J	430	73	3200	740	10000
	MCM-20	3/1/2022	--	--	--	0.87 J	99.8	4900	<5.0	0.02 J	--	--	--	543	10500
		9/20/2022	<2.2	<5.0	<5.0	0.9	100	5700	4.3 J	0.029	330	74	2900	750	8600

**Notes:**

-- = analyte not evaluated

< = analyte not detected in sample. Method detection limit provided.

mg/L = milligrams per liter

J = estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

CaCO<sub>3</sub> = calcium carbonate

Full analytical data reports and summary tables for March 2022 and September 2022 samples can be found in the 2022 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2022) and 2022 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute, 2023), respectively

**Table 3**  
**Lithium and TDS Concentrations 2016-2022**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**



Well Location	MCM-06		DPZ-02	
Analyte	Lithium	Total Dissolved Solids (TDS)	Lithium	Total Dissolved Solids (TDS)
Sample Date	mg/L	mg/L	mg/L	mg/L
8/31/2016	0.039 J	4160	NA	NA
11/30/2016	0.030 J	3950	NA	NA
2/16/2017	0.050 J	4600	NA	NA
6/2/2017	0.048 J	4470	NA	NA
8/17/2017	0.065	5450	NA	NA
6/20/2018	0.066 J	4940	NA	NA
9/27/2018	0.045 J	4480	NA	NA
11/7/2018	0.11	15100	NA	NA
3/6/2019	0.12	19000	NA	NA
10/17/2019	0.12	16100	NA	NA
3/28/2020	0.064	18800	0.078 J	NS
6/16/2020	NS	NS	0.096 J	20100
8/26/2020	0.096 J	14900	NS	NS
10/14/2020 (10/15/2020)	0.11	15200	0.093	19300
3/4/2021 (3/1/2021)	0.096 J	14200	0.094 J	19000
9/14/2021	0.084	11800	0.092	16400
3/1/2022	0.074	9040	0.088	15600
9/20/2022	0.043	3900	< 0.0049	13000

**Notes:**

mg/L = milligrams per liter

< = analyte not detected in sample. Method detection limit provided.

J = estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit

NA = Not applicable, assessment well DPZ-02 was installed in 2020

NS = Not sampled

Sample date for DPZ-02 identified in parentheses where different from MCM-06

# Figures

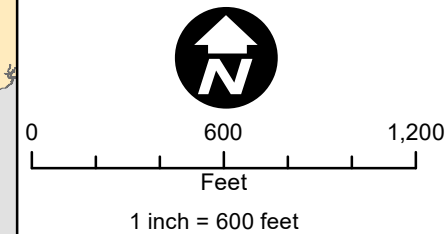




**Legend**

- CCR PERMITTED BOUNDARY
- ⊕ DETECTION MONITORING WELLS
- ⊕ ASSESSMENT WELL
- DEWATERING WELLS

NOTE:  
DEWATERING WELLS WERE USED DURING UNIT-CLOSURE RELATED CONSTRUCTION ACTIVITIES. THEY ARE NOT CURRENTLY ACTIVE.



GEORGIA POWER  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

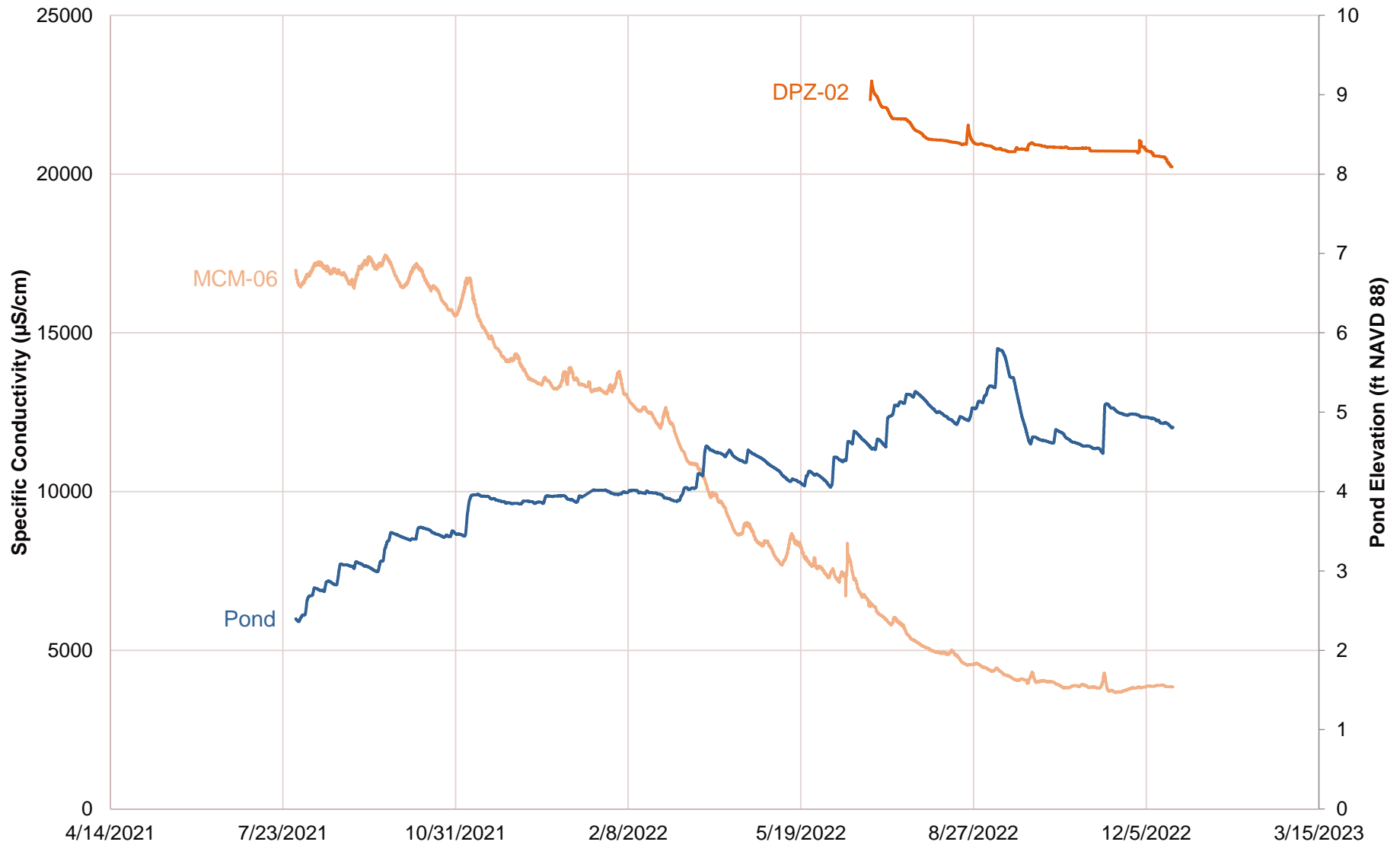
**SITE AND WELL  
LOCATION MAP**



FIGURE

**1**





**Legend:**

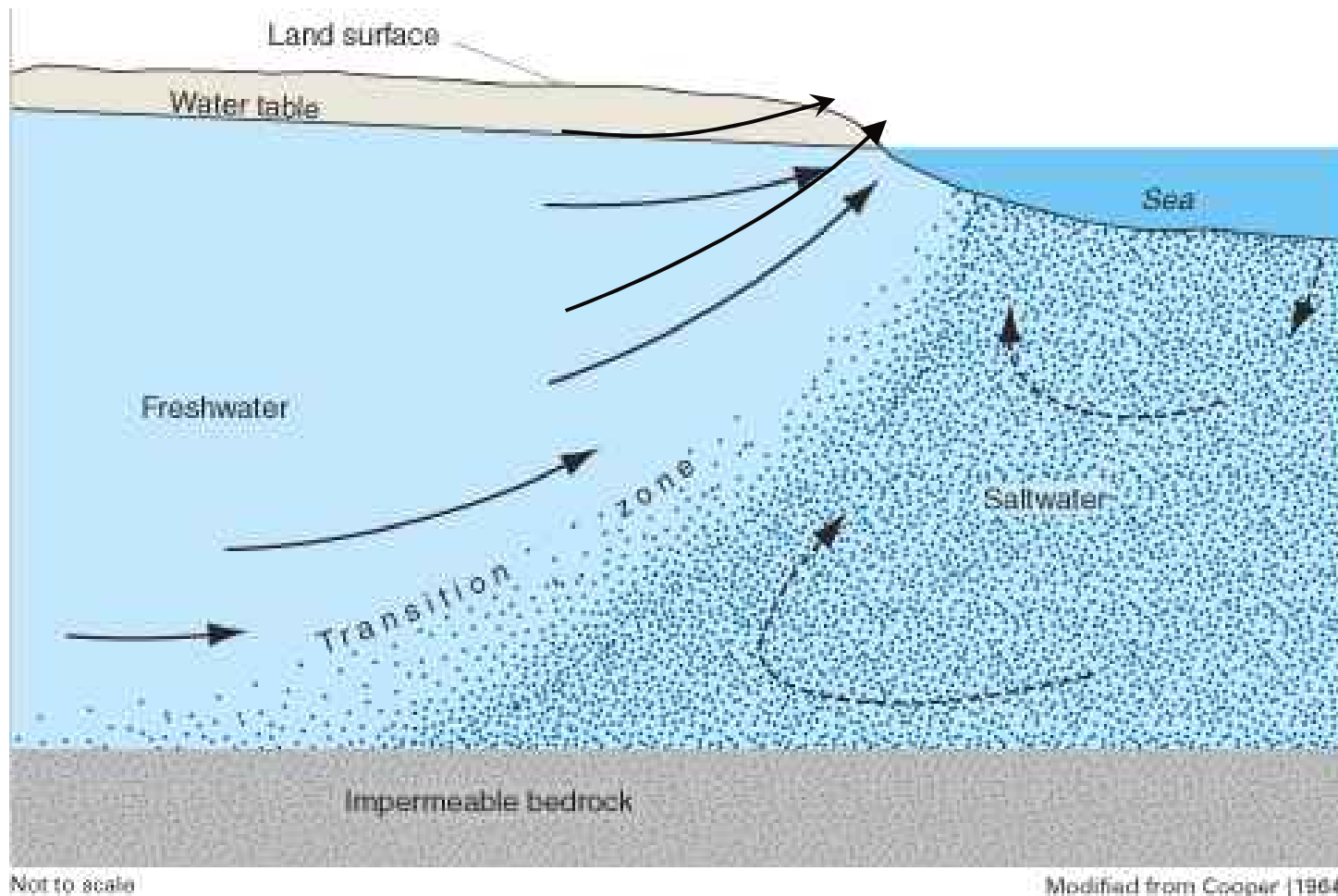
- Specific Conductivity at MCM-06 (24-hour rolling average)
- Specific Conductivity at DPZ-02 (24-hour rolling average)
- Pond Water Elevation (24-hour rolling average)

**Notes:**

µS/cm – microSiemen per centimeter  
 ftNAVD88 – feet North American Vertical Datum of 1988  
 Multiparameter sonde placed in DPZ-02 in June 2022.

GEORGIA POWER PLANT MCMANUS FORMER ASH POND 1 BRUNSWICK, GEORGIA	
SPECIFIC CONDUCTIVITY AND POND WATER ELEVATION 2021-2022	
	FIGURE <span style="font-size: 24pt; font-weight: bold;">2</span>





Modified from Cooper (1964)

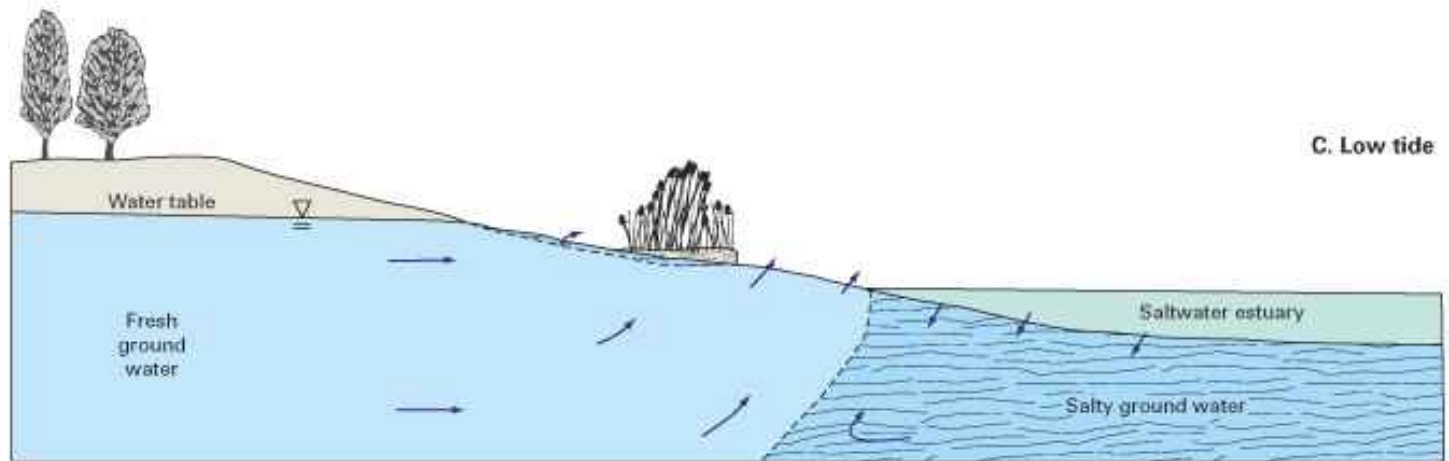
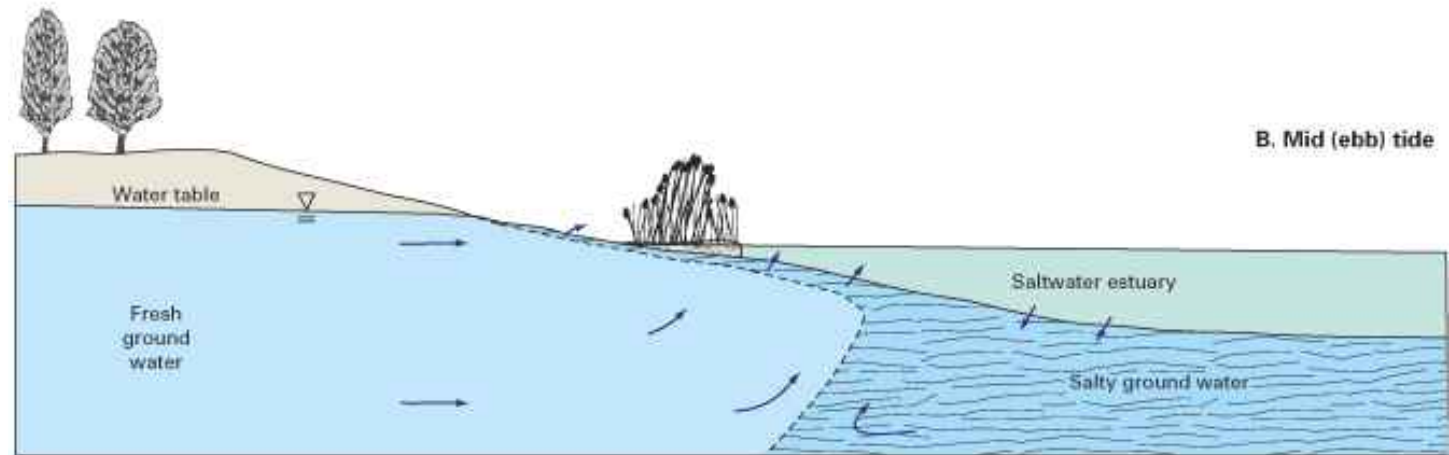
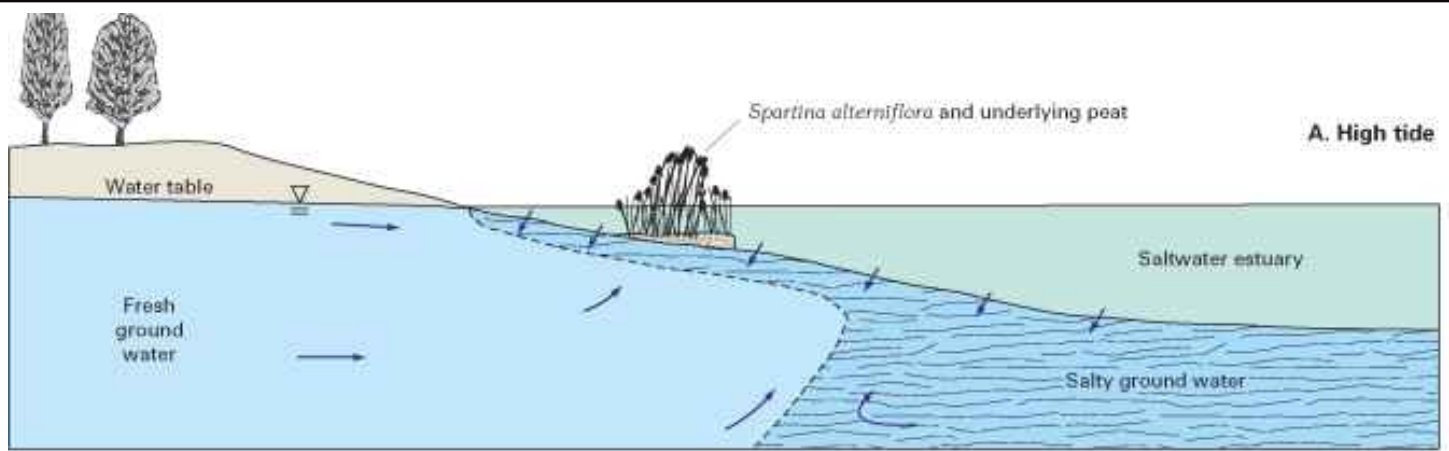
(USGS 2003)

GEORGIA POWER  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

THE FRESHWATER-SALTWATER  
TRANSITION ZONE IN AN IDEALIZED  
COASTAL AQUIFER.

Note:

U.S. Geological Survey. 2003. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. Circular 1262.  
Reston VA. GB1197.83.A87B27 2003



Figures modified from Portnoy and others (1998) and Ullish and Danbar (1997) (USGS 2003)



Note:

U.S. Geological Survey. 2003. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. Circular 1262. Reston VA. GB1197.83.A87B27 2003

GEORGIA POWER  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

GROUNDWATER DISCHARGE AND  
SALTWATER INFILTRATION AT THE  
AQUIFER-ESTUARY BOUNDARY







**Legend**

- PERMITTED CCR BOUNDARY
- ▶ BACKGROUND SURFACE WATER SAMPLING LOCATION
- ⊕ DETECTION WELLS
- ⊕ ASSESSMENT WELL
- TRANSECT SURFACE WATER SAMPLE LOCATIONS

NOTE:  
SURFACE WATER SAMPLES WERE COLLECTED ALONG  
TRANSECTS 2 IDENTIFIED ABOVE, NEAREST  
TO MCM-06 AND DPZ-02.



1 inch = 1,250 feet

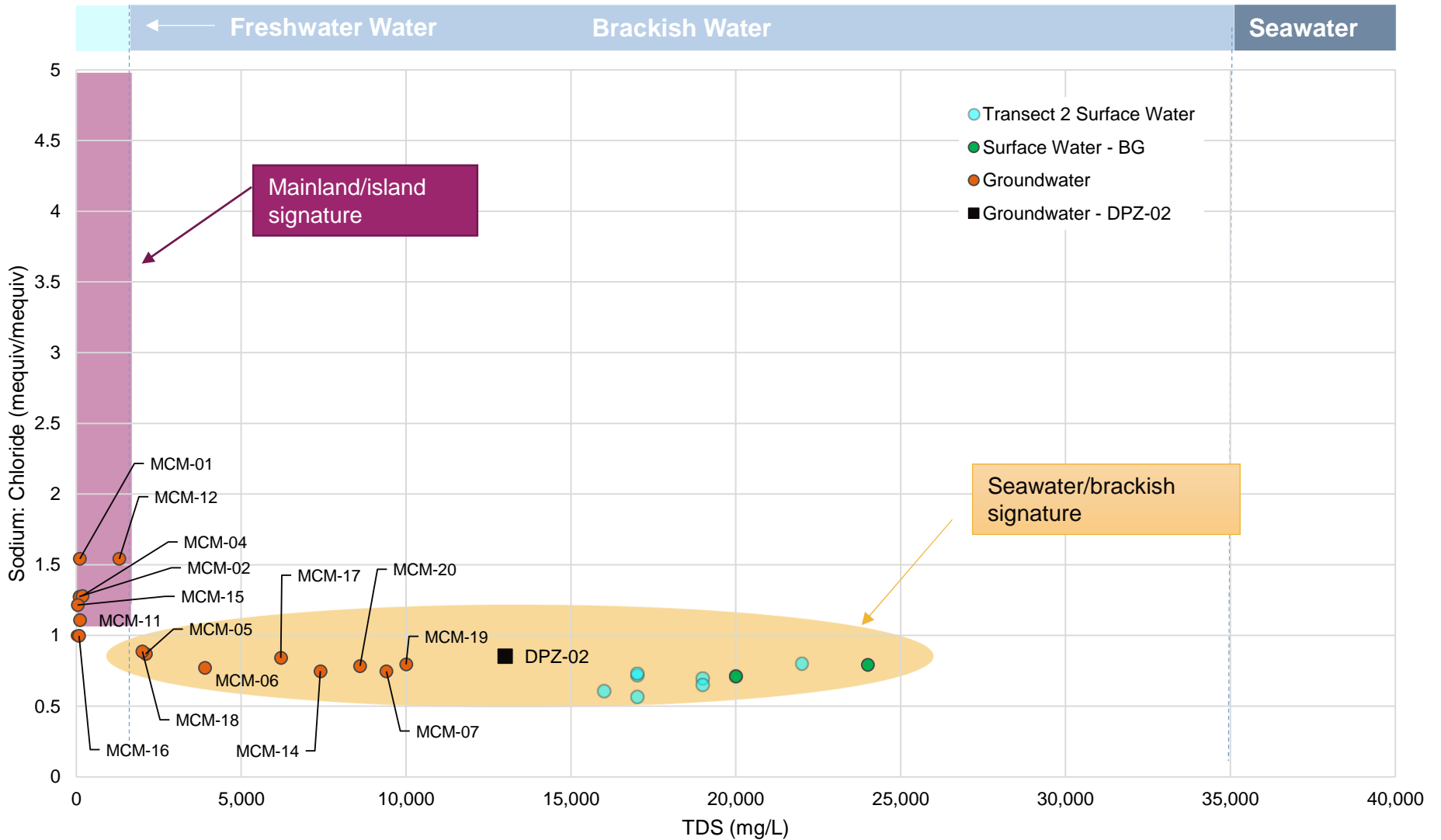
GEORGIA POWER  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

**SURFACE WATER SAMPLE  
LOCATIONS**



FIGURE  
**5**





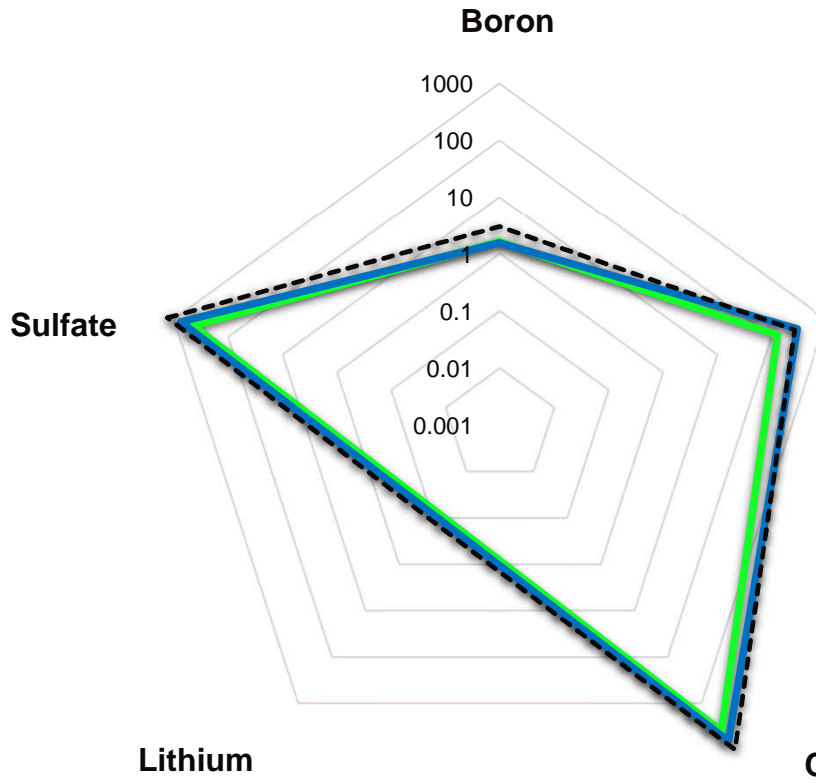
Notes:  
 mequiv = milliequivalent  
 TDS = total dissolved solids  
 mg/L = milligrams per liter  
 BG = background samples  
 Data shown collected during September 2022 sampling event.

GEORGIA POWER  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

**SODIUM TO CHLORIDE RATIOS VERSUS  
 TOTAL DISSOLVED SOLIDS  
 SEPTEMBER 2022**

**ARCADIS** | **FIGURE 6**

## JUNE 2020

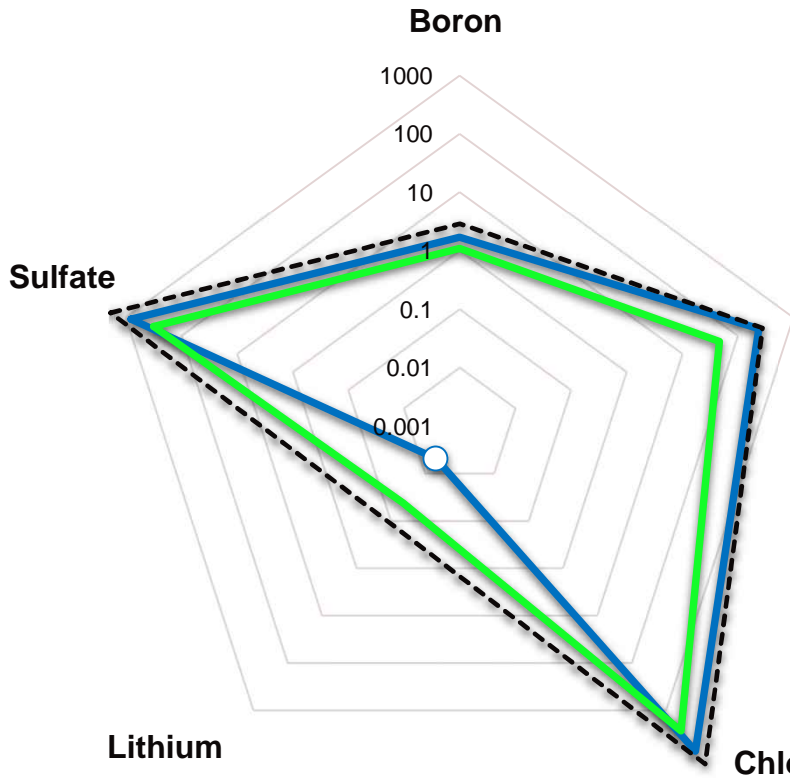


### Calcium

Analyte	BG-HT-2	DPZ-02	MCM-06
Sample Date	6/16/2020	6/16/2020	6/16/2020
Boron	2.4	2.1	2.0
Calcium	177	245	234
Chloride	8100	7780	7760
Lithium	0.091	0.096 J	0.12
Sulfate	1120	970	663

### Chloride

## SEPTEMBER 2022



### Calcium

Analyte	BG-2HT	DPZ-02	MCM-06
Sample Date	9/22/2022	9/20/2022	9/21/2022
Boron	2.9 J	1.7	1.1
Calcium	280	240	47
Chloride	14000	7400	2800
Lithium	0.11	< 0.0049*	0.043
Sulfate	1900	820	320

### Chloride

**Notes:**

Units shown in mg/L  
 BG-HT-2/BG-2HT sample is high-tide surface water background sample.  
 Open circle indicates result was less than the detection limit.  
 \*September DPZ-02 lithium result appears to be anomalous  
 J – Estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

GEORGIA POWER  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

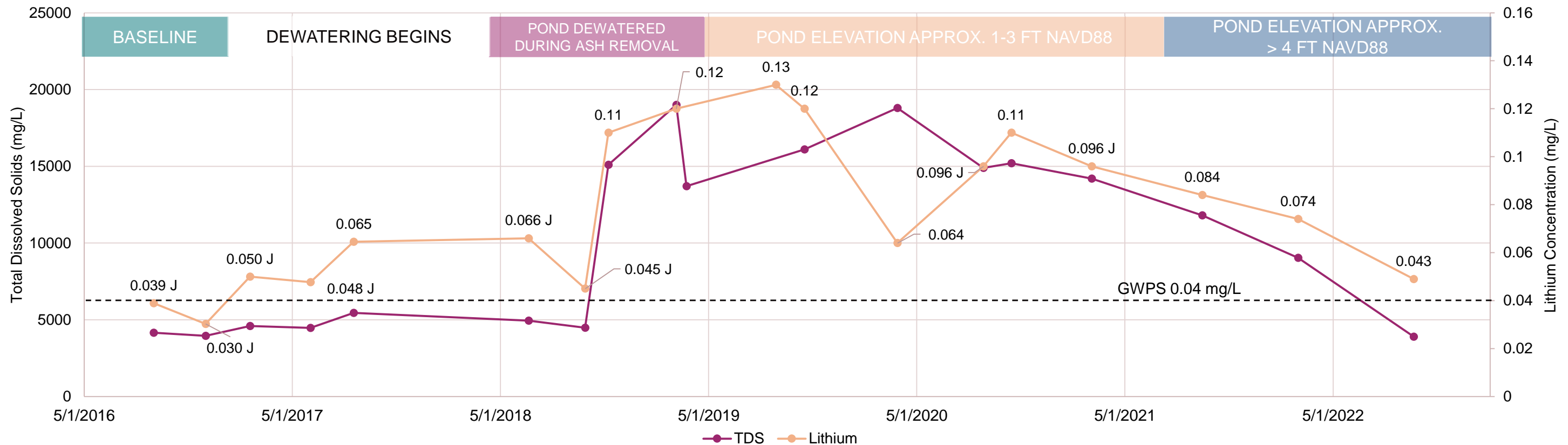
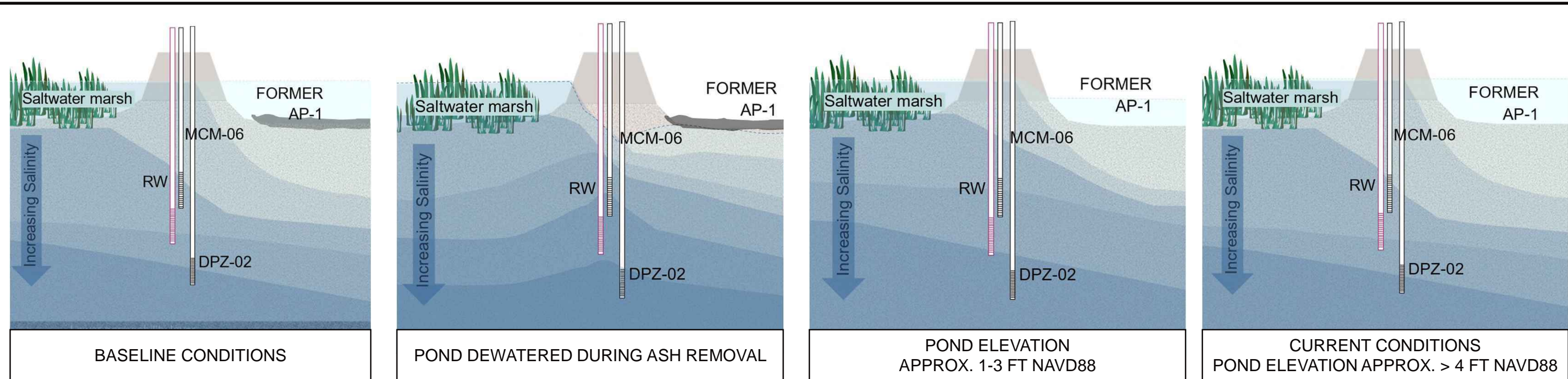
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IONIC COMPOSITION COMPARISON 2020  
 AND 2022

---

FIGURE

7



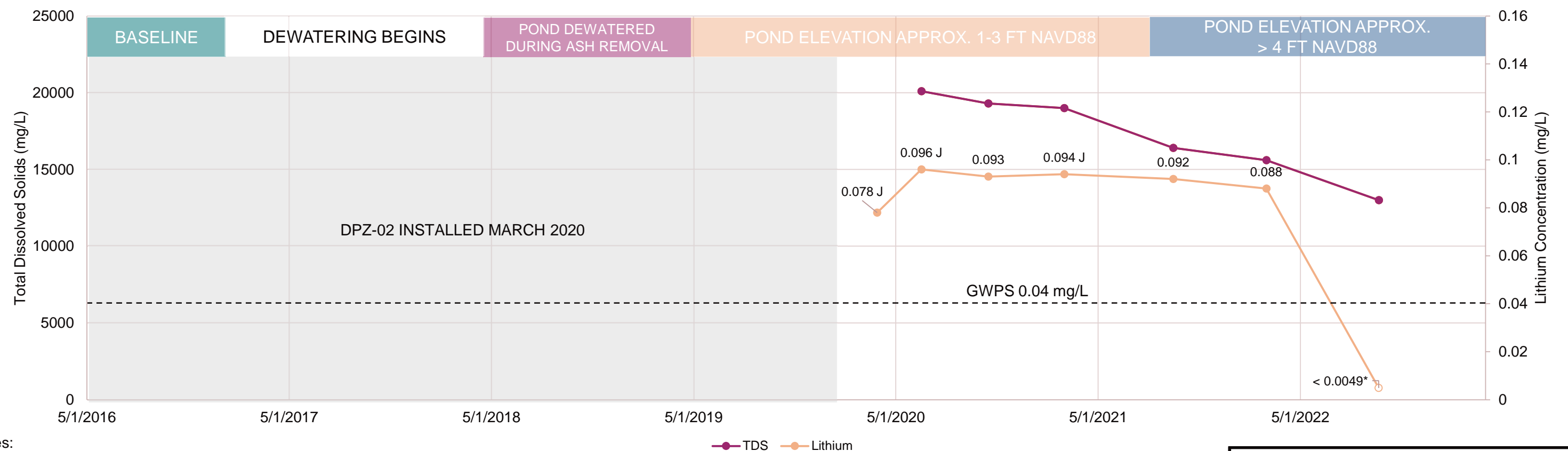
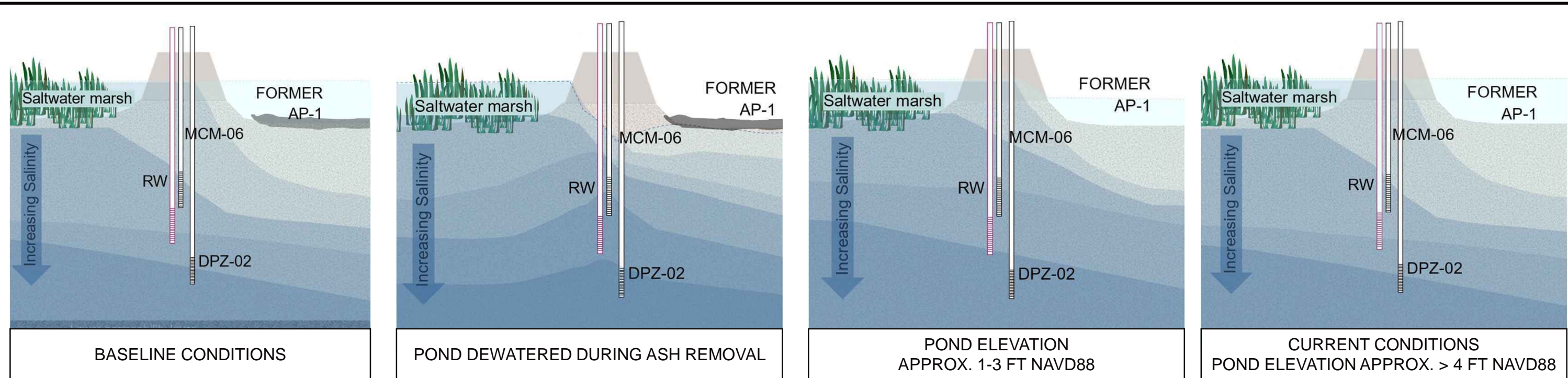
Notes:  
 mg/L – milligrams per liter  
 TDS – total dissolved solids  
 GWPS – groundwater protection standard for lithium  
 NAVD88 – North American Vertical Datum of 1988  
 J – estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit  
 > – greater than  
 Approx – approximately  
 RW – dewatering wells used during ash removal

GEORGIA POWER  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

CONCEPTUAL DIAGRAM OF SALTWATER WEDGE  
 UNDER DIFFERENT POND WATER ELEVATIONS WITH  
 MCM-06 LITHIUM AND TDS CONCENTRATIONS

**ARCADIS** | FIGURE 8





Notes:  
 mg/L – milligrams per liter  
 TDS – total dissolved solids  
 GWPS – groundwater protection standard for lithium  
 NAVD88 – North American Vertical Datum of 1988  
 < – analyte not detected in sample. Method detection limit shown by open circle.  
 J – estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit  
 > – greater than  
 Approx – approximately  
 \*September DPZ-02 lithium result may be anomalous.  
 RW- dewatering wells used during ash removal

GEORGIA POWER  
 PLANT MCMANUS FORMER ASH POND 1  
 BRUNSWICK, GEORGIA

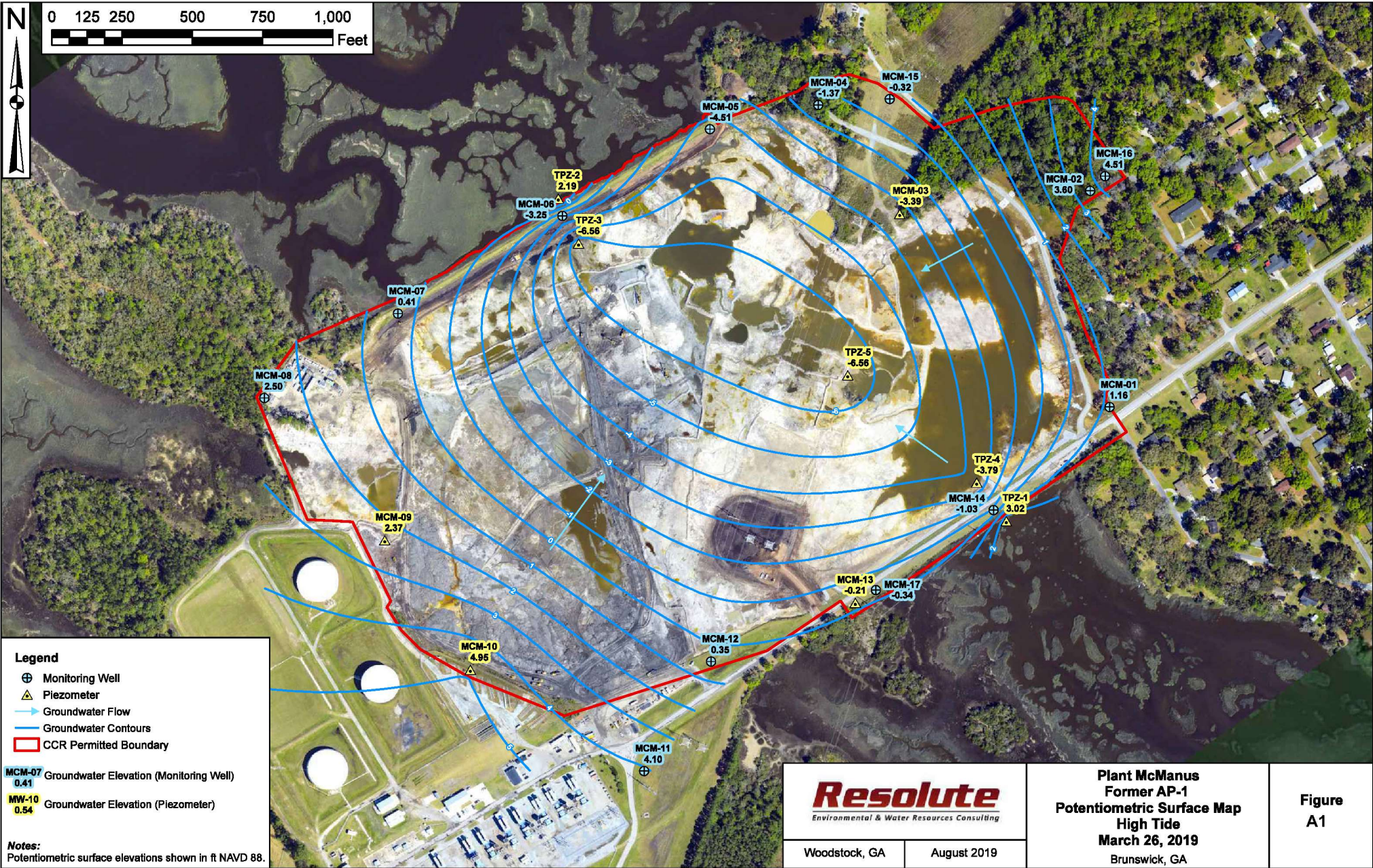
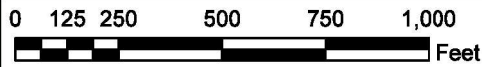
CONCEPTUAL DIAGRAM OF SALTWATER WEDGE  
 UNDER DIFFERENT POND WATER ELEVATIONS WITH  
 DPZ-02 LITHIUM AND TDS CONCENTRATIONS

**ARCADIS** | FIGURE 9

# Appendix A

## Potentiometric Maps (2019-2022)





**Legend**

- ⊕ Monitoring Well
- △ Piezometer
- Groundwater Flow
- Groundwater Contours
- ▭ CCR Permitted Boundary

MCM-07  
0.41 Groundwater Elevation (Monitoring Well)

MW-10  
0.54 Groundwater Elevation (Piezometer)

**Notes:**  
Potentiometric surface elevations shown in ft NAVD 88.

**Resolute**  
Environmental & Water Resources Consulting

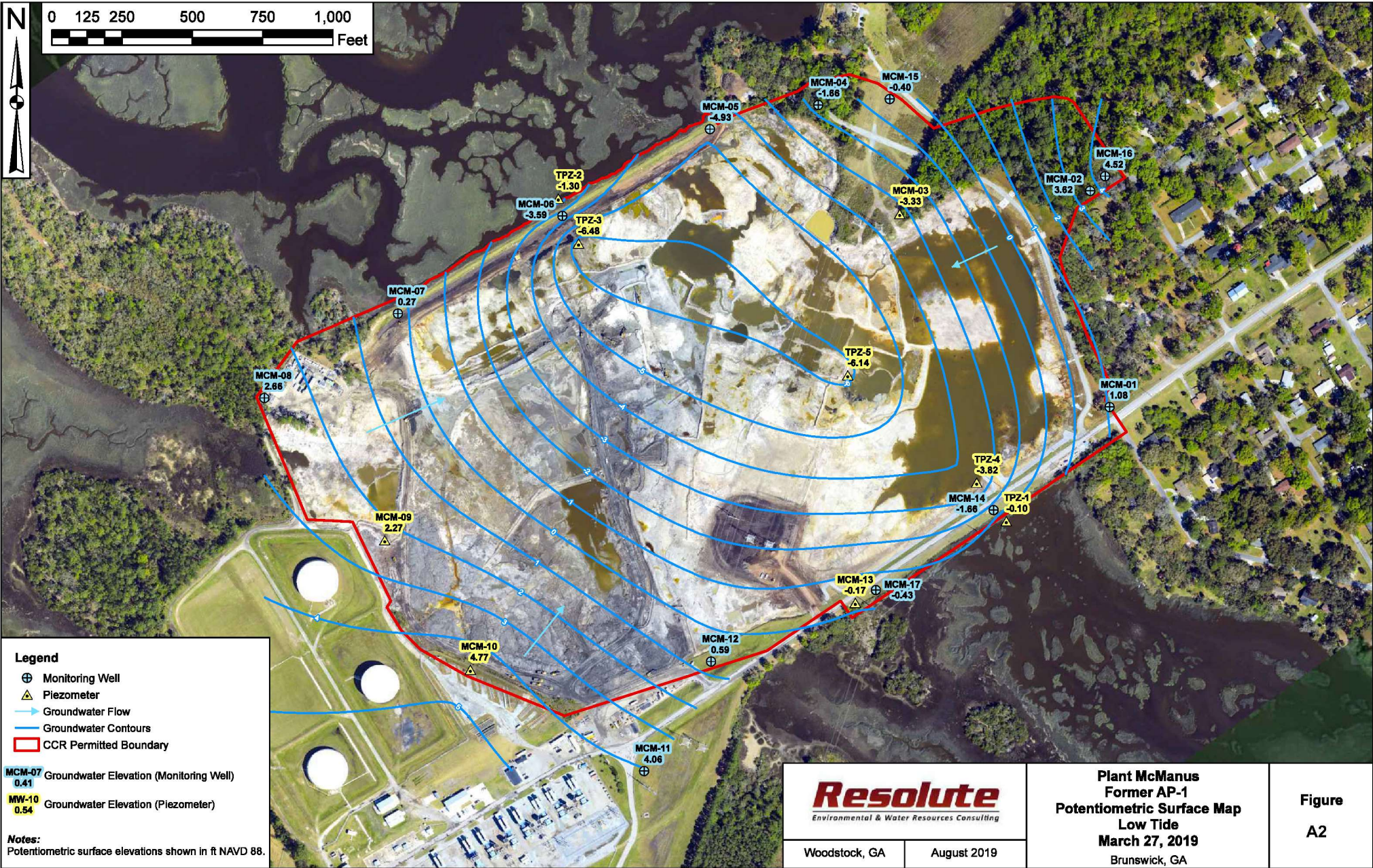
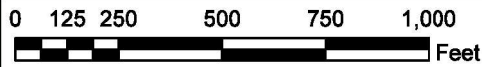
**Plant McManus  
Former AP-1  
Potentiometric Surface Map  
High Tide  
March 26, 2019  
Brunswick, GA**

**Figure  
A1**

Woodstock, GA

August 2019





**Legend**

- ⊕ Monitoring Well
- △ Piezometer
- Groundwater Flow
- Groundwater Contours
- ▭ CCR Permitted Boundary

MCM-07  
0.41 Groundwater Elevation (Monitoring Well)

MW-10  
0.54 Groundwater Elevation (Piezometer)

**Notes:**  
Potentiometric surface elevations shown in ft NAVD 88.

**Resolute**  
Environmental & Water Resources Consulting

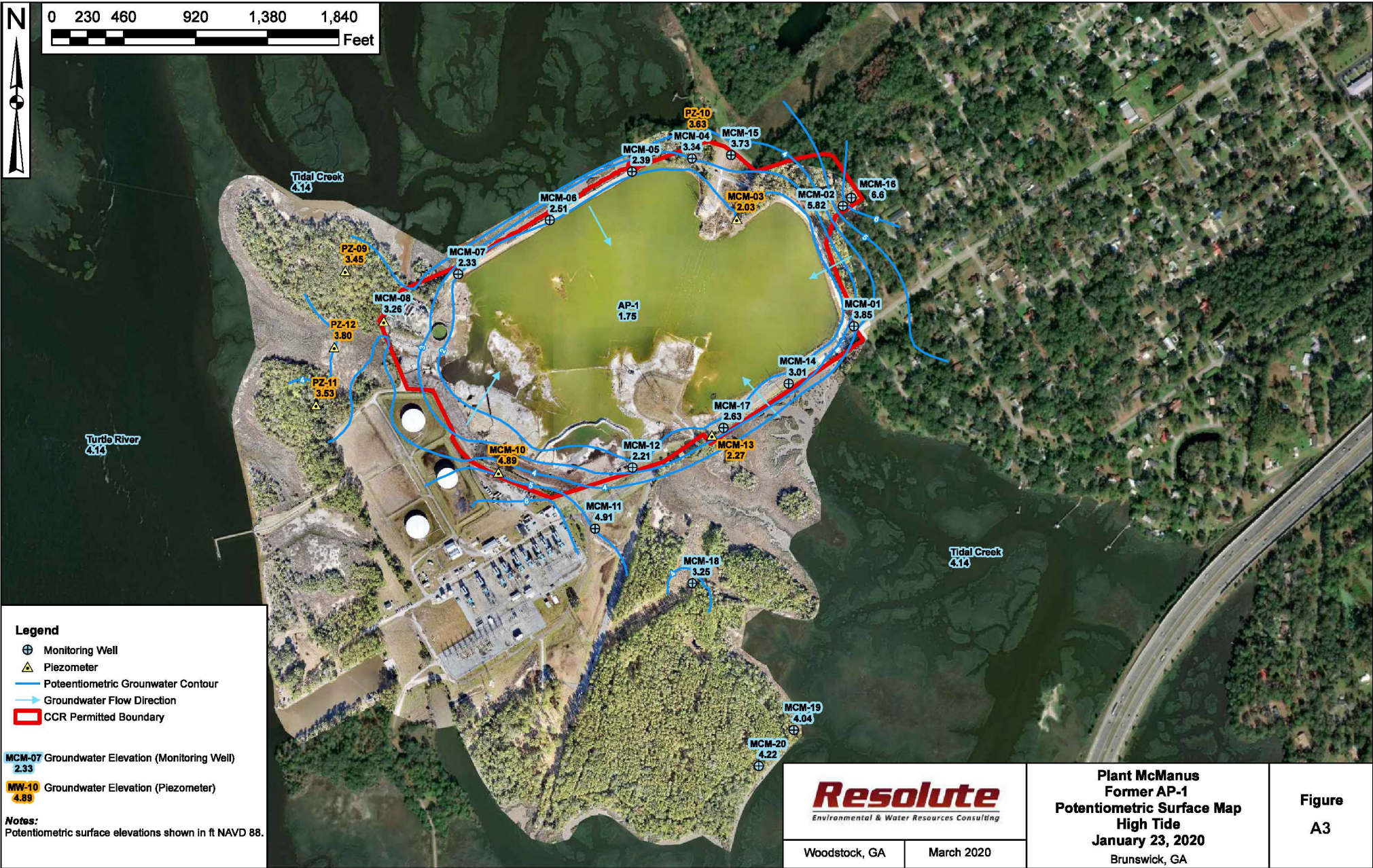
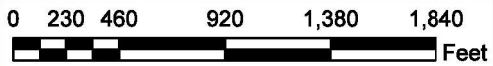
Woodstock, GA

August 2019

**Plant McManus**  
**Former AP-1**  
**Potentiometric Surface Map**  
**Low Tide**  
**March 27, 2019**  
Brunswick, GA

**Figure**  
**A2**





**Legend**

- Monitoring Well
- Piezometer
- Potentiometric Groundwater Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

**MCM-07** Groundwater Elevation (Monitoring Well)  
2.33

**MW-10** Groundwater Elevation (Piezometer)  
4.89

**Notes:**  
Potentiometric surface elevations shown in ft NAVD 88.

**Resolute**  
Environmental & Water Resources Consulting

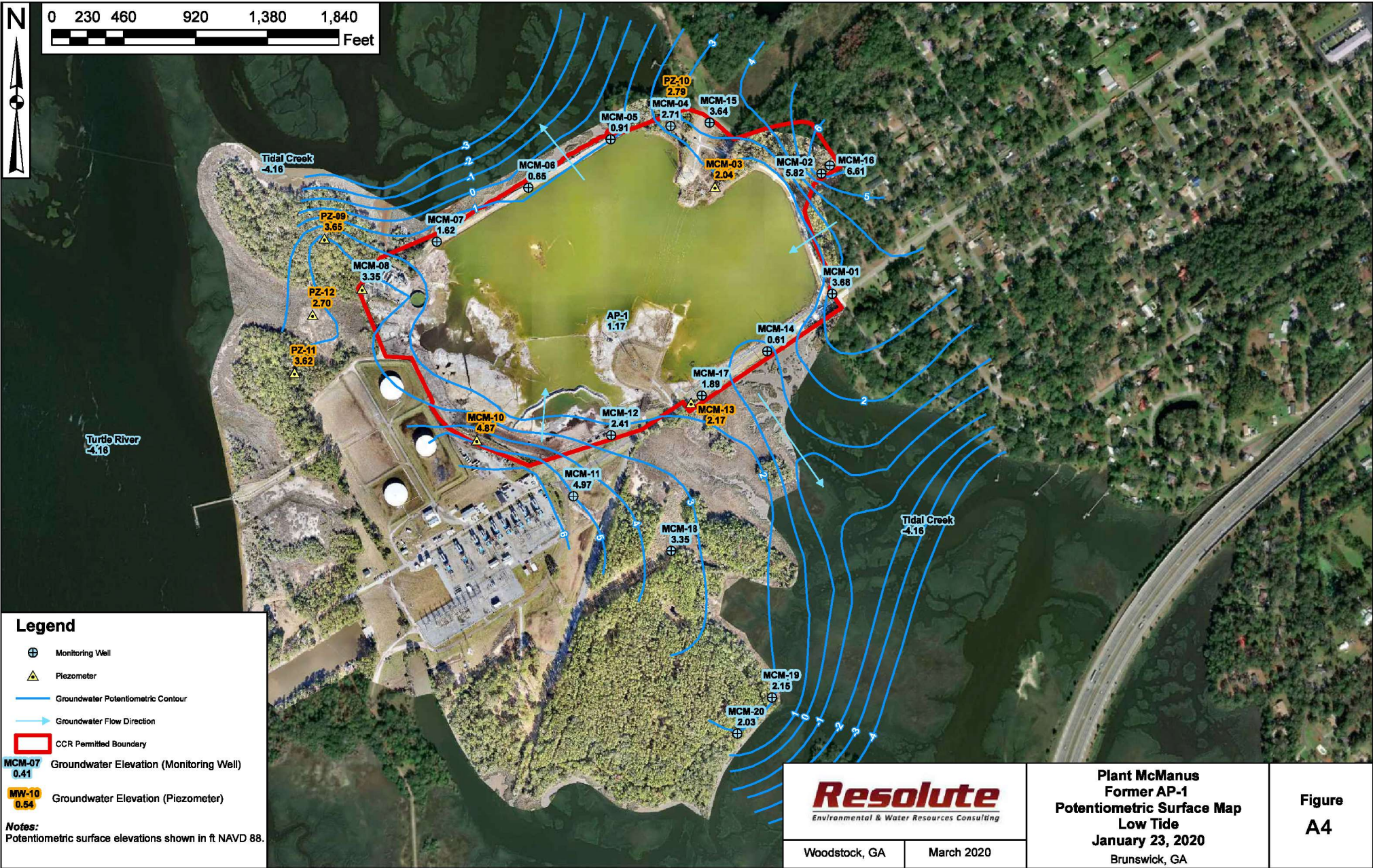
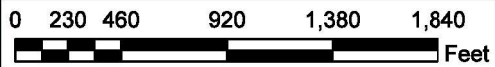
Woodstock, GA

March 2020

**Plant McManus**  
**Former AP-1**  
**Potentiometric Surface Map**  
**High Tide**  
**January 23, 2020**  
Brunswick, GA

**Figure**  
**A3**





**Legend**

- Monitoring Well
- Piezometer
- Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary
- MCM-07**  
0.41 Groundwater Elevation (Monitoring Well)
- MW-10**  
0.54 Groundwater Elevation (Piezometer)

**Notes:**  
Potentiometric surface elevations shown in ft NAVD 88.

**Resolute**  
Environmental & Water Resources Consulting

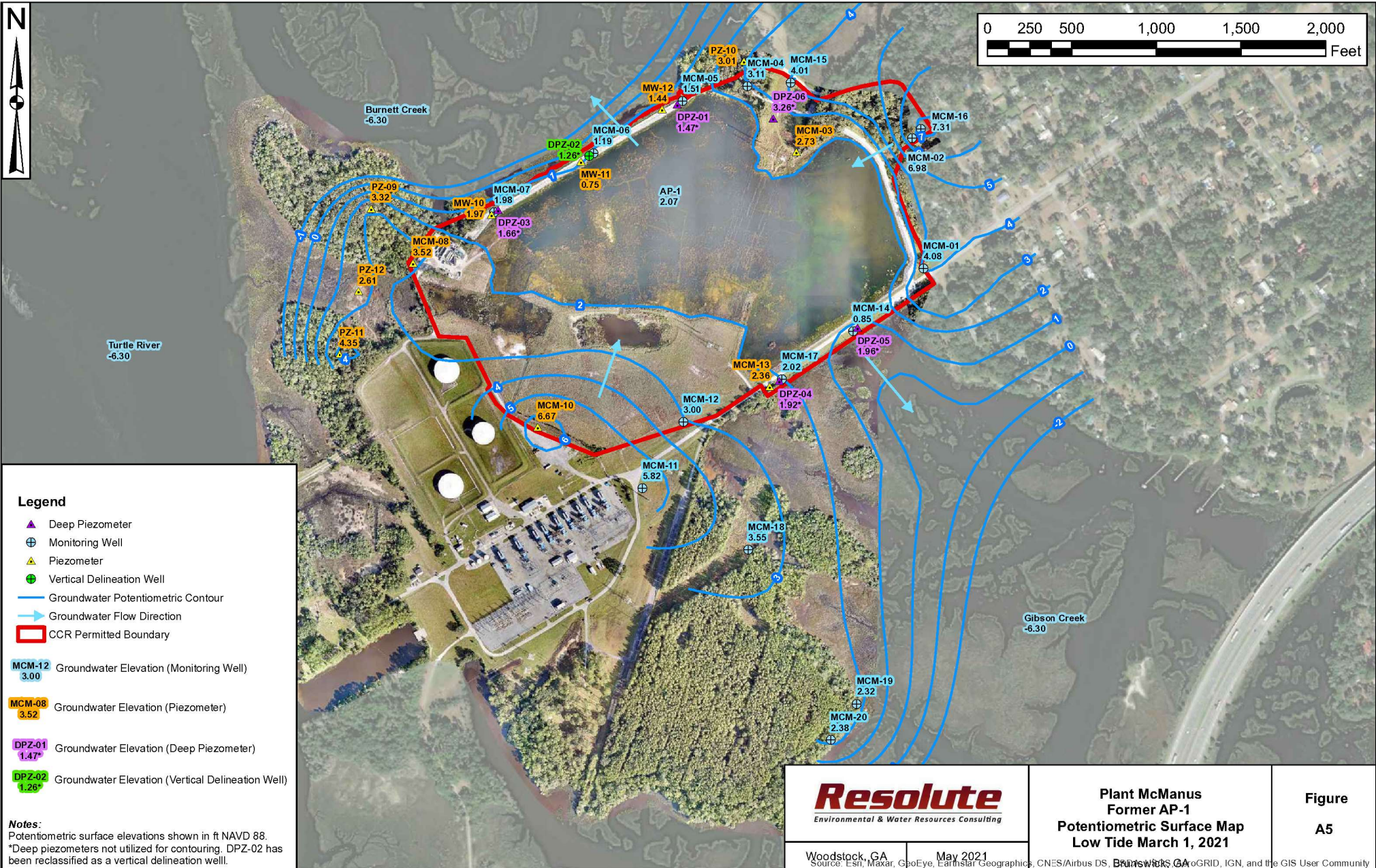
Woodstock, GA      March 2020

**Plant McManus**  
**Former AP-1**  
**Potentiometric Surface Map**  
**Low Tide**  
**January 23, 2020**  
Brunswick, GA

**Figure**  
**A4**

X:\ArcGIS\MapManus\2020\CCR\Pot Maps





**Legend**

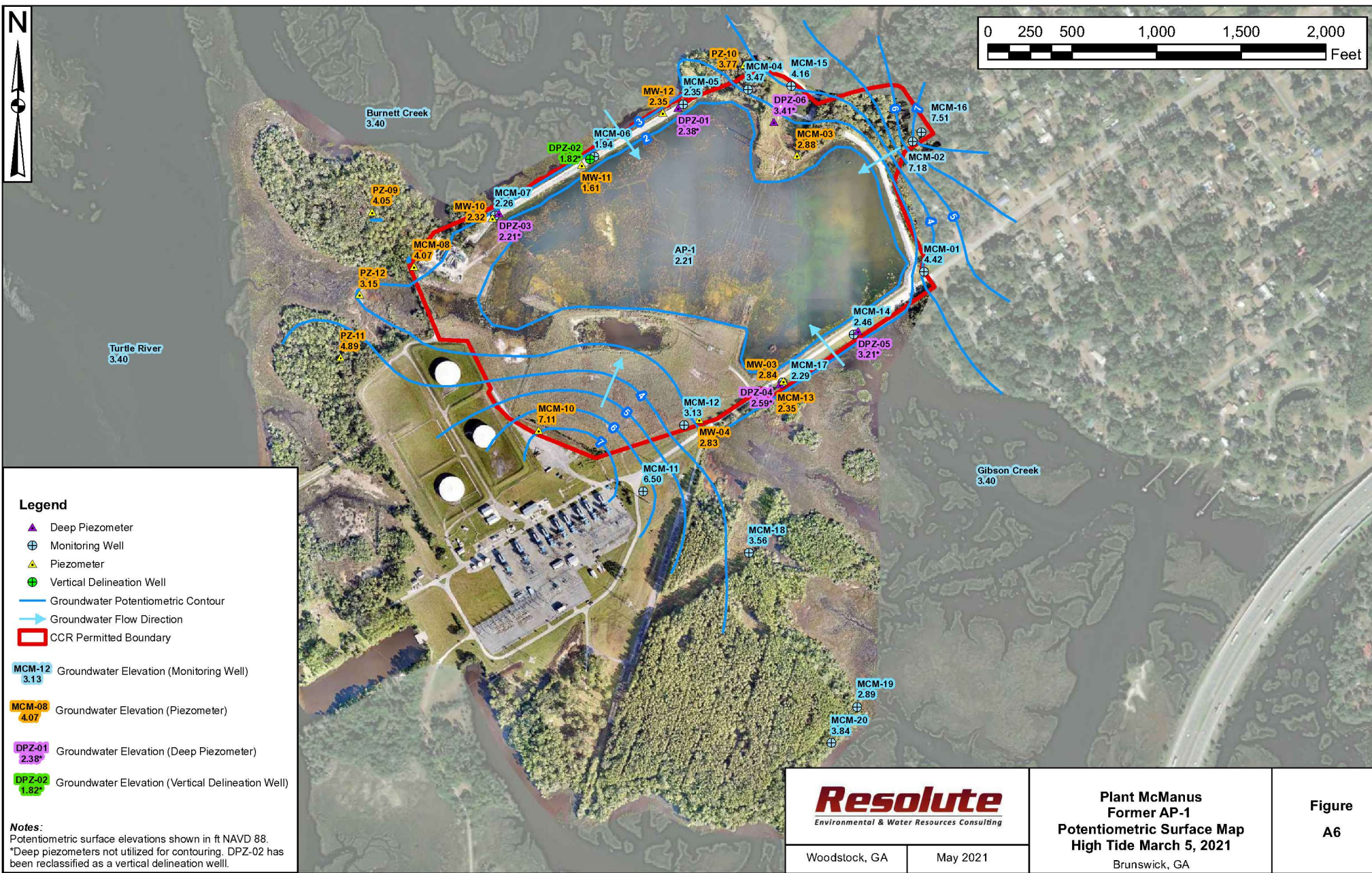
- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

<span style="background-color: #e0f0ff; border: 1px solid black; padding: 2px;">MCM-12</span>	3.00	Groundwater Elevation (Monitoring Well)
<span style="background-color: #ffff00; border: 1px solid black; padding: 2px;">MCM-08</span>	3.52	Groundwater Elevation (Piezometer)
<span style="background-color: #ffccff; border: 1px solid black; padding: 2px;">DPZ-01</span>	1.47*	Groundwater Elevation (Deep Piezometer)
<span style="background-color: #ccffcc; border: 1px solid black; padding: 2px;">DPZ-02</span>	1.26*	Groundwater Elevation (Vertical Delineation Well)

**Notes:**  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

<b>Resolute</b> Environmental & Water Resources Consulting		<b>Plant McManus Former AP-1 Potentiometric Surface Map Low Tide March 1, 2021</b>	<b>Figure A5</b>
Woodstock, GA	May 2021	Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, BRUNNEN, IGN, and the GIS User Community	





**Legend**

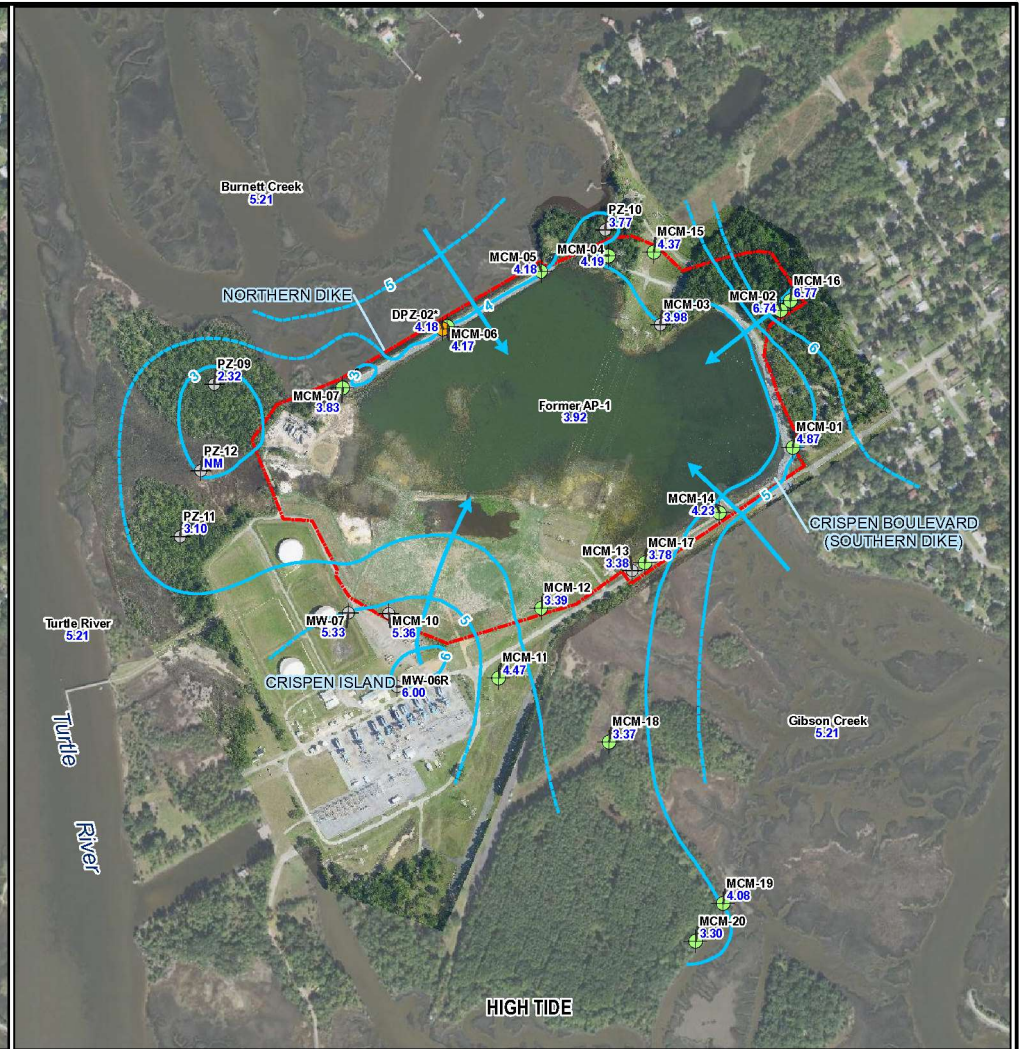
- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

<span style="color: blue;">MCM-12</span>	3.13	Groundwater Elevation (Monitoring Well)
<span style="color: yellow;">MCM-08</span>	4.07	Groundwater Elevation (Piezometer)
<span style="color: purple;">DPZ-01</span>	2.38*	Groundwater Elevation (Deep Piezometer)
<span style="color: green;">DPZ-02</span>	1.82*	Groundwater Elevation (Vertical Delineation Well)

**Notes:**  
 Potentiometric surface elevations shown in ft NAVD 88.  
 \*Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

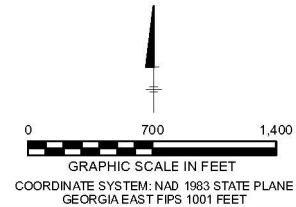
		<b>Plant McManus                  Former AP-1                  Potentiometric Surface Map                  High Tide March 5, 2021</b>	<b>Figure                  A6</b>
Woodstock, GA	May 2021	Brunswick, GA	






- LEGEND**
- PERMITTED CCR BOUNDARY
  - DETECTION WELL
  - PIEZOMETER
  - ASSESSMENT WELL
  - MCM-01**  
4.60
  - GROUNDWATER CONTOURS (DASHED WHERE INFERRED)
  - DIRECTION OF GROUNDWATER FLOW

- NOTES:**
1. LOW TIDE GROUNDWATER ELEVATIONS COLLECTED ON FEBRUARY 28, 2022.
  2. HIGH TIDE GROUNDWATER ELEVATIONS COLLECTED ON MARCH 2, 2022.
  3. ELEVATION PRESENTED IN U.S. SURVEY FEET (NAVD 88).
  4. NM - NOT MEASURED.
  5. \* - DEEP PIEZOMETER NOT USED FOR CONTOURING. DPZ-02 HAS BEEN RECLASSIFIED AS A VERTICAL ASSESSMENT WELL
  5. GROUNDWATER CONTOURS BASED ON ELEVATIONS AND INTERPRETATION PRESENTED IN 2022 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT (RESOLUTE, 2022).





**Georgia Power**  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

**HIGH TIDE AND LOW TIDE  
GROUNDWATER ELEVATION MAPS  
FEBRUARY AND MARCH 2022**


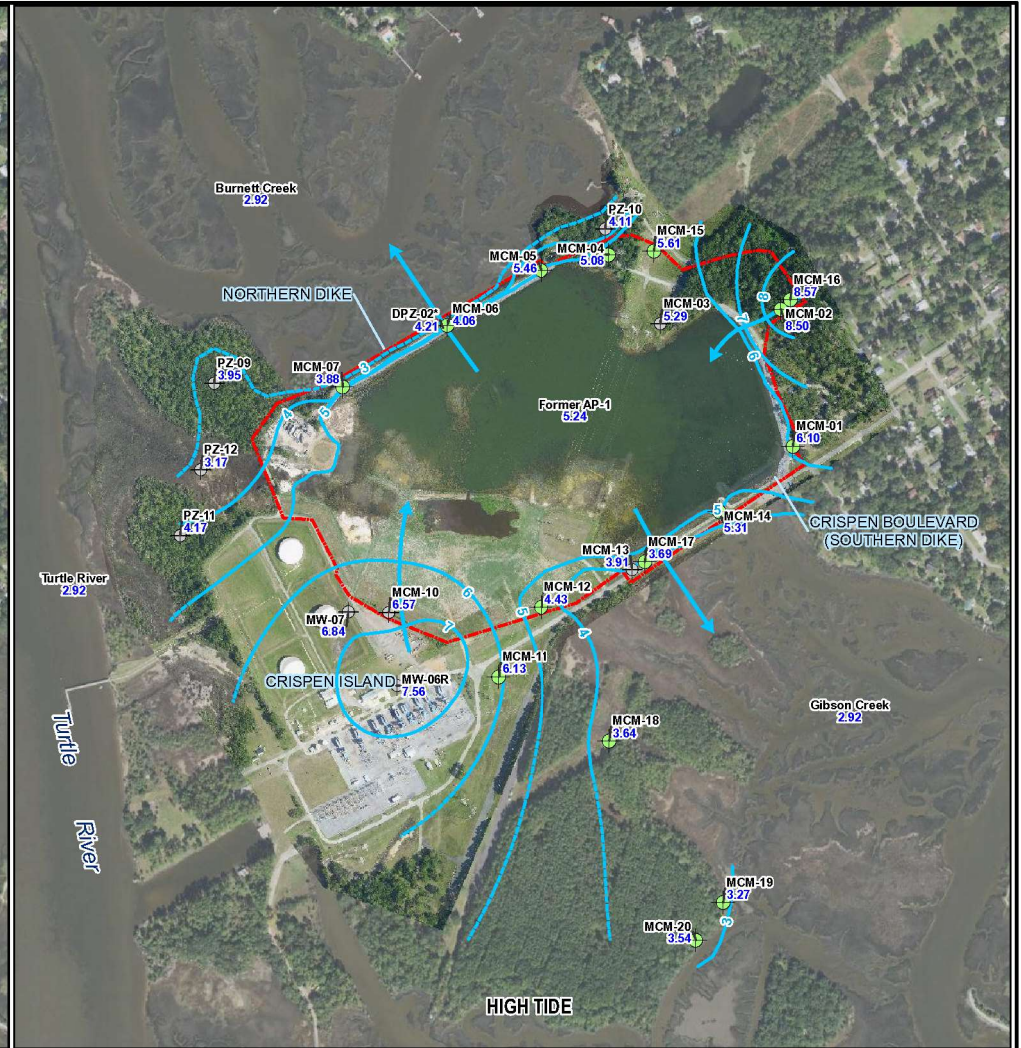
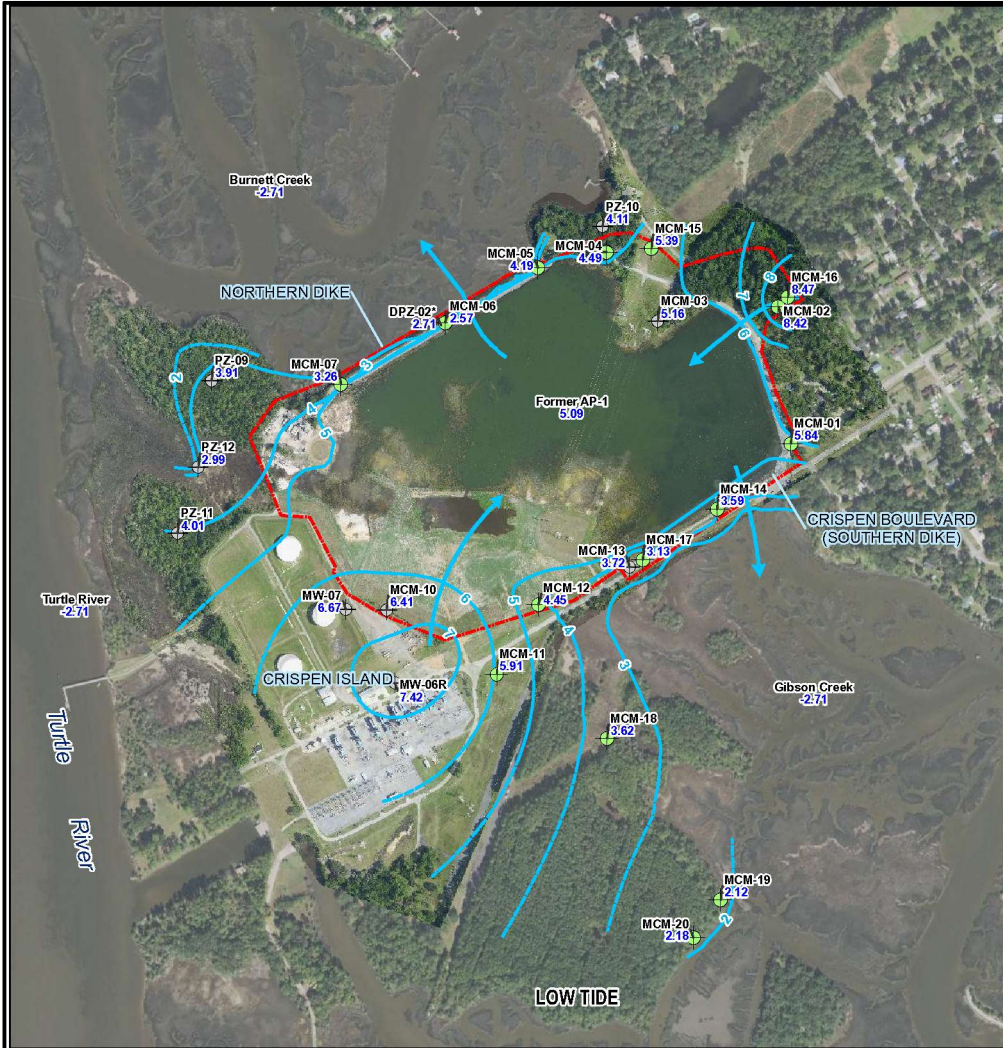


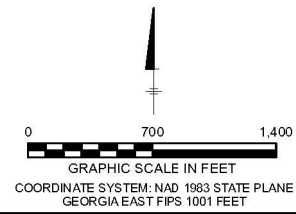
FIGURE  
**A7**





- LEGEND**
- PERMITTED CCR BOUNDARY
  - DETECTION WELL
  - ⊕ PIEZOMETER
  - ASSESSMENT WELL
  - MCM-01  
4.60
  - GROUNDWATER CONTOURS  
(DASHED WHERE INFERRED)
  - DIRECTION OF GROUNDWATER FLOW

- NOTES:**
1. LOW TIDE GROUNDWATER ELEVATIONS COLLECTED ON SEPTEMBER 22, 2022.
  2. HIGH TIDE GROUNDWATER ELEVATIONS COLLECTED ON SEPTEMBER 21, 2022.
  3. ELEVATION PRESENTED IN U.S. SURVEY FEET (NAVD 88).
  4. NM - NOT MEASURED.
  5. \* - DEEP PIEZOMETER NOT USED FOR CONTOURING. DPZ-02 HAS BEEN RECLASSIFIED AS A VERTICAL ASSESSMENT WELL.
  6. GROUNDWATER CONTOURS BASED ON ELEVATIONS AND INTERPRETATION PRESENTED IN 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT (RESOLUTE, 2023).





**Georgia Power**  
PLANT MCMANUS FORMER ASH POND 1  
BRUNSWICK, GEORGIA

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**HIGH TIDE AND LOW TIDE  
GROUNDWATER ELEVATION MAPS  
SEPTEMBER 2022**

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FIGURE  
**A8**



# Appendix B

## Historical Lithium Concentrations (2020-2022)

**Appendix B - 2020 Lithium ASD Table 2**  
**Lithium in Surface Water**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**

Location	Date	Lithium (mg/L)	Dissolved Lithium (mg/L)
<b>Groundwater Protection Standards</b>			
Federal GWPS	April 2020	0.04	N/A
<b>Groundwater</b>			
MCM-06	8/19/2020	0.13	NS
MCM-06	6/16/2020	0.12	NS
MCM-06	10/17/2019	0.12	NS
MCM-07	6/16/2020	0.047	NS
DPZ-02	6/16/2020	0.096	NS
<b>Background Surface Water</b>			
BG-1LT	2/2/2020	0.09	0.098
BG-1LT-B	6/18/2020	0.055	NS
BG-1LT-S	6/18/2020	0.055	NS
BG-2HT	2/2/2020	0.099	0.099
BG-2-HT-B	6/17/2020	0.091	NS
BG-2-HT-S	6/17/2020	0.069	NS
<b>Surface Water Transects</b>			
T1-1HT	2/1/2020	0.039 J	0.038 J
T1-1LT	2/1/2020	0.024 J	0.022 J
T1-2HT	2/1/2020	0.11	0.088
T1-2HTS	2/1/2020	0.055	0.061
T1-2LT	2/1/2020	0.022 J	0.024 J
T1-3HT	2/1/2020	0.092	0.08
T1-3HTS	2/1/2020	0.067	0.072
T1-3LT	2/1/2020	0.022 J	0.019 J
T1-4HT	2/1/2020	0.08	0.086
T1-4HTS	2/1/2020	0.081	0.083
T1-4LT	2/1/2020	0.09	0.09
T2-1HT	2/1/2020	0.052	0.059
T2-2HT	2/1/2020	0.1	0.084
T2-2HTS	2/1/2020	0.073	0.06
T2-2LT	2/2/2020	0.063	0.057
T2-3HT	2/1/2020	0.099	0.093
T2-3HTS	2/1/2020	0.11	0.094
T2-3LT	2/2/2020	0.049 J	0.041 J
T2-4HT	2/1/2020	0.091	0.092
T2-4HTS	2/1/2020	0.085	0.088
T2-4LT	2/2/2020	0.075	0.077
T3-1HT	2/2/2020	0.076	0.075
T3-2HT	2/2/2020	0.097	0.087
T3-2HTS	2/2/2020	0.075	0.078

**Appendix B - 2020 Lithium ASD Table 2**  
**Lithium in Surface Water**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**

Location	Date	Lithium (mg/L)	Dissolved Lithium (mg/L)
T3-2LT	2/3/2020	0.077	0.079
T3-3HT	2/2/2020	0.081	0.088
T3-3HTS	2/2/2020	0.08	0.081
T3-3LT	2/3/2020	0.084	0.078
T3-4HT	2/2/2020	0.087	0.1
T3-4HTS	2/2/2020	0.085	0.09
T3-4LT	2/3/2020	0.072	0.072
T4-1L	3/18/2020	0.076	0.056
T4-2L	3/18/2020	0.043 J	0.061
T4-3L	3/18/2020	0.053	0.037 J
T4-4L	3/18/2020	0.062	0.036 J
T4-1HS	3/18/2020	0.042 J	0.058
T4-2HS	3/18/2020	0.043 J	0.064
T4-3HS	3/18/2020	0.035 J	0.051
T4-4HS	3/18/2020	0.047 J	0.041 J
T4-1HB	3/18/2020	0.036 J	0.033 J
T4-2HB	3/18/2020	0.048 J	0.042 J
T4-3HB	3/18/2020	0.036 J	0.064
T4-4HB	3/18/2020	0.035 J	0.066
<b>Former Ash Pond Water</b>			
MCM-05HT ASHPOND	2/2/2020	0.018 J	0.020 J
MCM-05LT ASHPOND	2/3/2020	0.012 J	0.021 J
MCM-06HT ASHPOND	2/1/2020	0.020 J	0.021 J
MCM-06LT ASHPOND	2/2/2020	0.012 J	0.022 J
MCM-07HT ASHPOND	2/1/2020	0.020 J	0.020 J
MCM-07LT ASHPOND	2/1/2020	0.019 J	0.019 J
POND 4L	3/18/2020	0.022 J	0.022 J
POND 4H	3/18/2020	0.016 J	0.020 J

**Abbreviations**

GWPS- groundwater protection standards

HT- high tide

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

LT- low tide

mg/L- milligrams per liter

N/A- not applicable

NS- not sampled

Appendix B - 2021 Lithium ASD Table 2  
 Lithium in Surface Water  
 Georgia Power Company  
 Plant McManus Former Ash Pond 1  
 Brunswick, Georgia



Location	Date	Lithium (mg/L)
<b>Groundwater Protection Standards</b>		
Federal GWPS	July 2021	0.04
<b>Groundwater</b>		
MCM-14	3/2/2021	0.046 J
MCM-14	7/1/2021	< 0.010
<b>Background Surface Water</b>		
BG-1LT	3/2/2021	0.074 J
BG-2HT	3/3/2021	0.084 J
<b>Surface Water Transects</b>		
T1-1HT	3/2/2021	0.074 J
T1-1LT	3/4/2021	0.066 J
T1-2HT	3/2/2021	0.084 J
T1-2HTS	3/2/2021	0.072 J
T1-2LT	3/4/2021	0.063 J
T1-3HT	3/2/2021	0.077 J
T1-3HTS	3/2/2021	0.073 J
T1-3LT	3/4/2021	0.061 J
T1-4HT	3/2/2021	0.079 J
T1-4HTS	3/2/2021	0.072 J
T1-4LT	3/4/2021	0.067 J
T2-1HT	3/2/2021	0.068 J
T2-2HT	3/2/2021	0.070 J
T2-2HTS	3/2/2021	0.063 J
T2-2LT	3/4/2021	0.050 J
T2-3HT	3/2/2021	0.070 J
T2-3HTS	3/2/2021	0.062 J
T2-3LT	3/4/2021	0.055 J
T2-4HT	3/2/2021	0.065 J
T2-4HTS	3/2/2021	0.070 J
T2-4LT	3/4/2021	0.046 J
T3-1HT	3/2/2021	0.068 J
T3-2HT	3/2/2021	0.069 J
T3-2HTS	3/2/2021	0.063 J
T3-2LT	3/4/2021	0.043 J
T3-3HT	3/2/2021	0.069 J
T3-3HTS	3/2/2021	0.069 J
T3-3LT	3/4/2021	0.046 J
T3-4HT	3/2/2021	0.069 J
T3-4HTS	3/2/2021	0.110 J
T3-4LT	3/4/2021	0.055 J
T4-1L	3/3/2021	0.076 J
T4-2L	3/3/2021	0.066 J
T4-3L	3/3/2021	0.079 J

**Appendix B - 2021 Lithium ASD Table 2**  
**Lithium in Surface Water**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**



Location	Date	Lithium (mg/L)
T4-4L	3/3/2021	0.075 J
T4-1HS	3/3/2021	0.075 J
T4-2HS	3/3/2021	0.078 J
T4-3HS	3/3/2021	0.083 J
T4-4HS	3/3/2021	0.080 J
T4-1HB	3/3/2021	0.072 J
T4-2HB	3/3/2021	0.067 J
T4-3HB	3/3/2021	0.066 J
T4-4HB	3/3/2021	0.075 J

**Abbreviations**

GWPS- groundwater protection standards

HT- high tide

LT/L- low tide

HB - high tide bottom

HTS/HS - high tide surface

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

mg/L- milligrams per liter

Appendix B - 2022 Lithium ASD Table 2  
Lithium in Surface Water  
Georgia Power Company  
Plant McManus Former Ash Pond 1  
Brunswick, Georgia

Location	Date	Lithium (mg/L)	TDS (mg/L)
<b>Groundwater Protection Standards</b>			
Federal GWPS	July 2021	0.04	NA
<b>Groundwater</b>			
DPZ-02	9/15/2021	0.092	16400
	3/1/2022	0.088 J	15600
<b>Background Surface Water</b>			
BG-1LT	9/30/2021	0.060	13400
	12/15/2021	0.010 J	19800
BG-2HT	9/22/2021	0.14	21100
	12/15/2021	0.011 J	22600
<b>Surface Water Transects</b>			
T1-1HT	9/23/2021	0.060	11800
T1-1LT	9/30/2021	0.042	11600
T1-2HT	9/23/2021	0.076	18300
T1-2HTS	9/23/2021	0.057	12000
T1-2LT	9/30/2021	0.041	11200
T1-3HT	9/23/2021	0.073	15700
T1-3HTS	9/23/2021	0.060	12900
T1-3LT	9/30/2021	0.038	11900
	9/23/2021	0.069	15400
T1-4HT	12/15/2021	0.091 J	21000
	9/23/2021	0.066	13000
T1-4HTS	12/15/2021	0.091 J	21300
	9/30/2021	0.046	8100
T1-4LT	12/15/2021	0.099 J	20400
	9/23/2021	0.054	11700
T2-1HT	12/15/2021	0.092 J	18800 J
	9/23/2021	0.071	16400
T2-2HT	12/15/2021	0.094 J	17200
	9/23/2021	0.048 J	10400
T2-2HTS	12/15/2021	0.096 J	18600
	9/30/2021	0.036 J	10000
T2-2LT	9/23/2021	0.078	16200
	12/15/2021	0.095 J	19400
T2-3HT	9/23/2021	0.048 J	10000
	12/15/2021	0.093 J	19200
T2-3LT	9/30/2021	0.041	11400
T2-4HT	9/23/2021	0.064	13600
	12/15/2021	0.092 J	19100
T2-4HTS	9/23/2021	0.053	12000
	12/15/2021	0.089 J	20000
T2-4LT	9/30/2021	0.022 J	6770
	12/15/2021	0.085 J	19200

**Appendix B - 2022 Lithium ASD Table 2**  
**Lithium in Surface Water**  
**Georgia Power Company**  
**Plant McManus Former Ash Pond 1**  
**Brunswick, Georgia**

Location	Date	Lithium (mg/L)	TDS (mg/L)
<b>Surface Water Transects</b>			
T3-1HT	9/23/2021	0.040 J	8300
T3-2HT	9/23/2021	0.071	13400
T3-2HTS	9/23/2021	0.034 J	7450
T3-2LT	9/30/2021	0.029 J	9170
T3-3HT	9/23/2021	0.071	14100
T3-3HTS	9/23/2021	0.027 J	6600
T3-3LT	9/30/2021	0.028 J	8670
T3-4HT	9/23/2021	0.069	14200
	12/15/2021	0.091 J	19800
T3-4HTS	9/23/2021	0.041 J	9850
	12/15/2021	0.089 J	19000
T3-4LT	9/30/2021	0.025 J	8070
	12/15/2021	< 0.010	20800
T4-1HB	9/22/2021	0.077	15500
	12/15/2021	0.094 J	20800
T4-1HS	9/22/2021	0.067	12900
	12/15/2021	0.095 J	21200
T4-1L	9/22/2021	0.088	15600
T4-2HB	9/22/2021	0.076	15800
	12/15/2021	0.096 J	21100
T4-2HS	9/22/2021	0.069	14800
	12/15/2021	0.10 J	21100
T4-2L	9/22/2021	0.09	14800
T4-3HB	9/22/2021	0.076	16000
	12/15/2021	0.098 J	21800
T4-3HS	9/22/2021	0.072	15400
	12/15/2021	0.10 J	22200
T4-3L	9/22/2021	0.086	15200
T4-4HB	9/22/2021	0.081	16400
	12/15/2021	0.10 J	21400
T4-4HS	9/22/2021	0.087	16200
	12/15/2021	0.10 J	21500
T4-4L	9/22/2021	0.086	15200
	12/15/2021	0.010 J	20700

**Abbreviations**

GWPS- groundwater protection standards

HT- high tide

LT/L- low tide

HB - high tide bottom

HTS/HS - high tide surface

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's

mg/L- milligrams per liter

Full analytical data reports and summary tables for September and December 2021 samples can be found in the 2021 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute, 2022). Analytical reports and purge log for the March 2022 sample at DPZ-02 is included as Appendix B of this report.

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