



**Plant McIntosh Ash Pond 1**

Permit No. 051-011D(CCR)  
Effingham County

**2021 ANNUAL GROUNDWATER MONITORING  
AND CORRECTIVE ACTION REPORT**



**ATLANTIC COAST  
CONSULTING, INC.**

## PROFESSIONAL CERTIFICATION

This *2021 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant McIntosh Ash Pond 1* has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residuals Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. (ACC).

### ATLANTIC COAST CONSULTING, INC.



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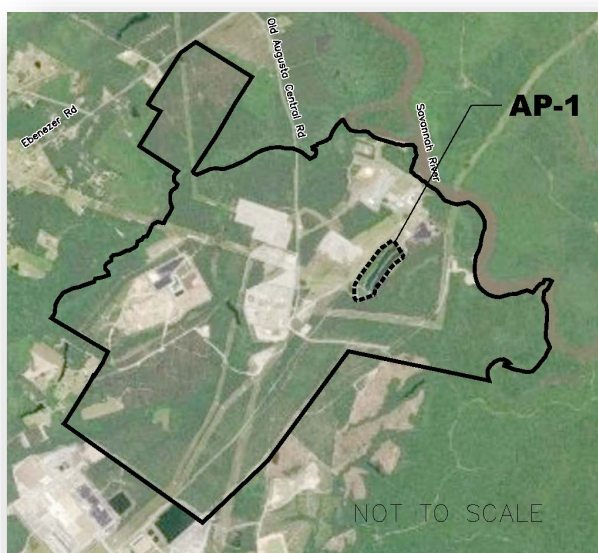
## SUMMARY

This summary of the *2021 Annual Groundwater Monitoring and Corrective Action Report* provides the groundwater monitoring and corrective action program status from January through December 2021 for Georgia Power Company (Georgia Power) Plant McIntosh Ash Pond 1 (the Site or AP-1). This summary was prepared by Atlantic Coast Consulting, Inc. (ACC) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6<sup>1</sup> of the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant McIntosh is located at 981 Old Augusta Central Road, approximately 4 miles northeast of the City of Rincon, and 20 miles north of the City of Savannah in Effingham County, Georgia. AP-1 is located on the eastern portion of the Plant McIntosh property. The Site is in the process of closure by removal.

Groundwater at the site is monitored using a comprehensive monitoring system of wells installed to meet federal and state monitoring requirements. Routine sampling and reporting began after background groundwater conditions were established between May 2016 and April 2017. Based on groundwater conditions at the Site, an assessment monitoring program was established on January 15, 2018. An Alternate Source Demonstration (ASD) completed in January 2019 and a November 2019 supplement presented lines of evidence demonstrating that statistically significant levels (SSL) of cobalt and lithium in groundwater were not due to a release from the unit. The ASD and supplemental information were included in the 2018 and 2019 Annual Groundwater Monitoring and Corrective Action Reports, respectively. During this 2021 annual reporting period, the Site remained in assessment monitoring.

During the reporting period, ACC conducted groundwater sampling events in January, March, and August 2021. Groundwater samples were submitted to Eurofins TestAmerica, Inc. (Eurofins), for analysis. Per the CCR Rule, groundwater results for March and August 2021 data 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.



Plant McIntosh and Ash Pond 1 (AP-1)

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

<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

Appendix III Parameter	March 2021
Boron	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Calcium	MGWC-2, MGWC-3, MGWC-8
Chloride	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Fluoride	MGWC-1, MGWC-7, MGWC-12
Sulfate	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
TDS	MGWC-1, MGWC-2, MGWC-3, MGWC-8
Appendix IV Parameter <sup>4</sup>	March 2021
Cobalt	<i>Federal and State: MGWC-7 State only: MGWC-2, MGWC-8</i>
Lithium	<i>Federal and State: MGWC-7</i>

Appendix III Parameter	August 2021
Boron	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Calcium	MGWC-1
Chloride	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Fluoride	MGWC-1, MGWC-7, MGWC-12
Sulfate	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
TDS	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8
Appendix IV Parameter	August 2021
Cobalt	<i>Federal and State: MGWC-7 State only: MGWC-2, MGWC-8</i>
Lithium	<i>Federal and State: MGWC-7</i>

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from January through December 2021, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power's website and provided to the Georgia Environmental Protection Division (EPD) semiannually.

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<sup>4</sup> A state statistically significant level (SSL) related constituent is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, or the calculated background interwell prediction limit. A federal SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the US EPA Regional Screening Level (RSL), if no MCL is available, or the calculated background interwell prediction limit.



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## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, ACC has prepared this *2021 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power) Plant McIntosh Ash Pond 1 (the Site or AP-1). To specify groundwater monitoring requirements, Georgia EPD Rule 391-3-4-.10(6)(a) incorporates by reference the US EPA CCR Rule 40 CFR § 257 Subpart D. For ease of reference, the US EPA CCR Rules are cited within this report.

A permit application to comply with Georgia EPD Rules was submitted in November 2018 and was approved in February 2020. Monitoring for the CCR Unit is performed in accordance with the permit monitoring requirements [Georgia EPD Permit No. 051-011D(CCR)], 40 CFR § 257.90 through 257.91 and § 257.93 through 257.95 of the Federal CCR Rule, and the Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

This report documents activities completed for the groundwater monitoring program through the 2021 calendar year in accordance with 40 CFR § 257.90(e). This report includes results of the initial assessment and the first and second semiannual assessment monitoring events conducted in January, March, and August 2021, respectively.

### 1.1 Site Description and Background

Plant McIntosh is located at 981 Old Augusta Central Road, in Effingham County, Georgia, approximately 4 miles northeast of the City of Rincon, and 20 miles north of the City of Savannah. The plant is situated on approximately 2,300 acres (Figure 1, Site Location Map) west of the Savannah River. AP-1 is located on the eastern portion of the plant property.

All CCR material has been removed from Plant McIntosh AP-1. In a letter dated October 5, 2021 Georgia EPD acknowledged that all CCR removal activities had been completed at the Site. Construction is currently under way to backfill and grade the Site to its final closure geometry.

### 1.2 Regional Geology and Hydrogeologic Setting

Plant McIntosh is located in the Atlantic Coastal Plain Physiographic Province and situated on sediments that were deposited from the Cretaceous to Pleistocene periods. Regional lithology consists of stratified marine deposits and materials eroded from crystalline rock of the Piedmont Physiographic Province. Boring logs describe soils as interbedded clays, silts, and sands typical of Atlantic Coastal Plain sediments.

Monitoring wells and piezometers are screened in the surficial aquifer between approximately 30 and -20 feet North American Vertical Datum of 1988 (NAVD88). The predominant groundwater flow direction across Plant McIntosh is to the east.

### 1.3 Groundwater Monitoring System and CCR Unit Description

Pursuant to 40 CFR § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. The CCR Unit includes four cells (Cell A through Cell D). Each of these cells is being closed by removal of CCR. A figure

depicting the cell layout and current progress of CCR removal is provided as Figure 2, Partial CCR Removal Map – October 2021. Figure 3, Well Location Map, shows the monitoring well locations. Wells were installed to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1A, Groundwater Monitoring Network Well Construction Details, and Table 1B, Piezometer Construction Details).

## 2.0 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed during 2021 and discusses any change in status of the monitoring program. All groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on Figure 3 in January, March, and August 2021.

### 2.1 Monitoring Well Installation and Maintenance

There were no changes to the groundwater monitoring system during the semiannual reporting period; the network remained the same as in the 2020 (previous) reporting year and is shown in Figure 3. With the exception of repairs to MGWC-1, monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance necessary for sampling under safe and clean conditions. Well inspection checklists completed during each semiannual sampling event are included in Appendix A, Laboratory Analytical and Field Sampling Reports. Any issues identified in well inspection checklists will be addressed prior to the next monitoring event.

On May 27, 2021, a heavy equipment operator damaged a bollard and the protective casing for MGWC-1, shown on Figure 3. On June 8, 2021, personnel from Southern Company Services – Civil Field Services (SCS – CFS) and ACC repaired the well. The well pad and protective casing were removed, and a bend in the PVC casing was identified near ground surface. The PVC was cut slightly below the bend, and a PVC coupler and new length of riser were attached to extend the well to approximately three feet above ground surface. A new aluminum protective casing and concrete pad were installed. Pea gravel was added to fill the space between the protective casing and PVC. A weep hole was drilled near the bottom of the protective casing. A vent hole was drilled near the top of the PVC. Documentation for the repairs to MGWC-1, including photographs of the damaged and repaired well, survey data certified by a Georgia Registered Land Surveyor, and a revised boring log, are provided in Appendix B, Monitoring Well Repair Documentation.

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 August 2021, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix B. This documentation will serve as the required five year well inspection and was performed under the direction of a professional geologist or engineer registered in the State of Georgia.

### 2.2 Assessment Monitoring

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, Georgia Power initiated an assessment monitoring program on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018. Monitoring wells were sampled for Appendix IV parameters in January 2021 as the initial assessment monitoring event. Monitoring wells were sampled for Appendix III and detected Appendix IV parameters in

March and August 2021 as the first and second semiannual assessment monitoring events of 2021, respectively. Samples were collected from the monitoring network shown on Figure 3. A summary of groundwater sampling events completed during the annual reporting period is provided in Table 2, Groundwater Sampling Event Summary. Results of sampling activities are presented in Appendix A.

### 2.3 Additional Groundwater Sampling

Due to an anomalous result for mercury reported during the August 2021 event, monitoring well MGWC-8 was resampled in October 2021. The resample results are included in Appendix A.

## 3.0 SAMPLE METHODOLOGY & ANALYSIS

The following sections describe the methods used to conduct groundwater monitoring at the Site.

### 3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater levels were measured and recorded to the nearest 0.01 foot within a 24-hour period from the certified well network and piezometers at the Site. Groundwater levels recorded during the monitoring events are summarized in Table 3, Summary of Groundwater Elevations. Groundwater levels and top of casing elevations were used to calculate groundwater elevations and develop the potentiometric surface elevation contour maps provided in Figures 4A, 4B, and 4C, Potentiometric Contour Map – January, March, and August 2021, respectively. The general direction of groundwater flow across AP-1 is toward the east but shifts to the southeast and northeast in the northern portion of AP-1. The groundwater flow patterns observed during the 2021 monitoring events are consistent with historical observations.

The horizontal groundwater flow velocity at the Site was calculated using a derivation of Darcy's Law.

Specifically:

#### Equation

$$v = \frac{K ( dh/dl )}{P_e} \quad \text{where:} \quad \begin{array}{l} v = \text{groundwater velocity} \\ K = \text{hydraulic conductivity} \\ dh/dl = \text{hydraulic gradient} \\ P_e = \text{effective porosity} \end{array}$$

Groundwater flow velocities were calculated for the Site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on the default value for silty sands, US EPA, 1989). Groundwater flow velocities have been calculated and are tabulated on Tables 4A, 4B, and 4C, Horizontal Groundwater Flow Velocity Calculations – January, March, and August 2021, respectively. The calculated flow velocities ranged from 0.037 to 0.042 feet per day for the three events.

These calculated groundwater velocities across the Site are generally consistent with historical calculations and with expected velocities in the Site-specific geology, therefore, confirming the groundwater monitoring network is properly located to monitor the uppermost aquifer.

### 3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was performed using either a peristaltic pump or non-dedicated QED bladder pump. In all cases pump intakes were located at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations using procedures described in the latest version of the Region 4 US EPA Lab Services and Applied Science Division (LSASD) Operating Procedure for Field Equipment Cleaning and Decontamination as a guide (US EPA, 2020).

An Aqua Troll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a LaMotte 2020we or Hach 2100Q portable 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
- $\pm 10\%$  or 0.2 milligrams per liter (mg/L), whichever is greater, for DO where DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 5 nephelometric turbidity units (NTUs)

Once stabilization was achieved, samples were collected directly into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Eurofins TestAmerica, Inc. (Eurofins) of Pittsburgh, Pennsylvania following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix A.

### 3.3 Laboratory Analyses

Groundwater samples were collected during three groundwater monitoring events in the annual monitoring period. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A. Samples were analyzed for Appendix IV parameters detected above the laboratory method detection limit (MDL) during the January 2021 event in accordance with 40 CFR § 257.95(b). The only parameter not detected above the laboratory MDL during the January 2021 event was selenium.

Analytical data collected during 2021 monitoring events are summarized in Tables 5A, 5B, and 5C, Summary of Groundwater Analytical Data – January, March, and August 2021, respectively.

Laboratory analyses were performed by Eurofins. Eurofins is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. In addition, Eurofins is certified to perform analysis by the State of Georgia. Laboratory reports and chain-of-custody records for the monitoring events are presented in Appendix A.

### 3.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one field blank and duplicate sample per every 20 assessment samples. A set of QA/QC samples includes equipment blanks, field blanks, and duplicate samples. QA/QC sample data were evaluated during data validation and are included in Appendix A.



Groundwater quality data in this report were validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spike/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits (RLs). The data are considered usable for meeting project objectives and the results are considered valid. The associated data validation report is included in Appendix A.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the MDL and the laboratory RL. The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

## 4.0 STATISTICAL ANALYSIS

Groundwater monitoring data collected during the March and August 2021 semiannual assessment monitoring events were statistically analyzed by Groundwater Stats Consulting, LLC (GSC) pursuant to 40 CFR § 257.95 following the Professional Engineer (PE)-certified statistical method. Appendix III detection monitoring parameters were statistically analyzed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard (GWPS). Statistical analysis methods and results are provided in Appendix C, Statistical Analyses. The following subsections and Table 6, Statistical Method Summary, provide an overview of the statistical method used to evaluate Appendix III and IV parameters and statistical analyses results.

### 4.1 Statistical Analysis Methods

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the US EPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (US EPA, 2009).

#### 4.1.1 Appendix III Statistical Methods

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified.

In 1-of-2 verification 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 prediction limit, the initial exceedance is verified, and an SSI is identified. When a resample result does not verify the initial result, and does not exceed the prediction limit, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.



#### 4.1.2 Appendix IV Statistical Methods

Appendix IV constituents detected during the initial assessment monitoring event (January 2021) were sampled during the March and August 2021 semiannual assessment events. To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV parameters in each downgradient well. Those confidence intervals are compared to both the state and federal GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If there is an exceedance of the established standard, a statistically significant level (SSL) exceedance is identified.

US EPA 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:

- (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.

US EPA's updated GWPS have not yet been incorporated under Georgia EPD's CCR Rule. The Georgia EPD CCR Rule GWPS is:

- (1) The federally established MCL.
- (2) Where an MCL has not been established, the background concentration.
- (3) Background levels for constituents where the background level is higher than the MCL.

Following the above federal and state rule requirements, GWPS have been established for statistical comparison of Appendix IV constituents. Table 7, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS established under state and federal rules.

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A substitution of the most recent reporting limit is used for non-detect data. Selenium was not detected during the initial assessment event conducted in January 2021; therefore, no sampling or statistical analysis was required for this parameter. Additional details are presented in the Statistical Analyses provided in Appendix C.

#### 4.2 Statistical Analysis Results

##### 4.2.1 Semiannual Appendix III Statistical Results

Based on review of the Appendix III statistical analysis presented in Appendix C, Appendix III constituents have not returned to background levels. Exceedances were noted and are presented on the prediction limit summary table included in Appendix C. Assessment monitoring should continue pursuant to 40 CFR § 257.95(f).

##### 4.2.2 Semiannual Appendix IV Statistical Results

Based on review of the Appendix IV statistical analyses presented in Appendix C, the following parameters were found to exceed the GWPS:

- AP-1 (Federal CCR Rule):
  - Cobalt: MGWC-7
  - Lithium: MGWC-7
- AP-1 (Georgia EPD CCR Rule)
  - Cobalt: MGWC-2, MGWC-7, and MGWC-8
  - Lithium: MGWC-7

The March and August 2021 statistical evaluation results are consistent with the 2020 reporting year statistical results.

## 5.0 ALTERNATE SOURCE DEMONSTRATION

In accordance with 40 CFR § 257.94(e), Georgia Power implemented assessment monitoring in May 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Site during the sampling events conducted in March and August 2021. An Alternate Source Demonstration (ASD) for cobalt and lithium was included in the *2018 Annual Groundwater Monitoring and Corrective Action Report*, and later supported by the *Supplemental Information for the Ash Pond 1 Alternate Source Demonstration*, dated November 21, 2019. The demonstration showed the source of cobalt and lithium in groundwater is not due to a release from the unit. The Site remains in assessment monitoring due to SSIs for Appendix III parameters.

## 6.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), Georgia Power implemented assessment monitoring in May 2018. Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from January through December 2021, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site.

## 7.0 CONCLUSIONS & FUTURE ACTIONS

This *2021 Annual Groundwater Monitoring and Corrective Action Report* for Georgia Power's Plant McIntosh AP-1 was prepared to fulfill the requirements of US EPA's CCR Rule and Georgia EPD Rules for Solid Waste Management Chapter 391-3-4-.10.

Statistical evaluations of the groundwater monitoring data for the Site identified SSIs of Appendix III groundwater monitoring parameters and SSLs of cobalt and lithium. In accordance with 40 CFR § 257.95(g)(3), Georgia Power prepared an ASD for cobalt and lithium in 2018 that concludes the state and federal SSLs for cobalt and lithium are not due to a release from the unit.

Based on the findings presented, AP-1 will remain in assessment monitoring. The next semiannual assessment monitoring event is currently scheduled for March 2022. The March 2022 semiannual assessment monitoring event will be a combined event to meet the requirements of Georgia EPD Rule 391-3-4-.10(6) and 40 CFR § 257.95(b) and (d)(1) and will include sampling and analysis of all Appendix III and IV constituents.

## 8.0 REFERENCES

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- US EPA, 2017. Groundwater Sampling – Operating Procedure: SESDPROC-3-1-R4, Athens, Georgia, 34 p.
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## TABLES

**Table 1A  
Groundwater Monitoring Network Well Construction Details  
Plant McIntosh Ash Pond 1  
Effingham County, Georgia**

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Top of Casing Elevation (NAVD)	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD)	Purpose
MGWC-1	11/10/2015	856813.08	964287.47	65.26	56.08	9.18	45.78	19.48	Downgradient
MGWC-2	11/11/2015	856400.69	963958.38	48.54	37.36	11.18	27.06	21.48	Downgradient
MGWC-3	11/11/2015	856033.79	963658.28	52.65	38.74	13.91	28.44	24.21	Downgradient
MGWA-5	11/12/2015	855860.82	962763.17	64.36	63.09	1.27	52.79	11.57	Upgradient
MGWA-6	11/12/2015	856527.73	963130.08	61.08	41.93	19.15	31.63	29.45	Upgradient
MGWA-6A	01/16/2019	856520.82	963113.65	59.76	39.67	20.09	29.40	30.36	Upgradient
MGWC-7	11/13/2015	857417.68	964007.53	54.40	42.29	12.11	31.99	22.41	Downgradient
MGWC-8	11/10/2015	857177.10	964141.67	62.61	52.56	10.05	42.26	20.35	Downgradient
MGWA-10	11/17/2015	855934.25	961406.49	65.07	53.09	11.98	42.79	22.28	Upgradient
MGWA-11	05/27/2016	855985.31	962070.22	64.91	55.81	9.10	45.61	19.30	Upgradient
MGWC-12	05/26/2016	855545.67	963110.24	64.10	52.90	11.20	42.70	21.40	Downgradient

Notes:

1. Northings and Eastings are feet relative to North American Datum 1983 (NAD83), State Plane Georgia East Zone
2. NAVD indicates feet relative to North American Vertical Datum of 1988.
3. ft BTOC indicates feet below top of casing.
4. Wells resurveyed June 2020.
5. MGWC-1 resurveyed July 2021.

**Table 1B  
Piezometer Construction Details  
Plant McIntosh Ash Pond 1  
Effingham County, Georgia**

Well	Installation Date (mm/dd/yyyy)	Northing	Easting	Top of Casing Elevation (NAVD)	Bottom Depth (ft BTOC)	Bottom Elevation (NAVD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (NAVD)	Purpose
MGWC-4	11/18/2015	855555.05	963139.37	64.33	67.35	-3.02	57.05	7.28	Downgradient Piezometer
MGWA-9	11/17/2015	857129.70	963164.58	59.29	43.05	16.24	32.75	26.54	Upgradient Piezometer
PZ-13	06/03/2016	856123.86	964192.52	40.91	26.76	14.15	16.36	24.55	Downgradient Piezometer
PZ-14	06/04/2016	855727.20	963895.98	47.11	41.50	5.61	31.10	16.01	Downgradient Piezometer
PZ-15	06/26/2018	856156.03	964192.45	42.37	28.87	13.50	18.57	23.80	Downgradient Piezometer
PZ-16	06/26/2018	857077.14	964957.28	54.71	42.39	12.32	32.09	22.62	Downgradient Piezometer
PZ-17	06/27/2018	857655.05	964525.72	57.51	45.12	12.39	34.82	22.69	Downgradient Piezometer
PZ-18	06/27/2018	857542.34	963505.91	53.48	41.70	11.78	31.40	22.08	Upgradient Piezometer
MGWC-19	10/04/2018	857406.16	963972.44	53.98	72.70	-18.72	62.40	-8.42	Downgradient Deep Piezometer
MGWC-20	10/03/2018	857596.86	964281.59	51.56	54.77	-3.21	44.47	7.09	Downgradient Piezometer
MGWC-21	11/28/2018	857159.04	964155.30	62.65	82.68	-20.03	72.38	-9.73	Downgradient Deep Piezometer
MGWC-22	11/29/2018	856381.60	963948.23	47.53	67.56	-20.03	57.26	-9.73	Downgradient Deep Piezometer
MGWC-23	11/30/2018	856940.45	964617.96	57.47	42.90	14.57	32.60	24.87	Downgradient Piezometer
MGWA-24	01/17/2019	856600.28	962885.22	60.53	47.00	13.53	35.80	24.73	Upgradient Piezometer

Notes:

1. NAVD indicates feet below top of casing.
2. Northings and Eastings are feet relative to North American Datum 1983 (NAD83), State Plane Georgia East Zone
3. NAVD elevations are feet relative to North American Vertical Datum of 1988.
4. ft BTOC indicates feet below top of casing.
5. Wells resurveyed June 2020.

**Table 2**  
**Groundwater Sampling Event Summary**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Well	Hydraulic Location	Jan. 25-26, 2021	Mar. 23-24, 2021	Aug. 17-25, 2021	Oct. 26, 2021
Purpose of Sampling Event		Initial Assessment	Semiannual Assessment	Semiannual Assessment	Verification
MGWC-1	Downgradient	X	X	X	-
MGWC-2	Downgradient	X	X	X	-
MGWC-3	Downgradient	X	X	X	-
MGWA-5	Upgradient	X	X	X	-
MGWA-6	Upgradient	X	X	X	-
MGWA-6A	Upgradient	X	X	X	-
MGWC-7	Downgradient	X	X	X	-
MGWC-8	Downgradient	X	X	X	X
MGWA-10	Upgradient	X	X	X	-
MGWA-11	Upgradient	X	X	X	-
MGWC-12	Downgradient	X	X	X	-

Notes:

1. X indicates sampled was collected.
2. Initial Assessment Event included all Appendix IV analytes.
3. Semiannual Assessment Event Appendix III and Detected Appendix IV.
4. -- = Not sampled.



**Table 3**  
**Summary of Groundwater Elevations**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Well ID	Top of Casing Elevation (NAVD88)	Jan. 25, 2021 Groundwater Elevation (NAVD88)	Mar. 22, 2021 Groundwater Elevation (NAVD88)	Aug. 17, 2021 Groundwater Elevation (NAVD88)
MGWC-1	65.26	26.68	27.18	27.56
MGWC-2	48.54	27.58	28.31	28.09
MGWC-3	52.65	32.98	34.16	33.96
MGWC-4	64.33	36.77	37.72	35.51
MGWA-5	64.36	40.10	41.33	39.70
MGWA-6	61.08	38.09	40.26	38.63
MGWA-6A	59.76	39.16	40.30	38.71
MGWC-7	54.40	31.60	33.15	32.10
MGWC-8	62.61	30.17	30.56	31.57
MGWA-9	59.29	36.42	38.92	36.83
MGWA-10	65.07	46.67	48.27	46.35
MGWA-11	64.91	42.95	44.50	42.87
MGWC-12	64.10	36.89	37.80	36.34
PZ-13	40.91	23.56	23.41	23.19
PZ-14	47.11	28.86	29.58	28.98
PZ-15	42.37	23.52	23.83	23.21
PZ-16	54.71	22.31	22.71	22.13
PZ-17	57.51	26.57	27.10	26.45
PZ-18	53.48	32.74	35.07	32.82
MGWC-19	53.98	30.46	31.89	31.10
MGWC-20	51.56	28.61	29.71	28.92
MGWC-21	62.65	29.34	30.37	29.20
MGWC-22	47.53	28.76	29.69	30.23
MGWC-23	57.47	23.95	24.27	23.83
MGWA-24	60.53	n/a	41.35	39.70

Notes:

1. NAVD88 indicates feet North American Vertical Datum of 1988.
2. n/a indicates not applicable; there was a recording error during measurement.
3. MGWC-1 resurveyed July 2021.

**Table 4A**  
**HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS**  
**January 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Equation

$$v = \frac{K (dh/dl)}{P_e}$$

where: v = groundwater velocity  
K = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value	Source
K = 3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl <sub>1</sub> = 23.15/2796 ft/ft 0.0083 unitless	Hydraulic gradient from MGWA-10 to PZ-15
dh/dl <sub>2</sub> = 15.78/1898 ft/ft 0.0083 unitless	MGWA-6 to PZ-16
dh/dl <sub>3</sub> = 9.85/1458 ft/ft 0.0068 unitless	MGWA-9 to PZ-17
dh/dl <sub>avg</sub> = 0.0078 unitless	Average of dh/dl <sub>1,2,3</sub>
P <sub>e</sub> = 0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(0.96)(0.0078)}{0.20}$$

$$v = 0.037 \text{ ft/day, or } 14 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

**Table 4B**  
**HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS**  
**March 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Equation

$$v = \frac{K ( dh/dl )}{P_e}$$

where: v = groundwater velocity  
K = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value		Source
K =	3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl <sub>1</sub> =	24.44/2796 ft/ft 0.0087 unitless	Hydraulic gradient from MGWA-10 to PZ-15
dh/dl <sub>2</sub> =	17.55/1898 ft/ft 0.0092 unitless	MGWA-6 to PZ-16
dh/dl <sub>3</sub> =	11.82/1458 ft/ft 0.0081 unitless	MGWA-9 to PZ-17
dh/dl <sub>avg</sub> =	0.0087 unitless	Average of dh/dl <sub>1,2,3</sub>
P <sub>e</sub> =	0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(0.96)(0.0087)}{0.20}$$

$$v = 0.042 \text{ ft/day, or } 15 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

**Table 4C**  
**HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS**  
**August 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Equation

$$v = \frac{K (dh/dl)}{P_e}$$

where: v = groundwater velocity  
K = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value		Source
K =	3.4E-04 cm/sec 0.96 ft/day	See note 1.
dh/dl <sub>1</sub> =	24.44/2796 ft/ft 0.0083 unitless	Hydraulic gradient from MGWA-10 to PZ-15
dh/dl <sub>2</sub> =	17.55/1898 ft/ft 0.0087 unitless	MGWA-6 to PZ-16
dh/dl <sub>3</sub> =	11.82/1458 ft/ft 0.0071 unitless	MGWA-9 to PZ-17
dh/dl <sub>avg</sub> =	0.0080 unitless	Average of dh/dl <sub>1,2,3</sub>
P <sub>e</sub> =	0.20 unitless	See note 2.

Calculated Flow Velocity

$$v = \frac{(0.96)(0.008)}{0.20}$$

$$v = 0.039 \text{ ft/day, or } 14 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Southern Company Services, Inc. (2002)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**January 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		1/26/2021	1/26/2021	1/26/2021	1/25/2021	1/26/2021	1/26/2021	1/26/2021	1/26/2021
APPENDIX IV	<b>Antimony</b>	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038	0.00038 J	<0.00038	0.00044 J
	<b>Arsenic</b>	0.00034 J	0.0094	0.0045	<0.00031	0.0022	0.0033	<0.00031	0.0018
	<b>Barium</b>	0.039	0.029	0.030	0.023	0.13	0.14	0.049	0.16
	<b>Beryllium</b>	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	<b>Cadmium</b>	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.00024 J	0.0011 J	<0.00022
	<b>Chromium</b>	<0.0015	<0.0015	<0.0015	0.0044	<0.0015	0.0023	<0.0015	<0.0015
	<b>Cobalt</b>	<0.00013	0.00027 J	0.00035 J	<0.00013	<0.00013	0.00031 J	0.0021 J	0.0013 J
	<b>Fluoride</b>	0.087 J	0.072 J	0.071 J	<0.026	0.073 J	0.15	0.068 J	0.083 J
	<b>Lead</b>	<0.00013	0.00013 J	<0.00013	0.00016 J	<0.00013	0.00058 J	0.00014 J	0.00017 J
	<b>Lithium</b>	0.011	<0.0034	<0.0034	0.0083	0.027	0.011	0.0066	0.014
	<b>Mercury</b>	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	<b>Molybdenum</b>	0.00083 J	<0.00061	0.00066 J	<0.00061	0.00079 J	0.0016 J	<0.00061	<0.00061
	<b>Radium (226 + 228)</b>	0.0432 U	0.663	0.591	0.408 U	0.898	2.37	0.234 U	1.78
<b>Selenium</b>	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	
<b>Thallium</b>	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	0.00016 J	<0.00015	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
6. Appendix IV = parameters evaluated during Assessment Monitoring.

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**January 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID		
		MGWC-7	MGWC-8	MGWC-12
		1/26/2021	1/26/2021	1/26/2021
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038
	Arsenic	<0.00031	<0.00031	<0.00031
	Barium	0.0070 J	0.028	0.060
	Beryllium	<0.00018	0.0018 J	<0.00018
	Cadmium	<0.00022	0.0016 J	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015
	Cobalt	0.0090	0.021	<0.00013
	Fluoride	0.28	0.14	0.23
	Lead	<0.00013	0.00019 J	<0.00013
	Lithium	0.12	0.032	0.021
	Mercury	<0.00013	0.0025	<0.00013
	Molybdenum	<0.00061	<0.00061	<0.00061
	Radium (226 + 228)	0.607	1.87	0.364 U
	Selenium	<0.0015	<0.0015	<0.0015
Thallium	0.00016 J	0.00030 J	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
6. Appendix IV = parameters evaluated during Assessment Monitoring.

**Table 5B**  
**Summary of Groundwater Analytical Data**  
**March 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		3/24/2021	3/23/2021	3/23/2021	3/23/2021	3/23/2021	3/24/2021	3/24/2021	3/24/2021
APPENDIX III	<b>Boron</b>	<0.039	<0.039	<0.039	<0.039	0.047 J	0.57	2.4	1.2
	<b>Calcium</b>	28	110	97	4.0	42	100	120	120
	<b>Chloride</b>	5.5	4.0	4.1	7.8	3.8	14	13	14
	<b>Fluoride</b>	0.091 J	0.082 J	0.096 J	0.038 J	0.081 J	0.27	0.11	0.092 J
	<b>pH</b>	6.88	6.74	6.56	5.00	7.06	7.14	7.24	6.73
	<b>Sulfate</b>	3.5	3.2	1.7	<0.76	1.4	120	180	130
	<b>TDS</b>	150	300	270	53	220	380	490	430
APPENDIX IV	<b>Antimony</b>	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038	<0.00038
	<b>Arsenic</b>	0.00033 J	0.0089	0.0098	0.00033 J	0.0023	0.0024	<0.00031	0.0018
	<b>Barium</b>	0.032	0.028	0.031	0.020	0.13	0.10	0.049	0.16
	<b>Beryllium</b>	<0.00018	<0.00018	<0.00018	0.00022 J	<0.00018	<0.00018	<0.00018	<0.00018
	<b>Cadmium</b>	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.0022 J	<0.00022
	<b>Chromium</b>	<0.0015	<0.0015	<0.0015	0.0043	<0.0015	<0.0015	<0.0015	<0.0015
	<b>Cobalt</b>	<0.00013	0.00025 J	0.00036 J	0.00014 J	<0.00013	<0.00013	0.0019 J	0.00053 J
	<b>Fluoride</b>	0.091 J	0.082 J	0.096 J	0.038 J	0.081 J	0.27	0.11	0.092 J
	<b>Lead</b>	<0.00013	<0.00013	<0.00013	0.00013 J	0.00013 J	<0.00013	<0.00013	<0.00013
	<b>Lithium</b>	0.0097	<0.0034	<0.0034	0.0084	0.026	0.013	0.0066	0.013
	<b>Mercury</b>	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	<b>Molybdenum</b>	0.00089 J	<0.00061	0.00089 J	<0.00061	0.00093 J	0.0029 J	<0.00061	<0.00061
	<b>Radium (226 + 228)</b>	0.206 U	0.542	0.612	0.657	0.409 U	1.81	0.625	1.58
<b>Thallium</b>	<0.00015	0.00025 J	<0.00015	0.00046 J	0.00051 J	<0.00015	<0.00015	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.  
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.



**Table 5B**  
**Summary of Groundwater Analytical Data**  
**March 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID		
		MGWC-7	MGWC-8	MGWC-12
		3/24/2021	3/24/2021	3/24/2021
APPENDIX III	Boron	1.5	3.6	<0.039
	Calcium	51	120	32
	Chloride	10	18	5.7
	Fluoride	0.35	0.11	0.27
	pH	6.26	6.71	7.15
	Sulfate	180	280	7.1
	TDS	330	530	190
APPENDIX IV	Antimony	<0.00038	<0.00038	<0.00038
	Arsenic	0.00046 J	0.00099 J	<0.00031
	Barium	0.011	0.054	0.056
	Beryllium	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	0.0010 J	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015
	Cobalt	0.0063	0.0020 J	<0.00013
	Fluoride	0.35	0.11	0.27
	Lead	<0.00013	<0.00013	<0.00013
	Lithium	0.13	0.011	0.018
	Mercury	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00061	<0.00061	<0.00061
	Radium (226 + 228)	1.20	0.636	0.434 U
Thallium	<0.00015	<0.00015	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.  
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

**Table 5C**  
**Summary of Groundwater Analytical Data**  
**August 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID							
		MGWA-5	MGWA-6	MGWA-6A	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3
		8/24/2021	8/24/2021	8/24/2021	8/23/2021	8/23/2021	8/25/2021	8/24/2021	8/24/2021
APPENDIX III	<b>Boron</b>	<0.039	<0.039	<0.039	<0.039	0.043 J	1.7	2.2	0.97
	<b>Calcium</b>	27	100	83	5.8	34	120	110	110
	<b>Chloride</b>	5.5	4.0	3.9	7.3	4.4	14	13	14
	<b>Fluoride</b>	0.10	0.10	0.11	0.048 J	0.12	0.097 J	0.095 J	0.11
	<b>pH</b>	7.78	7.11	7.28	6.16	8.12	7.27	7.42	6.92
	<b>Sulfate</b>	3.6	3.5	3.3	<0.76	3.4	140	160	130
	<b>TDS</b>	160	300	280	55	200	470	510	450
APPENDIX IV	<b>Antimony</b>	<0.00038	<0.00038	<0.00038	<0.00038	0.00052 J	<0.00038	<0.00038	<0.00038
	<b>Arsenic</b>	<0.00031	0.0087	0.0021	<0.00031	0.00077 J	0.00092 J	<0.00031	0.0014
	<b>Barium</b>	0.027	0.026	0.026	0.024	0.096	0.11	0.047	0.16
	<b>Beryllium</b>	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	<b>Cadmium</b>	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.00054 J	<0.00022
	<b>Chromium</b>	<0.0015	<0.0015	<0.0015	0.0045	<0.0015	<0.0015	<0.0015	<0.0015
	<b>Cobalt</b>	<0.00013	<0.00013	0.0017 J	<0.00013	<0.00013	0.00018 J	0.0018 J	0.00034 J
	<b>Fluoride</b>	0.10	0.10	0.11	0.048 J	0.12	0.097 J	0.095 J	0.11
	<b>Lead</b>	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	<b>Lithium</b>	0.0093	<0.0034	<0.0034	0.0075	0.018	0.0096	0.0062	0.012
	<b>Mercury</b>	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	<b>Molybdenum</b>	<0.00061	<0.00061	0.0011 J	0.0016 J	0.0012 J	0.00088 J	<0.00061	<0.00061
	<b>Radium (226 + 228)</b>	0.521 U	0.678	0.596	0.752	1.19	2.12	0.313 U	1.65
<b>Thallium</b>	<0.00015	0.00017 J	<0.00015	<0.00015	0.00040 J	<0.00015	<0.00015	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.  
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
8. -- indicates parameter not analyzed during resample/reanalysis.
9. Verification sampling performed for mercury result in MGWC-8.

**Table 5C**  
**Summary of Groundwater Analytical Data**  
**August 2021**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

Substance		Well ID			
		MGWC-7	MGWC-8	MGWC-8	MGWC-12
		8/25/2021	8/25/2021	10/26/2021	8/25/2021
APPENDIX III	Boron	1.6	4.2	--	0.11
	Calcium	59	96	--	31
	Chloride	9.9	11	--	4.9
	Fluoride	0.15	0.038 J	--	0.19
	pH	6.85	5.26	5.99	7.44
	Sulfate	180	420	--	6.6
	TDS	390	720	--	230
APPENDIX IV	Antimony	<0.00038	<0.00038	--	<0.00038
	Arsenic	0.00055 J	<0.00031	--	<0.00031
	Barium	0.013	0.031	--	0.051
	Beryllium	<0.00018	0.0015 J	--	<0.00018
	Cadmium	<0.00022	0.0046	--	<0.00022
	Chromium	<0.0015	<0.0015	--	<0.0015
	Cobalt	0.0032	0.021	--	<0.00013
	Fluoride	0.15	0.038 J	--	0.19
	Lead	0.00019 J	0.00022 J	--	<0.00013
	Lithium	0.12	0.037	--	0.017
	Mercury	<0.00013	0.0041	<0.00013	<0.00013
	Molybdenum	<0.00061	<0.00061	--	<0.00061
	Radium (226 + 228)	0.767	2.13	--	0.563
Thallium	<0.00015	0.00040 J	--	<0.00015	

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.  
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detectable Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
8. -- indicates parameter not analyzed during resample/reanalysis.
9. Verification sampling performed for mercury result in MGWC-8.

**Table 6**  
**Statistical Method Summary**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

<b>Plant McIntosh AP-1 Statistical Method Summary</b>		
Monitoring Well Network	Upgradient Wells	MGWA-5, MGWA-6, MGWA-6A, MGWA-10, and MGWA-11
	Downgradient Wells	MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8, and MGWC-12
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and Total Dissolved Solids (TDS)
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits

**Table 7**  
**Summary of Background Levels and Groundwater Protection Standards**  
**Plant McIntosh Ash Pond 1**  
**Effingham County, Georgia**

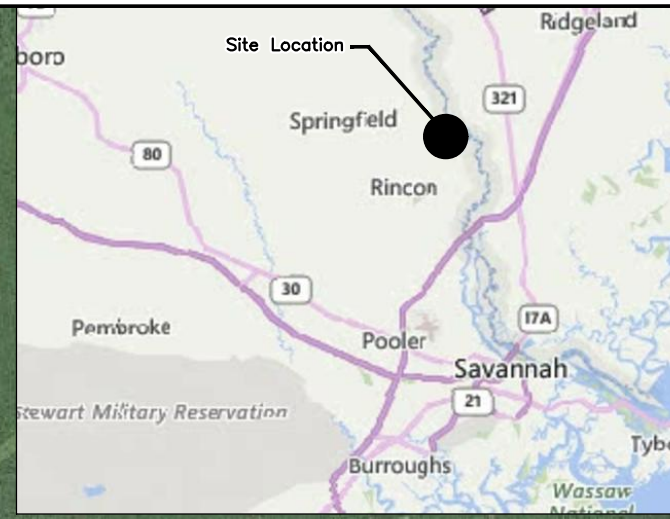
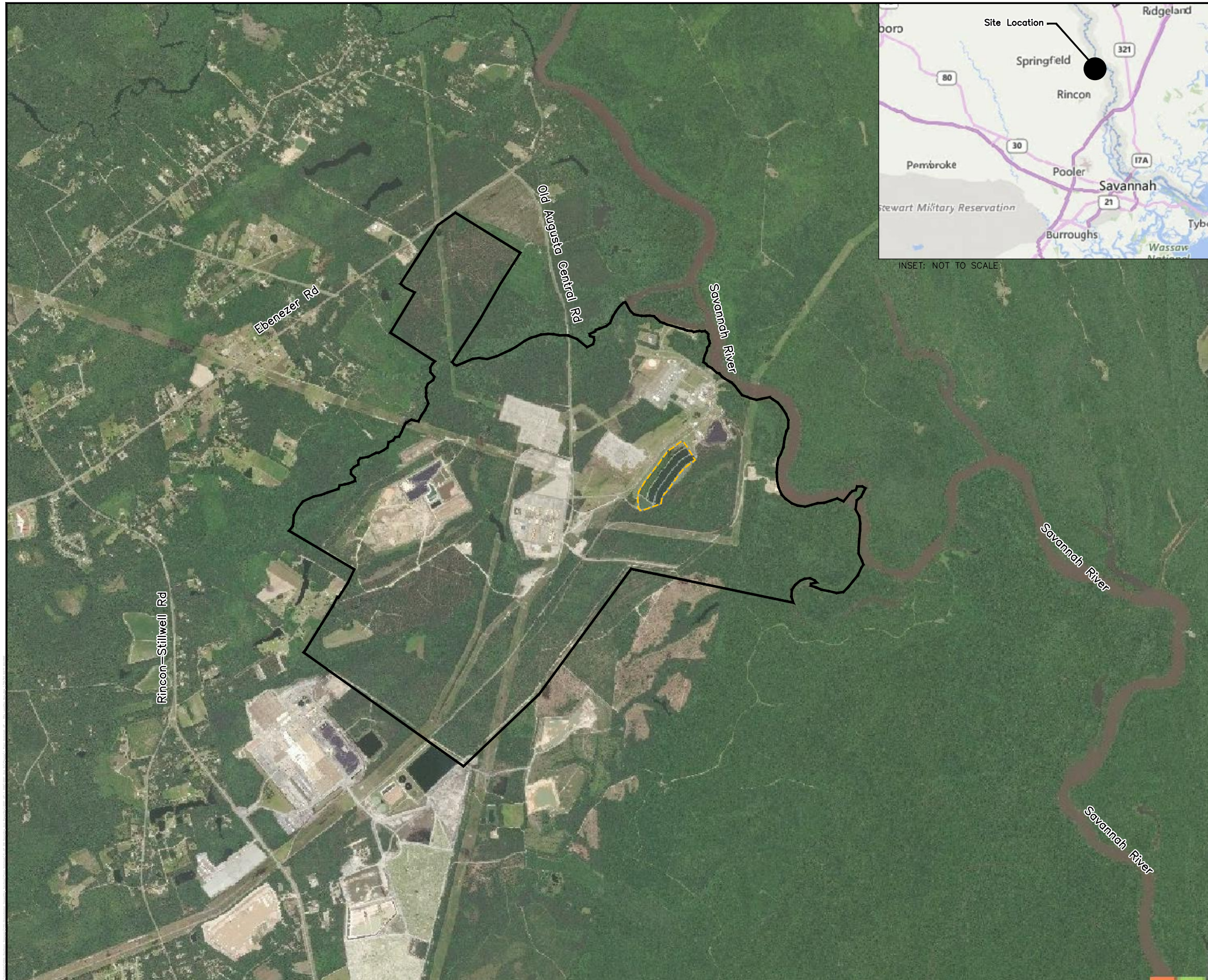
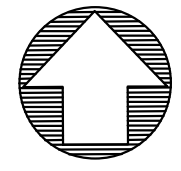

Constituent	Site Background	Federal GWPS	State GWPS
Antimony	0.002	0.006	0.006
Arsenic	0.014	0.014	0.014
Barium	0.13	2	2
Beryllium	0.0025	0.004	0.004
Cadmium	0.0025	0.005	0.005
Chromium	0.0063	0.1	0.1
Cobalt	0.0025	0.006	0.0025
Fluoride	0.19	4	4
Lead	0.001	0.015	0.001
Lithium	0.03	0.04	0.03
Mercury	0.0002	0.002	0.002
Molybdenum	0.015	0.1	0.015
Radium (226+228)	1.1	5	5
Selenium	0.005	0.05	0.05
Thallium	0.001	0.002	0.002

Notes:

1. Site Background = Tolerance limits calculated from pooled upgradient well data.
2. Federal GWPS = Groundwater protection standard, per 257.95(h)(1-3).
3. State GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter.
5. GWPS and Site Background were the same for March 2021 and August 2021 data sets, except for arsenic, which was lowered from 0.035 mg/L to 0.014 mg/L.


## FIGURES




ATLANTIC COAST  
CONSULTING, INC.

2,500 0 1,250 2,500



SCALE (IN FEET)

**LEGEND:**

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE AP-1 BOUNDARY

NOTES:  
 1. AERIAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT

 Georgia Power

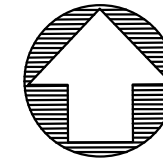
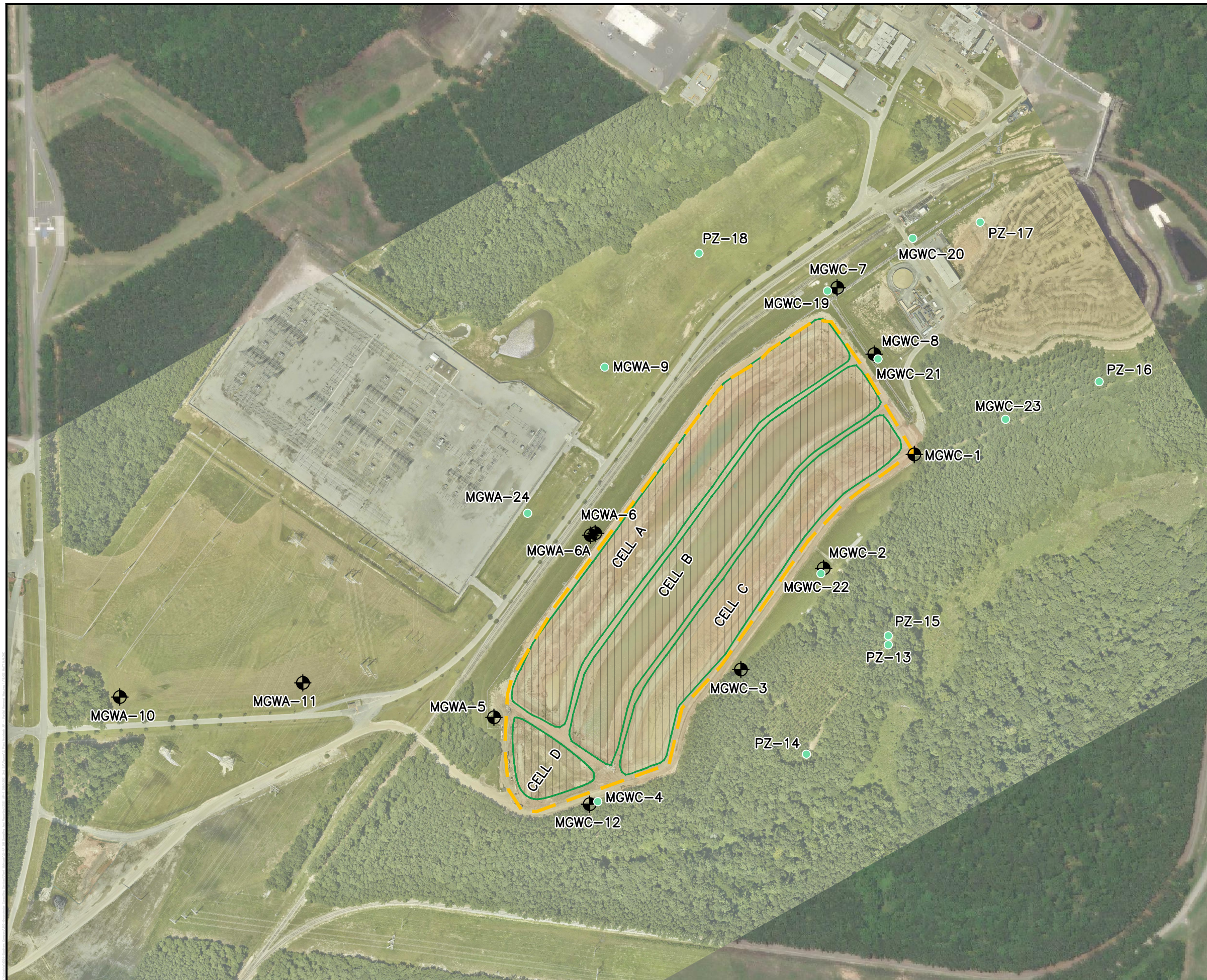
GEORGIA POWER COMPANY  
PLANT McINTOSH ASH POND 1

2021 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

**SITE LOCATION MAP**

PROJECT NO. I054-110		January 2022
<u>DRAWN BY:</u>	MM	<u>FIGURE:</u>
<u>CHECKED BY:</u>	CA	
		<b>1</b>





*Acc*

350 0 175 350



SCALE (IN FEET)

### LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	AREA WHERE ASH HAS BEEN CERTIFIED AS REMOVED AS OF JANUARY 31, 2022
	MGWC-1 NETWORK MONITORING WELL
	PZ-17 PIEZOMETER

- NOTES:
1. CELL BOUNDARY LAYERS PROVIDED BY GEI CONSULTANTS.
  2. AERIAL DATED 7/28/2021 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

#### PROJECT



GEORGIA POWER COMPANY  
PLANT McINTOSH ASH POND 1

2021 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

**PARTIAL CCR REMOVAL MAP  
OCTOBER 2021**

PROJECT NO. I054-110

January 2022

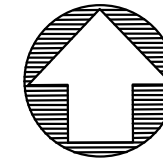
DRAWN BY: RW

FIGURE:

CHECKED BY: MM

2





*Acc*

350 0 175 350



SCALE (IN FEET)

**LEGEND:**

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 NETWORK MONITORING WELL
	PZ-17 PIEZOMETER

NOTES:  
 1. AERIAL DATED 7/28/2021 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY  
 PLANT McINTOSH ASH POND 1

2021 ANNUAL GROUNDWATER MONITORING AND  
 CORRECTIVE ACTION REPORT

**WELL LOCATION MAP**

PROJECT NO. I054-110

January 2022

DRAWN BY: RW

FIGURE:


CHECKED BY: MM



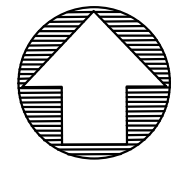
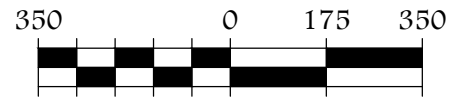
Summary of Groundwater Elevations  
Plant McIntosh  
Ash Pond 1  
January 2021 Sampling Event

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft NAVD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft NAVD)
MGWC-1	56.08	65.23	38.55	26.68
MGWC-2	37.36	48.54	20.96	27.58
MGWC-3	38.74	52.65	19.67	32.98
MGWC-4	67.35	64.33	27.56	36.77
MGWA-5	63.09	64.36	24.26	40.10
MGWA-6	41.93	61.08	22.99	38.09
MGWA-6A	39.67	59.76	20.60	39.16
MGWC-7	42.29	54.40	22.80	31.60
MGWC-8	52.56	62.61	32.44	30.17
MGWA-9	43.05	59.29	22.87	36.42
MGWA-10	53.09	65.07	18.40	46.67
MGWA-11	55.81	64.91	21.96	42.95
MGWC-12	52.90	64.10	27.21	36.89
PZ-13	26.76	40.91	17.35	23.56
PZ-14	41.50	47.11	18.25	28.86
PZ-15	28.87	42.37	18.85	23.52
PZ-16	42.39	54.71	32.40	22.31
PZ-17	45.12	57.51	30.94	26.57
PZ-18	41.70	53.48	20.74	32.74
MGWC-19	72.70	53.98	23.52	30.46
MGWC-20	54.77	51.56	22.95	28.61
MGWC-21	82.68	62.65	33.31	29.34
MGWC-22	67.56	47.53	18.77	28.76
MGWC-23	42.90	57.47	33.52	23.95
MGWA-24	47.00	60.53	n/a	n/a

Notes: Depths to water measured within a 24-hour period on January 25, 2021.  
ft NAVD = feet North American Vertical Datum of 1988  
ft BTOC = feet below top of casing  
\* MGWC-4, MGWC-19, MGWC-21, MGWC-22, MGWA-24 not used to calculate contours.  
n/a = not applicable; recording error during measurement



ATLANTIC COAST CONSULTING, INC.


SCALE (IN FEET)

### LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 26.68 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 26.57 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

NOTES:  
1. AERIAL DATED DECEMBER 2020 FROM SAM, LLC.  
ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT

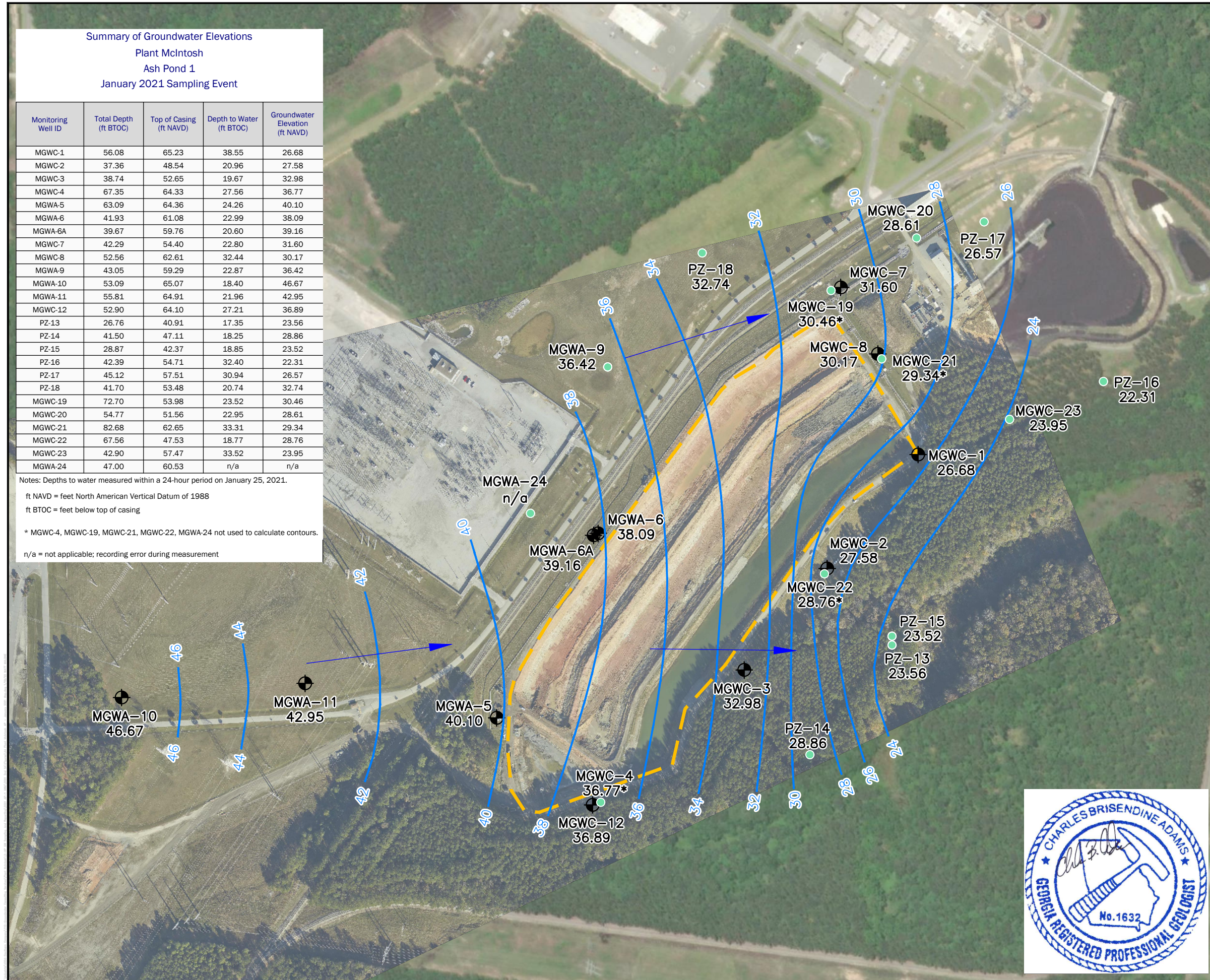


GEORGIA POWER COMPANY  
PLANT McINTOSH ASH POND 1  
2021 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

## POTENTIOMETRIC CONTOUR MAP JANUARY 2021

PROJECT NO. I054-110 January 2022

DRAWN BY:	RW	FIGURE:	4A
CHECKED BY:	CA		

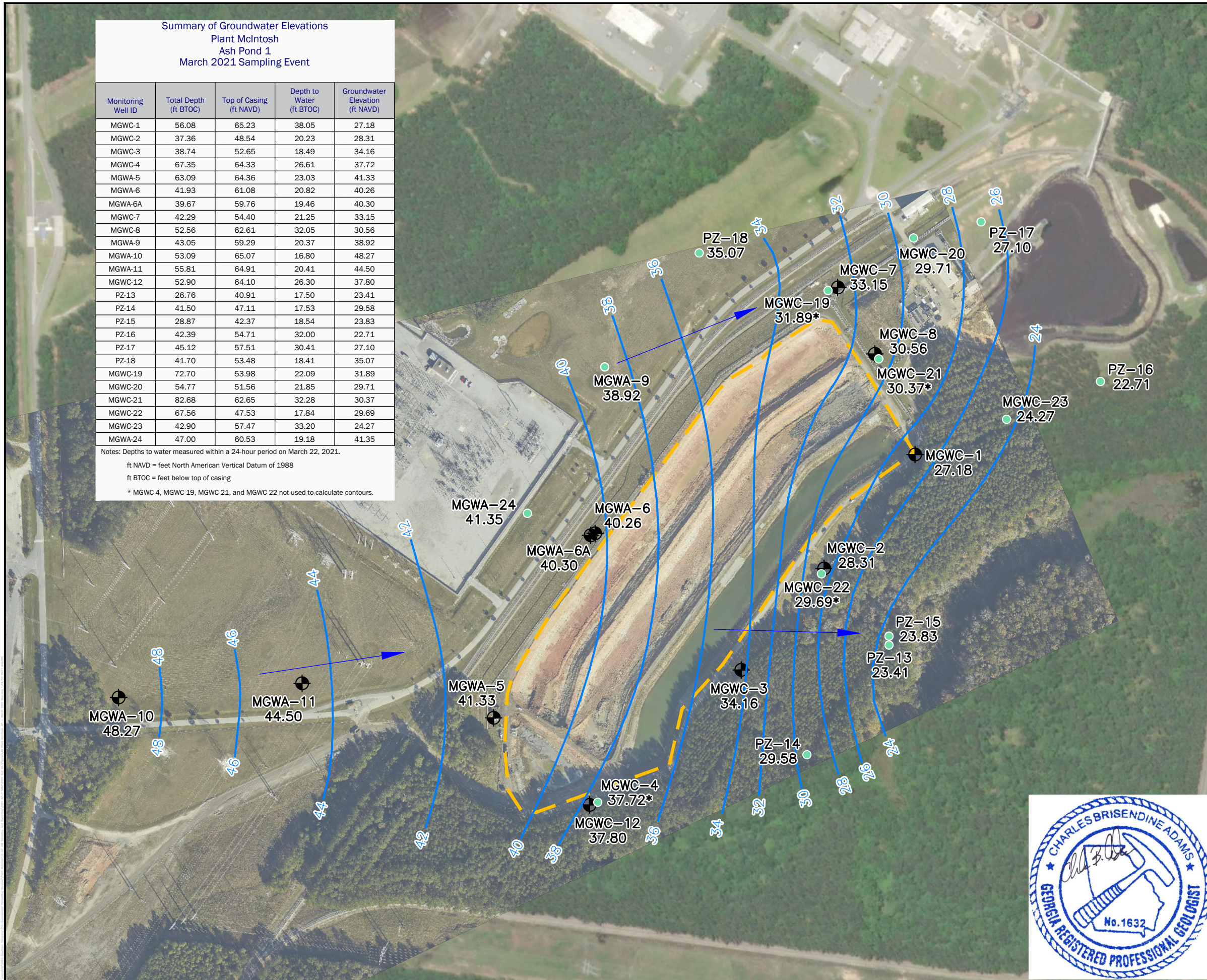




Summary of Groundwater Elevations  
Plant McIntosh  
Ash Pond 1  
March 2021 Sampling Event

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft NAVD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft NAVD)
MGWC-1	56.08	65.23	38.05	27.18
MGWC-2	37.36	48.54	20.23	28.31
MGWC-3	38.74	52.65	18.49	34.16
MGWC-4	67.35	64.33	26.61	37.72
MGWA-5	63.09	64.36	23.03	41.33
MGWA-6	41.93	61.08	20.82	40.26
MGWA-6A	39.67	59.76	19.46	40.30
MGWC-7	42.29	54.40	21.25	33.15
MGWC-8	52.56	62.61	32.05	30.56
MGWA-9	43.05	59.29	20.37	38.92
MGWA-10	53.09	65.07	16.80	48.27
MGWA-11	55.81	64.91	20.41	44.50
MGWC-12	52.90	64.10	26.30	37.80
PZ-13	26.76	40.91	17.50	23.41
PZ-14	41.50	47.11	17.53	29.58
PZ-15	28.87	42.37	18.54	23.83
PZ-16	42.39	54.71	32.00	22.71
PZ-17	45.12	57.51	30.41	27.10
PZ-18	41.70	53.48	18.41	35.07
MGWC-19	72.70	53.98	22.09	31.89
MGWC-20	54.77	51.56	21.85	29.71
MGWC-21	82.68	62.65	32.28	30.37
MGWC-22	67.56	47.53	17.84	29.69
MGWC-23	42.90	57.47	33.20	24.27
MGWA-24	47.00	60.53	19.18	41.35

Notes: Depths to water measured within a 24-hour period on March 22, 2021.  
ft NAVD = feet North American Vertical Datum of 1988  
ft BTOC = feet below top of casing  
\* MGWC-4, MGWC-19, MGWC-21, and MGWC-22 not used to calculate contours.



ATLANTIC COAST CONSULTING, INC.

SCALE (IN FEET)

**LEGEND:**

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 27.18 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.10 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

NOTES:  
1. AERIAL DATED DECEMBER 2020 FROM SAM, LLC.  
ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT

GEORGIA POWER COMPANY  
PLANT McINTOSH ASH POND 1  
2021 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

**POTENTIOMETRIC CONTOUR MAP  
MARCH 2021**



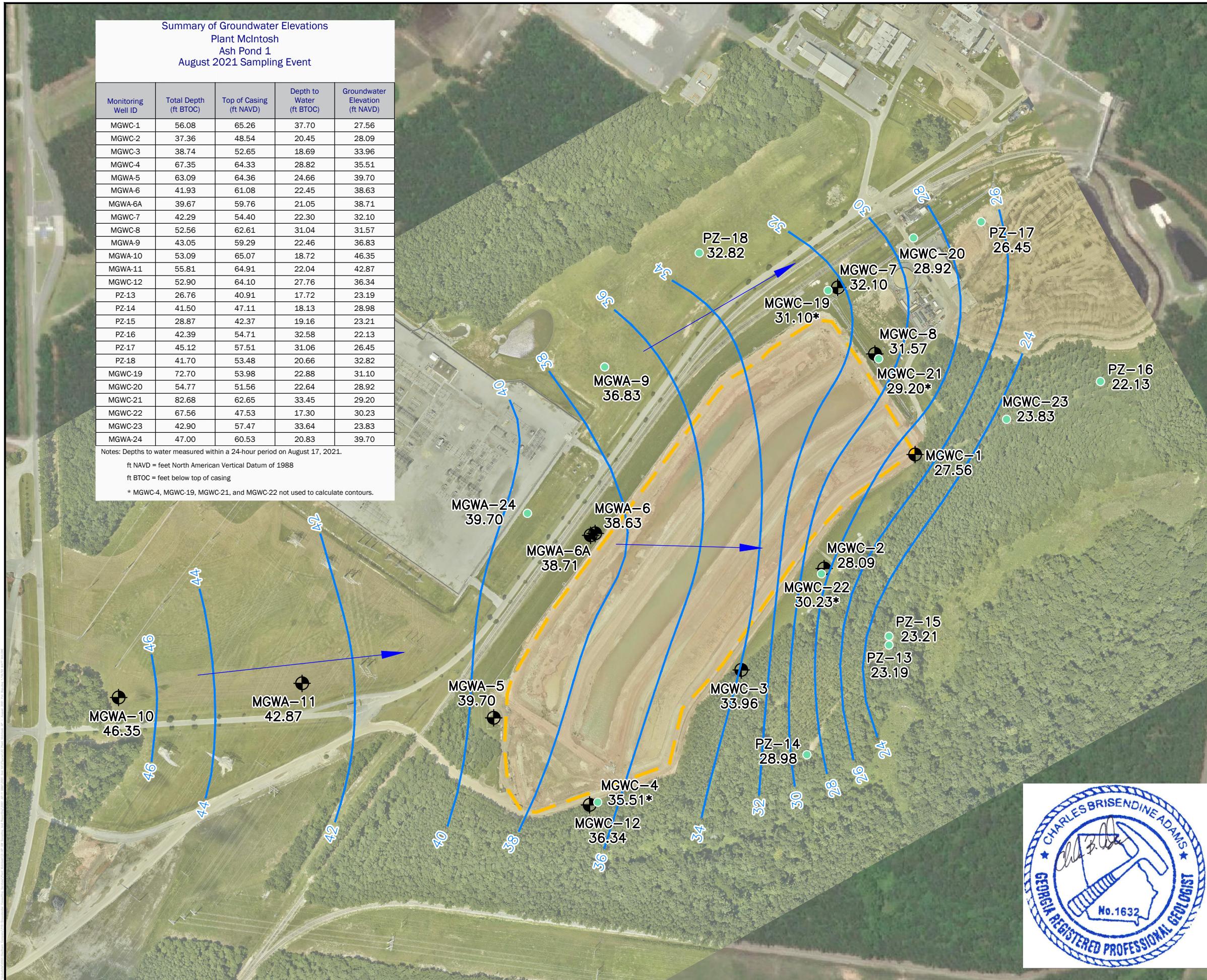
PROJECT NO. I054-110		January 2022
DRAWN BY:	RW	FIGURE:  <b>4B</b>
CHECKED BY:	CA	



Summary of Groundwater Elevations  
Plant McIntosh  
Ash Pond 1  
August 2021 Sampling Event

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft NAVD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft NAVD)
MGWC-1	56.08	65.26	37.70	27.56
MGWC-2	37.36	48.54	20.45	28.09
MGWC-3	38.74	52.65	18.69	33.96
MGWC-4	67.35	64.33	28.82	35.51
MGWA-5	63.09	64.36	24.66	39.70
MGWA-6	41.93	61.08	22.45	38.63
MGWA-6A	39.67	59.76	21.05	38.71
MGWC-7	42.29	54.40	22.30	32.10
MGWC-8	52.56	62.61	31.04	31.57
MGWA-9	43.05	59.29	22.46	36.83
MGWA-10	53.09	65.07	18.72	46.35
MGWA-11	55.81	64.91	22.04	42.87
MGWC-12	52.90	64.10	27.76	36.34
PZ-13	26.76	40.91	17.72	23.19
PZ-14	41.50	47.11	18.13	28.98
PZ-15	28.87	42.37	19.16	23.21
PZ-16	42.39	54.71	32.58	22.13
PZ-17	45.12	57.51	31.06	26.45
PZ-18	41.70	53.48	20.66	32.82
MGWC-19	72.70	53.98	22.88	31.10
MGWC-20	54.77	51.56	22.64	28.92
MGWC-21	82.68	62.65	33.45	29.20
MGWC-22	67.56	47.53	17.30	30.23
MGWC-23	42.90	57.47	33.64	23.83
MGWA-24	47.00	60.53	20.83	39.70

Notes: Depths to water measured within a 24-hour period on August 17, 2021.  
ft NAVD = feet North American Vertical Datum of 1988  
ft BTOC = feet below top of casing  
\* MGWC-4, MGWC-19, MGWC-21, and MGWC-22 not used to calculate contours.










ATLANTIC COAST CONSULTING, INC.




SCALE (IN FEET)

**LEGEND:**

EXISTING	DESCRIPTION
	APPROXIMATE AP-1 BOUNDARY
	MGWC-1 27.18 NETWORK MONITORING WELL GROUNDWATER ELEVATION
	PZ-17 27.10 PIEZOMETER GROUNDWATER ELEVATION
	24 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

NOTES:  
1. AERIAL DATED 7/28/2021 FROM SAM, LLC. ADDITIONAL PHOTOGRAPHY DATED 2021 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY  
PLANT McINTOSH ASH POND 1

2021 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

**POTENTIOMETRIC CONTOUR MAP  
AUGUST 2021**

PROJECT NO. I054-110 January 2022

DRAWN BY:	MM	FIGURE:
CHECKED BY:	RW	

**4C**





## APPENDICES

## APPENDIX A

# Laboratory Analytical and Field Sampling Reports

## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-116583-1

Client Project/Site: CCR - Plant McIntosh Ash Pond 1  
Revision: 1

**For:**

Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
2/12/2021 4:30:25 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416





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# Case Narrative

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

---

**Job ID: 180-116583-1**

---

**Laboratory: Eurofins TestAmerica, Pittsburgh**

---

**Narrative**

**Job Narrative  
180-116583-1**

**Comments**

021221 Revised report to correct Fluoride result for sample MGWC-7 (180-116583-9) following a lab data quality review. This report replaces the report previously issued on 021021.

**Receipt**

The samples were received on 1/28/2021 8:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8° C, 3.6° C and 4.5° C.

**Receipt Exceptions**

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): FB-1 1-25-21 (180-116583-13). The container labels list MGWA-10, while the COC lists FB-1-25-21. The sample ID on the COC was used.

**GC Semi VOA**

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

**Metals**

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

**Field Service / Mobile Lab**

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



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Laboratory: Eurofins TestAmerica, 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	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20 *
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pittsburgh



# Sample Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-116583-1	MGWA-10	Water	01/25/21 16:55	01/28/21 08:30	
180-116583-2	MGWA-11	Water	01/26/21 09:50	01/28/21 08:30	
180-116583-3	MGWA-5	Water	01/26/21 11:45	01/28/21 08:30	
180-116583-4	MGWA-6	Water	01/26/21 10:07	01/28/21 08:30	
180-116583-5	MGWA-6A	Water	01/26/21 11:24	01/28/21 08:30	
180-116583-6	MGWC-1	Water	01/26/21 16:45	01/28/21 08:30	
180-116583-7	MGWC-2	Water	01/26/21 13:06	01/28/21 08:30	
180-116583-8	MGWC-3	Water	01/26/21 15:20	01/28/21 08:30	
180-116583-9	MGWC-7	Water	01/26/21 15:10	01/28/21 08:30	
180-116583-10	MGWC-8	Water	01/26/21 17:20	01/28/21 08:30	
180-116583-11	MGWC-12	Water	01/26/21 13:25	01/28/21 08:30	
180-116583-12	DUP-1	Water	01/26/21 00:00	01/28/21 08:30	
180-116583-13	FB-1 1-25-21	Water	01/25/21 17:10	01/28/21 08:30	
180-116583-14	EB-1 1-26-21	Water	01/26/21 16:20	01/28/21 08:30	

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-116583-1**

Date Collected: 01/25/21 16:55

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 10:28	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:40	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345465	02/03/21 13:53	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345759	02/06/21 11:45	KHM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			345093	01/25/21 16:55	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-116583-2**

Date Collected: 01/26/21 09:50

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345515	02/04/21 17:33	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:44	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345465	02/03/21 13:53	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345759	02/06/21 11:46	KHM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 09:50	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-116583-3**

Date Collected: 01/26/21 11:45

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345515	02/04/21 10:56	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:47	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345465	02/03/21 13:53	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345759	02/06/21 11:47	KHM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 11:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-116583-4**

Date Collected: 01/26/21 10:07

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345515	02/04/21 13:22	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:51	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345465	02/03/21 13:53	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345759	02/06/21 11:48	KHM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 10:07	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-116583-5**

Date Collected: 01/26/21 11:24

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345515	02/04/21 17:12	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:55	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345465	02/03/21 13:53	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345759	02/06/21 11:49	KHM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 11:24	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-116583-6**

Date Collected: 01/26/21 16:45

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 14:41	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 08:58	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:18	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 16:45	FDS	TAL PIT
Instrument ID: NOEQUIP										



# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-116583-7**

**Date Collected: 01/26/21 13:06**

**Matrix: Water**

**Date Received: 01/28/21 08:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 13:38	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:09	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:19	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 13:06	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-116583-8**

**Date Collected: 01/26/21 15:20**

**Matrix: Water**

**Date Received: 01/28/21 08:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345515	02/05/21 09:54	EPS	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:13	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:20	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 15:20	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-116583-9**

**Date Collected: 01/26/21 15:10**

**Matrix: Water**

**Date Received: 01/28/21 08:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 12:20	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:16	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:21	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 15:10	FDS	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-116583-10**

Date Collected: 01/26/21 17:20

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 13:06	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:20	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:22	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 17:20	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-116583-11**

Date Collected: 01/26/21 13:25

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 11:47	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:35	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:23	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			345093	01/26/21 13:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-116583-12**

Date Collected: 01/26/21 00:00

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			345513	02/04/21 11:15	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:38	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:24	KHM	TAL PIT
Instrument ID: HGY										

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: FB-1 1-25-21**  
**Date Collected: 01/25/21 17:10**  
**Date Received: 01/28/21 08:30**

**Lab Sample ID: 180-116583-13**  
**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	EPA 300.0 R2.1		1			345513	02/04/21 09:56	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:42	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:25	KHM	TAL PIT
Instrument ID: HGY										

**Client Sample ID: EB-1 1-26-21**  
**Date Collected: 01/26/21 16:20**  
**Date Received: 01/28/21 08:30**

**Lab Sample ID: 180-116583-14**  
**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	EPA 300.0 R2.1		1			345513	02/04/21 10:12	SAT	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	345620	02/04/21 16:50	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			345884	02/06/21 09:45	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	345544	02/08/21 12:05	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			345997	02/09/21 13:26	KHM	TAL PIT
Instrument ID: HGY										

**Laboratory References:**

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

KHM = Kyle Mucroski

RJR = Ron Rosenbaum

Batch Type: Analysis

EPS = Evan Scheuer

FDS = Sampler Field

KHM = Kyle Mucroski

RSK = Robert Kurtz

SAT = Stephen Tallam

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-116583-1**

Date Collected: 01/25/21 16:55

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/04/21 10:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:40	1
<b>Barium</b>	<b>0.023</b>		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:40	1
<b>Chromium</b>	<b>0.0044</b>		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:40	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:40	1
<b>Lead</b>	<b>0.00016 J</b>		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:40	1
<b>Lithium</b>	<b>0.0083</b>		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:45	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>4.87</b>				SU			01/25/21 16:55	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-116583-2**

Date Collected: 01/26/21 09:50

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.073	J	0.10	0.026	mg/L			02/04/21 17:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:44	1
Arsenic	0.0022		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:44	1
Barium	0.13		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:44	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:44	1
Lithium	0.027		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:44	1
Molybdenum	0.00079	J	0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:44	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:46	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.43				SU			01/26/21 09:50	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-116583-3**

Date Collected: 01/26/21 11:45

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.087	J	0.10	0.026	mg/L			02/04/21 10:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:47	1
Arsenic	0.00034	J	0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:47	1
Barium	0.039		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:47	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:47	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:47	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:47	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:47	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:47	1
Lithium	0.011		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:47	1
Molybdenum	0.00083	J	0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:47	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:47	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:47	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.86				SU			01/26/21 11:45	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-116583-4**

Date Collected: 01/26/21 10:07

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.072	J	0.10	0.026	mg/L			02/04/21 13:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:51	1
Arsenic	0.0094		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:51	1
Barium	0.029		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:51	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:51	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:51	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:51	1
Cobalt	0.00027	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:51	1
Lead	0.00013	J	0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:51	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:51	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:51	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:51	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:48	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.19				SU			01/26/21 10:07	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-116583-5**

Date Collected: 01/26/21 11:24

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.071	J	0.10	0.026	mg/L			02/04/21 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:55	1
Arsenic	0.0045		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:55	1
Barium	0.030		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:55	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:55	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:55	1
Cobalt	0.00035	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:55	1
Molybdenum	0.00066	J	0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:55	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:49	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.17				SU			01/26/21 11:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-116583-6**

Date Collected: 01/26/21 16:45

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.15		0.10	0.026	mg/L			02/04/21 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00038	J	0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 08:58	1
Arsenic	0.0033		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 08:58	1
Barium	0.14		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 08:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 08:58	1
Cadmium	0.00024	J	0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 08:58	1
Chromium	0.0023		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 08:58	1
Cobalt	0.00031	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 08:58	1
Lead	0.00058	J	0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 08:58	1
Lithium	0.011		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 08:58	1
Molybdenum	0.0016	J	0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 08:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 08:58	1
Thallium	0.00016	J	0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 08:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:18	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.43				SU			01/26/21 16:45	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-116583-7**

Date Collected: 01/26/21 13:06

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.068	J	0.10	0.026	mg/L			02/04/21 13:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:09	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:09	1
Barium	0.049		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:09	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:09	1
Cadmium	0.0011	J	0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:09	1
Cobalt	0.0021	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:09	1
Lead	0.00014	J	0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:09	1
Lithium	0.0066		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:09	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:09	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:19	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.57				SU			01/26/21 13:06	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-116583-8**

Date Collected: 01/26/21 15:20

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.083	J	0.10	0.026	mg/L			02/05/21 09:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00044	J	0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:13	1
Arsenic	0.0018		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:13	1
Barium	0.16		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:13	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:13	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:13	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:13	1
Cobalt	0.0013	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:13	1
Lead	0.00017	J	0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:13	1
Lithium	0.014		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:13	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:13	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:13	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:20	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.53				SU			01/26/21 15:20	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-116583-9**

Date Collected: 01/26/21 15:10

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.28		0.10	0.026	mg/L			02/11/21 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:16	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:16	1
Barium	0.0070	J	0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:16	1
Cobalt	0.0090		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:16	1
Lithium	0.12		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:16	1
Thallium	0.00016	J	0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:21	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.27				SU			01/26/21 15:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-116583-10**

Date Collected: 01/26/21 17:20

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.14		0.10	0.026	mg/L			02/04/21 13:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:20	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:20	1
Barium	0.028		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:20	1
Beryllium	0.0018	J	0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:20	1
Cadmium	0.0016	J	0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:20	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:20	1
Cobalt	0.021		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:20	1
Lead	0.00019	J	0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:20	1
Lithium	0.032		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:20	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:20	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:20	1
Thallium	0.00030	J	0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0025		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:22	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.20				SU			01/26/21 17:20	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-116583-11**

Date Collected: 01/26/21 13:25

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.23		0.10	0.026	mg/L			02/04/21 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:35	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:35	1
Barium	0.060		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:35	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:35	1
Lithium	0.021		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:35	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:23	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.70				SU			01/26/21 13:25	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-116583-12**

Date Collected: 01/26/21 00:00

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.075	J	0.10	0.026	mg/L			02/04/21 11:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:38	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:38	1
Barium	0.048		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:38	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:38	1
Cadmium	0.00047	J	0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:38	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:38	1
Cobalt	0.0021	J	0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:38	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:38	1
Lithium	0.0067		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:38	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:38	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:38	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:24	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: FB-1 1-25-21**

**Lab Sample ID: 180-116583-13**

Date Collected: 01/25/21 17:10

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/04/21 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:42	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:42	1
Barium	<0.0016		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:42	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:42	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:42	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:42	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:42	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:42	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:42	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:42	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:42	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:25	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

**Client Sample ID: EB-1 1-26-21**

**Lab Sample ID: 180-116583-14**

Date Collected: 01/26/21 16:20

Matrix: Water

Date Received: 01/28/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/04/21 10:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 09:45	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 09:45	1
Barium	<0.0016		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 09:45	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 09:45	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 09:45	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 09:45	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 09:45	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 09:45	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 09:45	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 09:45	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 09:45	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 09:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 13:26	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 180-345513/6**  
**Matrix: Water**  
**Analysis Batch: 345513**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/04/21 08:03	1

**Lab Sample ID: LCS 180-345513/5**  
**Matrix: Water**  
**Analysis Batch: 345513**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.53		mg/L		101	90 - 110

**Lab Sample ID: 180-116583-1 MS**  
**Matrix: Water**  
**Analysis Batch: 345513**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.44		mg/L		98	90 - 110

**Lab Sample ID: 180-116583-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 345513**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.51		mg/L		101	90 - 110	3	20

**Lab Sample ID: MB 180-345515/55**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/05/21 03:18	1

**Lab Sample ID: MB 180-345515/6**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/04/21 07:39	1

**Lab Sample ID: LCS 180-345515/5**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.70		mg/L		108	90 - 110

**Lab Sample ID: LCS 180-345515/54**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.71		mg/L		108	90 - 110

Eurofins TestAmerica, Pittsburgh

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: 180-116583-3 MS**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: MGWA-5**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.087	J	2.50	2.71		mg/L		105	90 - 110

**Lab Sample ID: 180-116583-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 345515**

**Client Sample ID: MGWA-5**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.087	J	2.50	2.70		mg/L		105	90 - 110	1	20

**Lab Sample ID: MB 180-346228/6**  
**Matrix: Water**  
**Analysis Batch: 346228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 07:33	1

**Lab Sample ID: LCS 180-346228/5**  
**Matrix: Water**  
**Analysis Batch: 346228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.70		mg/L		108	90 - 110

## Method: EPA 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 180-345620/1-A**  
**Matrix: Water**  
**Analysis Batch: 345884**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 345620**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/04/21 16:50	02/06/21 07:53	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/04/21 16:50	02/06/21 07:53	1
Barium	<0.0016		0.010	0.0016	mg/L		02/04/21 16:50	02/06/21 07:53	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/04/21 16:50	02/06/21 07:53	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/04/21 16:50	02/06/21 07:53	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/04/21 16:50	02/06/21 07:53	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/04/21 16:50	02/06/21 07:53	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/04/21 16:50	02/06/21 07:53	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/04/21 16:50	02/06/21 07:53	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/04/21 16:50	02/06/21 07:53	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/04/21 16:50	02/06/21 07:53	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/04/21 16:50	02/06/21 07:53	1

**Lab Sample ID: LCS 180-345620/2-A**  
**Matrix: Water**  
**Analysis Batch: 345884**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 345620**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.239		mg/L		95	80 - 120
Arsenic	1.00	0.984		mg/L		98	80 - 120

Eurofins TestAmerica, Pittsburgh

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 180-345620/2-A**  
**Matrix: Water**  
**Analysis Batch: 345884**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 345620**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.517		mg/L		103	80 - 120
Cadmium	0.500	0.514		mg/L		103	80 - 120
Chromium	0.500	0.521		mg/L		104	80 - 120
Cobalt	0.500	0.509		mg/L		102	80 - 120
Lead	0.500	0.515		mg/L		103	80 - 120
Lithium	0.500	0.500		mg/L		100	80 - 120
Molybdenum	0.500	0.515		mg/L		103	80 - 120
Selenium	1.00	1.02		mg/L		102	80 - 120
Thallium	1.00	1.09		mg/L		109	80 - 120

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: MB 180-345465/1-A**  
**Matrix: Water**  
**Analysis Batch: 345759**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 345465**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/03/21 13:53	02/06/21 11:28	1

**Lab Sample ID: LCS 180-345465/2-A**  
**Matrix: Water**  
**Analysis Batch: 345759**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 345465**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00262		mg/L		105	80 - 120

**Lab Sample ID: MB 180-345544/1-A**  
**Matrix: Water**  
**Analysis Batch: 345997**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 345544**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/08/21 12:05	02/09/21 12:57	1

**Lab Sample ID: LCS 180-345544/2-A**  
**Matrix: Water**  
**Analysis Batch: 345997**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 345544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00250		mg/L		100	80 - 120

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## HPLC/IC

### Analysis Batch: 345513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-116583-6	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-116583-7	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-116583-10	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-116583-11	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-116583-12	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-116583-13	FB-1 1-25-21	Total/NA	Water	EPA 300.0 R2.1	
180-116583-14	EB-1 1-26-21	Total/NA	Water	EPA 300.0 R2.1	
MB 180-345513/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-345513/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-116583-1 MS	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-116583-1 MSD	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	

### Analysis Batch: 345515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-2	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-116583-3	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-116583-4	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-116583-5	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-116583-8	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
MB 180-345515/55	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-345515/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-345515/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-345515/54	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-116583-3 MS	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-116583-3 MSD	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	

### Analysis Batch: 346228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-9	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
MB 180-346228/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-346228/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

## Metals

### Prep Batch: 345465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	7470A	
180-116583-2	MGWA-11	Total/NA	Water	7470A	
180-116583-3	MGWA-5	Total/NA	Water	7470A	
180-116583-4	MGWA-6	Total/NA	Water	7470A	
180-116583-5	MGWA-6A	Total/NA	Water	7470A	
MB 180-345465/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-345465/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Prep Batch: 345544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-6	MGWC-1	Total/NA	Water	7470A	
180-116583-7	MGWC-2	Total/NA	Water	7470A	
180-116583-8	MGWC-3	Total/NA	Water	7470A	
180-116583-9	MGWC-7	Total/NA	Water	7470A	

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Metals (Continued)

### Prep Batch: 345544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-10	MGWC-8	Total/NA	Water	7470A	
180-116583-11	MGWC-12	Total/NA	Water	7470A	
180-116583-12	DUP-1	Total/NA	Water	7470A	
180-116583-13	FB-1 1-25-21	Total/NA	Water	7470A	
180-116583-14	EB-1 1-26-21	Total/NA	Water	7470A	
MB 180-345544/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-345544/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Prep Batch: 345620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total Recoverable	Water	3005A	
180-116583-2	MGWA-11	Total Recoverable	Water	3005A	
180-116583-3	MGWA-5	Total Recoverable	Water	3005A	
180-116583-4	MGWA-6	Total Recoverable	Water	3005A	
180-116583-5	MGWA-6A	Total Recoverable	Water	3005A	
180-116583-6	MGWC-1	Total Recoverable	Water	3005A	
180-116583-7	MGWC-2	Total Recoverable	Water	3005A	
180-116583-8	MGWC-3	Total Recoverable	Water	3005A	
180-116583-9	MGWC-7	Total Recoverable	Water	3005A	
180-116583-10	MGWC-8	Total Recoverable	Water	3005A	
180-116583-11	MGWC-12	Total Recoverable	Water	3005A	
180-116583-12	DUP-1	Total Recoverable	Water	3005A	
180-116583-13	FB-1 1-25-21	Total Recoverable	Water	3005A	
180-116583-14	EB-1 1-26-21	Total Recoverable	Water	3005A	
MB 180-345620/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-345620/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

### Analysis Batch: 345759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	EPA 7470A	345465
180-116583-2	MGWA-11	Total/NA	Water	EPA 7470A	345465
180-116583-3	MGWA-5	Total/NA	Water	EPA 7470A	345465
180-116583-4	MGWA-6	Total/NA	Water	EPA 7470A	345465
180-116583-5	MGWA-6A	Total/NA	Water	EPA 7470A	345465
MB 180-345465/1-A	Method Blank	Total/NA	Water	EPA 7470A	345465
LCS 180-345465/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	345465

### Analysis Batch: 345884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total Recoverable	Water	EPA 6020B	345620
180-116583-2	MGWA-11	Total Recoverable	Water	EPA 6020B	345620
180-116583-3	MGWA-5	Total Recoverable	Water	EPA 6020B	345620
180-116583-4	MGWA-6	Total Recoverable	Water	EPA 6020B	345620
180-116583-5	MGWA-6A	Total Recoverable	Water	EPA 6020B	345620
180-116583-6	MGWC-1	Total Recoverable	Water	EPA 6020B	345620
180-116583-7	MGWC-2	Total Recoverable	Water	EPA 6020B	345620
180-116583-8	MGWC-3	Total Recoverable	Water	EPA 6020B	345620
180-116583-9	MGWC-7	Total Recoverable	Water	EPA 6020B	345620
180-116583-10	MGWC-8	Total Recoverable	Water	EPA 6020B	345620
180-116583-11	MGWC-12	Total Recoverable	Water	EPA 6020B	345620
180-116583-12	DUP-1	Total Recoverable	Water	EPA 6020B	345620

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-1

## Metals (Continued)

### Analysis Batch: 345884 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-13	FB-1 1-25-21	Total Recoverable	Water	EPA 6020B	345620
180-116583-14	EB-1 1-26-21	Total Recoverable	Water	EPA 6020B	345620
MB 180-345620/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	345620
LCS 180-345620/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	345620

### Analysis Batch: 345997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-6	MGWC-1	Total/NA	Water	EPA 7470A	345544
180-116583-7	MGWC-2	Total/NA	Water	EPA 7470A	345544
180-116583-8	MGWC-3	Total/NA	Water	EPA 7470A	345544
180-116583-9	MGWC-7	Total/NA	Water	EPA 7470A	345544
180-116583-10	MGWC-8	Total/NA	Water	EPA 7470A	345544
180-116583-11	MGWC-12	Total/NA	Water	EPA 7470A	345544
180-116583-12	DUP-1	Total/NA	Water	EPA 7470A	345544
180-116583-13	FB-1 1-25-21	Total/NA	Water	EPA 7470A	345544
180-116583-14	EB-1 1-26-21	Total/NA	Water	EPA 7470A	345544
MB 180-345544/1-A	Method Blank	Total/NA	Water	EPA 7470A	345544
LCS 180-345544/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	345544

## Field Service / Mobile Lab

### Analysis Batch: 345093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	Field Sampling	
180-116583-2	MGWA-11	Total/NA	Water	Field Sampling	
180-116583-3	MGWA-5	Total/NA	Water	Field Sampling	
180-116583-4	MGWA-6	Total/NA	Water	Field Sampling	
180-116583-5	MGWA-6A	Total/NA	Water	Field Sampling	
180-116583-6	MGWC-1	Total/NA	Water	Field Sampling	
180-116583-7	MGWC-2	Total/NA	Water	Field Sampling	
180-116583-8	MGWC-3	Total/NA	Water	Field Sampling	
180-116583-9	MGWC-7	Total/NA	Water	Field Sampling	
180-116583-10	MGWC-8	Total/NA	Water	Field Sampling	
180-116583-11	MGWC-12	Total/NA	Water	Field Sampling	



**Chain of Custody Record**



<b>Client Information</b> Client Contact: <u>T. Gobie / A. Schmitz</u> SCS Contacts: <u>770-594-5994</u> Company: <u>GA Power</u>		Lab P#/: <u>Brown, Shali</u> E-Mail: <u>shali.brown@eurofinset.com</u> 180-116583 Chain of Custody	
Address: <u>241 Ralph McGill Blvd SE</u> City: <u>Atlanta</u> State / Zip: <u>GA, 30308</u> Phone: <u>404-506-7116(Tel)</u> Email: <u>SCS10382606</u>		Due Date Requested: TAT Requested (days): PO #: SCS: <u>10382606</u> WO #: Project #: Plant: <u>McIntosh Ash Pond 1</u> Site: <u>Georgia</u>	
Sample Identification <u>MGWA-10</u> <u>MGWA-11</u> <u>MGWA-5</u> <u>MGWA-6</u> <u>MGWA-6A</u> <u>MGWC-1</u> <u>MGWC-2</u> <u>MGWC-3</u> <u>MGWC-7</u> <u>MGWC-8</u> <u>MGWC-12</u>		Sample Date <u>1-25-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u> <u>1-26-21</u>	
Sample Type (C=Comp, G=grab) <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u>		Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air) <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u> <u>W</u>	
Preservation Code: <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u>		Field Filtered Sample (Yes or No) Permitt. MS/MSD (Yes or No) App. IV Metals (Sb,As,Ag,Be,Cd,Cr,Co,Pb,Li,Hg,Mo,Se,Tl) Fluoride (EPA 300.0) Radium 226 & 228 (SM-846 9315/9320)	
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		Analysis Requested Total Number of Containers: <u>4</u> Special Instructions/Note: App 4 Scan Event	
Deliverable Requested: <input type="checkbox"/> I, II, III, Other (specify) <input type="checkbox"/>		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: <u>Taylor Goble</u> Date: <u>1-27-21/1430</u>		Relinquished by: <u>Enrique Pagan</u> Date/Time: <u>1/27/21 14:30</u> Company: <u>ET</u>	
Relinquished by: <u>Enrique Pagan</u> Date/Time: <u>1/27/21 16:20</u> Company: <u>ET</u>		Relinquished by: <u>Enrique Pagan</u> Date/Time: <u>1/27/21 16:20</u> Company: <u>ET</u>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Do Not Lift Using This Tag



Environment Testing  
TestAmerica



180-116583 Waybill

ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

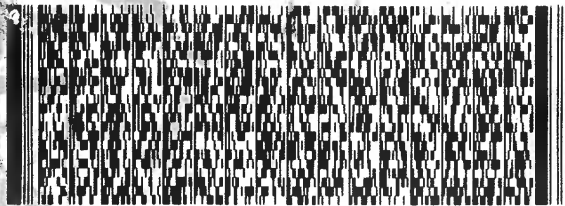
SHIP DATE: 27JAN21  
ACTWGT: 51.95 LB  
CAD: 859116/CAFE3406

BILL RECIPIENT

TO **SAMPLE RECIEIVING**  
**EUROFINS TESTAMERICA PITTSBURGH**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 983-7068

REF: ACC - PLTY MCINTOSH



FedEx  
Express



J20101911060104

3 of 3

THU - 28 JAN 4:30P  
STANDARD OVERNIGHT

MPS# 1516 9327 7200  
0263

Mstr# 1516 9327 7184

0201

**NA AGCA**

15238  
PA-US PIT

	Uncorrected temp	
	Thermometer ID: <u>4.5</u> °C	
CF <u>0</u>	Initials <u>dy</u>	

PT-WI-SR-001 effective 11/8/18

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13





Environment Testing  
TestAmerica

1R12EXP 11/21

ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NM  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SHIP DATE: 22 JAN 21  
ACTWT: 51.95 LB  
CAD: 859116/CATFE3406

BILL RECIPIENT

TO SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH

301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238

(412) 963-7068  
REF: ACC - PLTY MCINTOSH



ART109811610102F

TRK# 1516 227 7184  
# MASTER #  
0201

Uncorrected temp  
Thermometer ID

CF

Initials

PT-WI-SR-001 effective 11/8/18



THU - 28 JAN 4:30P  
STANDARD OVERNIGHT

15238  
PIT

ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NM  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SHIP DATE: 22 JAN 21  
ACTWT: 51.95 LB  
CAD: 859116/CATFE3406

BILL RECIPIENT

TO SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH  
301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238

(412) 963-7068  
REF: ACC - PLTY MCINTOSH



ART109811610102F

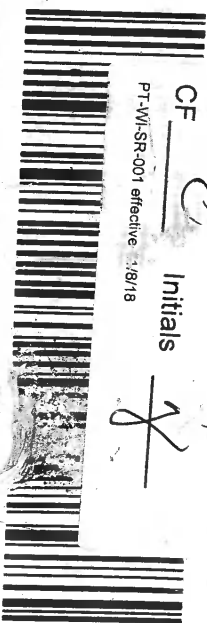
MPS# 1516 9327 7195  
0263  
Mstr# 1516 9327 7184  
0201

Uncorrected temp  
Thermometer ID

CF

Initials

PT-WI-SR-001 effective 11/8/18



THU - 28 JAN 4:30P  
STANDARD OVERNIGHT

15238  
PIT

# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116583-1

**Login Number: 116583**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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.	False	
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	



## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-116583-2

Client Project/Site: CCR - Plant McIntosh Ash Pond 1

For:

Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
2/24/2021 2:19:13 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416



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# Case Narrative

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Job ID: 180-116583-2**

**Laboratory: Eurofins TestAmerica, Pittsburgh**

## Narrative

### Job Narrative 180-116583-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 1/28/2021 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8° C, 3.6° C and 4.5° C.

#### Receipt Exceptions

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): FB-1 1-25-21 (180-116583-13). The container labels list MGWA-10, while the COC lists FB-1-25-21. The sample ID on the COC was used.

#### RAD

Methods 903.0, 9315: 903/9315 prep batch 497220

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-116583-1), MGWA-11 (180-116583-2), MGWA-5 (180-116583-3), MGWA-6 (180-116583-4), MGWA-6A (180-116583-5), MGWC-1 (180-116583-6), MGWC-2 (180-116583-7), MGWC-3 (180-116583-8), MGWC-7 (180-116583-9), MGWC-8 (180-116583-10), MGWC-12 (180-116583-11), DUP-1 (180-116583-12), FB-1 1-25-21 (180-116583-13), EB-1 1-26-21 (180-116583-14), (LCS 160-497220/1-A), (LCSD 160-497220/2-A) and (MB 160-497220/21-A)

Methods 904.0, 9320: 904/9320 prep batch 497224

The LCS recovered at (132%) for Ra228. The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (61-138) per method requirements. Although there is a qualifier, the LCS passes. No further action is required (LCS 160-497224/1-A)

Methods 904.0, 9320: 904/9320 prep batch 497224

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-116583-1), MGWA-11 (180-116583-2), MGWA-5 (180-116583-3), MGWA-6 (180-116583-4), MGWA-6A (180-116583-5), MGWC-1 (180-116583-6), MGWC-2 (180-116583-7), MGWC-3 (180-116583-8), MGWC-7 (180-116583-9), MGWC-8 (180-116583-10), MGWC-12 (180-116583-11), DUP-1 (180-116583-12), FB-1 1-25-21 (180-116583-13), EB-1 1-26-21 (180-116583-14), (LCS 160-497224/1-A), (LCSD 160-497224/2-A) and (MB 160-497224/21-A)

Method PrecSep\_0: Radium 228 Prep Batch 160-49722:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-116583-1), MGWA-11 (180-116583-2), MGWA-5 (180-116583-3), MGWA-6 (180-116583-4), MGWA-6A (180-116583-5), MGWC-2 (180-116583-7), MGWC-3 (180-116583-8), MGWC-7 (180-116583-9), MGWC-8 (180-116583-10), MGWC-12 (180-116583-11), DUP-1 (180-116583-12), FB-1 1-25-21 (180-116583-13) and EB-1 1-26-21 (180-116583-14). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep\_0: Radium 228 Prep Batch 160-497224:

The following samples were prepared at a reduced aliquot: MGWC-1 (180-116583-6). Sample 160-41128-2 contained a yellow discoloration and a cloudy appearance. Sample 180-116583-6 contained a noticeable sediment level. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-497220:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-116583-1), MGWA-11 (180-116583-2), MGWA-5 (180-116583-3), MGWA-6 (180-116583-4), MGWA-6A (180-116583-5), MGWC-2 (180-116583-7), MGWC-3 (180-116583-8), MGWC-7 (180-116583-9), MGWC-8 (180-116583-10), MGWC-12 (180-116583-11), DUP-1 (180-116583-12), FB-1 1-25-21 (180-116583-13) and EB-1 1-26-21 (180-116583-14). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.



# Case Narrative

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

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## Job ID: 180-116583-2 (Continued)

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### Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method PrecSep-21: Radium 226 Prep Batch 160-497220:

The following samples were prepared at a reduced aliquot: MGWC-1 (180-116583-6). Sample 160-41128-2 contained a yellow discoloration and a cloudy appearance. Sample 180-116583-6 contained a noticeable sediment level. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

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

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# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Qualifiers

### Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

## 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

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Sample Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-116583-1	MGWA-10	Water	01/25/21 16:55	01/28/21 08:30	
180-116583-2	MGWA-11	Water	01/26/21 09:50	01/28/21 08:30	
180-116583-3	MGWA-5	Water	01/26/21 11:45	01/28/21 08:30	
180-116583-4	MGWA-6	Water	01/26/21 10:07	01/28/21 08:30	
180-116583-5	MGWA-6A	Water	01/26/21 11:24	01/28/21 08:30	
180-116583-6	MGWC-1	Water	01/26/21 16:45	01/28/21 08:30	
180-116583-7	MGWC-2	Water	01/26/21 13:06	01/28/21 08:30	
180-116583-8	MGWC-3	Water	01/26/21 15:20	01/28/21 08:30	
180-116583-9	MGWC-7	Water	01/26/21 15:10	01/28/21 08:30	
180-116583-10	MGWC-8	Water	01/26/21 17:20	01/28/21 08:30	
180-116583-11	MGWC-12	Water	01/26/21 13:25	01/28/21 08:30	
180-116583-12	DUP-1	Water	01/26/21 00:00	01/28/21 08:30	
180-116583-13	FB-1 1-25-21	Water	01/25/21 17:10	01/28/21 08:30	
180-116583-14	EB-1 1-26-21	Water	01/26/21 16:20	01/28/21 08:30	

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

#### Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Client Sample ID: MGWA-10

## Lab Sample ID: 180-116583-1

Date Collected: 01/25/21 16:55

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.25 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:44	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:06	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-11

## Lab Sample ID: 180-116583-2

Date Collected: 01/26/21 09:50

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.71 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:44	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.71 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:06	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-5

## Lab Sample ID: 180-116583-3

Date Collected: 01/26/21 11:45

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.20 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:49	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.20 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:06	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-116583-4

Date Collected: 01/26/21 10:07

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.65 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:47	FLC	TAL SL
Instrument ID: GFPCRED										

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-116583-4

Date Collected: 01/26/21 10:07

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.65 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-116583-5

Date Collected: 01/26/21 11:24

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.11 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-1

## Lab Sample ID: 180-116583-6

Date Collected: 01/26/21 16:45

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			749.97 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.97 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-116583-7

Date Collected: 01/26/21 13:06

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.68 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.68 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-116583-7

Date Collected: 01/26/21 13:06

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-116583-8

Date Collected: 01/26/21 15:20

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.63 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.63 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-7

## Lab Sample ID: 180-116583-9

Date Collected: 01/26/21 15:10

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.06 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.06 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:07	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-8

## Lab Sample ID: 180-116583-10

Date Collected: 01/26/21 17:20

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.63 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:48	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.63 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:08	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Client Sample ID: MGWC-12

## Lab Sample ID: 180-116583-11

Date Collected: 01/26/21 13:25

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.40 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:50	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.40 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:08	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: DUP-1

## Lab Sample ID: 180-116583-12

Date Collected: 01/26/21 00:00

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.96 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:51	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.96 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498076	02/08/21 09:08	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: FB-1 1-25-21

## Lab Sample ID: 180-116583-13

Date Collected: 01/25/21 17:10

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.60 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:51	FLC	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.60 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498086	02/08/21 09:09	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: EB-1 1-26-21

## Lab Sample ID: 180-116583-14

Date Collected: 01/26/21 16:20

Matrix: Water

Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.06 mL	1.0 g	497220	02/01/21 10:56	KMP	TAL SL
Total/NA	Analysis	9315		1			499547	02/23/21 16:51	FLC	TAL SL
Instrument ID: GFPCRED										

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: EB-1 1-26-21**

**Lab Sample ID: 180-116583-14**

**Date Collected: 01/26/21 16:20**

**Matrix: Water**

**Date Received: 01/28/21 08:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.06 mL	1.0 g	497224	02/01/21 11:32	KMP	TAL SL
Total/NA	Analysis	9320		1			498086	02/08/21 09:09	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			499729	02/24/21 12:51	SCB	TAL SL
		Instrument ID: NOEQUIP								

**Laboratory References:**

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

**Analyst References:**

Lab: TAL SL

Batch Type: Prep

KMP = Karen Phillips

Batch Type: Analysis

FLC = Fernando Cruz

SCB = Sarah Bernsen

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-116583-1**

Date Collected: 01/25/21 16:55

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.406		0.114	0.119	1.00	0.0935	pCi/L	02/01/21 10:56	02/23/21 16:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/01/21 10:56	02/23/21 16:44	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00261	U *	0.260	0.260	1.00	0.466	pCi/L	02/01/21 11:32	02/08/21 09:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/01/21 11:32	02/08/21 09:06	1
Y Carrier	81.9		40 - 110					02/01/21 11:32	02/08/21 09:06	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.408	U	0.284	0.286	5.00	0.466	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-116583-2**

Date Collected: 01/26/21 09:50

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.189		0.0869	0.0886	1.00	0.0989	pCi/L	02/01/21 10:56	02/23/21 16:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/01/21 10:56	02/23/21 16:44	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.709	*	0.335	0.341	1.00	0.492	pCi/L	02/01/21 11:32	02/08/21 09:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/01/21 11:32	02/08/21 09:06	1
Y Carrier	84.9		40 - 110					02/01/21 11:32	02/08/21 09:06	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.898		0.346	0.352	5.00	0.492	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-116583-3**

Date Collected: 01/26/21 11:45

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.168		0.0902	0.0914	1.00	0.106	pCi/L	02/01/21 10:56	02/23/21 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/01/21 10:56	02/23/21 16:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.125	U *	0.271	0.271	1.00	0.507	pCi/L	02/01/21 11:32	02/08/21 09:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/01/21 11:32	02/08/21 09:06	1
Y Carrier	82.2		40 - 110					02/01/21 11:32	02/08/21 09:06	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0432	U	0.286	0.286	5.00	0.507	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-116583-4**

Date Collected: 01/26/21 10:07

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.387		0.115	0.120	1.00	0.0925	pCi/L	02/01/21 10:56	02/23/21 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					02/01/21 10:56	02/23/21 16:47	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.276	U *	0.282	0.283	1.00	0.459	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	84.9		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.663		0.305	0.307	5.00	0.459	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-116583-5**

Date Collected: 01/26/21 11:24

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.304		0.103	0.106	1.00	0.0959	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.287	U *	0.328	0.329	1.00	0.539	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	79.6		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.591		0.344	0.346	5.00	0.539	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-116583-6**

Date Collected: 01/26/21 16:45

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.88		0.279	0.326	1.00	0.115	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.2		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.496	U *	0.433	0.435	1.00	0.694	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.2		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	86.0		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.37		0.515	0.544	5.00	0.694	pCi/L		02/24/21 12:51	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-116583-7**

Date Collected: 01/26/21 13:06

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.177		0.0767	0.0783	1.00	0.0750	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0561	U *	0.245	0.246	1.00	0.434	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	81.1		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.234	U	0.257	0.258	5.00	0.434	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-116583-8**

Date Collected: 01/26/21 15:20

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.23		0.182	0.213	1.00	0.0736	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.551	*	0.285	0.290	1.00	0.422	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	84.9		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.78		0.338	0.360	5.00	0.422	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-116583-9**

Date Collected: 01/26/21 15:10

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.775		0.154	0.169	1.00	0.0903	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.169	U *	0.282	0.282	1.00	0.528	pCi/L	02/01/21 11:32	02/08/21 09:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110					02/01/21 11:32	02/08/21 09:07	1
Y Carrier	84.5		40 - 110					02/01/21 11:32	02/08/21 09:07	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.607		0.321	0.329	5.00	0.528	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-116583-10**

Date Collected: 01/26/21 17:20

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.786		0.158	0.173	1.00	0.0924	pCi/L	02/01/21 10:56	02/23/21 16:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					02/01/21 10:56	02/23/21 16:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.09	*	0.364	0.378	1.00	0.493	pCi/L	02/01/21 11:32	02/08/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					02/01/21 11:32	02/08/21 09:08	1
Y Carrier	88.6		40 - 110					02/01/21 11:32	02/08/21 09:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.87		0.397	0.416	5.00	0.493	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-116583-11**

Date Collected: 01/26/21 13:25

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.227		0.0908	0.0930	1.00	0.0924	pCi/L	02/01/21 10:56	02/23/21 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					02/01/21 10:56	02/23/21 16:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.138	U *	0.219	0.219	1.00	0.371	pCi/L	02/01/21 11:32	02/08/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					02/01/21 11:32	02/08/21 09:08	1
Y Carrier	89.0		40 - 110					02/01/21 11:32	02/08/21 09:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.364	U	0.237	0.238	5.00	0.371	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: DUP-1**  
 Date Collected: 01/26/21 00:00  
 Date Received: 01/28/21 08:30

**Lab Sample ID: 180-116583-12**  
 Matrix: Water

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.143		0.0804	0.0814	1.00	0.102	pCi/L	02/01/21 10:56	02/23/21 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					02/01/21 10:56	02/23/21 16:51	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.145	U *	0.209	0.210	1.00	0.352	pCi/L	02/01/21 11:32	02/08/21 09:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					02/01/21 11:32	02/08/21 09:08	1
Y Carrier	90.5		40 - 110					02/01/21 11:32	02/08/21 09:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.288	U	0.224	0.225	5.00	0.352	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: FB-1 1-25-21**

**Lab Sample ID: 180-116583-13**

Date Collected: 01/25/21 17:10

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0420	U	0.0586	0.0587	1.00	0.0991	pCi/L	02/01/21 10:56	02/23/21 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					02/01/21 10:56	02/23/21 16:51	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0291	U	0.247	0.247	1.00	0.447	pCi/L	02/01/21 11:32	02/08/21 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					02/01/21 11:32	02/08/21 09:09	1
Y Carrier	87.1		40 - 110					02/01/21 11:32	02/08/21 09:09	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0129	U	0.254	0.254	5.00	0.447	pCi/L		02/24/21 12:51	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

**Client Sample ID: EB-1 1-26-21**

**Lab Sample ID: 180-116583-14**

Date Collected: 01/26/21 16:20

Matrix: Water

Date Received: 01/28/21 08:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0379	U	0.0559	0.0560	1.00	0.0956	pCi/L	02/01/21 10:56	02/23/21 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					02/01/21 10:56	02/23/21 16:51	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.700</b>		0.310	0.317	1.00	0.449	pCi/L	02/01/21 11:32	02/08/21 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					02/01/21 11:32	02/08/21 09:09	1
Y Carrier	87.1		40 - 110					02/01/21 11:32	02/08/21 09:09	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.738</b>		0.315	0.322	5.00	0.449	pCi/L		02/24/21 12:51	1



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-497220/21-A**  
**Matrix: Water**  
**Analysis Batch: 499608**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 497220**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02317	U	0.0494	0.0495	1.00	0.0903	pCi/L	02/01/21 10:56	02/23/21 17:04	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	88.6		40 - 110		02/01/21 10:56	02/23/21 17:04	1			

**Lab Sample ID: LCS 160-497220/1-A**  
**Matrix: Water**  
**Analysis Batch: 499547**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 497220**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.67		1.20	1.00	0.105	pCi/L	103	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	80.2		40 - 110						

**Lab Sample ID: LCSD 160-497220/2-A**  
**Matrix: Water**  
**Analysis Batch: 499547**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 497220**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	10.96		1.13	1.00	0.100	pCi/L	97	75 - 125	0.30	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	83.5		40 - 110								

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-497224/21-A**  
**Matrix: Water**  
**Analysis Batch: 498086**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 497224**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2722	U	0.250	0.251	1.00	0.402	pCi/L	02/01/21 11:32	02/08/21 09:09	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	88.6		40 - 110		02/01/21 11:32	02/08/21 09:09	1			
Y Carrier	88.6		40 - 110		02/01/21 11:32	02/08/21 09:09	1			

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-497224/1-A**  
**Matrix: Water**  
**Analysis Batch: 498076**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 497224**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	7.44	9.810	*	1.23	1.00	0.576	pCi/L	132	75	125
<b>LCS LCS</b>										
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>							
Ba Carrier	80.2		40 - 110							
Y Carrier	72.1		40 - 110							

**Lab Sample ID: LCSD 160-497224/2-A**  
**Matrix: Water**  
**Analysis Batch: 498076**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 497224**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.27	1
Radium-228	7.44	9.169		1.13	1.00	0.513	pCi/L	123	75	125	0.27	1
<b>LCSD LCSD</b>												
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>									
Ba Carrier	83.5		40 - 110									
Y Carrier	81.9		40 - 110									

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant McIntosh Ash Pond 1

Job ID: 180-116583-2

## Rad

### Prep Batch: 497220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	PrecSep-21	
180-116583-2	MGWA-11	Total/NA	Water	PrecSep-21	
180-116583-3	MGWA-5	Total/NA	Water	PrecSep-21	
180-116583-4	MGWA-6	Total/NA	Water	PrecSep-21	
180-116583-5	MGWA-6A	Total/NA	Water	PrecSep-21	
180-116583-6	MGWC-1	Total/NA	Water	PrecSep-21	
180-116583-7	MGWC-2	Total/NA	Water	PrecSep-21	
180-116583-8	MGWC-3	Total/NA	Water	PrecSep-21	
180-116583-9	MGWC-7	Total/NA	Water	PrecSep-21	
180-116583-10	MGWC-8	Total/NA	Water	PrecSep-21	
180-116583-11	MGWC-12	Total/NA	Water	PrecSep-21	
180-116583-12	DUP-1	Total/NA	Water	PrecSep-21	
180-116583-13	FB-1 1-25-21	Total/NA	Water	PrecSep-21	
180-116583-14	EB-1 1-26-21	Total/NA	Water	PrecSep-21	
MB 160-497220/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-497220/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-497220/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 497224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116583-1	MGWA-10	Total/NA	Water	PrecSep_0	
180-116583-2	MGWA-11	Total/NA	Water	PrecSep_0	
180-116583-3	MGWA-5	Total/NA	Water	PrecSep_0	
180-116583-4	MGWA-6	Total/NA	Water	PrecSep_0	
180-116583-5	MGWA-6A	Total/NA	Water	PrecSep_0	
180-116583-6	MGWC-1	Total/NA	Water	PrecSep_0	
180-116583-7	MGWC-2	Total/NA	Water	PrecSep_0	
180-116583-8	MGWC-3	Total/NA	Water	PrecSep_0	
180-116583-9	MGWC-7	Total/NA	Water	PrecSep_0	
180-116583-10	MGWC-8	Total/NA	Water	PrecSep_0	
180-116583-11	MGWC-12	Total/NA	Water	PrecSep_0	
180-116583-12	DUP-1	Total/NA	Water	PrecSep_0	
180-116583-13	FB-1 1-25-21	Total/NA	Water	PrecSep_0	
180-116583-14	EB-1 1-26-21	Total/NA	Water	PrecSep_0	
MB 160-497224/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-497224/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-497224/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	





# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116583-2

**Login Number: 116583**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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.	False	
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: 180-116583-2

**Login Number: 116583**

**List Number: 2**

**Creator: Boyd, Jacob C**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 01/30/21 03:23 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	N/A	
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	



**LEVEL 2A LABORATORY DATA VALIDATIONS**

**McIntosh Ash Pond 1**

**Scan Event**

**January 2021**



## **Georgia Power Company – McIntosh Ash Pond 1**

### **Quality Control Review of Analytical Data – January 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between January 25, 2021 and January 26, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 180-116583-1 was revised by the laboratory to correct errant fluoride data on sample MGWC-7. SDG 180-116583-2 included a case narrative noting that radium-226 on sample MGWC-1 was prepared with a reduced aliquot due to noticeable sediment.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were met, with the exception of cadmium and radium-226 on MGWC-2 (180-116583-7) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met, with the exception of radium-228 as described in the qualifications section below.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**U:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples MGWC-2 (180-116583-7) and DUP-1 (180-116583-12) were qualified as estimated (J) for cadmium and radium-226 as the field relative percent differences (RPD) exceeded QC criteria (80.25% and 21.25%, respectively, above the limit of 20).

- Samples MGWA-11 (180-116583-2), MCWC-3 (180-116583-8), and MGWC-8 (180-116583-10) were qualified as estimated (J) for radium-228 as the laboratory control sample (LCS) recovery exceeded QC criteria (132% above range of 75-125%). The batch was passed on the LCSD recovery and the LCS/LCSD RPD.
- Certain radium-228 results in SDG 180-116583-2 were qualified as non-detect (U) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between January 25, 2021 and January 26, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region IV, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – January 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses		
						Metals (6020B, 7470A)	Fluoride (300.0)	Radium-226/-228 (9315, 9320)
116583	MGWA-10	1/25/2021	180-116583-1	GW		X	X	X
116583	MGWA-11	1/26/2021	180-116583-2	GW		X	X	X
116583	MGWA-5	1/26/2021	180-116583-3	GW		X	X	X
116583	MGWA-6	1/26/2021	180-116583-4	GW		X	X	X
116583	MGWA-6A	1/26/2021	180-116583-5	GW		X	X	X
116583	MGWC-1	1/26/2021	180-116583-6	GW		X	X	X
116583	MGWC-2	1/26/2021	180-116583-7	GW		X	X	X
116583	MGWC-3	1/26/2021	180-116583-8	GW		X	X	X
116583	MGWC-7	1/26/2021	180-116583-9	GW		X	X	X
116583	MGWC-8	1/26/2021	180-116583-10	GW		X	X	X
116583	MGWC-12	1/26/2021	180-116583-11	GW		X	X	X
116583	DUP-1	1/26/2021	180-116583-12	GW	FD (MGWC-2)	X	X	X
116583	FB-1 1-25-21	1/25/2021	180-116583-13	WQ	FB	X	X	X
116583	EB-1 1-26-21	1/26/2021	180-116583-14	WQ	EB	X	X	X

Abbreviations:

- EB – Equipment Blank
- FB – Field Blank
- FD – Field Duplicate
- GW – Groundwater
- QC – Quality Control
- SDG – Sample Delivery Group
- WQ – Water Quality Control



TABLE 2

## Georgia Power Company – McIntosh AP1

## Qualifier Summary Table – January 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
116583	MGWC-2	Cadmium			J	RPD exceeds field goal
116583	DUP-1	Cadmium			J	RPD exceeds field goal
116583	MGWC-2	Radium-226			J	RPD exceeds field goal
116583	DUP-1	Radium-226			J	RPD exceeds field goal
116583	MGWA-11	Radium-228			J	LCS exceeds laboratory goal
116583	MGWC-3	Radium-228			J	LCS exceeds laboratory goal
116583	MGWC-8	Radium-228			J	LCS exceeds laboratory goal
116583	MGWA-6	Radium-228		0.276	U	Blank detection

## Abbreviations:

MDC – Minimum Detectable Concentration  
MS/MSD – Matrix Spike / Matrix Spike Duplicate  
MDL – Method Detection Limit  
RL – Reporting Limit  
RPD – Relative Percent Difference  
SDG – Sample Delivery Group

## Qualifiers:

J – Estimated Result  
U – Non-Detect Result

# Low-Flow Test Report:

Test Date / Time: 1/26/2021 4:10:02 PM

Project: McIntosh AP

Operator Name: Taylor Goble

<b>Location Name: MGWC-1</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 46 ft</b> <b>Total Depth: 56.08 ft</b> <b>Initial Depth to Water: 38.28 ft</b>	<b>Pump Type: Portable Bladder</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 51 ft</b> <b>Estimated Total Volume Pumped: 7000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 1.44 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Cloudy 73 degrees, sampled at 1645

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 1	
1/26/2021 4:10 PM	00:00	6.85 pH	23.87 °C	0.58 µS/cm	8.56 mg/L	6.47 NTU	126.4 mV	39.17 ft	200.00 ml/min
1/26/2021 4:15 PM	05:00	7.29 pH	21.18 °C	620.14 µS/cm	0.81 mg/L	9.90 NTU	16.5 mV	39.33 ft	200.00 ml/min
1/26/2021 4:20 PM	10:00	7.40 pH	21.11 °C	620.09 µS/cm	0.59 mg/L	10.30 NTU	9.5 mV	39.57 ft	200.00 ml/min
1/26/2021 4:25 PM	15:00	7.41 pH	21.11 °C	600.09 µS/cm	0.52 mg/L	21.22 NTU	3.1 mV	39.65 ft	200.00 ml/min
1/26/2021 4:30 PM	20:00	7.41 pH	21.10 °C	596.96 µS/cm	0.48 mg/L	14.40 NTU	-3.8 mV	39.72 ft	200.00 ml/min
1/26/2021 4:35 PM	25:00	7.42 pH	21.08 °C	597.59 µS/cm	0.51 mg/L	8.86 NTU	-9.5 mV	39.72 ft	200.00 ml/min
1/26/2021 4:40 PM	30:00	7.42 pH	21.11 °C	601.71 µS/cm	0.53 mg/L	6.20 NTU	-14.2 mV	39.72 ft	200.00 ml/min
1/26/2021 4:45 PM	35:00	7.43 pH	21.12 °C	603.66 µS/cm	0.54 mg/L	4.88 NTU	-17.4 mV	39.72 ft	200.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 12:32:47 PM

Project: McIntosh AP

Operator Name: Taylor Goble

<b>Location Name: MGWC-2</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 27.3 ft</b> <b>Total Depth: 37.3 ft</b> <b>Initial Depth to Water: 20.95 ft</b>	<b>Pump Type: Peri pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 32 ft</b> <b>Estimated Total Volume Pumped: 6756 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 20 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Raining 72 degrees, sampled at 1306

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 1	
1/26/2021 12:32 PM	00:00	7.88 pH	23.60 °C	694.31 µS/cm	8.64 mg/L	2.91 NTU	1.8 mV	21.59 ft	200.00 ml/min
1/26/2021 12:35 PM	02:49	7.69 pH	22.56 °C	715.54 µS/cm	0.50 mg/L	2.54 NTU	-12.5 mV	21.80 ft	200.00 ml/min
1/26/2021 12:36 PM	03:47	7.67 pH	22.48 °C	716.33 µS/cm	0.42 mg/L	1.99 NTU	-13.7 mV	22.11 ft	200.00 ml/min
1/26/2021 12:41 PM	08:47	7.63 pH	22.33 °C	715.52 µS/cm	0.29 mg/L	1.73 NTU	-16.6 mV	22.27 ft	200.00 ml/min
1/26/2021 12:46 PM	13:47	7.60 pH	22.19 °C	717.89 µS/cm	0.17 mg/L	1.55 NTU	-18.3 mV	22.37 ft	200.00 ml/min
1/26/2021 12:51 PM	18:47	7.58 pH	21.91 °C	720.55 µS/cm	0.14 mg/L	1.41 NTU	-19.7 mV	22.45 ft	200.00 ml/min
1/26/2021 12:56 PM	23:47	7.58 pH	21.55 °C	718.68 µS/cm	0.11 mg/L	1.33 NTU	-20.7 mV	22.50 ft	200.00 ml/min
1/26/2021 1:01 PM	28:47	7.57 pH	21.60 °C	720.55 µS/cm	0.10 mg/L	1.30 NTU	-21.7 mV	22.53 ft	200.00 ml/min
1/26/2021 1:06 PM	33:47	7.58 pH	21.66 °C	717.24 µS/cm	0.10 mg/L	1.47 NTU	-23.5 mV	22.56 ft	200.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 2:44:25 PM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWC-3</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 28.7 ft</b> <b>Total Depth: 38.74 ft</b> <b>Initial Depth to Water: 19.73 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 33 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample time: 1520, overcast 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 0.1	
1/26/2021 2:44 PM	00:00	7.15 pH	22.08 °C	537.11 µS/cm	4.46 mg/L	7.20 NTU	14.2 mV	19.73 ft	150.00 ml/min
1/26/2021 2:49 PM	05:00	6.87 pH	20.88 °C	553.53 µS/cm	0.42 mg/L	7.00 NTU	11.4 mV	20.20 ft	150.00 ml/min
1/26/2021 2:54 PM	10:00	6.74 pH	20.85 °C	552.05 µS/cm	0.21 mg/L	6.30 NTU	15.3 mV	20.20 ft	150.00 ml/min
1/26/2021 2:59 PM	15:00	6.66 pH	20.86 °C	550.50 µS/cm	0.18 mg/L	4.30 NTU	19.3 mV	20.20 ft	150.00 ml/min
1/26/2021 3:04 PM	20:00	6.60 pH	20.79 °C	550.76 µS/cm	0.15 mg/L	3.50 NTU	22.8 mV	20.20 ft	150.00 ml/min
1/26/2021 3:09 PM	25:00	6.56 pH	20.73 °C	551.34 µS/cm	0.14 mg/L	3.40 NTU	25.7 mV	20.20 ft	150.00 ml/min
1/26/2021 3:14 PM	30:00	6.53 pH	20.70 °C	550.44 µS/cm	0.14 mg/L	3.20 NTU	28.1 mV	20.20 ft	150.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 10:57:12 AM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWA-5</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53 ft</b> <b>Total Depth: 63.09 ft</b> <b>Initial Depth to Water: 24.25 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 12 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample time: 1145; light rain 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 0.1	
1/26/2021 10:57 AM	00:00	7.61 pH	21.48 °C	211.48 µS/cm	1.26 mg/L	3.40 NTU	59.4 mV	24.25 ft	160.00 ml/min
1/26/2021 10:59 AM	02:06	7.53 pH	21.34 °C	212.22 µS/cm	1.03 mg/L	3.40 NTU	58.1 mV	24.25 ft	160.00 ml/min
1/26/2021 11:04 AM	07:06	7.40 pH	21.24 °C	215.64 µS/cm	0.85 mg/L	6.30 NTU	62.9 mV	25.20 ft	150.00 ml/min
1/26/2021 11:09 AM	12:06	7.23 pH	21.41 °C	215.47 µS/cm	0.32 mg/L	8.00 NTU	52.2 mV	25.20 ft	150.00 ml/min
1/26/2021 11:14 AM	17:06	7.15 pH	21.48 °C	212.91 µS/cm	0.49 mg/L	4.20 NTU	51.3 mV	25.20 ft	150.00 ml/min
1/26/2021 11:19 AM	22:06	7.09 pH	21.37 °C	215.37 µS/cm	0.65 mg/L	5.50 NTU	52.3 mV	25.20 ft	150.00 ml/min
1/26/2021 11:24 AM	27:06	6.98 pH	21.25 °C	218.86 µS/cm	0.24 mg/L	5.50 NTU	42.2 mV	25.20 ft	150.00 ml/min
1/26/2021 11:29 AM	32:06	6.94 pH	21.23 °C	216.90 µS/cm	0.38 mg/L	10.20 NTU	41.9 mV	25.20 ft	150.00 ml/min
1/26/2021 11:34 AM	37:06	6.89 pH	21.27 °C	219.04 µS/cm	0.28 mg/L	5.50 NTU	34.1 mV	25.20 ft	150.00 ml/min
1/26/2021 11:39 AM	42:06	6.86 pH	21.28 °C	220.49 µS/cm	0.18 mg/L	4.30 NTU	26.1 mV	25.20 ft	150.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 9:37:16 AM

Project: McIntosh AP

Operator Name: Taylor Goble

<b>Location Name: MGWA-6</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32 ft</b> <b>Total Depth: 42.2 ft</b> <b>Initial Depth to Water: 23.07 ft</b>	<b>Pump Type: Peri pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37 ft</b> <b>Estimated Total Volume Pumped: 4500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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**Test Notes:** Cloudy 69 degrees, sampled at 1007

## Weather Conditions:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 5	
1/26/2021 9:37 AM	00:00	8.02 pH	21.02 °C	26.27 µS/cm	8.99 mg/L	9.95 NTU	230.6 mV	23.07 ft	150.00 ml/min
1/26/2021 9:42 AM	05:00	7.19 pH	21.04 °C	487.07 µS/cm	0.32 mg/L	4.81 NTU	39.9 mV	23.27 ft	150.00 ml/min
1/26/2021 9:47 AM	10:00	7.17 pH	21.20 °C	486.67 µS/cm	0.19 mg/L	3.72 NTU	28.5 mV	23.28 ft	150.00 ml/min
1/26/2021 9:52 AM	15:00	7.19 pH	21.21 °C	485.85 µS/cm	0.16 mg/L	2.75 NTU	24.9 mV	23.29 ft	150.00 ml/min
1/26/2021 9:57 AM	20:00	7.19 pH	21.22 °C	483.80 µS/cm	0.14 mg/L	2.82 NTU	23.2 mV	23.29 ft	150.00 ml/min
1/26/2021 10:02 AM	25:00	7.19 pH	21.23 °C	488.46 µS/cm	0.13 mg/L	2.14 NTU	22.8 mV	23.30 ft	150.00 ml/min
1/26/2021 10:07 AM	30:00	7.20 pH	21.27 °C	484.71 µS/cm	0.12 mg/L	2.39 NTU	22.3 mV	23.30 ft	150.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 10:54:24 AM

Project: McIntosh AP

Operator Name: Taylor Goble

<b>Location Name: MGWA-6A</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32.52 ft</b> <b>Total Depth: 42.52 ft</b> <b>Initial Depth to Water: 21.7 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37 ft</b> <b>Estimated Total Volume Pumped: 3600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 15 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Cloudy 70 degrees, sampled at 1124

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 5	
1/26/2021 10:54 AM	00:00	7.26 pH	22.32 °C	417.99 µS/cm	6.17 mg/L	11.20 NTU	24.5 mV	22.12 ft	120.00 ml/min
1/26/2021 10:59 AM	05:00	6.91 pH	21.73 °C	436.98 µS/cm	0.22 mg/L	11.20 NTU	-46.7 mV	22.63 ft	120.00 ml/min
1/26/2021 11:04 AM	10:00	6.94 pH	21.78 °C	435.81 µS/cm	0.15 mg/L	9.63 NTU	-80.7 mV	22.87 ft	120.00 ml/min
1/26/2021 11:09 AM	15:00	7.01 pH	21.97 °C	435.40 µS/cm	0.12 mg/L	7.78 NTU	-108.6 mV	22.99 ft	120.00 ml/min
1/26/2021 11:14 AM	20:00	7.08 pH	21.91 °C	434.64 µS/cm	0.11 mg/L	7.07 NTU	-125.0 mV	23.03 ft	120.00 ml/min
1/26/2021 11:19 AM	25:00	7.11 pH	21.74 °C	437.65 µS/cm	0.11 mg/L	5.56 NTU	-129.8 mV	23.07 ft	120.00 ml/min
1/26/2021 11:24 AM	30:00	7.17 pH	21.62 °C	440.22 µS/cm	0.10 mg/L	4.73 NTU	-128.5 mV	23.11 ft	120.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 2:35:48 PM

Project: McIntosh AP

Operator Name: Taylor Goble

<b>Location Name: MGWC-7</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32.32 ft</b> <b>Total Depth: 42.32 ft</b> <b>Initial Depth to Water: 22.94 ft</b>	<b>Pump Type: Peri pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37 ft</b> <b>Estimated Total Volume Pumped: 4800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 160 ml/min</b> <b>Final Draw Down: 0.47 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Mostly cloudy 74 degrees, sampled at 1510

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 1	
1/26/2021 2:35 PM	00:00	8.21 pH	21.58 °C	446.57 µS/cm	9.03 mg/L	3.33 NTU	14.5 mV	22.94 ft	140.00 ml/min
1/26/2021 2:40 PM	05:00	7.06 pH	21.60 °C	450.31 µS/cm	1.57 mg/L	1.67 NTU	26.5 mV	23.35 ft	140.00 ml/min
1/26/2021 2:45 PM	10:00	6.62 pH	21.65 °C	443.50 µS/cm	0.23 mg/L	1.49 NTU	37.3 mV	23.41 ft	160.00 ml/min
1/26/2021 2:50 PM	15:00	6.46 pH	21.90 °C	443.66 µS/cm	0.18 mg/L	1.48 NTU	43.7 mV	23.41 ft	160.00 ml/min
1/26/2021 2:55 PM	20:00	6.39 pH	21.98 °C	442.31 µS/cm	0.15 mg/L	1.39 NTU	48.1 mV	23.41 ft	160.00 ml/min
1/26/2021 3:00 PM	25:00	6.34 pH	21.94 °C	444.29 µS/cm	0.15 mg/L	1.53 NTU	51.8 mV	23.41 ft	160.00 ml/min
1/26/2021 3:05 PM	30:00	6.28 pH	21.73 °C	445.09 µS/cm	0.14 mg/L	1.31 NTU	52.1 mV	23.41 ft	160.00 ml/min
1/26/2021 3:10 PM	35:00	6.27 pH	21.60 °C	445.96 µS/cm	0.14 mg/L	1.25 NTU	49.9 mV	23.41 ft	160.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 4:35:43 PM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWC-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.5 ft</b> <b>Total Depth: 52.56 ft</b> <b>Initial Depth to Water: 32.58 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample time: 1720; light rain 70, EB-1 here at 16:20

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 0.1	
1/26/2021 4:35 PM	00:00	7.00 pH	21.41 °C	690.70 µS/cm	2.10 mg/L	3.60 NTU	52.7 mV	32.58 ft	150.00 ml/min
1/26/2021 4:40 PM	05:00	6.63 pH	21.41 °C	748.20 µS/cm	0.86 mg/L	2.70 NTU	57.5 mV	32.60 ft	150.00 ml/min
1/26/2021 4:45 PM	10:00	6.47 pH	21.47 °C	759.02 µS/cm	0.61 mg/L	3.80 NTU	61.7 mV	32.60 ft	150.00 ml/min
1/26/2021 4:50 PM	15:00	6.35 pH	21.55 °C	766.50 µS/cm	0.49 mg/L	4.20 NTU	65.5 mV	32.60 ft	150.00 ml/min
1/26/2021 4:55 PM	20:00	6.25 pH	21.50 °C	766.74 µS/cm	0.43 mg/L	3.50 NTU	68.6 mV	32.60 ft	150.00 ml/min
1/26/2021 5:00 PM	25:00	6.28 pH	21.37 °C	755.84 µS/cm	1.17 mg/L	4.90 NTU	69.2 mV	32.60 ft	150.00 ml/min
1/26/2021 5:05 PM	30:00	6.24 pH	21.22 °C	761.74 µS/cm	0.58 mg/L	5.60 NTU	69.9 mV	32.60 ft	150.00 ml/min
1/26/2021 5:10 PM	35:00	6.20 pH	21.20 °C	763.07 µS/cm	0.47 mg/L	6.10 NTU	73.0 mV	32.60 ft	150.00 ml/min
1/26/2021 5:15 PM	40:00	6.20 pH	21.23 °C	761.35 µS/cm	0.53 mg/L	3.20 NTU	73.6 mV	32.60 ft	150.00 ml/min

## Samples

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

Test Date / Time: 1/25/2021 4:17:45 PM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWA-10</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.9 ft</b> <b>Total Depth: 52.92 ft</b> <b>Initial Depth to Water: 18.5 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 48 ft</b> <b>Estimated Total Volume Pumped: 8.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 16 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample at 1655; Overcast 70s, FB-1 here 1710

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 5	
1/25/2021 4:17 PM	00:00	8.55 pH	24.32 °C	158.55 µS/cm	6.08 mg/L	1.80 NTU	127.0 mV	18.40 ft	150.00 ml/min
1/25/2021 4:22 PM	05:00	5.60 pH	22.24 °C	57.72 µS/cm	2.17 mg/L	1.90 NTU	101.5 mV	20.40 ft	125.00 ml/min
1/25/2021 4:27 PM	10:00	5.16 pH	21.99 °C	57.05 µS/cm	2.11 mg/L	1.90 NTU	109.4 mV	21.20 ft	100.00 ml/min
1/25/2021 4:32 PM	15:00	5.03 pH	21.83 °C	57.00 µS/cm	2.15 mg/L	1.20 NTU	115.5 mV	21.20 ft	100.00 ml/min
1/25/2021 4:37 PM	20:00	4.94 pH	21.82 °C	56.87 µS/cm	2.13 mg/L	0.70 NTU	119.3 mV	21.30 ft	100.00 ml/min
1/25/2021 4:42 PM	25:00	4.91 pH	21.81 °C	57.88 µS/cm	2.11 mg/L	0.80 NTU	118.0 mV	21.30 ft	100.00 ml/min
1/25/2021 4:47 PM	30:00	4.87 pH	21.72 °C	58.07 µS/cm	2.10 mg/L	0.80 NTU	118.9 mV	21.30 ft	100.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 9:14:08 AM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWA-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 45.8 ft</b> <b>Total Depth: 55.81 ft</b> <b>Initial Depth to Water: 21.94 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 50 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample time: 0950, overcast 70s, Extra Rad here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 0.1	
1/26/2021 9:14 AM	00:00	7.26 pH	20.37 °C	326.38 µS/cm	1.51 mg/L	1.50 NTU	85.6 mV	22.20 ft	150.00 ml/min
1/26/2021 9:15 AM	01:10	7.27 pH	20.57 °C	320.17 µS/cm	0.72 mg/L	1.50 NTU	70.8 mV	22.20 ft	150.00 ml/min
1/26/2021 9:15 AM	01:30	7.29 pH	20.61 °C	293.88 µS/cm	0.64 mg/L	1.50 NTU	65.8 mV	22.20 ft	150.00 ml/min
1/26/2021 9:16 AM	02:50	7.27 pH	20.74 °C	288.07 µS/cm	0.40 mg/L	1.50 NTU	58.5 mV	22.20 ft	150.00 ml/min
1/26/2021 9:21 AM	07:50	7.32 pH	20.94 °C	298.36 µS/cm	0.21 mg/L	1.30 NTU	53.2 mV	22.30 ft	150.00 ml/min
1/26/2021 9:26 AM	12:50	7.37 pH	20.97 °C	282.87 µS/cm	0.15 mg/L	1.10 NTU	48.0 mV	22.30 ft	150.00 ml/min
1/26/2021 9:31 AM	17:50	7.41 pH	21.01 °C	284.20 µS/cm	0.12 mg/L	1.70 NTU	44.2 mV	22.30 ft	150.00 ml/min
1/26/2021 9:36 AM	22:50	7.42 pH	21.05 °C	283.35 µS/cm	0.12 mg/L	0.80 NTU	41.8 mV	22.30 ft	150.00 ml/min
1/26/2021 9:41 AM	27:50	7.43 pH	21.10 °C	283.90 µS/cm	0.09 mg/L	0.80 NTU	39.8 mV	22.30 ft	150.00 ml/min

## Samples

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

Test Date / Time: 1/26/2021 12:51:10 PM

Project: McIntosh AP

Operator Name: Anna Schnittker

<b>Location Name: MGWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.9 ft</b> <b>Total Depth: 52.9 ft</b> <b>Initial Depth to Water: 27.19 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 48 ft</b> <b>Estimated Total Volume Pumped: 7.0 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 7 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

Sample time: 1325, light rain 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 0.1	
1/26/2021 12:51 PM	00:00	7.08 pH	21.23 °C	277.17 µS/cm	1.08 mg/L	1.40 NTU	35.3 mV	27.19 ft	150.00 ml/min
1/26/2021 12:56 PM	05:00	6.82 pH	20.57 °C	270.60 µS/cm	0.29 mg/L	1.10 NTU	32.1 mV	27.80 ft	150.00 ml/min
1/26/2021 1:01 PM	10:00	6.75 pH	20.43 °C	260.06 µS/cm	0.22 mg/L	0.80 NTU	26.3 mV	27.80 ft	150.00 ml/min
1/26/2021 1:06 PM	15:00	6.72 pH	20.48 °C	257.86 µS/cm	0.20 mg/L	0.50 NTU	20.0 mV	27.80 ft	150.00 ml/min
1/26/2021 1:11 PM	20:00	6.72 pH	20.48 °C	246.53 µS/cm	0.18 mg/L	0.80 NTU	13.4 mV	27.80 ft	150.00 ml/min
1/26/2021 1:16 PM	25:00	6.71 pH	20.42 °C	241.89 µS/cm	0.17 mg/L	0.90 NTU	7.9 mV	27.80 ft	150.00 ml/min
1/26/2021 1:21 PM	30:00	6.70 pH	20.33 °C	240.69 µS/cm	0.17 mg/L	1.60 NTU	3.5 mV	27.80 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: T. GOSIE

WATER LEVEL: Solingst  
WATER LEVEL S/N: 377053

INSTRUMENT S/N: 714293  
INSTRUMENT TYPE: AquaTroll  
CAL. SOLUTIONS: ID: pH 4 LOT #: 0G-D046 EXP. DATE: 04/22  
ID: pH 7 LOT #: 9GE1325 EXP. DATE: 02/21  
ID: pH 10 LOT #: 9GB956 EXP. DATE: 02/21  
ID: ORP LOT #: 1G4114 EXP. DATE: 10/21  
ID: Cond LOT #: 0GE438 EXP. DATE: 05/21  
ID: LOT #: EXP. DATE:  
ID: LOT #: EXP. DATE:

Midday pH rechecks

Calibration Date: 1-26-21 Recalibrate if needed  
RDO: 100% sat. = 98.2  
PH: 4.00 = 3.88 7.00 = 6.88 10.00 = 10.12 Midday pH check  
CONDUCTIVITY: 1413 = 1371 7.0 = 6.95  
ORP (mV) 240 = 229

Calibration Date: ~~1-27-21~~  
RDO: 100% sat. =  
PH: 4.00 = 7.00 = 10.00 = Midday pH check  
CONDUCTIVITY: 7.0 =  
ORP (mV)

Calibration Date:  
RDO: 100% sat. =  
PH: 4.00 = 7.00 = 10.00 = Midday pH check  
CONDUCTIVITY: 7.0 =  
ORP (mV)

Calibration Date:  
RDO: 100% sat. =  
PH: 4.00 = 7.00 = 10.00 = Midday pH check  
CONDUCTIVITY: 7.0 =  
ORP (mV)

Calibration Date:  
RDO: 100% sat. = Midday pH check  
PH: 4.00 = 7.00 = 10.00 = 7.0 =  
CONDUCTIVITY:  
ORP (mV)



## Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: I. Gobler

INSTRUMENT S/N: 1720C063767  
 INSTRUMENT TYPE: Hach 2100Q  
 CAL. SOLUTION: 0 NTU - LOT # New DI EXP. DATE: NA  
10 NTU - LOT # A0136 EXP. DATE: 8/21  
20 NTU - LOT # 40139 EXP. DATE: 8/21

Calibration Date: 1-26-21

Calibration Solution	Instrument Reading	
0.0	0.14	NTU
10.0	<del>19.9</del> 9.46	NTU
20.0	19.9	NTU

100 = 99.6  
 800 = 804

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



## Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: Anna Schmittler

INSTRUMENT S/N: 16040C049743  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI Water  
10 NTU - LOT # 8A0136 EXP. DATE: 8/21  
20 NTU - LOT # 40139 EXP. DATE: 8/21

Calibration Date: 1/25/20

Calibration Solution	Instrument Reading	
0.0	0.37	NTU
10.0	9.35	NTU
20.0	19.4	NTU

Calibration Date: 1/26/20

Calibration Solution	Instrument Reading	
0.0	0.38	NTU
10.0	9.19	NTU
20.0	20.0	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





### Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: Anna Schnittker

WATER LEVEL: Selinst  
WATER LEVEL S/N: 377060

INSTRUMENT S/N: 714344  
INSTRUMENT TYPE: AquaTroll  
CAL. SOLUTIONS/ID: pH 4 LOT #: 06E1407 EXP. DATE: 09/22  
pH 7 LOT #: 06I615 EXP. DATE: 09/22  
pH 10 LOT #: 06D851 EXP. DATE: 04/22  
Conductivity LOT #: 06I1033 EXP. DATE: 09/21  
ORP LOT #: 1CA114 EXP. DATE: 10/21  
ID: LOT #: EXP. DATE:  
ID: LOT #: EXP. DATE:

Calibration Date: 1/25/20 *Midday pH rechecks*  
RDO: 100% sat. = 100.67 *Recalibrate if needed*  
PH: 4.00 = 4.42 7.00 = 7.20 10.00 = 9.95 *Midday pH check*  
CONDUCTIVITY: 1455.2 / 1413 7.0 = 7.09  
ORP (mV) 196.7 / 229

Calibration Date: 1/26/20  
RDO: 100% sat. = 103.11  
PH: 4.00 = 4.11 7.00 = 7.13 10.00 = 10.20 *Midday pH check*  
CONDUCTIVITY: 1469.2 / 1413 7.0 = 7.11  
ORP (mV) 231.4 / 229

Calibration Date:  
RDO: 100% sat. =  
PH: 4.00 = 7.00 = 10.00 = *Midday pH check*  
CONDUCTIVITY: 7.0 =  
ORP (mV)

Calibration Date:  
RDO: 100% sat. =  
PH: 4.00 = 7.00 = 10.00 = *Midday pH check*  
CONDUCTIVITY: 7.0 =  
ORP (mV)

Calibration Date:  
RDO: 100% sat. = *Midday pH check*  
PH: 4.00 = 7.00 = 10.00 = 7.0 =  
CONDUCTIVITY:  
ORP (mV)

## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-119063-1  
Client Project/Site: McIntosh Ash Pond 1  
Revision: 1

For:  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
4/23/2021 2:51:24 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416



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# Case Narrative

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Job ID: 180-119063-1**

**Laboratory: Eurofins TestAmerica, Pittsburgh**

## Narrative

### Job Narrative 180-119063-1

#### Comments

042321 Revised report to remove F1 qualifiers from the following sample, MS and MSD: MGWA-10 (180-119063-1), Qualifiers were not needed. This report replaces the report previously issued on 041921.

#### Receipt

The samples were received on 3/26/2021 9:00 AM. 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 2.8° C, 2.9° C, 2.9° C and 3.6° C.

#### Receipt Exceptions

The container labels for the following samples did not match the information listed on the Chain-of-Custody (COC): MGWA-10 (180-119063-1), MGWA-11 (180-119063-2), MGWA-6 (180-119063-3), MGWA-6A (180-119063-4), MGWA-5 (180-119063-5), MGWC-12 (180-119063-6), MGWC-3 (180-119063-7), MGWC-2 (180-119063-8) and MGWC-7 (180-119063-9). The container labels do not have an M before the remainder of the id's while the COC does list an M. The id's on the COC were used.

#### GC Semi VOA

Method 300.0: The matrix spike duplicate (MSD) recoveries for the following sample associated with analytical batch 180-351878 were outside control limits for Fluoride: (180-119063-C-5 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

#### Metals

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

#### Field Service / Mobile Lab

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

#### General Chemistry

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

# Definitions/Glossary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Laboratory: Eurofins TestAmerica, 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	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pittsburgh

# Sample Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119063-1	MGWA-10	Water	03/23/21 10:30	03/26/21 09:00	
180-119063-2	MGWA-11	Water	03/23/21 12:25	03/26/21 09:00	
180-119063-3	MGWA-6	Water	03/23/21 14:20	03/26/21 09:00	
180-119063-4	MGWA-6A	Water	03/23/21 15:45	03/26/21 09:00	
180-119063-5	MGWA-5	Water	03/24/21 10:00	03/26/21 09:00	
180-119063-6	MGWC-12	Water	03/24/21 11:20	03/26/21 09:00	
180-119063-7	MGWC-3	Water	03/24/21 12:45	03/26/21 09:00	
180-119063-8	MGWC-2	Water	03/24/21 14:25	03/26/21 09:00	
180-119063-9	MGWC-7	Water	03/24/21 16:15	03/26/21 09:00	
180-119063-10	MGWC-1	Water	03/24/21 12:32	03/26/21 09:00	
180-119063-11	MGWC-8	Water	03/24/21 14:44	03/26/21 09:00	
180-119063-12	FB-1	Water	03/24/21 13:30	03/26/21 09:00	
180-119063-13	EB-1	Water	03/24/21 09:10	03/26/21 09:00	
180-119063-14	DUP-1	Water	03/23/21 00:00	03/26/21 09:00	

# Method Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

#### Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Client Sample ID: MGWA-10

## Lab Sample ID: 180-119063-1

Date Collected: 03/23/21 10:30

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			351879	04/05/21 14:16	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 07:21	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:19	KHM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			351086	03/23/21 10:30	FDS	TAL PIT

## Client Sample ID: MGWA-11

## Lab Sample ID: 180-119063-2

Date Collected: 03/23/21 12:25

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			351878	04/05/21 11:48	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 08:16	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:20	KHM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			351086	03/23/21 12:25	FDS	TAL PIT

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-119063-3

Date Collected: 03/23/21 14:20

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			351878	04/05/21 11:16	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 08:19	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:26	KHM	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-119063-3**

**Date Collected: 03/23/21 14:20**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
Total/NA	Analysis	Field Sampling		1			351086	03/23/21 14:20	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-119063-4**

**Date Collected: 03/23/21 15:45**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 11:32	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:22	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:27	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			351086	03/23/21 15:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-119063-5**

**Date Collected: 03/24/21 10:00**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 09:56	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:25	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:28	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			351086	03/24/21 10:00	FDS	TAL PIT
Instrument ID: NOEQUIP										



# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Client Sample ID: MGWC-12

## Lab Sample ID: 180-119063-6

Date Collected: 03/24/21 11:20

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			351878	04/05/21 13:55	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 08:28	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:29	KHM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			351086	03/24/21 11:20	FDS	TAL PIT

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-119063-7

Date Collected: 03/24/21 12:45

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			351878	04/05/21 10:43	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 08:30	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:30	KHM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			351086	03/24/21 12:45	FDS	TAL PIT

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-119063-8

Date Collected: 03/24/21 14:25

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			351879	04/05/21 18:21	SAT	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 08:38	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:31	KHM	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-119063-8

Date Collected: 03/24/21 14:25

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Total/NA	Analysis	Field Sampling		1			351086	03/24/21 14:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-7

## Lab Sample ID: 180-119063-9

Date Collected: 03/24/21 16:15

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 13:07	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:44	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:32	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			351086	03/24/21 16:15	FDS	TAL PIT
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-1

## Lab Sample ID: 180-119063-10

Date Collected: 03/24/21 12:32

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 14:43	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:46	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:33	KHM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			351086	03/24/21 12:32	FDS	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-119063-11**

**Date Collected: 03/24/21 14:44**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351879	04/05/21 17:49	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Analysis	EPA 300.0 R2.1		5			351879	04/05/21 18:05	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:49	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:34	KHM	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351086	03/24/21 14:44	FDS	TAL PIT
	Instrument ID: NOEQUIP									

**Client Sample ID: FB-1**

**Lab Sample ID: 180-119063-12**

**Date Collected: 03/24/21 13:30**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 12:36	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 08:57	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:35	KHM	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT
	Instrument ID: NOEQUIP									

**Client Sample ID: EB-1**

**Lab Sample ID: 180-119063-13**

**Date Collected: 03/24/21 09:10**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			351878	04/05/21 12:52	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			353000	04/14/21 09:00	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353434	04/16/21 10:39	KHM	TAL PIT
	Instrument ID: HGY									

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
 Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: EB-1**

**Lab Sample ID: 180-119063-13**

Date Collected: 03/24/21 09:10

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351453	03/31/21 19:42	KMM	TAL PIT

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-119063-14**

Date Collected: 03/23/21 00:00

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			351878	04/05/21 13:23	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	352438	04/08/21 14:30	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			353000	04/14/21 09:03	RJR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	353181	04/15/21 09:38	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			353434	04/16/21 10:40	KHM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	351287	03/30/21 21:24	GRB	TAL PIT

**Laboratory References:**

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

MM1 = Mary Beth Miller

Batch Type: Analysis

EPS = Evan Scheuer

FDS = Sampler Field

GRB = Gabriel Berghe

KHM = Kyle Mucroski

KMM = Kendric Moore

RJR = Ron Rosenbaum

SAT = Stephen Tallam

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-119063-1**

Date Collected: 03/23/21 10:30

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.71	mg/L			04/05/21 14:16	1
Fluoride	0.038	J	0.10	0.026	mg/L			04/05/21 14:16	1
Sulfate	<0.76		1.0	0.76	mg/L			04/05/21 14:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 07:21	1
Arsenic	0.00033	J	0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 07:21	1
Barium	0.020		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 07:21	1
Beryllium	0.00022	J	0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 07:21	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 07:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 07:21	1
Calcium	4.0		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 07:21	1
Chromium	0.0043		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 07:21	1
Cobalt	0.00014	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 07:21	1
Lead	0.00013	J	0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 07:21	1
Lithium	0.0084		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 07:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 07:21	1
Thallium	0.00046	J	0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 07:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	53		10	10	mg/L			03/30/21 21:24	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.00				SU			03/23/21 10:30	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-119063-2**

Date Collected: 03/23/21 12:25

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.71	mg/L			04/05/21 11:48	1
Fluoride	0.081	J	0.10	0.026	mg/L			04/05/21 11:48	1
Sulfate	1.4		1.0	0.76	mg/L			04/05/21 11:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:16	1
Arsenic	0.0023		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:16	1
Barium	0.13		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:16	1
Boron	0.047	J	0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:16	1
Calcium	42		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:16	1
Lead	0.00013	J	0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:16	1
Lithium	0.026		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:16	1
Molybdenum	0.00093	J	0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:16	1
Thallium	0.00051	J	0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		10	10	mg/L			03/30/21 21:24	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.06				SU			03/23/21 12:25	1



# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-119063-3**

Date Collected: 03/23/21 14:20

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			04/05/21 11:16	1
Fluoride	0.082	J	0.10	0.026	mg/L			04/05/21 11:16	1
Sulfate	3.2		1.0	0.76	mg/L			04/05/21 11:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:19	1
Arsenic	0.0089		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:19	1
Barium	0.028		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:19	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:19	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:19	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:19	1
Calcium	110		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:19	1
Cobalt	0.00025	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:19	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:19	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:19	1
Thallium	0.00025	J	0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			03/30/21 21:24	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.74				SU			03/23/21 14:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-119063-4**

Date Collected: 03/23/21 15:45

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.71	mg/L			04/05/21 11:32	1
Fluoride	0.096	J	0.10	0.026	mg/L			04/05/21 11:32	1
Sulfate	1.7		1.0	0.76	mg/L			04/05/21 11:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:22	1
Arsenic	0.0098		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:22	1
Barium	0.031		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:22	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:22	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:22	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:22	1
Calcium	97		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:22	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:22	1
Cobalt	0.00036	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:22	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:22	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:22	1
Molybdenum	0.00089	J	0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:22	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		10	10	mg/L			03/30/21 21:24	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.56				SU			03/23/21 15:45	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-119063-5**

Date Collected: 03/24/21 10:00

Matrix: Water

Date Received: 03/26/21 09:00

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.71	mg/L			04/05/21 09:56	1
Fluoride	0.091	J F1	0.10	0.026	mg/L			04/05/21 09:56	1
Sulfate	3.5		1.0	0.76	mg/L			04/05/21 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:25	1
Arsenic	0.00033	J	0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:25	1
Barium	0.032		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:25	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:25	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:25	1
Calcium	28		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:25	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:25	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:25	1
Lithium	0.0097		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:25	1
Molybdenum	0.00089	J	0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:25	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:25	1

## Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:28	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		10	10	mg/L			03/31/21 19:42	1

## Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.88				SU			03/24/21 10:00	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-119063-6**

Date Collected: 03/24/21 11:20

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.71	mg/L			04/05/21 13:55	1
Fluoride	0.27		0.10	0.026	mg/L			04/05/21 13:55	1
Sulfate	7.1		1.0	0.76	mg/L			04/05/21 13:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:28	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:28	1
Barium	0.056		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:28	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:28	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:28	1
Calcium	32		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:28	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:28	1
Lithium	0.018		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:28	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		10	10	mg/L			03/31/21 19:42	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.15				SU			03/24/21 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-119063-7**

Date Collected: 03/24/21 12:45

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			04/05/21 10:43	1
Fluoride	0.092	J	0.10	0.026	mg/L			04/05/21 10:43	1
Sulfate	130		1.0	0.76	mg/L			04/05/21 10:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:30	1
Arsenic	0.0018		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:30	1
Barium	0.16		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:30	1
Boron	1.2		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:30	1
Calcium	120		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:30	1
Cobalt	0.00053	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:30	1
Lithium	0.013		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:30	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:30	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10	10	mg/L			03/31/21 19:42	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.73				SU			03/24/21 12:45	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-119063-8**

Date Collected: 03/24/21 14:25

Matrix: Water

Date Received: 03/26/21 09:00

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			04/05/21 18:21	1
Fluoride	0.11		0.10	0.026	mg/L			04/05/21 18:21	1
Sulfate	180		1.0	0.76	mg/L			04/05/21 18:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:38	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:38	1
Barium	0.049		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:38	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:38	1
Boron	2.4		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:38	1
Cadmium	0.0022	J	0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:38	1
Calcium	120		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:38	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:38	1
Cobalt	0.0019	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:38	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:38	1
Lithium	0.0066		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:38	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:38	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:38	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:31	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	490		10	10	mg/L			03/31/21 19:42	1

### Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.24				SU			03/24/21 14:25	1



# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-119063-9**

Date Collected: 03/24/21 16:15

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.71	mg/L			04/05/21 13:07	1
Fluoride	0.35		0.10	0.026	mg/L			04/05/21 13:07	1
Sulfate	180		1.0	0.76	mg/L			04/05/21 13:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:44	1
Arsenic	0.00046	J	0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:44	1
Barium	0.011		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:44	1
Boron	1.5		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:44	1
Calcium	51		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:44	1
Cobalt	0.0063		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:44	1
Lithium	0.13		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:44	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:32	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		10	10	mg/L			03/31/21 19:42	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.26				SU			03/24/21 16:15	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-119063-10**

Date Collected: 03/24/21 12:32

Matrix: Water

Date Received: 03/26/21 09:00

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			04/05/21 14:43	1
Fluoride	0.27		0.10	0.026	mg/L			04/05/21 14:43	1
Sulfate	120		1.0	0.76	mg/L			04/05/21 14:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:46	1
Arsenic	0.0024		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:46	1
Barium	0.10		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:46	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:46	1
Boron	0.57		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:46	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:46	1
Calcium	100		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:46	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:46	1
Lithium	0.013		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:46	1
Molybdenum	0.0029 J		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:46	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:46	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:33	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	380		10	10	mg/L			03/31/21 19:42	1

### Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.14				SU			03/24/21 12:32	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-119063-11**

Date Collected: 03/24/21 14:44

Matrix: Water

Date Received: 03/26/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		1.0	0.71	mg/L			04/05/21 17:49	1
Fluoride	0.11		0.10	0.026	mg/L			04/05/21 17:49	1
Sulfate	280		5.0	3.8	mg/L			04/05/21 18:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:49	1
Arsenic	0.00099	J	0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:49	1
Barium	0.054		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:49	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:49	1
Boron	3.6		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:49	1
Cadmium	0.0010	J	0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:49	1
Calcium	120		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:49	1
Cobalt	0.0020	J	0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:49	1
Lithium	0.011		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10	10	mg/L			03/31/21 19:42	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.71				SU			03/24/21 14:44	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: FB-1**

**Lab Sample ID: 180-119063-12**

Date Collected: 03/24/21 13:30

Matrix: Water

Date Received: 03/26/21 09:00

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/05/21 12:36	1
Fluoride	<0.026		0.10	0.026	mg/L			04/05/21 12:36	1
Sulfate	<0.76		1.0	0.76	mg/L			04/05/21 12:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 08:57	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 08:57	1
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 08:57	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 08:57	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 08:57	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 08:57	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 08:57	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 08:57	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 08:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 08:57	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 08:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 08:57	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 08:57	1

## Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/31/21 19:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: EB-1**

**Lab Sample ID: 180-119063-13**

Date Collected: 03/24/21 09:10

Matrix: Water

Date Received: 03/26/21 09:00

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/05/21 12:52	1
<b>Fluoride</b>	<b>0.087</b>	<b>J</b>	0.10	0.026	mg/L			04/05/21 12:52	1
Sulfate	<0.76		1.0	0.76	mg/L			04/05/21 12:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 09:00	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 09:00	1
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 09:00	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 09:00	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 09:00	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 09:00	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 09:00	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 09:00	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 09:00	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 09:00	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 09:00	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 09:00	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 09:00	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:39	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/31/21 19:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-119063-14**

Date Collected: 03/23/21 00:00

Matrix: Water

Date Received: 03/26/21 09:00

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.71	mg/L			04/05/21 13:23	1
Fluoride	0.074	J	0.10	0.026	mg/L			04/05/21 13:23	1
Sulfate	1.5		1.0	0.76	mg/L			04/05/21 13:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 09:03	1
Arsenic	0.0020		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 09:03	1
Barium	0.13		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 09:03	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 09:03	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 09:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 09:03	1
Calcium	43		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 09:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 09:03	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 09:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 09:03	1
Lithium	0.025		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 09:03	1
Molybdenum	0.00075	J	0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 09:03	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 09:03	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:40	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		10	10	mg/L			03/30/21 21:24	1



# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 180-351878/6**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/05/21 09:02	1
Fluoride	<0.026		0.10	0.026	mg/L			04/05/21 09:02	1
Sulfate	<0.76		1.0	0.76	mg/L			04/05/21 09:02	1

**Lab Sample ID: LCS 180-351878/5**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.1		mg/L		96	90 - 110
Fluoride	2.50	2.56		mg/L		102	90 - 110
Sulfate	50.0	47.0		mg/L		94	90 - 110

**Lab Sample ID: 180-119063-5 MS**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: MGWA-5**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.5		50.0	58.8		mg/L		107	90 - 110
Fluoride	0.091	J F1	2.50	2.82		mg/L		109	90 - 110
Sulfate	3.5		50.0	55.2		mg/L		103	90 - 110

**Lab Sample ID: 180-119063-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: MGWA-5**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.5		50.0	59.5		mg/L		108	90 - 110	1	20
Fluoride	0.091	J F1	2.50	2.90	F1	mg/L		112	90 - 110	3	20
Sulfate	3.5		50.0	56.9		mg/L		107	90 - 110	3	20

**Lab Sample ID: 180-119063-6 MS**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: MGWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.7		50.0	55.5		mg/L		100	90 - 110
Fluoride	0.27		2.50	2.85		mg/L		103	90 - 110
Sulfate	7.1		50.0	54.8		mg/L		95	90 - 110

**Lab Sample ID: 180-119063-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 351878**

**Client Sample ID: MGWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.7		50.0	56.2		mg/L		101	90 - 110	1	20
Fluoride	0.27		2.50	2.93		mg/L		106	90 - 110	3	20
Sulfate	7.1		50.0	56.4		mg/L		99	90 - 110	3	20

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 180-351879/6**  
**Matrix: Water**  
**Analysis Batch: 351879**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.71		1.0	0.71	mg/L			04/05/21 11:29	1
Fluoride	<0.026		0.10	0.026	mg/L			04/05/21 11:29	1
Sulfate	<0.76		1.0	0.76	mg/L			04/05/21 11:29	1

**Lab Sample ID: LCS 180-351879/5**  
**Matrix: Water**  
**Analysis Batch: 351879**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.71		mg/L		108	90 - 110
Sulfate	50.0	48.1		mg/L		96	90 - 110

**Lab Sample ID: 180-119063-1 MS**  
**Matrix: Water**  
**Analysis Batch: 351879**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.038	J	2.50	2.70		mg/L		106	90 - 110
Sulfate	<0.76		50.0	49.0		mg/L		98	90 - 110

**Lab Sample ID: 180-119063-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 351879**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.038	J	2.50	2.78		mg/L		110	90 - 110	3	20
Sulfate	<0.76		50.0	50.4		mg/L		101	90 - 110	3	20

## Method: EPA 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 180-352438/1-A**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 14:30	04/14/21 07:15	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 14:30	04/14/21 07:15	1
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 14:30	04/14/21 07:15	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 14:30	04/14/21 07:15	1
Boron	<0.039		0.080	0.039	mg/L		04/08/21 14:30	04/14/21 07:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 14:30	04/14/21 07:15	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 14:30	04/14/21 07:15	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 14:30	04/14/21 07:15	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 14:30	04/14/21 07:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 14:30	04/14/21 07:15	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 14:30	04/14/21 07:15	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 14:30	04/14/21 07:15	1

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 180-352438/1-A**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 14:30	04/14/21 07:15	1

**Lab Sample ID: LCS 180-352438/2-A**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.246		mg/L		98	80 - 120
Arsenic	1.00	1.03		mg/L		103	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.522		mg/L		104	80 - 120
Boron	1.25	1.32		mg/L		105	80 - 120
Cadmium	0.500	0.523		mg/L		105	80 - 120
Calcium	25.0	29.6		mg/L		118	80 - 120
Chromium	0.500	0.523		mg/L		105	80 - 120
Cobalt	0.500	0.502		mg/L		100	80 - 120
Lead	0.500	0.520		mg/L		104	80 - 120
Lithium	0.500	0.526		mg/L		105	80 - 120
Molybdenum	0.500	0.547		mg/L		109	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120

**Lab Sample ID: 180-119063-1 MS**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: MGWA-10**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.244		mg/L		98	75 - 125
Arsenic	0.00033	J	1.00	1.01		mg/L		101	75 - 125
Barium	0.020		1.00	1.05		mg/L		103	75 - 125
Beryllium	0.00022	J	0.500	0.538		mg/L		107	75 - 125
Boron	<0.039		1.25	1.32		mg/L		106	75 - 125
Cadmium	<0.00022		0.500	0.512		mg/L		102	75 - 125
Calcium	4.0		25.0	33.1		mg/L		116	75 - 125
Chromium	0.0043		0.500	0.508		mg/L		101	75 - 125
Cobalt	0.00014	J	0.500	0.503		mg/L		101	75 - 125
Lead	0.00013	J	0.500	0.509		mg/L		102	75 - 125
Lithium	0.0084		0.500	0.499		mg/L		98	75 - 125
Molybdenum	<0.00061		0.500	0.538		mg/L		108	75 - 125
Thallium	0.00046	J	1.00	0.986		mg/L		99	75 - 125

**Lab Sample ID: 180-119063-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: MGWA-10**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.244		mg/L		98	75 - 125	0	20
Arsenic	0.00033	J	1.00	0.991		mg/L		99	75 - 125	2	20
Barium	0.020		1.00	1.06		mg/L		104	75 - 125	1	20
Beryllium	0.00022	J	0.500	0.512		mg/L		102	75 - 125	5	20

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 180-119063-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 353000**

**Client Sample ID: MGWA-10**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.039		1.25	1.33		mg/L		106	75 - 125	0	20
Cadmium	<0.00022		0.500	0.509		mg/L		102	75 - 125	1	20
Calcium	4.0		25.0	33.1		mg/L		117	75 - 125	0	20
Chromium	0.0043		0.500	0.506		mg/L		100	75 - 125	0	20
Cobalt	0.00014	J	0.500	0.495		mg/L		99	75 - 125	2	20
Lead	0.00013	J	0.500	0.510		mg/L		102	75 - 125	0	20
Lithium	0.0084		0.500	0.507		mg/L		100	75 - 125	2	20
Molybdenum	<0.00061		0.500	0.520		mg/L		104	75 - 125	3	20
Thallium	0.00046	J	1.00	0.988		mg/L		99	75 - 125	0	20

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: MB 180-353181/1-A**  
**Matrix: Water**  
**Analysis Batch: 353434**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 353181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 09:38	04/16/21 10:17	1

**Lab Sample ID: LCS 180-353181/2-A**  
**Matrix: Water**  
**Analysis Batch: 353434**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 353181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00264		mg/L		105	80 - 120

**Lab Sample ID: 180-119063-2 MS**  
**Matrix: Water**  
**Analysis Batch: 353434**

**Client Sample ID: MGWA-11**  
**Prep Type: Total/NA**  
**Prep Batch: 353181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00013		0.00100	0.00107		mg/L		107	75 - 125

**Lab Sample ID: 180-119063-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 353434**

**Client Sample ID: MGWA-11**  
**Prep Type: Total/NA**  
**Prep Batch: 353181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00013		0.00100	0.00102		mg/L		102	75 - 125	5	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 180-351287/2**  
**Matrix: Water**  
**Analysis Batch: 351287**

**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			03/30/21 21:24	1

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 180-351287/1**  
**Matrix: Water**  
**Analysis Batch: 351287**

**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	457	492		mg/L		108	80 - 120

**Lab Sample ID: 180-119063-2 DU**  
**Matrix: Water**  
**Analysis Batch: 351287**

**Client Sample ID: MGWA-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	220		229		mg/L		5	10

**Lab Sample ID: MB 180-351453/2**  
**Matrix: Water**  
**Analysis Batch: 351453**

**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			03/31/21 19:42	1

**Lab Sample ID: LCS 180-351453/1**  
**Matrix: Water**  
**Analysis Batch: 351453**

**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	457	468		mg/L		102	80 - 120

**Lab Sample ID: 180-119063-10 DU**  
**Matrix: Water**  
**Analysis Batch: 351453**

**Client Sample ID: MGWC-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	380		385		mg/L		0.3	10

# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## HPLC/IC

### Analysis Batch: 351878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-2	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-119063-3	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-119063-4	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-119063-5	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119063-6	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-119063-7	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
180-119063-9	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-119063-10	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-119063-12	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119063-13	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119063-14	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-351878/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-351878/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-119063-5 MS	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119063-5 MSD	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-119063-6 MS	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-119063-6 MSD	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	

### Analysis Batch: 351879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-119063-8	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-119063-11	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-119063-11	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
MB 180-351879/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-351879/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-119063-1 MS	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-119063-1 MSD	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	

## Metals

### Prep Batch: 352438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total Recoverable	Water	3005A	
180-119063-2	MGWA-11	Total Recoverable	Water	3005A	
180-119063-3	MGWA-6	Total Recoverable	Water	3005A	
180-119063-4	MGWA-6A	Total Recoverable	Water	3005A	
180-119063-5	MGWA-5	Total Recoverable	Water	3005A	
180-119063-6	MGWC-12	Total Recoverable	Water	3005A	
180-119063-7	MGWC-3	Total Recoverable	Water	3005A	
180-119063-8	MGWC-2	Total Recoverable	Water	3005A	
180-119063-9	MGWC-7	Total Recoverable	Water	3005A	
180-119063-10	MGWC-1	Total Recoverable	Water	3005A	
180-119063-11	MGWC-8	Total Recoverable	Water	3005A	
180-119063-12	FB-1	Total Recoverable	Water	3005A	
180-119063-13	EB-1	Total Recoverable	Water	3005A	
180-119063-14	DUP-1	Total Recoverable	Water	3005A	
MB 180-352438/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-352438/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-119063-1 MS	MGWA-10	Total Recoverable	Water	3005A	
180-119063-1 MSD	MGWA-10	Total Recoverable	Water	3005A	

Eurofins TestAmerica, Pittsburgh



# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Metals

### Analysis Batch: 353000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total Recoverable	Water	EPA 6020B	352438
180-119063-2	MGWA-11	Total Recoverable	Water	EPA 6020B	352438
180-119063-3	MGWA-6	Total Recoverable	Water	EPA 6020B	352438
180-119063-4	MGWA-6A	Total Recoverable	Water	EPA 6020B	352438
180-119063-5	MGWA-5	Total Recoverable	Water	EPA 6020B	352438
180-119063-6	MGWC-12	Total Recoverable	Water	EPA 6020B	352438
180-119063-7	MGWC-3	Total Recoverable	Water	EPA 6020B	352438
180-119063-8	MGWC-2	Total Recoverable	Water	EPA 6020B	352438
180-119063-9	MGWC-7	Total Recoverable	Water	EPA 6020B	352438
180-119063-10	MGWC-1	Total Recoverable	Water	EPA 6020B	352438
180-119063-11	MGWC-8	Total Recoverable	Water	EPA 6020B	352438
180-119063-12	FB-1	Total Recoverable	Water	EPA 6020B	352438
180-119063-13	EB-1	Total Recoverable	Water	EPA 6020B	352438
180-119063-14	DUP-1	Total Recoverable	Water	EPA 6020B	352438
MB 180-352438/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	352438
LCS 180-352438/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	352438
180-119063-1 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	352438
180-119063-1 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	352438

### Prep Batch: 353181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	7470A	
180-119063-2	MGWA-11	Total/NA	Water	7470A	
180-119063-3	MGWA-6	Total/NA	Water	7470A	
180-119063-4	MGWA-6A	Total/NA	Water	7470A	
180-119063-5	MGWA-5	Total/NA	Water	7470A	
180-119063-6	MGWC-12	Total/NA	Water	7470A	
180-119063-7	MGWC-3	Total/NA	Water	7470A	
180-119063-8	MGWC-2	Total/NA	Water	7470A	
180-119063-9	MGWC-7	Total/NA	Water	7470A	
180-119063-10	MGWC-1	Total/NA	Water	7470A	
180-119063-11	MGWC-8	Total/NA	Water	7470A	
180-119063-12	FB-1	Total/NA	Water	7470A	
180-119063-13	EB-1	Total/NA	Water	7470A	
180-119063-14	DUP-1	Total/NA	Water	7470A	
MB 180-353181/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-353181/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-119063-2 MS	MGWA-11	Total/NA	Water	7470A	
180-119063-2 MSD	MGWA-11	Total/NA	Water	7470A	

### Analysis Batch: 353434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	EPA 7470A	353181
180-119063-2	MGWA-11	Total/NA	Water	EPA 7470A	353181
180-119063-3	MGWA-6	Total/NA	Water	EPA 7470A	353181
180-119063-4	MGWA-6A	Total/NA	Water	EPA 7470A	353181
180-119063-5	MGWA-5	Total/NA	Water	EPA 7470A	353181
180-119063-6	MGWC-12	Total/NA	Water	EPA 7470A	353181
180-119063-7	MGWC-3	Total/NA	Water	EPA 7470A	353181
180-119063-8	MGWC-2	Total/NA	Water	EPA 7470A	353181
180-119063-9	MGWC-7	Total/NA	Water	EPA 7470A	353181

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

## Metals (Continued)

### Analysis Batch: 353434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-10	MGWC-1	Total/NA	Water	EPA 7470A	353181
180-119063-11	MGWC-8	Total/NA	Water	EPA 7470A	353181
180-119063-12	FB-1	Total/NA	Water	EPA 7470A	353181
180-119063-13	EB-1	Total/NA	Water	EPA 7470A	353181
180-119063-14	DUP-1	Total/NA	Water	EPA 7470A	353181
MB 180-353181/1-A	Method Blank	Total/NA	Water	EPA 7470A	353181
LCS 180-353181/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	353181
180-119063-2 MS	MGWA-11	Total/NA	Water	EPA 7470A	353181
180-119063-2 MSD	MGWA-11	Total/NA	Water	EPA 7470A	353181

## General Chemistry

### Analysis Batch: 351287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	SM 2540C	
180-119063-2	MGWA-11	Total/NA	Water	SM 2540C	
180-119063-3	MGWA-6	Total/NA	Water	SM 2540C	
180-119063-4	MGWA-6A	Total/NA	Water	SM 2540C	
180-119063-14	DUP-1	Total/NA	Water	SM 2540C	
MB 180-351287/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351287/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-119063-2 DU	MGWA-11	Total/NA	Water	SM 2540C	

### Analysis Batch: 351453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-5	MGWA-5	Total/NA	Water	SM 2540C	
180-119063-6	MGWC-12	Total/NA	Water	SM 2540C	
180-119063-7	MGWC-3	Total/NA	Water	SM 2540C	
180-119063-8	MGWC-2	Total/NA	Water	SM 2540C	
180-119063-9	MGWC-7	Total/NA	Water	SM 2540C	
180-119063-10	MGWC-1	Total/NA	Water	SM 2540C	
180-119063-11	MGWC-8	Total/NA	Water	SM 2540C	
180-119063-12	FB-1	Total/NA	Water	SM 2540C	
180-119063-13	EB-1	Total/NA	Water	SM 2540C	
MB 180-351453/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351453/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-119063-10 DU	MGWC-1	Total/NA	Water	SM 2540C	

## Field Service / Mobile Lab

### Analysis Batch: 351086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	Field Sampling	
180-119063-2	MGWA-11	Total/NA	Water	Field Sampling	
180-119063-3	MGWA-6	Total/NA	Water	Field Sampling	
180-119063-4	MGWA-6A	Total/NA	Water	Field Sampling	
180-119063-5	MGWA-5	Total/NA	Water	Field Sampling	
180-119063-6	MGWC-12	Total/NA	Water	Field Sampling	
180-119063-7	MGWC-3	Total/NA	Water	Field Sampling	
180-119063-8	MGWC-2	Total/NA	Water	Field Sampling	
180-119063-9	MGWC-7	Total/NA	Water	Field Sampling	
180-119063-10	MGWC-1	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-1

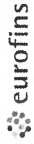
## Field Service / Mobile Lab (Continued)

### Analysis Batch: 351086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-11	MGWC-8	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
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**Chain of Custody Record**



<b>Client Information</b>		Lab P#:		Carrier Tracking No(s):		COC No:	
Client Contact:		Brown, Shali					
SCS Contacts		E-Mail:		1 of 2		Page:	
Company:		snali.brown@eurofinset.com		Job #:			
Address:		241 Ralph McGill Blvd SE		Preservation Codes:			
City:		Atlanta		Barcode:		180-119063 Chain of Custody hydrate	
State, Zip:		GA, 30308		K - EDJA		W - pH 4-5	
Phone:		404-506-7116(Tel)		L - EDA		Z - other (specify)	
Email:				Other:			
SCS Contacts		Project #:		Special Instructions/Note:		Full App 3 plus detected App 4 (All App 4)	
Plant McIntosh Ash Pond 1		18019956		Total Number of Containers		4	
Site:		Georgia		pH=		5.00	
<b>Sample Identification</b>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
MGWA-10		3/23/21		1036		G GW	
MGWA-11		3/23/21		1225		G GW	
MGWA-6		3/23/21		1420		G GW	
MGWA-6A		3/23/21		1545		G GW	
MGWA-5		3/24/21		1000		G GW	
MGWC-12		3/24/21		1120		G GW	
MGWC-3		3/24/21		1245		G GW	
MGWC-2		3/24/21		1425		G GW	
MGWC-7		3/24/21		1615		G GW	
MGWC-1		3/24/21		1232		G GW	
MGWC-8		3/24/21		1444		G GW	
<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)		Special Instructions/QC Requirements:		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:		3/25/21		12:51		Company: EPA	
Relinquished by:		3/25/21		16:00		Company: EPA	
Relinquished by:						Company: EPA	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		9.0	
Δ Yes Δ No							







Date: 25Mar21  
Wgt: 55.75 LBS

SHIPPING: 0.00  
SPECIAL: 0.00  
HANDLING: 0.00  
TOTAL: 0.00

Tr: 1516 9328 9854  
K: 1516 9328 9876

**Do Not**

RT 97

1 10:30 A  
9876  
03.26

Part # 159469-434 RIT2 EXP 11/21



Environment Testing  
TestAmerica

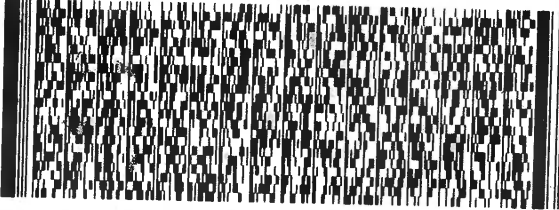
ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECIPIENT

TO **SAMPLE RECIEVING**  
**EUROFINS TESTAMERICA PITTSBURGH**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 963-7058  
REF: ACC



FedEx  
Express



3 of 4

MPS# 1516 9328 9876  
0263

**FRI - 26 MAR 10:30A**  
**PRIORITY OVERNIGHT**

Mstr# 1516 9328 9854

0201

Uncorrected temp  
Thermometer ID

36  
14 °C  
8

15238  
PA-US PIT

CF CS Initials

PT-WI-SR-001 effective 11/8/18



180-119063 Waybill





RT 97

10:30  
9865  
03:26

# 159469-434 RIT2 EXP 11/21

SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECEIPT

ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
15 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

TO SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH  
301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238

(412) 963-7058  
REF: ACC



FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

2 of 4

MPS# 1516 9328 9865  
0263

Mstr# 1516 9328 9854

NA AGCA

0201

15238  
PA-US

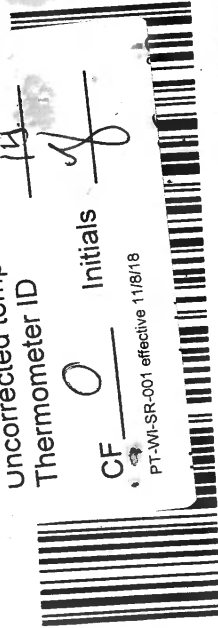
Uncorrected temp

Thermometer ID

CF

Initials

PT-WI-SR-001 effective 11/6/18



ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
15 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH  
301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238  
963-7058  
ACC

SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECEIPT



FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

4 of 4

16 9328 9887  
16 9328 9854

AGCA

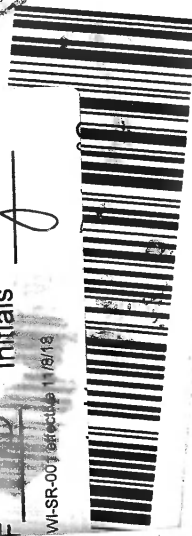
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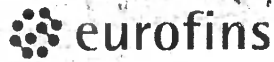
Thermometer ID

Initials

PT-WI-SR-001 effective 11/6/18

15238  
-US PIT





Environment Testing  
TestAmerica

Part 50469-434 RITZ E

ORIGIN ID:LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

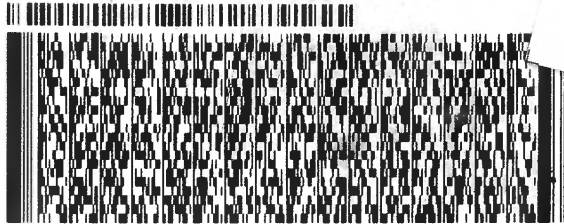
SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE34

BILL RECIPIENT

TO **SAMPLE RECIEVING**  
**EUROFINS TESTAMERICA PITTSBURG**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 963-7058

REF: ACC



Recipie
Company
Street Address
City

© 2011 FedEx 149849 REV 7/11



1 of 4  
TRK# 1516 9328 9854  
0201  
## MASTER ##

FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

**NA AGCA**

15238  
PA-US PIT

Uncorrected temp 2.8 °C  
Thermometer ID 11

CF 0 Initials J

PT-WI-SR-001 effective 11/8/18



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# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119063-1

**Login Number: 119063**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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.	False	
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	



## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-119063-2  
Client Project/Site: McIntosh Ash Pond 1

For:  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
4/29/2021 10:20:51 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416



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# Case Narrative

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Job ID: 180-119063-2**

**Laboratory: Eurofins TestAmerica, Pittsburgh**

## Narrative

### Job Narrative 180-119063-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/26/2021 9:00 AM. 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 2.8° C, 2.9° C, 2.9° C and 3.6° C.

#### Receipt Exceptions

The container labels for the following samples did not match the information listed on the Chain-of-Custody (COC): MGWA-10 (180-119063-1), MGWA-11 (180-119063-2), MGWA-6 (180-119063-3), MGWA-6A (180-119063-4), MGWA-5 (180-119063-5), MGWC-12 (180-119063-6), MGWC-3 (180-119063-7), MGWC-2 (180-119063-8) and MGWC-7 (180-119063-9). The container labels do not have an M before the remainder of the id's while the COC does list an M. The id's on the COC were used.

#### RAD

Method 9315: 9315 Prep batch 160-503960

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-12 (180-119063-6), MGWA-3 (180-119063-7), MGWC-2 (180-119063-8), MGWC-7 (180-119063-9), MGWC-1 (180-119063-10), MGWC-8 (180-119063-11), FB-1 (180-119063-12), EB-1 (180-119063-13), DUP-1 (180-119063-14), (LCS 160-503960/1-A), (LCSD 160-503960/2-A) and (MB 160-503960/22-A)

Methods 903.0, 9315: Radium-226 prep batch 160-503954:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-11 (180-119063-2), MGWA-6 (180-119063-3), MGWA-6A (180-119063-4), MGWA-5 (180-119063-5), (LCS 160-503954/1-A), (MB 160-503954/24-A), (310-203040-C-7-A), (310-203040-D-7-A MS) and (310-203040-D-7-B MSD)

Methods 903.0, 9315: Radium-226 prep batch 160-504273:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-119063-1), (LCS 160-504273/1-A), (LCSD 160-504273/2-A) and (MB 160-504273/23-A)

Methods 904.0, 9320: 904/9320 prep batch 503957

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-11 (180-119063-2), MGWA-6 (180-119063-3), MGWA-6A (180-119063-4), MGWA-5 (180-119063-5), (LCS 160-503957/1-A) and (MB 160-503957/24-A)

Methods 904.0, 9320: 904 Prep batch 504276

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-119063-1), (LCS 160-504276/1-A), (LCSD 160-504276/2-A) and (MB 160-504276/23-A)

Method 9320: 9320 prep batch 503961

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWC-12 (180-119063-6), MGWC-3 (180-119063-7), MGWC-2 (180-119063-8), MGWC-7 (180-119063-9), MGWC-1 (180-119063-10), MGWC-8 (180-119063-11), FB-1 (180-119063-12), EB-1 (180-119063-13), DUP-1



# Case Narrative

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

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## Job ID: 180-119063-2 (Continued)

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### Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

(180-119063-14), (LCS 160-503961/1-A), (LCSD 160-503961/2-A) and (MB 160-503961/22-A)

Method PrecSep\_0: Radium 228 Prep Batch 160-503961:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWC-12 (180-119063-6), MGWC-3 (180-119063-7), MGWC-2 (180-119063-8), MGWC-7 (180-119063-9), MGWC-1 (180-119063-10), MGWC-8 (180-119063-11), FB-1 (180-119063-12), EB-1 (180-119063-13) and DUP-1 (180-119063-14). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep\_0: Radium 228 Prep Batch 160-504276:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-119063-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-503960:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWC-12 (180-119063-6), MGWC-3 (180-119063-7), MGWC-2 (180-119063-8), MGWC-7 (180-119063-9), MGWC-1 (180-119063-10), MGWC-8 (180-119063-11), FB-1 (180-119063-12), EB-1 (180-119063-13) and DUP-1 (180-119063-14). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium Prep Batch 160-504273:

Insufficient sample volume was available to perform a sample duplicate for the following samples: MGWA-10 (180-119063-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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



# Definitions/Glossary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## 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

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21 *
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Sample Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119063-1	MGWA-10	Water	03/23/21 10:30	03/26/21 09:00	
180-119063-2	MGWA-11	Water	03/23/21 12:25	03/26/21 09:00	
180-119063-3	MGWA-6	Water	03/23/21 14:20	03/26/21 09:00	
180-119063-4	MGWA-6A	Water	03/23/21 15:45	03/26/21 09:00	
180-119063-5	MGWA-5	Water	03/24/21 10:00	03/26/21 09:00	
180-119063-6	MGWC-12	Water	03/24/21 11:20	03/26/21 09:00	
180-119063-7	MGWC-3	Water	03/24/21 12:45	03/26/21 09:00	
180-119063-8	MGWC-2	Water	03/24/21 14:25	03/26/21 09:00	
180-119063-9	MGWC-7	Water	03/24/21 16:15	03/26/21 09:00	
180-119063-10	MGWC-1	Water	03/24/21 12:32	03/26/21 09:00	
180-119063-11	MGWC-8	Water	03/24/21 14:44	03/26/21 09:00	
180-119063-12	FB-1	Water	03/24/21 13:30	03/26/21 09:00	
180-119063-13	EB-1	Water	03/24/21 09:10	03/26/21 09:00	
180-119063-14	DUP-1	Water	03/23/21 00:00	03/26/21 09:00	

# Method Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

#### Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Client Sample ID: MGWA-10

## Lab Sample ID: 180-119063-1

Date Collected: 03/23/21 10:30

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.48 mL	1.0 g	504273	04/05/21 16:08	JEC	TAL SL
Total/NA	Analysis	9315		1			507528	04/28/21 11:00	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.48 mL	1.0 g	504276	04/05/21 16:42	JEC	TAL SL
Total/NA	Analysis	9320		1			505760	04/15/21 14:26	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			507530	04/28/21 22:02	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-11

## Lab Sample ID: 180-119063-2

Date Collected: 03/23/21 12:25

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.05 mL	1.0 g	503954	03/31/21 17:18	JEC	TAL SL
Total/NA	Analysis	9315		1			507513	04/28/21 10:33	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.05 mL	1.0 g	503957	03/31/21 17:50	JEC	TAL SL
Total/NA	Analysis	9320		1			505467	04/13/21 13:34	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			507527	04/28/21 16:39	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-119063-3

Date Collected: 03/23/21 14:20

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.16 mL	1.0 g	503954	03/31/21 17:18	JEC	TAL SL
Total/NA	Analysis	9315		1			507513	04/28/21 10:34	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.16 mL	1.0 g	503957	03/31/21 17:50	JEC	TAL SL
Total/NA	Analysis	9320		1			505458	04/13/21 13:35	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			507527	04/28/21 16:39	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-119063-4

Date Collected: 03/23/21 15:45

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.13 mL	1.0 g	503954	03/31/21 17:18	JEC	TAL SL
Total/NA	Analysis	9315		1			507513	04/28/21 10:34	SCB	TAL SL
Instrument ID: GFPCPURPLE										



# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-119063-4

Date Collected: 03/23/21 15:45

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.13 mL	1.0 g	503957	03/31/21 17:50	JEC	TAL SL
Total/NA	Analysis	9320		1			505458	04/13/21 13:35	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			507527	04/28/21 16:39	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-5

## Lab Sample ID: 180-119063-5

Date Collected: 03/24/21 10:00

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.26 mL	1.0 g	503954	03/31/21 17:18	JEC	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	507513	04/28/21 10:34	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.26 mL	1.0 g	503957	03/31/21 17:50	JEC	TAL SL
Total/NA	Analysis	9320		1			505458	04/13/21 13:35	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			507527	04/28/21 16:39	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-12

## Lab Sample ID: 180-119063-6

Date Collected: 03/24/21 11:20

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.06 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:23	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.06 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:40	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-119063-7

Date Collected: 03/24/21 12:45

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.20 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:23	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.20 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:40	FLC	TAL SL
Instrument ID: GFPCPURPLE										

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-119063-7

Date Collected: 03/24/21 12:45

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-119063-8

Date Collected: 03/24/21 14:25

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.07 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:23	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.07 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-7

## Lab Sample ID: 180-119063-9

Date Collected: 03/24/21 16:15

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.74 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:23	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.74 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-1

## Lab Sample ID: 180-119063-10

Date Collected: 03/24/21 12:32

Matrix: Water

Date Received: 03/26/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.73 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:23	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.73 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Client Sample ID: MGWC-8

Date Collected: 03/24/21 14:44

Date Received: 03/26/21 09:00

## Lab Sample ID: 180-119063-11

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	PrecSep-21			1000.08 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:24	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.08 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: FB-1

Date Collected: 03/24/21 13:30

Date Received: 03/26/21 09:00

## Lab Sample ID: 180-119063-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.28 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:24	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.28 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: EB-1

Date Collected: 03/24/21 09:10

Date Received: 03/26/21 09:00

## Lab Sample ID: 180-119063-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.58 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:24	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.58 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: DUP-1

Date Collected: 03/23/21 00:00

Date Received: 03/26/21 09:00

## Lab Sample ID: 180-119063-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.19 mL	1.0 g	503960	03/31/21 19:58	JEC	TAL SL
Total/NA	Analysis	9315		1			506576	04/22/21 07:24	FLC	TAL SL
Instrument ID: GFPCBLUE										

# Lab Chronicle

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-119063-14**

**Date Collected: 03/23/21 00:00**

**Matrix: Water**

**Date Received: 03/26/21 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.19 mL	1.0 g	503961	03/31/21 20:35	JEC	TAL SL
Total/NA	Analysis	9320		1			505910	04/16/21 13:41	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			506621	04/22/21 20:14	GRW	TAL SL
Instrument ID: NOEQUIP										

### Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

### Analyst References:

Lab: TAL SL

Batch Type: Prep

JEC = Julia Crossen

Batch Type: Analysis

ANW = Amber Woods

FLC = Fernando Cruz

GRW = George Witt

SCB = Sarah Bernsen

# Client Sample Results

Client: Southern Company  
 Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-119063-1**

Date Collected: 03/23/21 10:30

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.250		0.0914	0.0941	1.00	0.0872	pCi/L	04/05/21 16:08	04/28/21 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					04/05/21 16:08	04/28/21 11:00	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.407	U	0.323	0.325	1.00	0.513	pCi/L	04/05/21 16:42	04/15/21 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					04/05/21 16:42	04/15/21 14:26	1
Y Carrier	80.7		40 - 110					04/05/21 16:42	04/15/21 14:26	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.657		0.336	0.338	5.00	0.513	pCi/L		04/28/21 22:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-119063-2**

Date Collected: 03/23/21 12:25

Matrix: Water

Date Received: 03/26/21 09:00

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.163		0.0879	0.0891	1.00	0.114	pCi/L	03/31/21 17:18	04/28/21 10:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					03/31/21 17:18	04/28/21 10:33	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.246	U	0.255	0.256	1.00	0.416	pCi/L	03/31/21 17:50	04/13/21 13:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					03/31/21 17:50	04/13/21 13:34	1
Y Carrier	86.7		40 - 110					03/31/21 17:50	04/13/21 13:34	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.409	U	0.270	0.271	5.00	0.416	pCi/L		04/28/21 16:39	1



# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-119063-3**

Date Collected: 03/23/21 14:20

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.109	0.113	1.00	0.116	pCi/L	03/31/21 17:18	04/28/21 10:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					03/31/21 17:18	04/28/21 10:34	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.224	U	0.295	0.296	1.00	0.491	pCi/L	03/31/21 17:50	04/13/21 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					03/31/21 17:50	04/13/21 13:35	1
Y Carrier	82.2		40 - 110					03/31/21 17:50	04/13/21 13:35	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.542		0.314	0.317	5.00	0.491	pCi/L		04/28/21 16:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-119063-4**

Date Collected: 03/23/21 15:45

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.327		0.104	0.108	1.00	0.101	pCi/L	03/31/21 17:18	04/28/21 10:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					03/31/21 17:18	04/28/21 10:34	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.285	U	0.268	0.269	1.00	0.432	pCi/L	03/31/21 17:50	04/13/21 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					03/31/21 17:50	04/13/21 13:35	1
Y Carrier	85.6		40 - 110					03/31/21 17:50	04/13/21 13:35	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.612		0.287	0.290	5.00	0.432	pCi/L		04/28/21 16:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWA-5**  
Date Collected: 03/24/21 10:00  
Date Received: 03/26/21 09:00

**Lab Sample ID: 180-119063-5**  
Matrix: Water

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0592	U	0.0649	0.0651	1.00	0.105	pCi/L	03/31/21 17:18	04/28/21 10:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		40 - 110					03/31/21 17:18	04/28/21 10:34	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.147	U	0.247	0.248	1.00	0.419	pCi/L	03/31/21 17:50	04/13/21 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		40 - 110					03/31/21 17:50	04/13/21 13:35	1
Y Carrier	86.7		40 - 110					03/31/21 17:50	04/13/21 13:35	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.206	U	0.255	0.256	5.00	0.419	pCi/L		04/28/21 16:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-119063-6**

Date Collected: 03/24/21 11:20

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.191		0.104	0.106	1.00	0.130	pCi/L	03/31/21 19:58	04/22/21 07:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		40 - 110					03/31/21 19:58	04/22/21 07:23	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.243	U	0.282	0.283	1.00	0.465	pCi/L	03/31/21 20:35	04/16/21 13:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		40 - 110					03/31/21 20:35	04/16/21 13:40	1
Y Carrier	81.5		40 - 110					03/31/21 20:35	04/16/21 13:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.434	U	0.301	0.302	5.00	0.465	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-119063-7**

Date Collected: 03/24/21 12:45

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.34		0.230	0.260	1.00	0.141	pCi/L	03/31/21 19:58	04/22/21 07:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					03/31/21 19:58	04/22/21 07:23	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.247	U	0.277	0.278	1.00	0.455	pCi/L	03/31/21 20:35	04/16/21 13:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					03/31/21 20:35	04/16/21 13:40	1
Y Carrier	82.6		40 - 110					03/31/21 20:35	04/16/21 13:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.58		0.360	0.381	5.00	0.455	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-119063-8**

Date Collected: 03/24/21 14:25

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.373		0.134	0.139	1.00	0.135	pCi/L	03/31/21 19:58	04/22/21 07:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					03/31/21 19:58	04/22/21 07:23	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.276	0.277	1.00	0.451	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	81.9		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.625		0.307	0.310	5.00	0.451	pCi/L		04/22/21 20:14	1



# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-119063-9**

Date Collected: 03/24/21 16:15

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.906		0.198	0.214	1.00	0.147	pCi/L	03/31/21 19:58	04/22/21 07:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					03/31/21 19:58	04/22/21 07:23	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.298	U	0.326	0.327	1.00	0.534	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	78.5		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.20		0.381	0.391	5.00	0.534	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-1**  
Date Collected: 03/24/21 12:32  
Date Received: 03/26/21 09:00

**Lab Sample ID: 180-119063-10**  
Matrix: Water

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>1.17</b>		0.221	0.245	1.00	0.155	pCi/L	03/31/21 19:58	04/22/21 07:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					03/31/21 19:58	04/22/21 07:23	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.635</b>		0.343	0.348	1.00	0.514	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	78.9		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>1.81</b>		0.408	0.426	5.00	0.514	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
 Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-119063-11**

Date Collected: 03/24/21 14:44

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.418		0.135	0.141	1.00	0.120	pCi/L	03/31/21 19:58	04/22/21 07:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		40 - 110					03/31/21 19:58	04/22/21 07:24	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.218	U	0.264	0.265	1.00	0.436	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	80.7		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.636		0.297	0.300	5.00	0.436	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: FB-1**

**Lab Sample ID: 180-119063-12**

Date Collected: 03/24/21 13:30

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0168	U	0.0612	0.0613	1.00	0.120	pCi/L	03/31/21 19:58	04/22/21 07:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					03/31/21 19:58	04/22/21 07:24	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0222	U	0.255	0.255	1.00	0.457	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	81.9		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0389	U	0.262	0.262	5.00	0.457	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: EB-1**

**Lab Sample ID: 180-119063-13**

Date Collected: 03/24/21 09:10

Matrix: Water

Date Received: 03/26/21 09:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0347	U	0.0431	0.0432	1.00	0.118	pCi/L	03/31/21 19:58	04/22/21 07:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					03/31/21 19:58	04/22/21 07:24	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0538	U	0.298	0.298	1.00	0.523	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	80.0		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0191	U	0.301	0.301	5.00	0.523	pCi/L		04/22/21 20:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

**Client Sample ID: DUP-1**  
Date Collected: 03/23/21 00:00  
Date Received: 03/26/21 09:00

**Lab Sample ID: 180-119063-14**  
Matrix: Water

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.172		0.112	0.113	1.00	0.155	pCi/L	03/31/21 19:58	04/22/21 07:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		40 - 110					03/31/21 19:58	04/22/21 07:24	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.192	U	0.228	0.229	1.00	0.377	pCi/L	03/31/21 20:35	04/16/21 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		40 - 110					03/31/21 20:35	04/16/21 13:41	1
Y Carrier	82.6		40 - 110					03/31/21 20:35	04/16/21 13:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.364	U	0.254	0.255	5.00	0.377	pCi/L		04/22/21 20:14	1



# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-503954/24-A**  
**Matrix: Water**  
**Analysis Batch: 507513**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 503954**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02716	U	0.0508	0.0509	1.00	0.114	pCi/L	03/31/21 17:18	04/28/21 10:34	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					03/31/21 17:18	04/28/21 10:34	1
	87.4									

**Lab Sample ID: LCS 160-503954/1-A**  
**Matrix: Water**  
**Analysis Batch: 507515**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 503954**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits		
				Uncert. (2σ+/-)							
Radium-226	11.3	11.35		1.17	1.00	0.0991	pCi/L	100	75 - 125		
Carrier	LCS	LCS									
Ba Carrier	%Yield	Qualifier	Limits								
	85.6		40 - 110								

**Lab Sample ID: MB 160-503960/22-A**  
**Matrix: Water**  
**Analysis Batch: 506570**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 503960**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.04374	U	0.0635	0.0636	1.00	0.148	pCi/L	03/31/21 19:58	04/22/21 07:26	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					03/31/21 19:58	04/22/21 07:26	1
	86.8									

**Lab Sample ID: LCS 160-503960/1-A**  
**Matrix: Water**  
**Analysis Batch: 506576**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 503960**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits		
				Uncert. (2σ+/-)							
Radium-226	11.3	11.42		1.21	1.00	0.131	pCi/L	101	75 - 125		
Carrier	LCS	LCS									
Ba Carrier	%Yield	Qualifier	Limits								
	82.9		40 - 110								

**Lab Sample ID: LCSD 160-503960/2-A**  
**Matrix: Water**  
**Analysis Batch: 506576**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 503960**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	11.75		1.25	1.00	0.136	pCi/L	104	75 - 125	0.13	1

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: LCSD 160-503960/2-A**  
**Matrix: Water**  
**Analysis Batch: 506576**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 503960**

LCSD		LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	83.8		40 - 110

**Lab Sample ID: MB 160-504273/23-A**  
**Matrix: Water**  
**Analysis Batch: 507515**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 504273**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.005605	U	0.0439	0.0439	1.00	0.0902	pCi/L	04/05/21 16:08	04/28/21 16:17	1

MB		MB		Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	87.9		40 - 110	04/05/21 16:08	04/28/21 16:17	1

**Lab Sample ID: LCS 160-504273/1-A**  
**Matrix: Water**  
**Analysis Batch: 507528**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 504273**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.84		1.12	1.00	0.0855	pCi/L	96	75 - 125

LCS		LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.6		40 - 110

**Lab Sample ID: LCSD 160-504273/2-A**  
**Matrix: Water**  
**Analysis Batch: 507528**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 504273**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	10.62		1.10	1.00	0.0865	pCi/L	94	75 - 125	0.10	1

LCSD		LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.1		40 - 110

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-503957/24-A**  
**Matrix: Water**  
**Analysis Batch: 505458**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 503957**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.02177	U	0.236	0.236	1.00	0.428	pCi/L	03/31/21 17:50	04/13/21 13:35	1

MB		MB		Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	87.4		40 - 110	03/31/21 17:50	04/13/21 13:35	1

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# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: MB 160-503957/24-A**  
**Matrix: Water**  
**Analysis Batch: 505458**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 503957**

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	86.0		40 - 110	03/31/21 17:50	04/13/21 13:35	1

**Lab Sample ID: LCS 160-503957/1-A**  
**Matrix: Water**  
**Analysis Batch: 505467**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 503957**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	7.29	8.192		1.02	1.00	0.429	pCi/L	112	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.6		40 - 110
Y Carrier	83.7		40 - 110

**Lab Sample ID: MB 160-503961/22-A**  
**Matrix: Water**  
**Analysis Batch: 505912**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 503961**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4315	U	0.293	0.296	1.00	0.454	pCi/L	03/31/21 20:35	04/16/21 13:32	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		40 - 110	03/31/21 20:35	04/16/21 13:32	1
Y Carrier	81.5		40 - 110	03/31/21 20:35	04/16/21 13:32	1

**Lab Sample ID: LCS 160-503961/1-A**  
**Matrix: Water**  
**Analysis Batch: 505910**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 503961**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	7.28	7.135		0.945	1.00	0.501	pCi/L	98	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	82.9		40 - 110
Y Carrier	82.2		40 - 110

**Lab Sample ID: LCSD 160-503961/2-A**  
**Matrix: Water**  
**Analysis Batch: 505910**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 503961**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	7.28	7.892		1.02	1.00	0.494	pCi/L	108	75 - 125	0.39	1

# QC Sample Results

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCSD 160-503961/2-A**  
**Matrix: Water**  
**Analysis Batch: 505910**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 503961**

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	83.8		40 - 110
Y Carrier	80.7		40 - 110

**Lab Sample ID: MB 160-504276/23-A**  
**Matrix: Water**  
**Analysis Batch: 505784**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 504276**

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.1882	U	0.231	0.232	1.00	0.382	pCi/L	04/05/21 16:42	04/15/21 14:23	1

Carrier	MB		Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	87.9		40 - 110	04/05/21 16:42	04/15/21 14:23	1
Y Carrier	87.9		40 - 110	04/05/21 16:42	04/15/21 14:23	1

**Lab Sample ID: LCS 160-504276/1-A**  
**Matrix: Water**  
**Analysis Batch: 505760**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 504276**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	85.6		40 - 110
Y Carrier	82.2		40 - 110

**Lab Sample ID: LCSD 160-504276/2-A**  
**Matrix: Water**  
**Analysis Batch: 505760**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 504276**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	84.1		40 - 110
Y Carrier	82.2		40 - 110

# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Rad

### Prep Batch: 503954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-2	MGWA-11	Total/NA	Water	PrecSep-21	
180-119063-3	MGWA-6	Total/NA	Water	PrecSep-21	
180-119063-4	MGWA-6A	Total/NA	Water	PrecSep-21	
180-119063-5	MGWA-5	Total/NA	Water	PrecSep-21	
MB 160-503954/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-503954/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 503957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-2	MGWA-11	Total/NA	Water	PrecSep_0	
180-119063-3	MGWA-6	Total/NA	Water	PrecSep_0	
180-119063-4	MGWA-6A	Total/NA	Water	PrecSep_0	
180-119063-5	MGWA-5	Total/NA	Water	PrecSep_0	
MB 160-503957/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-503957/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

### Prep Batch: 503960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-6	MGWC-12	Total/NA	Water	PrecSep-21	
180-119063-7	MGWC-3	Total/NA	Water	PrecSep-21	
180-119063-8	MGWC-2	Total/NA	Water	PrecSep-21	
180-119063-9	MGWC-7	Total/NA	Water	PrecSep-21	
180-119063-10	MGWC-1	Total/NA	Water	PrecSep-21	
180-119063-11	MGWC-8	Total/NA	Water	PrecSep-21	
180-119063-12	FB-1	Total/NA	Water	PrecSep-21	
180-119063-13	EB-1	Total/NA	Water	PrecSep-21	
180-119063-14	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-503960/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-503960/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-503960/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 503961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-6	MGWC-12	Total/NA	Water	PrecSep_0	
180-119063-7	MGWC-3	Total/NA	Water	PrecSep_0	
180-119063-8	MGWC-2	Total/NA	Water	PrecSep_0	
180-119063-9	MGWC-7	Total/NA	Water	PrecSep_0	
180-119063-10	MGWC-1	Total/NA	Water	PrecSep_0	
180-119063-11	MGWC-8	Total/NA	Water	PrecSep_0	
180-119063-12	FB-1	Total/NA	Water	PrecSep_0	
180-119063-13	EB-1	Total/NA	Water	PrecSep_0	
180-119063-14	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-503961/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-503961/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-503961/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 504273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	PrecSep-21	
MB 160-504273/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-504273/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

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# QC Association Summary

Client: Southern Company  
Project/Site: McIntosh Ash Pond 1

Job ID: 180-119063-2

## Rad (Continued)

### Prep Batch: 504273 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 160-504273/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 504276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119063-1	MGWA-10	Total/NA	Water	PrecSep_0	
MB 160-504276/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-504276/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-504276/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	





**Chain of Custody Record**



<b>Client Information</b>		Lab P/N: Brown, Shali		Carrier Tracking No(s):		COC No:	
Client Contact: SCS Contacts		E-Mail: snait.brown@eurofinset.com		Page: 1 of 2		Job #:	
Company: GA Power		Address: 241 Ralph McGill Blvd SE		City: Atlanta		State, Zip: GA, 30308	
Phone: 404-506-7116(Tel)		PO #: SCS10382606		WO #:		Project #:	
Email: SCS Contacts		Plant Name: McIntosh Ash Pond 1		Site: Georgia		SSOW#:	
<b>Analysis Requested</b>		Due Date Requested:		TAT Requested (days):		Field Filtered Sample (Yes or No)	
Matrix (W-water, S-solid, O-wastewater, BT-Tissue, A-air)		Sample Type (C=Comp, G=grab)		Sample Time		Sample Date	
Sample Identification		Preservation Code:		Sample Date		Sample Time	
MGWA-10		G		1036		3/23/21	
MGWA-11		G		1225		3/23/21	
MGWA-6		G		1420		3/23/21	
MGWA-6A		G		1545		3/23/21	
MGWA-5		G		1000		3/24/21	
MGWC-12		G		1120		3/24/21	
MGWC-3		G		1245		3/24/21	
MGWC-2		G		1425		3/24/21	
MGWC-7		G		1615		3/24/21	
MGWC-1		G		1232		3/24/21	
MGWC-8		G		1444		3/24/21	
<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>Deliverable Requested:</b> I, II, III, IV, Other (specify)							
Empty Kit Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		3/25/21 12:51		3/25/21 12:51		3/25/21 12:51	
Relinquished by:		3/25/21 16:00		3/25/21 16:00		3/26/21	
Relinquished by:						3/26/21	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		9.0	
Δ Yes Δ No							
<b>Special Instructions/Note:</b> Full App 3 plus detected App 4 (All App 4)		Total Number of Contain		pH=		Special Instructions/Note:	
		4		5.00		W - pH 4-5	
		4		7.00		L - EDA	
		4		6.74		Z - other (specify)	
		4		6.56		Other:	
		4		6.88			
		4		7.15			
		4		6.73			
		6		7.24		Ex RAD here	
		4		6.26			
		4		7.14			
		4		6.71			
<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		Archive For _____ Months	
<b>Special Instructions/QC Requirements:</b>							
Method of Shipment:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		3/25/21 12:51		3/25/21 12:51		3/25/21 12:51	
Relinquished by:		3/25/21 16:00		3/25/21 16:00		3/26/21	
Relinquished by:						3/26/21	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		9.0	
Δ Yes Δ No							



**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>A Schnitker</u>		Lab PM: <u>Brown, Shai</u>		Carrier Tracking No(s):		COC No:	
Client Contact: <u>SCS Contacts</u>		Phone: <u>270909033</u>		E-Mail: <u>shai.brown@eurofinset.com</u>		Page: <u>2 of 2</u>		Job #:	
Company: <u>GA Power</u>		Address: <u>241 Ralph McGill Blvd SE</u>		City: <u>Atlanta</u>		State, Zip: <u>GA, 30308</u>		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 L - EDA Other:	
PO #: <u>404-506-7116(Tel)</u>		WO #: <u>SCS10382606</u>		Project #: <u>18019956</u>		Site: <u>Georgia</u>		Special Instructions/Note: <u>Full App 3 plus detected App 4 (All App 4)</u>	
Due Date Requested:		TAT Requested (days):		Field Filtered Sample (Yes or No)		App. III Metals (B, Ca)		Total Number of Containers	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=organic, A=air)	
FB-1		3/24/21		1330		G		W	
EB-1		3/24/21		910		G		W	
DUP-1		3/23/21		-		G		W	
Possible Hazard Identification		Sample Date		Sample Time		Sample Type		Matrix	
<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 Date		Sample Time		Sample Type		Matrix	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Date		Sample Time		Sample Type		Matrix	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		Special Instructions/QC Requirements:	
Relinquished by: <u>[Signature]</u>		Date: <u>3/25/21 12:51</u>		Time: <u>12:51</u>		Method of Shipment:		Special Instructions/QC Requirements:	
Relinquished by: <u>[Signature]</u>		Date: <u>3/25/21 16:00</u>		Time: <u>16:00</u>		Method of Shipment:		Special Instructions/QC Requirements:	
Relinquished by: <u>[Signature]</u>		Date: <u>3/25/21</u>		Time: <u>9:00</u>		Method of Shipment:		Special Instructions/QC Requirements:	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Return To Client		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Return To Client		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/QC Requirements:	
Company: <u>GA Power</u>		Date/Time: <u>3/25/21 12:51</u>		Date/Time: <u>3/25/21 16:00</u>		Date/Time: <u>3/25/21 9:00</u>		Company: <u>GA Power</u>	
Company: <u>GA Power</u>		Date/Time: <u>3/25/21 12:51</u>		Date/Time: <u>3/25/21 16:00</u>		Date/Time: <u>3/25/21 9:00</u>		Company: <u>GA Power</u>	
Company: <u>GA Power</u>		Date/Time: <u>3/25/21 12:51</u>		Date/Time: <u>3/25/21 16:00</u>		Date/Time: <u>3/25/21 9:00</u>		Company: <u>GA Power</u>	



Date: 25Mar21  
Wgt: 55.75 LBS

SHIPPING: 0.00  
SPECIAL: 0.00  
HANDLING: 0.00  
TOTAL: 0.00

Tr: 1516 9328 9854  
K: 1516 9328 9876

**Do Not**

RT 97

1 10:30 A  
9876  
03.26



Environment Testing  
TestAmerica

Part # 159469-434 RIT2 EXP 11/21

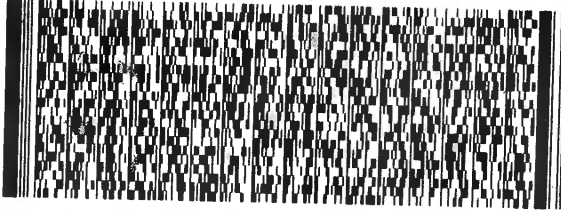
ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECIPIENT

TO **SAMPLE RECIEVING**  
**EUROFINS TESTAMERICA PITTSBURGH**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 963-7058  
REF: ACC



FedEx  
Express



3 of 4

MPS# 1516 9328 9876  
0263

**FRI - 26 MAR 10:30A**  
**PRIORITY OVERNIGHT**

Mstr# 1516 9328 9854

0201

Uncorrected temp  
Thermometer ID

36  
14 °C  
8

15238  
PA-US PIT

CF CS Initials

PT-WI-SR-001 effective 11/8/18



180-119063 Waybill





RT 97

10:30  
9865  
03:26  
A

# 159469-434 RIT2 EXP 11/21

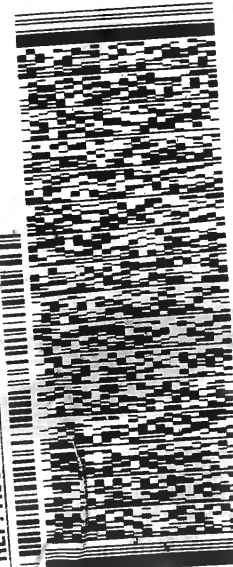
SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECIPIENT

ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
15 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

TO SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH  
301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238

(412) 963-7058  
REF: ACC



FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

2 of 4

MPS# 1516 9328 9865  
0263

Mstr# 1516 9328 9854

NA AGCA

0201

PA-US

15238  
PIT

Uncorrected temp  
Thermometer ID

CF

Initials

PT-WI-SR-001 effective 11/6/18

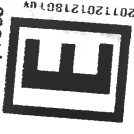


ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
15 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

SAMPLE RECEIVING  
EUROFINS TESTAMERICA PITTSBURGH  
301 ALPHA DR.  
RIDC PARK  
PITTSBURGH PA 15238  
963-7058  
ACC

SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE3409

BILL RECIPIENT



FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

4 of 4

16 9328 9887  
16 9328 9854

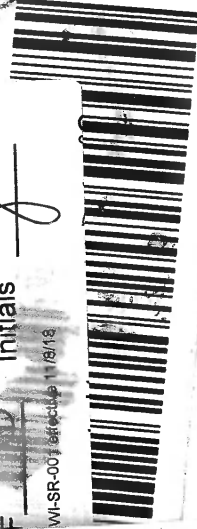
AGCA

Uncorrected temp  
Thermometer ID

Initials

WI-SR-001 effective 11/6/18

15238  
-US  
PIT



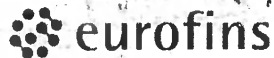
1/21

55MR3/AC39/MSA2

120112012180101

0201

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Environment Testing  
TestAmerica

Part 50469-434 RITZ E

ORIGIN ID:LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
SUITE 900  
NORCROSS, GA 30071  
UNITED STATES US

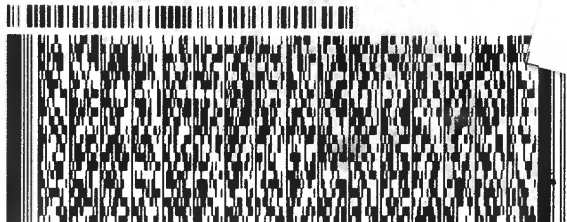
SHIP DATE: 25MAR21  
ACTWGT: 55.75 LB  
CAD: 859116/CAFE34

BILL RECIPIENT

TO **SAMPLE RECIEVING**  
**EUROFINS TESTAMERICA PITTSBURG**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 963-7058

REF: ACC



Recipie
Company
Street Address
City

© 2011 FedEx 149849 REV 7/11



1 of 4  
TRK# 1516 9328 9854  
0201  
## MASTER ##

FRI - 26 MAR 10:30A  
PRIORITY OVERNIGHT

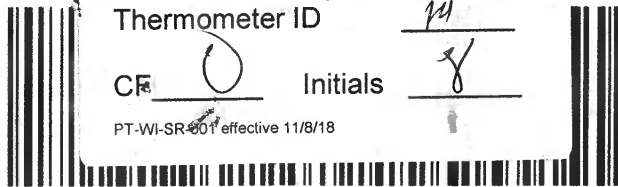
**NA AGCA**

15238  
PA-US PIT

Uncorrected temp 2.8 °C  
Thermometer ID 11

CF 0 Initials J

PT-WI-SR-001 effective 11/8/18



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- 10
- 11
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- 13

**Chain of Custody Record**



**Client Information (Sub Contract Lab)**  
 Client Contact: Shipping/Receiving  
 Lab PM: Brown, Shali  
 E-Mail: Shali.Brown@Eurofins.com  
 State of Origin: Georgia  
 Carrier Tracking No(s): 180-430397.1  
 Page: Page 1 of 2  
 Job #: 180-119063-1

Company: TestAmerica Laboratories, Inc.  
 Address: 13715 Rider Trail North,  
 City: Earth City  
 State, Zip: MO, 63045  
 Phone: 314-298-8566(Tel) 314-298-8757(Fax)  
 Email:  
 Project Name: CCR - Plant McIntosh Ash Pond 1  
 Site: Southern McIntosh Ash Pond 1

Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/Presep_0 Standard Target List	Total Number of Containers	Special Instructions/Note:
MGWA-11 (180-119063-2)	3/23/21	12:25 Eastern	Water	Water	X	X	X	2	
MGWA-6 (180-119063-3)	3/23/21	14:20 Eastern	Water	Water	X	X	X	2	
MGWA-6A (180-119063-4)	3/23/21	15:45 Eastern	Water	Water	X	X	X	2	
MGWA-5 (180-119063-5)	3/24/21	10:00 Eastern	Water	Water	X	X	X	2	
MGWC-12 (180-119063-6)	3/24/21	11:20 Eastern	Water	Water	X	X	X	2	
MGWC-3 (180-119063-7)	3/24/21	12:45 Eastern	Water	Water	X	X	X	2	
MGWC-2 (180-119063-8)	3/24/21	14:25 Eastern	Water	Water	X	X	X	2	
MGWC-7 (180-119063-9)	3/24/21	16:15 Eastern	Water	Water	X	X	X	2	
MGWC-1 (180-119063-10)	3/24/21	12:32 Eastern	Water	Water	X	X	X	2	

**Analysis Requested**  
 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 - EDTA  
 M - Hexane  
 N - None  
 O - AsNO2  
 P - Na2OAS  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4.5  
 Z - other (Specify)  
 Other:

**Sample Identification - Client ID (Lab ID)**  
 Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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/ests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 3/20/21 1700  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No  
 Cooler Temperature(s) °C and Other Remarks:

**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:  
 Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Received by: *Melany Dora* Date/Time: 3/31/21 1200 Company: EIA  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks:

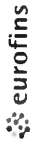


**Chain of Custody Record**

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-430397.2
Client Contact: Shipping/Receiving		E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): 180-119063-1		
Address: 13715 Rider Trail North.		<b>Analysis Requested</b>		
City: Earth City		Total Number of Containers		
State, Zip: MO, 63045		920_Ra228/PreSep_0 Standard Target List		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Field Filtered Sample (Yes or No)		
Email:		Performance MS/MSD (Yes or No)		
Project #: CCR - Plant McIntosh Ash Pond 1		Preservation Code:		
Site: Southern McIntosh Ash Pond 1		Matrix (W=water, S=solid, O=water/soil, BT=Tissue, AA=Air)		
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		
MGWC-8 (180-119063-11)	Sample Time 14:44 Eastern	Sample Type (C=Comp, G=grab)	Sample Matrix (W=water, S=solid, O=water/soil, BT=Tissue, AA=Air)	Special Instructions/Note:
FB-1 (180-119063-12)	13:30 Eastern	Water	Water	
EB-1 (180-119063-13)	09:10 Eastern	Water	Water	
DUP-1 (180-119063-14)	Eastern	Water	Water	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>				
<b>Possible Hazard Identification</b>				
Unconfirmed				
Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2				
Empty Kit Relinquished by: _____ Date: _____				
Relinquished by: _____ Date/Time: 3/30/21 1700 Company: EPA/PAH				
Relinquished by: _____ Date/Time: _____ Company: _____				
Relinquished by: _____ Date/Time: _____ Company: _____				
Custody Seals Intact: _____ Custody Seal No.: _____				
Cooler Temperature(s) °C and Other Remarks: _____				



**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Brown, Shali	Carrier Tracking No(s): 180-430397.1	
Shipping/Receiving		E-Mail: Shali.Brown@Eurofins.com	Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		State of Origin: Georgia	Job #: 180-119063-2	
Address: 13715 Rider Trail North,		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 X - EDTA Z - other (specify)		
City: Earth City	Due Date Requested: 4/25/2021	Analysis Requested		
State, Zip: MO, 63045	TAT Requested (days):	Total Number of Containers		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:	9315_Ra226/PreSep_21 Radium-226		
Email:	WO #:	Perform MS/MSD (Yes or No)		
Project Name: CCR - Plant McIntosh Ash Pond 1	Project #: 18019956	Field Filled Sample (Yes or No)		
Site: Southern McIntosh Ash Pond 1	SSOW#:	Preservation Code:		
<b>Sample Identification - Client ID (Lab ID)</b>	<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=water/soil, BT=Tissue, AA=)</b>
MGWA-11 (180-119063-2)	3/23/21	12:25 Eastern	Water	Water
MGWA-6 (180-119063-3)	3/23/21	14:20 Eastern	Water	Water
MGWA-6A (180-119063-4)	3/23/21	15:45 Eastern	Water	Water
MGWA-5 (180-119063-5)	3/24/21	10:00 Eastern	Water	Water
MGWC-12 (180-119063-6)	3/24/21	11:20 Eastern	Water	Water
MGWC-3 (180-119063-7)	3/24/21	12:45 Eastern	Water	Water
MGWC-2 (180-119063-8)	3/24/21	14:25 Eastern	Water	Water
MGWC-7 (180-119063-9)	3/24/21	16:15 Eastern	Water	Water
MGWC-1 (180-119063-10)	3/24/21	12:32 Eastern	Water	Water

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 3/20/21 11:00  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No

Special Instructions/Note:  
 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  
 Method of Shipment: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Received by: *Mullany O.Su* Date/Time: 3/21/21 12:00 Company: ETA  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks:



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Brown, Shali	Carrier Tracking No(s): 180-430397.2
Client Contact: Shipping/Receiving		E-Mail: Shali.Brown@Eurofins.com	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Job #: 180-119063-2	
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		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 M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (Specify)	
Due Date Requested: 4/25/2021 TAT Requested (days):		Analysis Requested	
PO #:	WO #:	Total Number of Containers	
Project #: 18019956	Project Name: CCR - Plant McIntosh Ash Pond 1	Field Filtered Sample (Yes or No)	
Site: Southern McIntosh Ash Pond 1	Site:	Perform MS/MSD (Yes or No)	
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=TISSUE, A=AU)
3/24/21	14:44 Eastern		Water
3/24/21	13:30 Eastern		Water
3/24/21	09:10 Eastern		Water
3/23/21	Eastern		Water
MGWC-8 (180-119063-11)			
FB-1 (180-119063-12)			
EB-1 (180-119063-13)			
DUP-1 (180-119063-14)			
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica</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 <input type="checkbox"/> Months</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p>			
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment:</p>			
Relinquished by: <i>my</i>		Received by: <b>FED EX</b>	
Relinquished by: _____		Date/Time: 3/30/21 1700	
Relinquished by: _____		Date/Time: _____	
Relinquished by: _____		Date/Time: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>A. Schmitt</u>		Lab PM: <u>Brown, Shali</u>		Carrier Tracking No(s):		COC No:	
Client Contact: SCS Contacts		Phone: <u>270 909 0058</u>		E-Mail: <u>shali.brown@eurofinset.com</u>				Page: <u>1 of 2</u>	
Company: GA Power								Job #:	
Address: 241 Ralph McGill Blvd SE		Due Date Requested:		Analysis Requested		Preservation Codes:		Special Instructions/Note: Full App 3 plus detected App 4 (All App 4)	
City: Atlanta		TAT Requested (days):		Field Filtered Sample (Yes or No)		Radium 226 & 228 (SW-846 9315/9320)		Total Number of Containers	
State, Zip: GA, 30308		PO #: SCS10382606		App. III Metals (B, Ca)		Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl)		K - EDIA W - pH 4-5 L - EDA Z - other (specify)	
Phone: 404-506-7116(Tel)		WO #:		App. III Metals (B, Ca)		EPA 3000 & SM 2540C		Other:	
Email: SCS Contacts		Project #: 18019956		Matrix (liquid, solid, over-sat, other)		Radium 226 & 228		hydrate	
Plant Name: Plant McIntosh Ash Pond 1		SSOW#:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: Georgia				Preservation Code:					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (liquid, solid, over-sat, other)	Field Filtered Sample (Yes or No)	App. III Metals (B, Ca)	EPA 3000 & SM 2540C	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl)	Radium 226 & 228 (SW-846 9315/9320)	Total Number of Containers	Special Instructions/Note: Full App 3 plus detected App 4 (All App 4)
M GWA-10	3/23/21	1036	G	GW	X	✓	✓	✓	✓	4	pH= 5.00
<del>M GWA-11</del>	<del>3/23/21</del>	<del>1225</del>	<del>G</del>	<del>GW</del>	<del>X</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>4</del>	<del>pH= 7.00</del>
M GWA-6	3/23/21	1420	G	GW	X	✓	✓	✓	✓	4	pH= 6.74
M GWA-6A	3/23/21	1545	G	GW	X	✓	✓	✓	✓	4	pH= 6.50
M GWA-5	3/24/21	1000	G	GW	X	✓	✓	✓	✓	4	pH= 6.88
M GWC-12	3/24/21	1120	G	GW	X	✓	✓	✓	✓	4	pH= 7.15
M GWC-3	3/24/21	1245	G	GW	X	✓	✓	✓	✓	4	pH= 6.73
M GWC-2	3/24/21	1425	G	GW	X	✓	✓	✓	✓	6	pH= 7.24 Gx RAD hydrate
M GWC-7	3/24/21	1615	G	GW	X	✓	✓	✓	✓	4	pH= 6.26
M GWC-1	3/24/21	1232	G	GW	X	✓	✓	✓	✓	4	pH= 7.14
M GWC-8	3/24/21	1444	G	GW	X	✓	✓	✓	✓	4	pH= 6.71

**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: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 3/25/21 12:51 Company: ACC

Relinquished by: \_\_\_\_\_ Date/Time: 3/24/21 16:00 Company: ENO

Relinquished by: \_\_\_\_\_ Date/Time: 3/30/21 17:00 Company: EAPAT

Custody Seal Intact:  Yes  No Custody Seal No.: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 3/25/21 12:51 Company: ENA

Relinquished by: \_\_\_\_\_ Date/Time: 3-26-21 Company: ENA

Relinquished by: \_\_\_\_\_ Date/Time: 9:00 Company: ENA

Cooler Temperature (°C and Other Remarks): 66L 3/25/21 11:30

Relinquished by: \_\_\_\_\_ Date/Time: 4/1/21 10:00 Company: ENA

Relinquished by: \_\_\_\_\_ Date/Time: 4/2/21 09:05 Company: ENA





# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119063-2

**Login Number: 119063**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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.	False	
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: 180-119063-2

**Login Number: 119063**

**List Number: 2**

**Creator: Mazariegos, Leonel A**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 03/31/21 03:03 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	N/A	
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: 180-119063-2

**Login Number: 119063**

**List Number: 3**

**Creator: O'Gara, Mallory L**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 04/02/21 04:40 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	N/A	
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	

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**McIntosh Ash Pond 1**

**1<sup>st</sup> Semi-Annual Event**

**March 2021**

## **Georgia Power Company – McIntosh Ash Pond 1**

### **Quality Control Review of Analytical Data – March 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between March 23, 2021 and March 24, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III, and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were met, with the exception of Molybdenum on MGWA-11 (180-119063-2) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met, with the exception of Fluoride on MGWA-5 (180-119063-14) as described in the qualifications section below.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**U:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples MGWA-11 (180-119063-2) and DUP-1 (180-119063-14) were qualified as estimated (J) for Molybdenum as the field relative percent difference (RPD) exceeded QC criteria (21.43% above the limit of 20).

- Sample MGWA-5 (180-119063-5) was qualified as estimated (J) for Fluoride as the associated matrix spike duplicate (MSD) recovery was above the QC criteria (112% above the range of 90-110).

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between March 23, 2021 and March 24, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## **REFERENCES**

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – March 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
119063	MGWA-10	3/23/2021	180-119063-1	GW		X	X	X	X
119063	MGWA-11	3/23/2021	180-119063-2	GW		X	X	X	X
119063	MGWA-6	3/23/2021	180-119063-3	GW		X	X	X	X
119063	MGWA-6A	3/23/2021	180-119063-4	GW		X	X	X	X
119063	MGWA-5	3/24/2021	180-119063-5	GW		X	X	X	X
119063	MGWC-12	3/24/2021	180-119063-6	GW		X	X	X	X
119063	MGWC-3	3/24/2021	180-119063-7	GW		X	X	X	X
119063	MGWC-2	3/24/2021	180-119063-8	GW		X	X	X	X
119063	MGWC-7	3/24/2021	180-119063-9	GW		X	X	X	X
119063	MGWC-1	3/24/2021	180-119063-10	GW		X	X	X	X
119063	MGWC-8	3/24/2021	180-119063-11	GW		X	X	X	X
119063	FB-1	3/24/2021	180-119063-12	WQ	FB	X	X	X	X
119063	EB-1	3/24/2021	180-119063-13	WQ	EB	X	X	X	X
119063	DUP-1	3/23/2021	180-119063-14	GW	FD (MGWA-11)	X	X	X	X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control



TABLE 2

Georgia Power Company – McIntosh AP1

Qualifier Summary Table – March 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
119063	MGWA-11	Molybdenum			J	RPD exceeds field goal
119063	DUP-1	Molybdenum			J	RPD exceeds field goal
119063	MGWA-5	Fluoride			J	MSD outside QC criteria

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 U – Non-Detect Result

# Low-Flow Test Report:

Test Date / Time: 3/24/2021 12:02:16 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-1</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 46.08 ft</b> <b>Total Depth: 56.08 ft</b> <b>Initial Depth to Water: 38.08 ft</b>	<b>Pump Type: Peristaltic pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 53 ft</b> <b>Estimated Total Volume Pumped: 6000 ml</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.66 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 608421</b>
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## Test Notes:

Sampled at 1232. Partly cloudy 72 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 12:02 PM	00:00	6.99 pH	23.08 °C	457.69 µS/cm	1.50 mg/L	0.44 NTU	143.4 mV	38.08 ft	200.00 ml/min
3/24/2021 12:07 PM	05:00	7.09 pH	22.49 °C	466.01 µS/cm	0.70 mg/L	0.14 NTU	94.7 mV	38.55 ft	200.00 ml/min
3/24/2021 12:12 PM	10:00	7.12 pH	22.67 °C	442.06 µS/cm	0.50 mg/L	0.15 NTU	60.9 mV	38.64 ft	200.00 ml/min
3/24/2021 12:17 PM	15:00	7.14 pH	22.74 °C	472.53 µS/cm	0.37 mg/L	0.15 NTU	39.1 mV	38.70 ft	200.00 ml/min
3/24/2021 12:22 PM	20:00	7.12 pH	22.79 °C	469.51 µS/cm	0.28 mg/L	0.20 NTU	26.0 mV	38.74 ft	200.00 ml/min
3/24/2021 12:27 PM	25:00	7.13 pH	22.62 °C	464.01 µS/cm	0.26 mg/L	0.14 NTU	12.8 mV	38.74 ft	200.00 ml/min
3/24/2021 12:32 PM	30:00	7.14 pH	22.61 °C	475.57 µS/cm	0.24 mg/L	0.21 NTU	-1.4 mV	38.74 ft	200.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 1:42:56 PM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWC-2</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 27.3 ft</b> <b>Total Depth: 37.36 ft</b> <b>Initial Depth to Water: 20.21 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 32 ft</b> <b>Estimated Total Volume Pumped: 7 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 15 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time 1425. Sunny 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/24/2021 1:42 PM	00:00	7.18 pH	25.16 °C	737.63 µS/cm	1.75 mg/L	5.80 NTU	40.1 mV	20.21 ft	200.00 ml/min
3/24/2021 1:47 PM	04:40	7.23 pH	23.75 °C	744.94 µS/cm	0.42 mg/L	4.60 NTU	28.1 mV	21.10 ft	200.00 ml/min
3/24/2021 1:52 PM	09:40	7.23 pH	24.14 °C	746.27 µS/cm	0.36 mg/L	4.10 NTU	-10.2 mV	21.40 ft	200.00 ml/min
3/24/2021 1:57 PM	14:40	7.23 pH	23.98 °C	744.08 µS/cm	0.1 mg/L	3.80 NTU	-17.7 mV	21.40 ft	200.00 ml/min
3/24/2021 2:02 PM	19:40	7.24 pH	23.67 °C	743.35 µS/cm	0.1 mg/L	3.10 NTU	-23.6 mV	21.40 ft	200.00 ml/min
3/24/2021 2:07 PM	24:40	7.24 pH	23.80 °C	747.35 µS/cm	0.1 mg/L	2.20 NTU	-27.3 mV	21.50 ft	200.00 ml/min
3/24/2021 2:12 PM	29:40	7.23 pH	24.04 °C	746.42 µS/cm	0.1 mg/L	2.60 NTU	-29.6 mV	21.50 ft	200.00 ml/min
3/24/2021 2:17 PM	35:00	7.24 pH	23.83 °C	749.54 µS/cm	0.1 mg/L	2.10 NTU	-11.6 mV	21.50 ft	200.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 12:08:52 PM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWC-3</b> <b>Well Diameter: 2 ft</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 28 ft</b> <b>Total Depth: 38.74 ft</b> <b>Initial Depth to Water: 18.58 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 33 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time 1245. Partly cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/24/2021 12:08 PM	00:00	6.67 pH	20.33 °C	608.19 µS/cm	0.82 mg/L	1.80 NTU	20.1 mV	18.58 ft	120.00 ml/min
3/24/2021 12:13 PM	05:00	6.72 pH	20.39 °C	614.10 µS/cm	0.68 mg/L	1.70 NTU	27.4 mV	18.90 ft	120.00 ml/min
3/24/2021 12:18 PM	10:00	6.73 pH	20.45 °C	618.08 µS/cm	0.78 mg/L	1.60 NTU	31.7 mV	18.90 ft	120.00 ml/min
3/24/2021 12:23 PM	15:00	6.74 pH	20.53 °C	618.14 µS/cm	0.67 mg/L	1.50 NTU	32.7 mV	18.90 ft	120.00 ml/min
3/24/2021 12:28 PM	20:00	6.74 pH	20.62 °C	618.99 µS/cm	0.75 mg/L	1.20 NTU	33.6 mV	18.90 ft	120.00 ml/min
3/24/2021 12:33 PM	25:00	6.74 pH	20.66 °C	619.27 µS/cm	0.73 mg/L	1.20 NTU	34.6 mV	18.90 ft	120.00 ml/min
3/24/2021 12:38 PM	30:00	6.73 pH	20.70 °C	620.04 µS/cm	0.73 mg/L	1.10 NTU	35.6 mV	18.90 ft	120.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 9:25:18 AM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWA-5</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.1 ft</b> <b>Total Depth: 63.09 ft</b> <b>Initial Depth to Water: 22.97 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 160 ml/min</b> <b>Final Draw Down: 13 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time: 1000. Cloudy 60s. EB-1 here at 910

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/24/2021 9:25 AM	00:00	6.90 pH	19.73 °C	238.00 µS/cm	2.02 mg/L	4.00 NTU	204.1 mV	22.97 ft	160.00 ml/min
3/24/2021 9:30 AM	05:00	6.95 pH	19.93 °C	234.44 µS/cm	1.56 mg/L	3.50 NTU	204.8 mV	24.00 ft	160.00 ml/min
3/24/2021 9:35 AM	10:00	6.90 pH	19.97 °C	233.54 µS/cm	1.39 mg/L	2.70 NTU	203.6 mV	24.00 ft	160.00 ml/min
3/24/2021 9:40 AM	15:00	6.90 pH	20.03 °C	233.14 µS/cm	1.10 mg/L	2.50 NTU	201.0 mV	24.10 ft	160.00 ml/min
3/24/2021 9:45 AM	20:00	6.89 pH	20.08 °C	233.10 µS/cm	1.05 mg/L	2.10 NTU	198.2 mV	24.10 ft	160.00 ml/min
3/24/2021 9:50 AM	25:00	6.88 pH	20.10 °C	232.92 µS/cm	1.01 mg/L	1.90 NTU	195.4 mV	24.10 ft	160.00 ml/min
3/24/2021 9:55 AM	30:00	6.88 pH	20.18 °C	233.15 µS/cm	0.98 mg/L	1.60 NTU	191.3 mV	24.10 ft	160.00 ml/min

## Samples

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

Test Date / Time: 3/23/2021 1:45:18 PM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWA-6</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32 ft</b> <b>Total Depth: 42.2 ft</b> <b>Initial Depth to Water: 20.82 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 36 ft</b> <b>Estimated Total Volume Pumped: 7 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 3 ft</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time: 14:20. Sunny 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/23/2021 1:45 PM	00:00	6.84 pH	23.41 °C	490.17 µS/cm	0.54 mg/L	1.70 NTU	25.5 mV	20.82 ft	150.00 ml/min
3/23/2021 1:50 PM	05:00	6.81 pH	22.75 °C	491.61 µS/cm	0.40 mg/L	1.80 NTU	13.8 mV	20.82 ft	150.00 ml/min
3/23/2021 1:55 PM	10:00	6.80 pH	22.64 °C	492.31 µS/cm	0.27 mg/L	2.00 NTU	1.6 mV	20.82 ft	150.00 ml/min
3/23/2021 2:00 PM	15:00	6.80 pH	22.73 °C	492.95 µS/cm	0.26 mg/L	2.30 NTU	-2.9 mV	20.82 ft	150.00 ml/min
3/23/2021 2:05 PM	20:00	6.80 pH	22.68 °C	493.06 µS/cm	0.10 mg/L	2.10 NTU	-6.1 mV	20.82 ft	150.00 ml/min
3/23/2021 2:10 PM	25:00	6.78 pH	22.84 °C	493.75 µS/cm	0.10 mg/L	1.50 NTU	-6.8 mV	20.82 ft	150.00 ml/min
3/23/2021 2:15 PM	30:00	6.74 pH	22.80 °C	492.49 µS/cm	0.43 mg/L	1.10 NTU	-6.9 mV	20.82 ft	150.00 ml/min

## Samples

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

Test Date / Time: 3/23/2021 2:55:34 PM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWA-6A</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 29.7 ft</b> <b>Total Depth: 39.67 ft</b> <b>Initial Depth to Water: 19.41 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 35 ft</b> <b>Estimated Total Volume Pumped: 5.5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 12 ft</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time: 1545. Sunny 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/23/2021 2:55 PM	00:00	6.82 pH	36.20 °C	0.05 µS/cm	8.59 mg/L	8.90 NTU	36.2 mV	19.41 ft	120.00 ml/min
3/23/2021 3:00 PM	05:00	6.99 pH	22.35 °C	453.34 µS/cm	0.55 mg/L	9.60 NTU	-151.0 mV	20.20 ft	120.00 ml/min
3/23/2021 3:05 PM	10:00	6.99 pH	22.21 °C	454.01 µS/cm	0.49 mg/L	10.0 NTU	-148.0 mV	20.30 ft	120.00 ml/min
3/23/2021 3:17 PM	22:12	6.92 pH	22.65 °C	453.04 µS/cm	0.37 mg/L	9.50 NTU	-141.4 mV	20.40 ft	120.00 ml/min
3/23/2021 3:22 PM	27:12	6.75 pH	23.22 °C	442.97 µS/cm	0.10 mg/L	7.60 NTU	-121.2 mV	20.40 ft	120.00 ml/min
3/23/2021 3:31 PM	35:39	6.57 pH	22.99 °C	446.29 µS/cm	0.59 mg/L	6.80 NTU	-103.8 mV	20.40 ft	120.00 ml/min
3/23/2021 3:36 PM	40:39	6.55 pH	22.64 °C	444.73 µS/cm	0.57 mg/L	5.10 NTU	-103.4 mV	20.40 ft	120.00 ml/min
3/23/2021 3:41 PM	45:39	6.56 pH	22.79 °C	447.58 µS/cm	0.10 mg/L	4.80 NTU	-108.1 mV	20.40 ft	120.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 3:32:34 PM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWC-7</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32.3 ft</b> <b>Total Depth: 42.29 ft</b> <b>Initial Depth to Water: 21.32 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37 ft</b> <b>Estimated Total Volume Pumped: 4.5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 130 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time 1415. Cloudy 70s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/24/2021 3:32 PM	00:00	6.33 pH	34.72 °C	142.70 µS/cm	7.84 mg/L	4.10 NTU	29.4 mV	21.32 ft	130.00 ml/min
3/24/2021 3:37 PM	05:00	6.32 pH	25.04 °C	472.60 µS/cm	3.19 mg/L	4.00 NTU	35.5 mV	21.70 ft	130.00 ml/min
3/24/2021 3:42 PM	10:00	6.22 pH	24.46 °C	476.33 µS/cm	0.84 mg/L	3.60 NTU	11.8 mV	21.80 ft	130.00 ml/min
3/24/2021 3:47 PM	15:00	6.23 pH	24.06 °C	475.38 µS/cm	1.01 mg/L	2.50 NTU	7.8 mV	21.80 ft	130.00 ml/min
3/24/2021 3:52 PM	20:00	6.26 pH	23.66 °C	484.04 µS/cm	0.50 mg/L	1.30 NTU	-5.5 mV	21.80 ft	130.00 ml/min
3/24/2021 3:57 PM	25:00	6.24 pH	24.05 °C	494.30 µS/cm	0.1 mg/L	1.20 NTU	-17.5 mV	21.80 ft	130.00 ml/min
3/24/2021 4:02 PM	30:00	6.25 pH	23.72 °C	500.68 µS/cm	0.1 mg/L	1.20 NTU	-25.6 mV	21.80 ft	130.00 ml/min
3/24/2021 4:05 PM	32:47	6.24 pH	23.48 °C	499.89 µS/cm	0.1 mg/L	1.20 NTU	-23.9 mV	21.80 ft	130.00 ml/min
3/24/2021 4:06 PM	34:06	6.26 pH	23.45 °C	499.71 µS/cm	0.1 mg/L	1.20 NTU	-23.6 mV	21.80 ft	130.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 1:54:10 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.56 ft</b> <b>Total Depth: 52.56 ft</b> <b>Initial Depth to Water: 32.13 ft</b>	<b>Pump Type: Peristaltic pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 6250 ml</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 608421</b>
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**Test Notes:** Sampled at 1444. Mostly cloudy 79 degrees. FB-1 taken here at 1330.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/24/2021 1:54 PM	00:00	6.67 pH	29.67 °C	461.60 µS/cm	5.22 mg/L	0.72 NTU	119.0 mV	32.13 ft	125.00 ml/min
3/24/2021 1:59 PM	05:00	5.95 pH	23.83 °C	434.60 µS/cm	4.26 mg/L	0.48 NTU	130.4 mV	32.20 ft	125.00 ml/min
3/24/2021 2:04 PM	10:00	5.78 pH	22.80 °C	429.34 µS/cm	3.70 mg/L	0.20 NTU	137.3 mV	32.25 ft	125.00 ml/min
3/24/2021 2:09 PM	15:00	5.39 pH	23.18 °C	422.21 µS/cm	2.76 mg/L	0.21 NTU	155.7 mV	32.28 ft	125.00 ml/min
3/24/2021 2:14 PM	20:00	5.02 pH	22.92 °C	462.58 µS/cm	1.36 mg/L	0.14 NTU	169.0 mV	32.30 ft	125.00 ml/min
3/24/2021 2:19 PM	25:00	4.86 pH	23.05 °C	463.46 µS/cm	0.70 mg/L	0.28 NTU	173.5 mV	32.30 ft	125.00 ml/min
3/24/2021 2:24 PM	30:00	5.94 pH	23.16 °C	619.07 µS/cm	0.63 mg/L	0.22 NTU	142.4 mV	32.30 ft	125.00 ml/min
3/24/2021 2:29 PM	35:00	6.59 pH	23.23 °C	721.22 µS/cm	0.36 mg/L	0.08 NTU	120.6 mV	32.30 ft	125.00 ml/min
3/24/2021 2:34 PM	40:00	6.71 pH	23.16 °C	732.02 µS/cm	0.27 mg/L	0.25 NTU	110.7 mV	32.30 ft	125.00 ml/min
3/24/2021 2:39 PM	45:00	6.77 pH	22.99 °C	734.28 µS/cm	0.24 mg/L	0.12 NTU	101.0 mV	32.30 ft	125.00 ml/min
3/24/2021 2:44 PM	50:00	6.71 pH	22.82 °C	738.15 µS/cm	0.20 mg/L	0.18 NTU	99.8 mV	32.30 ft	125.00 ml/min

## Samples

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

Test Date / Time: 3/23/2021 9:35:13 AM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWA-10</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 43.1 ft</b> <b>Total Depth: 53.09 ft</b> <b>Initial Depth to Water: 16.72 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 48 ft</b> <b>Estimated Total Volume Pumped: 5.5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 34 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time: 10:30. Sunny 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/23/2021 9:35 AM	00:00	5.72 pH	17.31 °C	69.77 µS/cm	7.03 mg/L	1.20 NTU	84.8 mV	16.72 ft	100.00 ml/min
3/23/2021 9:40 AM	05:00	5.34 pH	17.34 °C	65.13 µS/cm	4.97 mg/L	0.90 NTU	136.9 mV	18.10 ft	100.00 ml/min
3/23/2021 9:45 AM	10:00	5.28 pH	18.00 °C	65.18 µS/cm	5.10 mg/L	0.80 NTU	152.9 mV	18.80 ft	100.00 ml/min
3/23/2021 9:50 AM	15:00	5.26 pH	17.94 °C	63.81 µS/cm	4.73 mg/L	0.80 NTU	161.0 mV	19.00 ft	100.00 ml/min
3/23/2021 9:55 AM	20:00	5.21 pH	18.16 °C	61.77 µS/cm	4.06 mg/L	0.80 NTU	165.8 mV	19.10 ft	100.00 ml/min
3/23/2021 10:00 AM	25:00	5.19 pH	18.29 °C	60.21 µS/cm	3.54 mg/L	0.80 NTU	171.6 mV	19.20 ft	100.00 ml/min
3/23/2021 10:05 AM	30:00	5.16 pH	18.61 °C	59.62 µS/cm	3.43 mg/L	0.70 NTU	177.1 mV	19.30 ft	100.00 ml/min
3/23/2021 10:10 AM	35:00	5.12 pH	19.15 °C	58.17 µS/cm	3.20 mg/L	0.70 NTU	184.6 mV	19.40 ft	100.00 ml/min
3/23/2021 10:15 AM	40:00	5.07 pH	19.53 °C	57.33 µS/cm	3.03 mg/L	0.60 NTU	192.4 mV	19.50 ft	100.00 ml/min
3/23/2021 10:20 AM	45:00	5.02 pH	19.69 °C	56.61 µS/cm	2.87 mg/L	0.70 NTU	200.0 mV	19.60 ft	100.00 ml/min
3/23/2021 10:25 AM	50:00	5.00 pH	20.32 °C	56.53 µS/cm	2.83 mg/L	0.70 NTU	205.5 mV	19.60 ft	100.00 ml/min

## Samples

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

Test Date / Time: 3/23/2021 11:40:12 AM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWA-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 45.8 ft</b> <b>Total Depth: 55.81 ft</b> <b>Initial Depth to Water: 20.37 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 50 ft</b> <b>Estimated Total Volume Pumped: 9.5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 175 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time 1225. DUP 1 here. Sunny 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/23/2021 11:40 AM	00:00	7.14 pH	21.40 °C	273.16 µS/cm	0.60 mg/L	0.50 NTU	38.4 mV	20.37 ft	175.00 ml/min
3/23/2021 11:45 AM	05:00	7.27 pH	21.51 °C	273.78 µS/cm	0.31 mg/L	0.40 NTU	20.1 mV	20.80 ft	175.00 ml/min
3/23/2021 11:50 AM	10:00	7.30 pH	21.65 °C	273.73 µS/cm	0.19 mg/L	0.40 NTU	-10.2 mV	20.80 ft	175.00 ml/min
3/23/2021 11:55 AM	15:00	7.31 pH	21.59 °C	273.27 µS/cm	0.14 mg/L	0.50 NTU	-42.5 mV	20.80 ft	175.00 ml/min
3/23/2021 12:00 PM	20:00	7.27 pH	21.83 °C	273.76 µS/cm	0.12 mg/L	0.50 NTU	-65.5 mV	20.80 ft	175.00 ml/min
3/23/2021 12:05 PM	25:00	7.24 pH	21.71 °C	283.48 µS/cm	0.10 mg/L	0.50 NTU	-90.2 mV	20.80 ft	175.00 ml/min
3/23/2021 12:10 PM	30:00	7.14 pH	21.65 °C	303.86 µS/cm	0.10 mg/L	0.60 NTU	-88.9 mV	20.80 ft	175.00 ml/min
3/23/2021 12:15 PM	35:00	7.11 pH	21.88 °C	305.43 µS/cm	0.09 mg/L	0.50 NTU	-94.2 mV	20.80 ft	175.00 ml/min
3/23/2021 12:20 PM	40:00	7.06 pH	21.88 °C	305.50 µS/cm	0.09 mg/L	0.50 NTU	-99.9 mV	20.80 ft	175.00 ml/min

## Samples

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

Test Date / Time: 3/24/2021 10:40:04 AM

Project: Plant McIntosh AP-1

Operator Name: Anna Schnittker

<b>Location Name: MGWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42 ft</b> <b>Total Depth: 52.9 ft</b> <b>Initial Depth to Water: 26.29 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 4.5 liter</b> <b>Flow Cell Volume: 130 ml</b> <b>Final Flow Rate: 130 ml/min</b> <b>Final Draw Down: 7 in</b>	<b>Instrument Used: Aqua TROLL 500</b> <b>Serial Number: 590987</b>
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## Test Notes:

Sample time 1120. Cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.3	+/- 10	+/- 10	+/- 5	
3/24/2021 10:40 AM	00:00	7.25 pH	20.15 °C	287.42 µS/cm	4.60 mg/L	0.8 NTU	-62.4 mV	26.29 ft	130.00 ml/min
3/24/2021 10:45 AM	05:00	7.19 pH	19.83 °C	290.02 µS/cm	0.37 mg/L	2.7 NTU	-119.2 mV	26.80 ft	130.00 ml/min
3/24/2021 10:50 AM	10:00	7.17 pH	19.88 °C	289.89 µS/cm	0.33 mg/L	2.2 NTU	-124.7 mV	26.80 ft	130.00 ml/min
3/24/2021 10:55 AM	15:00	7.16 pH	19.83 °C	290.20 µS/cm	0.24 mg/L	1.9 NTU	-127.5 mV	26.80 ft	130.00 ml/min
3/24/2021 11:00 AM	20:00	7.14 pH	19.87 °C	288.77 µS/cm	0.19 mg/L	1.7 NTU	-127.8 mV	26.80 ft	130.00 ml/min
3/24/2021 11:05 AM	25:00	7.16 pH	19.90 °C	276.17 µS/cm	0.20 mg/L	1.2 NTU	-130.1 mV	26.90 ft	130.00 ml/min
3/24/2021 11:10 AM	30:00	7.15 pH	19.89 °C	273.14 µS/cm	0.20 mg/L	1.1 NTU	-129.4 mV	26.90 ft	130.00 ml/min
3/24/2021 11:15 AM	35:00	7.15 pH	19.91 °C	269.39 µS/cm	0.22 mg/L	1.1 NTU	-130.3 mV	26.90 ft	130.00 ml/min

## Samples

Sample ID:	Description:
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### Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: A. Schmittker  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 590987  
 INSTRUMENT TYPE: AquaTroll 500  
 CAL. SOLUTIONS:

ID: <u>Con</u>	LOT #: <u>0C11033</u>	EXP. DATE: <u>9/21</u>
ID: <u>ORR</u>	LOT #: <u>0G41818</u>	EXP. DATE: <u>5/21</u>
ID: <u>pH 4</u>	LOT #: <u>0GE441</u>	EXP. DATE: <u>5/22</u>
ID: <u>pH 7</u>	LOT #: <u>1CB200</u>	EXP. DATE: <u>4/22 2/23</u>
ID: <u>pH 10</u>	LOT #: <u>0GD851</u>	EXP. DATE: <u>2/23 4/22</u>
ID: _____	LOT #: _____	EXP. DATE: _____
ID: _____	LOT #: _____	EXP. DATE: _____

Midday pH check

Must be less than .10

(6.90-7.10 range)

Recalibrate if not within range

Calibration Date: 3/23/21

RDO: 100% sat. = 99.3

Midday pH check

PH: 4.00 = 4.07      7.00 = 7.45      10.00 = 10.30      7.0 = 6.97

PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check

CONDUCTIVITY: 1413 = 1416

ORP (mV) 240 = 219

Calibration Date: 3/24

RDO: 100% sat. = 102.59

Midday pH check

PH: 4.00 = 4.24      7.00 = 6.88      10.00 = 9.99      7.0 = 7.01

PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check

CONDUCTIVITY: 1413 = 1398.6

ORP (mV) 240 = 244.5

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

Midday pH check

PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

Midday pH check

PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

Midday pH check

PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: A. Schnittker

INSTRUMENT S/N: 16040C049743  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # Fresh DI EXP. DATE: NA  
10 NTU - LOT # A0136 EXP. DATE: 8/21  
20 NTU - LOT # A0139 EXP. DATE: 8/21

Calibration Date: 3/23

Calibration Solution	Instrument Reading	
0.0	0.28	NTU
10.0	10.1	NTU
20.0	20.4	NTU

Calibration Date: 3/24

Calibration Solution	Instrument Reading	
0.0	0.29	NTU
10.0	9.49	NTU
20.0	20.9	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



### Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: T. Goble  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 378591

INSTRUMENT S/N: 608421  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:  
 ID: ORP LOT #: 32001 EXP. DATE: Oct/21  
 ID: pH4 LOT #: OGD046 EXP. DATE: 04/22  
 ID: pH7 LOT #: 169200 EXP. DATE: 02/23  
 ID: pH10 LOT #: OGJ170 EXP. DATE: 10/22  
 ID: Cond LOT #: OGF1033 EXP. DATE: 09/21

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 3-23-21  
 RDO: 100% sat. = 93.42 Midday pH check  
 PH: 4.00 = 4.22 7.00 = 7.21 10.00 = 10.09 7.0 = 7.05  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = 7.05 post recal check ✓  
 CONDUCTIVITY: 1413 = 1309  
 ORP (mV) 240 = 238.7

Calibration Date: 3-24-21  
 RDO: 100% sat. = 101.57 Midday pH check  
 PH: 4.00 = 3.97 7.00 = 6.97 10.00 = 10.09 7.0 = 7.13  
 PH Recal (if needed): 4.00 = 4.13 7.00 = 7.15 10.00 = 10.08 7.0 = 6.99 post recal check ✓  
 CONDUCTIVITY: 1413 = 1365  
 ORP (mV) 240 = 235.7

Calibration Date:  
 RDO: 100% sat. =                      Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:  
 RDO: 100% sat. =                      Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:  
 RDO: 100% sat. =                      Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =



# Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: T. Goble

INSTRUMENT S/N: 171206063767  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # New DI EXP. DATE: -  
10 NTU - LOT # A0136 EXP. DATE: Aug/21  
20 NTU - LOT # A0139 EXP. DATE: Aug/21

Calibration Date: 3-23-21

Calibration Solution	Instrument Reading	
0.0	0.21	NTU
10.0	9.58	NTU
20.0	20.5	NTU

100 = 101  
800 = 800

Calibration Date: 3-24-21

Calibration Solution	Instrument Reading	
0.0	0.20	NTU
10.0	10.2	NTU
20.0	20.2	NTU

100 = 102  
800 = 802

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

1 - Location/Identification

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

2 - Protective Outer Casing

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

3 - Surface Pad

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

4 - Internal Well Casing

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	N/A	No	No	No	No	No	N/A	No

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

1 - Location/Identification

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

2 - Protective Outer Casing

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

3 - Surface Pad

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

4 - Internal Well Casing

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

1 - Location/Identification

		PZ-16	PZ-17	PZ-18								
a	Is the well visible and accessible?	Yes	Yes	Yes								
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes								
c	Does the well require protection from traffic?	No	No	No								
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

2 - Protective Outer Casing

		PZ-16	PZ-17	PZ-18								
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes								
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes								
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes								
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes								
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

3 - Surface Pad

		PZ-16	PZ-17	PZ-18								
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes								
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes								
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes								
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes								
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

4 - Internal Well Casing

		PZ-16	PZ-17	PZ-18								
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes								
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes								
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes								
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes								
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes								
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No								

Facility Name: Plant McIntosh AP-1

Staff: A. Schnittker

Date: 3/22/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		PZ-16	PZ-17	PZ-18								
a	Does the well recharge adequately when purged?	N/A	N/A	N/A								
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A								
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A								

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	PZ-16	PZ-17	PZ-18									
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes									

7 - Corrective actions completed and Notes:



## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-126258-1  
Client Project/Site: Plant McIntosh Ash Pond  
Revision: 1

For:  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
9/17/2021 4:26:40 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416

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# Case Narrative

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

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**Job ID: 180-126258-1**

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**Laboratory: Eurofins TestAmerica, Pittsburgh**

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**Narrative**

**Job Narrative  
180-126258-1**

**Comments**

091721 Revised report to correction dilution factor from 100 to 1 on sample MGWC-12 (180-126331-4) for 300. This report replaces the report previously issued on 091321.

**Receipt**

The samples were received on 8/26/2021 10:00 AM and 8/27/2021 9:30 AM. 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 3.6° C, 3.8° C, 4.2° C and 4.2° C.

**GC Semi VOA**

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

**Metals**

Method 6020B: The post digestion spike % recovery for cadmium associated with batch 180-369936 was outside the control limits. The associated sample is: MGWA-10 (180-126258-1).

Method 7470A: The method blank for preparation batch 370041 contained mercury above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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

**Field Service / Mobile Lab**

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

**General Chemistry**

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



# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Laboratory: Eurofins TestAmerica, 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	06-27-21 *
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	09-14-21
Georgia	State	PA 02-00416	09-14-21
Illinois	NELAP	004375	09-14-21
Kansas	NELAP	E-10350	09-14-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	09-14-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	09-14-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	09-14-21
New York	NELAP	11182	09-14-21
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	09-14-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	09-14-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	09-14-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	09-14-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	09-14-21
Wisconsin	State	998027800	08-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Sample Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-126258-1	MGWA-10	Water	08/23/21 15:49	08/26/21 10:00
180-126258-2	MGWA-11	Water	08/23/21 17:25	08/26/21 10:00
180-126258-3	MGWA-6	Water	08/24/21 10:04	08/26/21 10:00
180-126258-4	MGWA-6A	Water	08/24/21 11:25	08/26/21 10:00
180-126258-5	MGWA-5	Water	08/24/21 14:15	08/26/21 10:00
180-126258-6	MGWC-2	Water	08/24/21 15:43	08/26/21 10:00
180-126258-7	MGWC-3	Water	08/24/21 17:16	08/26/21 10:00
180-126258-8	FB-1	Water	08/23/21 17:05	08/26/21 10:00
180-126258-9	EB-1	Water	08/24/21 13:30	08/26/21 10:00
180-126258-10	DUP-1	Water	08/24/21 00:00	08/26/21 10:00
180-126331-1	MGWC-8	Water	08/25/21 11:12	08/27/21 09:30
180-126331-2	MGWC-1	Water	08/25/21 13:14	08/27/21 09:30
180-126331-3	MGWC-7	Water	08/25/21 14:47	08/27/21 09:30
180-126331-4	MGWC-12	Water	08/25/21 16:26	08/27/21 09:30
180-126331-5	FB-2	Water	08/25/21 11:00	08/27/21 09:30
180-126331-6	EB-2	Water	08/25/21 14:20	08/27/21 09:30
180-126331-7	DUP-2	Water	08/25/21 00:00	08/27/21 09:30



# Method Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

#### Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Client Sample ID: MGWA-10

## Lab Sample ID: 180-126258-1

Date Collected: 08/23/21 15:49

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 20:46	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:15	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:31	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			369662	08/23/21 15:49	FDS	TAL PIT

## Client Sample ID: MGWA-11

## Lab Sample ID: 180-126258-2

Date Collected: 08/23/21 17:25

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 21:34	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:29	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:32	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			369662	08/23/21 17:25	FDS	TAL PIT

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-126258-3

Date Collected: 08/24/21 10:04

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 21:50	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:38	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:33	KEM	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-126258-3

Date Collected: 08/24/21 10:04

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Total/NA	Analysis	Field Sampling		1			369662	08/24/21 10:04	FDS	TAL PIT
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-126258-4

Date Collected: 08/24/21 11:25

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			370303	09/04/21 22:05	SAB	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			369936	09/01/21 10:41	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			370276	09/03/21 14:34	KEM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			369662	08/24/21 11:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-5

## Lab Sample ID: 180-126258-5

Date Collected: 08/24/21 14:15

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			370303	09/05/21 00:14	SAB	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			369936	09/01/21 10:43	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			370276	09/03/21 14:35	KEM	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			369662	08/24/21 14:15	FDS	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-126258-6

Date Collected: 08/24/21 15:43

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 22:21	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:46	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:37	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			369662	08/24/21 15:43	FDS	TAL PIT

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-126258-7

Date Collected: 08/24/21 17:16

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/05/21 00:31	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:49	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:38	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			369662	08/24/21 17:16	FDS	TAL PIT

## Client Sample ID: FB-1

## Lab Sample ID: 180-126258-8

Date Collected: 08/23/21 17:05

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 23:42	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:52	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:39	KEM	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Client Sample ID: FB-1

Date Collected: 08/23/21 17:05

Date Received: 08/26/21 10:00

## Lab Sample ID: 180-126258-8

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	SM 2540C		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT

## Client Sample ID: EB-1

Date Collected: 08/24/21 13:30

Date Received: 08/26/21 10:00

## Lab Sample ID: 180-126258-9

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	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/04/21 23:58	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:55	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370041	09/02/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			370276	09/03/21 14:42	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT

## Client Sample ID: DUP-1

Date Collected: 08/24/21 00:00

Date Received: 08/26/21 10:00

## Lab Sample ID: 180-126258-10

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	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			370303	09/05/21 01:03	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369726	08/31/21 08:59	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			369936	09/01/21 10:58	RJR	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370045	09/02/21 08:58	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			370682	09/08/21 15:48	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369553	08/29/21 17:57	KMM	TAL PIT

## Client Sample ID: MGWC-8

Date Collected: 08/25/21 11:12

Date Received: 08/27/21 09:30

## Lab Sample ID: 180-126331-1

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	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			370383	09/07/21 14:10	SAB	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		5			370383	09/07/21 14:27	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			370289	09/03/21 08:44	RSK	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-126331-1**

**Date Collected: 08/25/21 11:12**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	370802	09/09/21 13:04	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			371007	09/10/21 13:17	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			369662	08/25/21 11:12	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-126331-2**

**Date Collected: 08/25/21 13:14**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			370383	09/07/21 15:49	SAB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			370289	09/03/21 09:46	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	370802	09/09/21 13:04	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			371007	09/10/21 13:18	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			369662	08/25/21 13:14	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-126331-3**

**Date Collected: 08/25/21 14:47**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			370383	09/07/21 16:21	SAB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			370289	09/03/21 10:16	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	370802	09/09/21 13:04	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			371007	09/10/21 13:18	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			369662	08/25/21 14:47	FDS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-126331-4**

**Date Collected: 08/25/21 16:26**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	370383	09/07/21 12:07	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			370289	09/03/21 10:20	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370802	09/09/21 13:04	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			371007	09/10/21 13:19	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			369662	08/25/21 16:26	FDS	TAL PIT

**Client Sample ID: FB-2**

**Lab Sample ID: 180-126331-5**

**Date Collected: 08/25/21 11:00**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			370383	09/07/21 15:32	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			370289	09/03/21 10:24	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370803	09/09/21 13:09	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			371007	09/10/21 13:39	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT

**Client Sample ID: EB-2**

**Lab Sample ID: 180-126331-6**

**Date Collected: 08/25/21 14:20**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			370383	09/07/21 15:16	SAB	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			370289	09/03/21 10:27	RSK	TAL PIT
Total/NA	Prep	7470A			25 mL	25 mL	370803	09/09/21 13:09	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			371007	09/10/21 13:40	KEM	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: DUP-2**

**Lab Sample ID: 180-126331-7**

**Date Collected: 08/25/21 00:00**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			370383	09/07/21 16:38	SAB	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	369957	09/01/21 16:11	AMD	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			370289	09/03/21 10:31	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			25 mL	25 mL	370803	09/09/21 13:09	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			371007	09/10/21 13:38	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	369958	09/01/21 16:13	KMM	TAL PIT
Instrument ID: NOEQUIP										

**Laboratory References:**

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Prep

AMD = Alysha Donlan

MM1 = Mary Beth Miller

Batch Type: Analysis

FDS = Sampler Field

KEM = Kimberly Mahoney

KMM = Kendric Moore

RJR = Ron Rosenbaum

RSK = Robert Kurtz

SAB = Sharon Bacha



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-126258-1**

Date Collected: 08/23/21 15:49

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.3		1.0	0.71	mg/L			09/04/21 20:46	1
Fluoride	0.048	J	0.10	0.026	mg/L			09/04/21 20:46	1
Sulfate	<0.76		1.0	0.76	mg/L			09/04/21 20:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:15	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:15	1
Barium	0.024		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:15	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:15	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:15	1
Calcium	5.8		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:15	1
Chromium	0.0045		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:15	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:15	1
Lithium	0.0075		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:15	1
Molybdenum	0.0016	J	0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:15	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	55		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.16				SU			08/23/21 15:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-126258-2**

Date Collected: 08/23/21 17:25

Matrix: Water

Date Received: 08/26/21 10:00

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		1.0	0.71	mg/L			09/04/21 21:34	1
Fluoride	0.12		0.10	0.026	mg/L			09/04/21 21:34	1
Sulfate	3.4		1.0	0.76	mg/L			09/04/21 21:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00052	J	0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:29	1
Arsenic	0.00077	J	0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:29	1
Barium	0.096		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:29	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:29	1
Boron	0.043	J	0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:29	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:29	1
Calcium	34		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:29	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:29	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:29	1
Lithium	0.018		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:29	1
Molybdenum	0.0012	J	0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:29	1
Thallium	0.00040	J	0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:29	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		10	10	mg/L			08/29/21 17:57	1

### Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.12				SU			08/23/21 17:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-126258-3**

Date Collected: 08/24/21 10:04

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			09/04/21 21:50	1
Fluoride	0.10		0.10	0.026	mg/L			09/04/21 21:50	1
Sulfate	3.5		1.0	0.76	mg/L			09/04/21 21:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:38	1
Arsenic	0.0087		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:38	1
Barium	0.026		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:38	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:38	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:38	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:38	1
Calcium	100		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:38	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:38	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:38	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:38	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:38	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:38	1
Thallium	0.00017	J	0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.11				SU			08/24/21 10:04	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-126258-4**

Date Collected: 08/24/21 11:25

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.71	mg/L			09/04/21 22:05	1
Fluoride	0.11		0.10	0.026	mg/L			09/04/21 22:05	1
Sulfate	3.3		1.0	0.76	mg/L			09/04/21 22:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:41	1
Arsenic	0.0021		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:41	1
Barium	0.026		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:41	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:41	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:41	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:41	1
Calcium	83		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:41	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:41	1
Cobalt	0.0017	J	0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:41	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:41	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:41	1
Molybdenum	0.0011	J	0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:41	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	280		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.28				SU			08/24/21 11:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-126258-5**

Date Collected: 08/24/21 14:15

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.71	mg/L			09/05/21 00:14	1
Fluoride	0.10		0.10	0.026	mg/L			09/05/21 00:14	1
Sulfate	3.6		1.0	0.76	mg/L			09/05/21 00:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:43	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:43	1
Barium	0.027		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:43	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:43	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:43	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:43	1
Calcium	27		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:43	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:43	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:43	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:43	1
Lithium	0.0093		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:43	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:43	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.78				SU			08/24/21 14:15	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-126258-6**

Date Collected: 08/24/21 15:43

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			09/04/21 22:21	1
Fluoride	0.095	J	0.10	0.026	mg/L			09/04/21 22:21	1
Sulfate	160		1.0	0.76	mg/L			09/04/21 22:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:46	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:46	1
Barium	0.047		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:46	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:46	1
Boron	2.2		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:46	1
Cadmium	0.00054	J	0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:46	1
Calcium	110		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:46	1
Chromium	<0.00015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:46	1
Cobalt	0.0018	J	0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:46	1
Lithium	0.0062		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:46	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:46	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:37	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.42				SU			08/24/21 15:43	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-126258-7**

Date Collected: 08/24/21 17:16

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			09/05/21 00:31	1
Fluoride	0.11		0.10	0.026	mg/L			09/05/21 00:31	1
Sulfate	130		1.0	0.76	mg/L			09/05/21 00:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:49	1
Arsenic	0.0014		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:49	1
Barium	0.16		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:49	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:49	1
Boron	0.97		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:49	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:49	1
Calcium	110		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:49	1
Cobalt	0.00034	J	0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:49	1
Lithium	0.012		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		10	10	mg/L			08/29/21 17:57	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.92				SU			08/24/21 17:16	1



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: FB-1**

**Lab Sample ID: 180-126258-8**

Date Collected: 08/23/21 17:05

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/04/21 23:42	1
<b>Fluoride</b>	<b>0.049</b>	<b>J</b>	0.10	0.026	mg/L			09/04/21 23:42	1
Sulfate	<0.76		1.0	0.76	mg/L			09/04/21 23:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:52	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:52	1
Barium	<0.0016		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:52	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:52	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:52	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:52	1
Calcium	<0.13		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:52	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:52	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:52	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:52	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:52	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:52	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/29/21 17:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: EB-1**

**Lab Sample ID: 180-126258-9**

Date Collected: 08/24/21 13:30

Matrix: Water

Date Received: 08/26/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/04/21 23:58	1
<b>Fluoride</b>	<b>0.044</b>	<b>J</b>	0.10	0.026	mg/L			09/04/21 23:58	1
Sulfate	<0.76		1.0	0.76	mg/L			09/04/21 23:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:55	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:55	1
Barium	<0.0016		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:55	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:55	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:55	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:55	1
Calcium	<0.13		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:55	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:55	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/29/21 17:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 180-126258-10**

Date Collected: 08/24/21 00:00

Matrix: Water

Date Received: 08/26/21 10:00

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			09/05/21 01:03	1
Fluoride	0.15		0.10	0.026	mg/L			09/05/21 01:03	1
Sulfate	160		1.0	0.76	mg/L			09/05/21 01:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 10:58	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 10:58	1
Barium	0.047		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 10:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 10:58	1
Boron	2.2		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 10:58	1
Cadmium	0.00065	J	0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 10:58	1
Calcium	110		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 10:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 10:58	1
Cobalt	0.0016	J	0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 10:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 10:58	1
Lithium	0.0060		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 10:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 10:58	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 10:58	1

## Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:58	09/08/21 15:48	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	520		10	10	mg/L			08/29/21 17:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-126331-1**

Date Collected: 08/25/21 11:12

Matrix: Water

Date Received: 08/27/21 09:30

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.71	mg/L			09/07/21 14:10	1
Fluoride	0.038	J	0.10	0.026	mg/L			09/07/21 14:10	1
Sulfate	420		5.0	3.8	mg/L			09/07/21 14:27	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 08:44	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 08:44	1
Barium	0.031		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 08:44	1
Beryllium	0.0015	J	0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 08:44	1
Boron	4.2		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 08:44	1
Cadmium	0.0046		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 08:44	1
Calcium	96		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 08:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 08:44	1
Cobalt	0.021		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 08:44	1
Lead	0.00022	J	0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 08:44	1
Lithium	0.037		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 08:44	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 08:44	1
Thallium	0.00040	J	0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 08:44	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0041		0.00020	0.00013	mg/L		09/09/21 13:04	09/10/21 13:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	720		10	10	mg/L			09/01/21 16:13	1

### Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.26				SU			08/25/21 11:12	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-126331-2**

Date Collected: 08/25/21 13:14

Matrix: Water

Date Received: 08/27/21 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			09/07/21 15:49	1
Fluoride	0.097	J	0.10	0.026	mg/L			09/07/21 15:49	1
Sulfate	140		1.0	0.76	mg/L			09/07/21 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 09:46	1
Arsenic	0.00092	J	0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 09:46	1
Barium	0.11		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 09:46	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 09:46	1
Boron	1.7		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 09:46	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 09:46	1
Calcium	120		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 09:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 09:46	1
Cobalt	0.00018	J	0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 09:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 09:46	1
Lithium	0.0096		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 09:46	1
Molybdenum	0.00088	J	0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 09:46	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 09:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:04	09/10/21 13:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	470		10	10	mg/L			09/01/21 16:13	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.27				SU			08/25/21 13:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-126331-3**

Date Collected: 08/25/21 14:47

Matrix: Water

Date Received: 08/27/21 09:30

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.71	mg/L			09/07/21 16:21	1
Fluoride	0.15		0.10	0.026	mg/L			09/07/21 16:21	1
Sulfate	180		1.0	0.76	mg/L			09/07/21 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 10:16	1
Arsenic	0.00055	J	0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 10:16	1
Barium	0.013		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 10:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 10:16	1
Boron	1.6		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 10:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 10:16	1
Calcium	59		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 10:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 10:16	1
Cobalt	0.0032		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 10:16	1
Lead	0.00019	J	0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 10:16	1
Lithium	0.12		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 10:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 10:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 10:16	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:04	09/10/21 13:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10	10	mg/L			09/01/21 16:13	1

### Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.85				SU			08/25/21 14:47	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-126331-4**

Date Collected: 08/25/21 16:26

Matrix: Water

Date Received: 08/27/21 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		1.0	0.71	mg/L			09/07/21 12:07	1
Fluoride	0.19		0.10	0.026	mg/L			09/07/21 12:07	1
Sulfate	6.6	F1	1.0	0.76	mg/L			09/07/21 12:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 10:20	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 10:20	1
Barium	0.051		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 10:20	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 10:20	1
Boron	0.11		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 10:20	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 10:20	1
Calcium	31		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 10:20	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 10:20	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 10:20	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 10:20	1
Lithium	0.017		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 10:20	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 10:20	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 10:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:04	09/10/21 13:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		10	10	mg/L			09/01/21 16:13	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.44				SU			08/25/21 16:26	1



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: FB-2**

**Lab Sample ID: 180-126331-5**

**Date Collected: 08/25/21 11:00**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/07/21 15:32	1
Fluoride	<0.026		0.10	0.026	mg/L			09/07/21 15:32	1
Sulfate	<0.76		1.0	0.76	mg/L			09/07/21 15:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 10:24	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 10:24	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 10:24	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 10:24	1
<b>Boron</b>	<b>0.058 J</b>		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 10:24	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 10:24	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 10:24	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 10:24	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 10:24	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 10:24	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 10:24	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 10:24	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 10:24	1

## Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:09	09/10/21 13:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/01/21 16:13	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: EB-2**

**Lab Sample ID: 180-126331-6**

Date Collected: 08/25/21 14:20

Matrix: Water

Date Received: 08/27/21 09:30

### Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/07/21 15:16	1
Fluoride	<0.026		0.10	0.026	mg/L			09/07/21 15:16	1
Sulfate	<0.76		1.0	0.76	mg/L			09/07/21 15:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 10:27	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 10:27	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 10:27	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 10:27	1
<b>Boron</b>	<b>0.042 J</b>		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 10:27	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 10:27	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 10:27	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 10:27	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 10:27	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 10:27	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 10:27	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 10:27	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 10:27	1

### Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:09	09/10/21 13:40	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/01/21 16:13	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

**Client Sample ID: DUP-2**

**Lab Sample ID: 180-126331-7**

Date Collected: 08/25/21 00:00

Matrix: Water

Date Received: 08/27/21 09:30

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.71	mg/L			09/07/21 16:38	1
Fluoride	0.098	J	0.10	0.026	mg/L			09/07/21 16:38	1
Sulfate	150		1.0	0.76	mg/L			09/07/21 16:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 10:31	1
Arsenic	0.00095	J	0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 10:31	1
Barium	0.10		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 10:31	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 10:31	1
Boron	1.6		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 10:31	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 10:31	1
Calcium	120		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 10:31	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 10:31	1
Cobalt	0.00018	J	0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 10:31	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 10:31	1
Lithium	0.0092		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 10:31	1
Molybdenum	0.00094	J	0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 10:31	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 10:31	1

## Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:09	09/10/21 13:38	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	480		10	10	mg/L			09/01/21 16:13	1

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

**Lab Sample ID: MB 180-370303/7**  
**Matrix: Water**  
**Analysis Batch: 370303**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/04/21 20:30	1
Fluoride	<0.026		0.10	0.026	mg/L			09/04/21 20:30	1
Sulfate	<0.76		1.0	0.76	mg/L			09/04/21 20:30	1

**Lab Sample ID: LCS 180-370303/6**  
**Matrix: Water**  
**Analysis Batch: 370303**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.9		mg/L		104	90 - 110
Fluoride	2.50	2.43		mg/L		97	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

**Lab Sample ID: 180-126258-1 MS**  
**Matrix: Water**  
**Analysis Batch: 370303**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.3		50.0	55.2		mg/L		96	90 - 110
Fluoride	0.048	J	2.50	2.54		mg/L		100	90 - 110
Sulfate	<0.76		50.0	46.9		mg/L		94	90 - 110

**Lab Sample ID: 180-126258-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 370303**

**Client Sample ID: MGWA-10**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.3		50.0	58.5		mg/L		102	90 - 110	6	20
Fluoride	0.048	J	2.50	2.67		mg/L		105	90 - 110	5	20
Sulfate	<0.76		50.0	50.1		mg/L		100	90 - 110	7	20

**Lab Sample ID: MB 180-370383/6**  
**Matrix: Water**  
**Analysis Batch: 370383**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			09/07/21 08:51	1
Fluoride	<0.026		0.10	0.026	mg/L			09/07/21 08:51	1
Sulfate	<0.76		1.0	0.76	mg/L			09/07/21 08:51	1

**Lab Sample ID: LCS 180-370383/5**  
**Matrix: Water**  
**Analysis Batch: 370383**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.44		mg/L		97	90 - 110
Sulfate	50.0	49.4		mg/L		99	90 - 110

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 180-126331-4 MS**  
**Matrix: Water**  
**Analysis Batch: 370383**

**Client Sample ID: MGWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.9		50.0	53.4		mg/L		97	90 - 110
Fluoride	0.19		2.50	2.69		mg/L		100	90 - 110
Sulfate	6.6	F1	50.0	54.5		mg/L		96	90 - 110

**Lab Sample ID: 180-126331-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 370383**

**Client Sample ID: MGWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.9		50.0	50.7		mg/L		92	90 - 110	5	20
Fluoride	0.19		2.50	2.52		mg/L		93	90 - 110	7	20
Sulfate	6.6	F1	50.0	50.7	F1	mg/L		88	90 - 110	7	20

## Method: EPA 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 180-369726/1-A**  
**Matrix: Water**  
**Analysis Batch: 369936**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369726**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/31/21 08:59	09/01/21 09:34	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/31/21 08:59	09/01/21 09:34	1
Barium	<0.0016		0.010	0.0016	mg/L		08/31/21 08:59	09/01/21 09:34	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/31/21 08:59	09/01/21 09:34	1
Boron	<0.039		0.080	0.039	mg/L		08/31/21 08:59	09/01/21 09:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/31/21 08:59	09/01/21 09:34	1
Calcium	<0.13		0.50	0.13	mg/L		08/31/21 08:59	09/01/21 09:34	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/31/21 08:59	09/01/21 09:34	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/31/21 08:59	09/01/21 09:34	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/31/21 08:59	09/01/21 09:34	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/31/21 08:59	09/01/21 09:34	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/31/21 08:59	09/01/21 09:34	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/31/21 08:59	09/01/21 09:34	1

**Lab Sample ID: LCS 180-369726/2-A**  
**Matrix: Water**  
**Analysis Batch: 369936**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369726**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.246		mg/L		98	80 - 120
Arsenic	1.00	0.990		mg/L		99	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Beryllium	0.500	0.503		mg/L		101	80 - 120
Boron	1.25	1.31		mg/L		104	80 - 120
Cadmium	0.500	0.519		mg/L		104	80 - 120
Calcium	25.0	26.9		mg/L		108	80 - 120
Chromium	0.500	0.496		mg/L		99	80 - 120
Cobalt	0.500	0.491		mg/L		98	80 - 120
Lead	0.500	0.510		mg/L		102	80 - 120

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 180-369726/2-A**  
**Matrix: Water**  
**Analysis Batch: 369936**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369726**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.500		mg/L		100	80 - 120
Molybdenum	0.500	0.518		mg/L		104	80 - 120
Thallium	1.00	1.10		mg/L		110	80 - 120

**Lab Sample ID: 180-126258-1 MS**  
**Matrix: Water**  
**Analysis Batch: 369936**

**Client Sample ID: MGWA-10**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369726**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.251		mg/L		100	75 - 125
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125
Barium	0.024		1.00	1.06		mg/L		103	75 - 125
Beryllium	<0.00018		0.500	0.497		mg/L		99	75 - 125
Boron	<0.039		1.25	1.32		mg/L		105	75 - 125
Cadmium	<0.00022		0.500	0.527		mg/L		105	75 - 125
Calcium	5.8		25.0	33.3		mg/L		110	75 - 125
Chromium	0.0045		0.500	0.511		mg/L		101	75 - 125
Cobalt	<0.00013		0.500	0.517		mg/L		103	75 - 125
Lead	<0.00013		0.500	0.508		mg/L		102	75 - 125
Lithium	0.0075		0.500	0.515		mg/L		101	75 - 125
Molybdenum	0.0016	J	0.500	0.534		mg/L		106	75 - 125
Thallium	<0.00015		1.00	1.06		mg/L		106	75 - 125

**Lab Sample ID: 180-126258-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 369936**

**Client Sample ID: MGWA-10**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369726**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.00038		0.250	0.249		mg/L		100	75 - 125	1	20
Arsenic	<0.00031		1.00	1.05		mg/L		105	75 - 125	1	20
Barium	0.024		1.00	1.06		mg/L		103	75 - 125	0	20
Beryllium	<0.00018		0.500	0.510		mg/L		102	75 - 125	3	20
Boron	<0.039		1.25	1.38		mg/L		111	75 - 125	5	20
Cadmium	<0.00022		0.500	0.523		mg/L		105	75 - 125	1	20
Calcium	5.8		25.0	33.3		mg/L		110	75 - 125	0	20
Chromium	0.0045		0.500	0.505		mg/L		100	75 - 125	1	20
Cobalt	<0.00013		0.500	0.507		mg/L		101	75 - 125	2	20
Lead	<0.00013		0.500	0.511		mg/L		102	75 - 125	1	20
Lithium	0.0075		0.500	0.512		mg/L		101	75 - 125	1	20
Molybdenum	0.0016	J	0.500	0.528		mg/L		105	75 - 125	1	20
Thallium	<0.00015		1.00	1.08		mg/L		108	75 - 125	2	20

**Lab Sample ID: MB 180-369957/1-A**  
**Matrix: Water**  
**Analysis Batch: 370289**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369957**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/21 16:11	09/03/21 08:37	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/21 16:11	09/03/21 08:37	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 180-369957/1-A**  
**Matrix: Water**  
**Analysis Batch: 370289**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369957**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0016		0.010	0.0016	mg/L		09/01/21 16:11	09/03/21 08:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/21 16:11	09/03/21 08:37	1
Boron	<0.039		0.080	0.039	mg/L		09/01/21 16:11	09/03/21 08:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/21 16:11	09/03/21 08:37	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/21 16:11	09/03/21 08:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/21 16:11	09/03/21 08:37	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/21 16:11	09/03/21 08:37	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/21 16:11	09/03/21 08:37	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/21 16:11	09/03/21 08:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/21 16:11	09/03/21 08:37	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/21 16:11	09/03/21 08:37	1

**Lab Sample ID: LCS 180-369957/2-A**  
**Matrix: Water**  
**Analysis Batch: 370289**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369957**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.237		mg/L		95	80 - 120
Arsenic	1.00	1.02		mg/L		102	80 - 120
Barium	1.00	1.01		mg/L		101	80 - 120
Beryllium	0.500	0.504		mg/L		101	80 - 120
Boron	1.25	1.18		mg/L		94	80 - 120
Cadmium	0.500	0.507		mg/L		101	80 - 120
Calcium	25.0	26.9		mg/L		107	80 - 120
Chromium	0.500	0.506		mg/L		101	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Lead	0.500	0.504		mg/L		101	80 - 120
Lithium	0.500	0.485		mg/L		97	80 - 120
Molybdenum	0.500	0.512		mg/L		102	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120

**Lab Sample ID: 180-126331-1 MS**  
**Matrix: Water**  
**Analysis Batch: 370289**

**Client Sample ID: MGWC-8**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369957**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.236		mg/L		94	75 - 125
Arsenic	<0.00031		1.00	1.04		mg/L		104	75 - 125
Barium	0.031		1.00	1.04		mg/L		101	75 - 125
Beryllium	0.0015	J	0.500	0.498		mg/L		99	75 - 125
Boron	4.2		1.25	5.51		mg/L		104	75 - 125
Cadmium	0.0046		0.500	0.505		mg/L		100	75 - 125
Calcium	96		25.0	125		mg/L		115	75 - 125
Chromium	<0.0015		0.500	0.517		mg/L		103	75 - 125
Cobalt	0.021		0.500	0.540		mg/L		104	75 - 125
Lead	0.00022	J	0.500	0.510		mg/L		102	75 - 125
Lithium	0.037		0.500	0.514		mg/L		95	75 - 125
Molybdenum	<0.00061		0.500	0.522		mg/L		104	75 - 125
Thallium	0.00040	J	1.00	1.02		mg/L		102	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 180-126331-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 370289**

**Client Sample ID: MGWC-8**  
**Prep Type: Total Recoverable**  
**Prep Batch: 369957**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
Antimony	<0.00038		0.250	0.241		mg/L		96	75 - 125	2	20
Arsenic	<0.00031		1.00	1.07		mg/L		107	75 - 125	2	20
Barium	0.031		1.00	1.05		mg/L		102	75 - 125	2	20
Beryllium	0.0015	J	0.500	0.503		mg/L		100	75 - 125	1	20
Boron	4.2		1.25	5.40		mg/L		95	75 - 125	2	20
Cadmium	0.0046		0.500	0.516		mg/L		102	75 - 125	2	20
Calcium	96		25.0	125		mg/L		116	75 - 125	0	20
Chromium	<0.0015		0.500	0.506		mg/L		101	75 - 125	2	20
Cobalt	0.021		0.500	0.546		mg/L		105	75 - 125	1	20
Lead	0.00022	J	0.500	0.505		mg/L		101	75 - 125	1	20
Lithium	0.037		0.500	0.516		mg/L		96	75 - 125	0	20
Molybdenum	<0.00061		0.500	0.521		mg/L		104	75 - 125	0	20
Thallium	0.00040	J	1.00	1.01		mg/L		101	75 - 125	1	20

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: MB 180-370041/1-A**  
**Matrix: Water**  
**Analysis Batch: 370276**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 370041**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.000214		0.00020	0.00013	mg/L		09/02/21 08:39	09/03/21 14:29	1

**Lab Sample ID: LCS 180-370041/2-A**  
**Matrix: Water**  
**Analysis Batch: 370276**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 370041**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.00250	0.00300		mg/L		120	80 - 120

**Lab Sample ID: MB 180-370045/1-A**  
**Matrix: Water**  
**Analysis Batch: 370682**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 370045**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.00020	0.00013	mg/L		09/02/21 08:58	09/08/21 15:41	1

**Lab Sample ID: LCS 180-370045/2-A**  
**Matrix: Water**  
**Analysis Batch: 370682**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 370045**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.00250	0.00277		mg/L		111	80 - 120

**Lab Sample ID: MB 180-370802/1-A**  
**Matrix: Water**  
**Analysis Batch: 371007**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 370802**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:04	09/10/21 12:59	1

Eurofins TestAmerica, Pittsburgh

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: LCS 180-370802/2-A**  
**Matrix: Water**  
**Analysis Batch: 371007**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 370802**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00262		mg/L		105	80 - 120

**Lab Sample ID: MB 180-370803/1-A**  
**Matrix: Water**  
**Analysis Batch: 371007**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 370803**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/09/21 13:09	09/10/21 13:26	1

**Lab Sample ID: LCS 180-370803/2-A**  
**Matrix: Water**  
**Analysis Batch: 371007**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 370803**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00258		mg/L		103	80 - 120

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: 180-126258-10 DU**  
**Matrix: Water**  
**Analysis Batch: 369553**

**Client Sample ID: DUP-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	520		498		mg/L		4	10

**Lab Sample ID: MB 180-369958/2**  
**Matrix: Water**  
**Analysis Batch: 369958**

**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			09/01/21 16:13	1

**Lab Sample ID: LCS 180-369958/1**  
**Matrix: Water**  
**Analysis Batch: 369958**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	685	728		mg/L		106	80 - 120

**Lab Sample ID: 180-126331-7 DU**  
**Matrix: Water**  
**Analysis Batch: 369958**

**Client Sample ID: DUP-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	480		462		mg/L		4	10

# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## HPLC/IC

### Analysis Batch: 370303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-126258-2	MGWA-11	Total/NA	Water	EPA 300.0 R2.1	
180-126258-3	MGWA-6	Total/NA	Water	EPA 300.0 R2.1	
180-126258-4	MGWA-6A	Total/NA	Water	EPA 300.0 R2.1	
180-126258-5	MGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-126258-6	MGWC-2	Total/NA	Water	EPA 300.0 R2.1	
180-126258-7	MGWC-3	Total/NA	Water	EPA 300.0 R2.1	
180-126258-8	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-126258-9	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-126258-10	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-370303/7	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-370303/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-126258-1 MS	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	
180-126258-1 MSD	MGWA-10	Total/NA	Water	EPA 300.0 R2.1	

### Analysis Batch: 370383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-126331-1	MGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-126331-2	MGWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-126331-3	MGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-126331-4	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-126331-5	FB-2	Total/NA	Water	EPA 300.0 R2.1	
180-126331-6	EB-2	Total/NA	Water	EPA 300.0 R2.1	
180-126331-7	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-370383/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-370383/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-126331-4 MS	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-126331-4 MSD	MGWC-12	Total/NA	Water	EPA 300.0 R2.1	

## Metals

### Prep Batch: 369726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total Recoverable	Water	3005A	
180-126258-2	MGWA-11	Total Recoverable	Water	3005A	
180-126258-3	MGWA-6	Total Recoverable	Water	3005A	
180-126258-4	MGWA-6A	Total Recoverable	Water	3005A	
180-126258-5	MGWA-5	Total Recoverable	Water	3005A	
180-126258-6	MGWC-2	Total Recoverable	Water	3005A	
180-126258-7	MGWC-3	Total Recoverable	Water	3005A	
180-126258-8	FB-1	Total Recoverable	Water	3005A	
180-126258-9	EB-1	Total Recoverable	Water	3005A	
180-126258-10	DUP-1	Total Recoverable	Water	3005A	
MB 180-369726/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-369726/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-126258-1 MS	MGWA-10	Total Recoverable	Water	3005A	
180-126258-1 MSD	MGWA-10	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Metals

### Analysis Batch: 369936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total Recoverable	Water	EPA 6020B	369726
180-126258-2	MGWA-11	Total Recoverable	Water	EPA 6020B	369726
180-126258-3	MGWA-6	Total Recoverable	Water	EPA 6020B	369726
180-126258-4	MGWA-6A	Total Recoverable	Water	EPA 6020B	369726
180-126258-5	MGWA-5	Total Recoverable	Water	EPA 6020B	369726
180-126258-6	MGWC-2	Total Recoverable	Water	EPA 6020B	369726
180-126258-7	MGWC-3	Total Recoverable	Water	EPA 6020B	369726
180-126258-8	FB-1	Total Recoverable	Water	EPA 6020B	369726
180-126258-9	EB-1	Total Recoverable	Water	EPA 6020B	369726
180-126258-10	DUP-1	Total Recoverable	Water	EPA 6020B	369726
MB 180-369726/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	369726
LCS 180-369726/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	369726
180-126258-1 MS	MGWA-10	Total Recoverable	Water	EPA 6020B	369726
180-126258-1 MSD	MGWA-10	Total Recoverable	Water	EPA 6020B	369726

### Prep Batch: 369957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total Recoverable	Water	3005A	
180-126331-2	MGWC-1	Total Recoverable	Water	3005A	
180-126331-3	MGWC-7	Total Recoverable	Water	3005A	
180-126331-4	MGWC-12	Total Recoverable	Water	3005A	
180-126331-5	FB-2	Total Recoverable	Water	3005A	
180-126331-6	EB-2	Total Recoverable	Water	3005A	
180-126331-7	DUP-2	Total Recoverable	Water	3005A	
MB 180-369957/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-369957/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-126331-1 MS	MGWC-8	Total Recoverable	Water	3005A	
180-126331-1 MSD	MGWC-8	Total Recoverable	Water	3005A	

### Prep Batch: 370041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	7470A	
180-126258-2	MGWA-11	Total/NA	Water	7470A	
180-126258-3	MGWA-6	Total/NA	Water	7470A	
180-126258-4	MGWA-6A	Total/NA	Water	7470A	
180-126258-5	MGWA-5	Total/NA	Water	7470A	
180-126258-6	MGWC-2	Total/NA	Water	7470A	
180-126258-7	MGWC-3	Total/NA	Water	7470A	
180-126258-8	FB-1	Total/NA	Water	7470A	
180-126258-9	EB-1	Total/NA	Water	7470A	
MB 180-370041/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-370041/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Prep Batch: 370045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-10	DUP-1	Total/NA	Water	7470A	
MB 180-370045/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-370045/2-A	Lab Control Sample	Total/NA	Water	7470A	

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# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Metals

### Analysis Batch: 370276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	EPA 7470A	370041
180-126258-2	MGWA-11	Total/NA	Water	EPA 7470A	370041
180-126258-3	MGWA-6	Total/NA	Water	EPA 7470A	370041
180-126258-4	MGWA-6A	Total/NA	Water	EPA 7470A	370041
180-126258-5	MGWA-5	Total/NA	Water	EPA 7470A	370041
180-126258-6	MGWC-2	Total/NA	Water	EPA 7470A	370041
180-126258-7	MGWC-3	Total/NA	Water	EPA 7470A	370041
180-126258-8	FB-1	Total/NA	Water	EPA 7470A	370041
180-126258-9	EB-1	Total/NA	Water	EPA 7470A	370041
MB 180-370041/1-A	Method Blank	Total/NA	Water	EPA 7470A	370041
LCS 180-370041/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	370041

### Analysis Batch: 370289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total Recoverable	Water	EPA 6020B	369957
180-126331-2	MGWC-1	Total Recoverable	Water	EPA 6020B	369957
180-126331-3	MGWC-7	Total Recoverable	Water	EPA 6020B	369957
180-126331-4	MGWC-12	Total Recoverable	Water	EPA 6020B	369957
180-126331-5	FB-2	Total Recoverable	Water	EPA 6020B	369957
180-126331-6	EB-2	Total Recoverable	Water	EPA 6020B	369957
180-126331-7	DUP-2	Total Recoverable	Water	EPA 6020B	369957
MB 180-369957/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	369957
LCS 180-369957/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	369957
180-126331-1 MS	MGWC-8	Total Recoverable	Water	EPA 6020B	369957
180-126331-1 MSD	MGWC-8	Total Recoverable	Water	EPA 6020B	369957

### Analysis Batch: 370682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-10	DUP-1	Total/NA	Water	EPA 7470A	370045
MB 180-370045/1-A	Method Blank	Total/NA	Water	EPA 7470A	370045
LCS 180-370045/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	370045

### Prep Batch: 370802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	7470A	
180-126331-2	MGWC-1	Total/NA	Water	7470A	
180-126331-3	MGWC-7	Total/NA	Water	7470A	
180-126331-4	MGWC-12	Total/NA	Water	7470A	
MB 180-370802/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-370802/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Prep Batch: 370803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-5	FB-2	Total/NA	Water	7470A	
180-126331-6	EB-2	Total/NA	Water	7470A	
180-126331-7	DUP-2	Total/NA	Water	7470A	
MB 180-370803/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-370803/2-A	Lab Control Sample	Total/NA	Water	7470A	

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Metals

### Analysis Batch: 371007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	EPA 7470A	370802
180-126331-2	MGWC-1	Total/NA	Water	EPA 7470A	370802
180-126331-3	MGWC-7	Total/NA	Water	EPA 7470A	370802
180-126331-4	MGWC-12	Total/NA	Water	EPA 7470A	370802
180-126331-5	FB-2	Total/NA	Water	EPA 7470A	370803
180-126331-6	EB-2	Total/NA	Water	EPA 7470A	370803
180-126331-7	DUP-2	Total/NA	Water	EPA 7470A	370803
MB 180-370802/1-A	Method Blank	Total/NA	Water	EPA 7470A	370802
MB 180-370803/1-A	Method Blank	Total/NA	Water	EPA 7470A	370803
LCS 180-370802/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	370802
LCS 180-370803/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	370803

## General Chemistry

### Analysis Batch: 369553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	SM 2540C	
180-126258-2	MGWA-11	Total/NA	Water	SM 2540C	
180-126258-3	MGWA-6	Total/NA	Water	SM 2540C	
180-126258-4	MGWA-6A	Total/NA	Water	SM 2540C	
180-126258-5	MGWA-5	Total/NA	Water	SM 2540C	
180-126258-6	MGWC-2	Total/NA	Water	SM 2540C	
180-126258-7	MGWC-3	Total/NA	Water	SM 2540C	
180-126258-8	FB-1	Total/NA	Water	SM 2540C	
180-126258-9	EB-1	Total/NA	Water	SM 2540C	
180-126258-10	DUP-1	Total/NA	Water	SM 2540C	
180-126258-10 DU	DUP-1	Total/NA	Water	SM 2540C	

### Analysis Batch: 369958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	SM 2540C	
180-126331-2	MGWC-1	Total/NA	Water	SM 2540C	
180-126331-3	MGWC-7	Total/NA	Water	SM 2540C	
180-126331-4	MGWC-12	Total/NA	Water	SM 2540C	
180-126331-5	FB-2	Total/NA	Water	SM 2540C	
180-126331-6	EB-2	Total/NA	Water	SM 2540C	
180-126331-7	DUP-2	Total/NA	Water	SM 2540C	
MB 180-369958/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-369958/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-126331-7 DU	DUP-2	Total/NA	Water	SM 2540C	

## Field Service / Mobile Lab

### Analysis Batch: 369662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	Field Sampling	
180-126258-2	MGWA-11	Total/NA	Water	Field Sampling	
180-126258-3	MGWA-6	Total/NA	Water	Field Sampling	
180-126258-4	MGWA-6A	Total/NA	Water	Field Sampling	
180-126258-5	MGWA-5	Total/NA	Water	Field Sampling	
180-126258-6	MGWC-2	Total/NA	Water	Field Sampling	
180-126258-7	MGWC-3	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh

# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-1

## Field Service / Mobile Lab (Continued)

### Analysis Batch: 369662 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	Field Sampling	
180-126331-2	MGWC-1	Total/NA	Water	Field Sampling	
180-126331-3	MGWC-7	Total/NA	Water	Field Sampling	
180-126331-4	MGWC-12	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



**Eurofins TestAmerica, Pittsburgh**

301 Alpha Drive RIDC Park  
 Pittsburgh, PA 15238  
 Phone (412) 963-7058 Fax (412) 963-2468

**Chain of Custody Record**



<b>Client Information</b>					Sampler: <i>Taylor Goble</i>		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:																																	
Client Contact: SCS Contacts					Phone: <i>770-594-5999</i>		E-Mail: shali.brown@eurofinset.com				Page:																																	
Company: GA Power					<b>Analysis Requested</b>							Job #:																																
Address: 241 Ralph McGill Blvd SE					<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Pres. Method (MS/MIS) (Yes or No)</td> <td>App. III Metals (B, Ca)</td> <td>Cl, F, SO<sub>4</sub>, TDS (EPA 300.0 &amp; SM 2540C)</td> <td>Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)</td> <td>Radium 226 &amp; 228 (SW-846 9316/9320)</td> <td rowspan="5">Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							Field Filtered Sample (Yes or No)	Pres. Method (MS/MIS) (Yes or No)	App. III Metals (B, Ca)	Cl, F, SO <sub>4</sub> , TDS (EPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)	Radium 226 & 228 (SW-846 9316/9320)	Total Number of containers																									Preservation Codes:	
Field Filtered Sample (Yes or No)	Pres. Method (MS/MIS) (Yes or No)	App. III Metals (B, Ca)	Cl, F, SO <sub>4</sub> , TDS (EPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)								Radium 226 & 228 (SW-846 9316/9320)	Total Number of containers																															
City: Atlanta					A - HCL M - Hexane																																							
State, Zip: GA, 30308					B - NaOH N - None																																							
Phone: 404-506-7116(Tel)					C - Zn Acetate O - AsNaO2																																							
Email: SCS Contacts					D - Nitric Acid P - Na2O4S																																							
Project Name: Plant McIntosh Ash Pond 1					E - NaHSO4 Q - Na2SO3																																							
Site: Georgia					F - MeOH R - Na2S2O3																																							
Due Date Requested:					G - Amchlor S - H2SO4																																							
TAT Requested (days):					H - Ascorbic Acid T - TSP Dodecahydrate																																							
PO #:					I - Ice U - Acetone																																							
WO #:					J - DI Water V - MCAA																																							
Project #: 18019956					K - EDTA W - pH 4-5																																							
SSOW#:					L - EDA Z - other (specify)																																							
					Other:																																							
					Special Instructions/Note: Full App III plus Detected App IV																																							
<b>Sample Identification</b>					Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/wol, BT=tissue, A=air)		Preservation Code:																															
					<i>8-23-21</i>		<i>1549</i>		<i>G</i>		<i>W</i>		<i>D</i>																															
<i>MGWA-10</i>													<i>4</i> pH= <i>6.16</i>																															
<i>MGWA-11</i>					<i>8-23-21</i>		<i>1725</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>8.12</i>																													
<i>MGWA-6</i>					<i>8-24-21</i>		<i>7004</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>7.11</i>																													
<i>MGWA-6A</i>					<i>8-24-21</i>		<i>1125</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>7.28</i>																													
<i>MGWA-5</i>					<i>8-24-21</i>		<i>1415</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>7.74</i>																													
<i>MGWC-2</i>					<i>8-24-21</i>		<i>1543</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>7.42</i>																													
<i>MGWC-3</i>					<i>8-24-21</i>		<i>1716</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>6.92</i>																													
<i>FB-1</i>					<i>8-23-21</i>		<i>1705</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>-</i>																													
<i>EB-1</i>					<i>8-24-21</i>		<i>1330</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>-</i>																													
<i>Dup-1</i>					<i>8-24-21</i>		<i>-</i>		<i>G</i>		<i>W</i>		<i>D</i>		<i>4</i> pH= <i>-</i>																													
<b>Possible Hazard Identification</b>					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</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					<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:					Date:		Time:		Method of Shipment:																																			
Relinquished by: <i>Taylor Goble</i>					Date/Time: <i>8-25-21/0825</i>		Company: <i>ACC</i>		Received by: <i>DN</i>		Date/Time: <i>8-26-21</i>		Company: <i>RET</i>																															
Relinquished by:					Date/Time:		Company:		Received by:		Date/Time: <i>10:00</i>		Company:																															
Relinquished by:					Date/Time:		Company:		Received 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:																																					



180-126256 Chain of Custody

**Eurofins TestAmerica, Pittsburgh**

301 Alpha Drive RIDC Park  
Pittsburgh, PA 15238  
Phone (412) 963-7058 Fax (412) 963-2468

**Chain of Custody Record**



<b>Client Information</b>		Sampler: Taylor Goble		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:					
Client Contact: SCS Contacts		Phone: 770-594-5998		E-Mail: shali.brown@eurofinset.com				Page:					
Company: GA Power		<b>Analysis Requested</b>						Job #:					
Address: 241 Ralph McGill Blvd SE		Due Date Requested:		Field Filtered Sample (Yes or No)		App. III Metals (B, Ca)		Total Number of Containers		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 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 Z - other (specify)			
City: Atlanta		TAT Requested (days):											
State, Zip: GA, 30308		PO #:											
Phone: 404-506-7116(Tel)		WO #:											
Email: SCS Contacts		Project #:											
Project Name: Plant McIntosh Ash Pond 1		SSOW#:		App. III Metals (B, Ca)		CI, F, SO, TDS (EPA 300.0 & SM 2540C)		Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl)		Radium 226 & 228 (SW-846 9316/9320)			
Site: Georgia										Special Instructions/Note: Full App III plus Detected App IV			
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	App. III Metals (B, Ca)	CI, F, SO, TDS (EPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Tl)	Radium 226 & 228 (SW-846 9316/9320)	Total Number of Containers	Special Instructions/Note: Full App III plus Detected App IV	
MGWC-8		8-25-21	1112	G	W	N	N	✓	✓	✓	4	pH= 5.26	
MGWC-1		8-25-21	1314	G	W	N	N	✓	✓	✓	4	pH= 7.27	
MGWC-7		8-25-21	1447	G	W	N	N	✓	✓	✓	4	pH= 6.85	
MGWC-12		8-25-21	1626	G	W	N	N	✓	✓	✓	6	pH= 7.44 (Extra rad)	
FB-2		8-25-21	1100	G	W	N	N	✓	✓	✓	4	pH= -	
EB-2		8-25-21	1420	G	W	N	N	✓	✓	✓	4	pH= -	
Dup-2		8-25-21	-		W	N	N	✓	✓	✓	4	pH= -	
												pH=	
												pH=	
												pH=	
												pH=	
Possible Hazard Identification		180-126331 Chain of Custody		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant				<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:		Date:		Time:		Method of Shipment:							
Relinquished by: Taylor Goble		Date/Time: 8-26-21/0830		Company:		Received by: D Watson		Date/Time: 8-27-21/9:30		Company: BTADH			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Company:		Received 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:							





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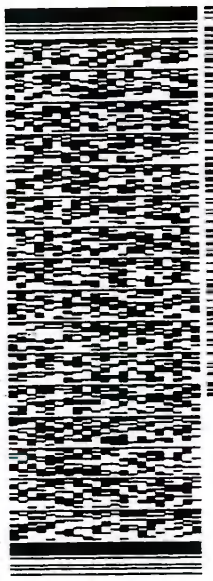
Environment Testing  
TestAmerica

9/17/2021 (Rev. 1)

ORIGIN ID: SAVA (912) 354-7858  
SHIPPING INSURANCE  
EUROFINS/TESTAMERICA  
5102 LA ROCHE AVE  
SAVANNAH, GA 31406  
UNITED STATES US

TO SAMPLE CUSTOMER  
TESTAMERICA LABORATORIES, INC.  
301 ALPHA DRIVE  
RIDC PARK  
PITTSBURGH PA 15238

(412) 983-7063  
REF: FORWARD MCINTOSH PER SHALL



FedEx  
EXP

Page 45 of 49

1 of 2

TRK# 1328 9412 8227  
0201  
## MASTER ##

THU, - 26 AUG 2021  
PRIORITY OVERNIGHT

**XH AGCA**

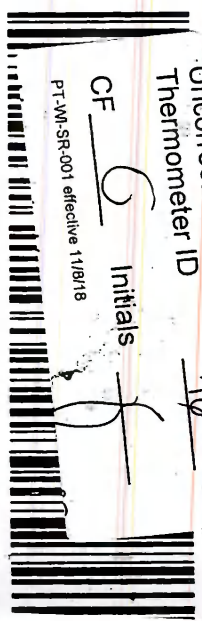
PA-US

Uncorrected temp  
Thermometer ID

4.2  
1.0  
C

CF G Initials


PT-WI-SR-001 effective 11/8/18



RT 98

10:30  
A  
8227  
08:26

25AUG21  
CO LB MAN  
/CFE3409

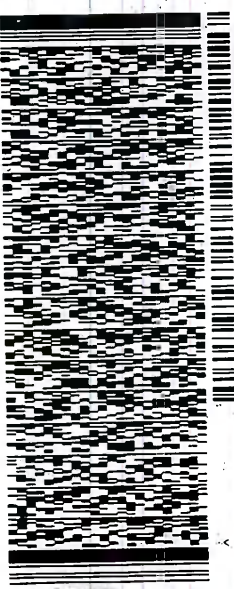
 **eurofins**  
Environment Testing  
TestAmerica

04/17/2024 (Rev. 1)

ORIGIN ID:SAVA (912) 354-7858  
SHIP TO:TESTAMERICA  
EUROFINS  
5102 LH ROUCHE AVE  
SAVANNAH, GA 31404  
UNITED STATES US

SHIP DATE: 28AUG21  
ACTWGT: 15.00 LB MN  
CAD: 0801261/CAFE3409  
BILL RECIPIENT

TO **SAMPLE CUSTODY**  
**TESTAMERICA LABORATORIES, INC.**  
**301 ALPHA DRIVE**  
**RIDC PARK**  
**PITTSBURGH PA 15238**  
(412) 968-7053  
REF: FORWARD/MCINTOSH) PER SHALL BROWN



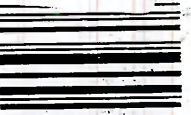
MPS# 1328 9412 8363  
0263

FRI - 27 AUG 10:30A  
PRIORITY OVERNIGHT

Mstr# 1328 9412 8352  
**XH AGCA**

15238  
PA-US/ \*PIT

Uncorrected temp 3.8 °C  
Thermometer ID 16  
CF 0 Initials AS  
PT-WM-SR-001 effective 11/8/18



180-126331 Waybill

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**FedEx**®



Using This Tag  
Environment Testing  
TestAmerica

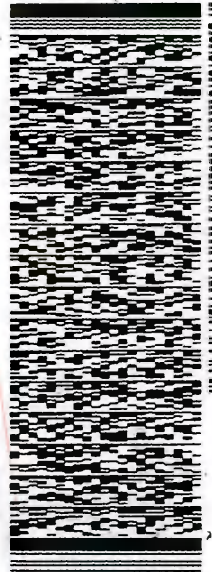
Part # 159449-434 RT2 EXP 11/21

ORIGIN ID:SAVA (912) 354-7858  
SHIPPING  
EUROFINS/TESTAMERICA  
5102 LA ROCHE AVE  
SAVANNAH, GA 31404  
UNITED STATES US

SHIP DATE: 26AUG21  
ACTWT: 25.00 LB MAN  
CAD: 0801261/CAF3409

BILL RECIPIENT

TO SAMPLE CUSTODY  
TESTAMERICA LABORATORIES, INC.  
301 ALPHA DRIVE  
RIDC PARK  
PITTSBURGH PA 15238  
(412) 963-7068  
REF: FORWARD(MCINTOSH) PER SHALL BROWN



1 of 2  
TRK# 1328 9412 8352

FRI - 27 AUG 10:30A  
PRIORITY OVERNIGHT

# MASTER ##

**XH AGCA**

15238  
PA-US PIT



# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-126258-1

**Login Number: 126258**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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: 180-126258-1

**Login Number: 126331**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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	



## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-126258-2  
Client Project/Site: Plant McIntosh Ash Pond

For:  
Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
10/18/2021 2:57:21 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416



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# Case Narrative

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Job ID: 180-126258-2**

**Laboratory: Eurofins TestAmerica, Pittsburgh**

## Narrative

### Job Narrative 180-126258-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 8/26/2021 10:00 AM and 8/27/2021 9:30 AM. 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 3.6° C, 3.8° C, 4.2° C and 4.2° C.

#### RAD

Methods 903.0, 9315: Radium 226 prep batch 160-525451

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-126258-1), MGWA-11 (180-126258-2), MGWA-6 (180-126258-3), MGWA-6A (180-126258-4), (LCS 160-525451/1-A) and (MB 160-525451/23-A)

Methods 903.0, 9315: radium-226 Batch 525966

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWC-8 (180-126331-1), MGWC-1 (180-126331-2), MGWC-7 (180-126331-3), MGWC-12 (180-126331-4), FB-2 (180-126331-5), EB-2 (180-126331-6), DUP-2 (180-126331-7), (LCS 160-525966/1-A), (LCSD 160-525966/2-A) and (MB 160-525966/23-A)

Methods 903.0, 9315: Radium-226 Batch 525800

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-5 (180-126258-5), MGWC-2 (180-126258-6), MGWC-3 (180-126258-7), FB-1 (180-126258-8), EB-1 (180-126258-9), DUP-1 (180-126258-10), (LCS 160-525800/1-A) and (MB 160-525800/24-A)

Methods 904.0, 9320: Radium 228 prep batch 160-525698

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-10 (180-126258-1), MGWA-11 (180-126258-2), MGWA-6 (180-126258-3), MGWA-6A (180-126258-4), (LCS 160-525698/1-A) and (MB 160-525698/23-A)

Methods 904.0, 9320: Radium 228 prep batch 160-525827

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWA-5 (180-126258-5), MGWC-2 (180-126258-6), MGWC-3 (180-126258-7), FB-1 (180-126258-8), EB-1 (180-126258-9), DUP-1 (180-126258-10), (LCS 160-525827/1-A) and (MB 160-525827/24-A)

Method 9320: Radium-228 prep batch 160-526057:

The following sample was counted on a detector that did not have the daily background check performed. The detector passed the day prior (10/3/2021) and the day following (10/5/2021) the sample count. The lab does not believe this excursion adversely affects the data. The data have been reported with this narrative. MGWC-8 (180-126331-1)

Methods 904.0, 9320: Radium-228 prep batch 160-526057:

The radium-228 laboratory control sample (LCS) associated with the following samples recovered at 129%(LCS 160-526057/1-A). The limits in our LIMS system at (75-125%) reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (61-138%) per method requirements. The LCS is within criteria and no further action is required.

Methods 904.0, 9320: Radium-228 prep batch 160-526057:

# Case Narrative

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

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## Job ID: 180-126258-2 (Continued)

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### Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MGWC-8 (180-126331-1), MGWC-1 (180-126331-2), MGWC-7 (180-126331-3), MGWC-12 (180-126331-4), FB-2 (180-126331-5), EB-2 (180-126331-6), DUP-2 (180-126331-7), (LCS 160-526057/1-A), (LCSD 160-526057/2-A) and (MB 160-526057/23-A)

Method PrecSep\_0: Ra-228 Batch 160-526057:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MGWC-8 (180-126331-1), MGWC-1 (180-126331-2), MGWC-7 (180-126331-3), MGWC-12 (180-126331-4), FB-2 (180-126331-5), EB-2 (180-126331-6) and DUP-2 (180-126331-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Ra-226 Batch 160-525966:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MGWC-8 (180-126331-1), MGWC-1 (180-126331-2), MGWC-7 (180-126331-3), MGWC-12 (180-126331-4), FB-2 (180-126331-5), EB-2 (180-126331-6) and DUP-2 (180-126331-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 prep batch 160-525800

The Barium carrier recovery is outside the lower control limit (40%) for the following sample: DUP-1 (180-126258-10). During the barium sulfate precipitation it was observed that this sample appeared to be darker in color and much less in size than that of the QC. When plated and weighed this sample recorded a weight less than the lowest acceptable range for this test.

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

# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## 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

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	06-30-21 *
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	07-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Sample Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-126258-1	MGWA-10	Water	08/23/21 15:49	08/26/21 10:00
180-126258-2	MGWA-11	Water	08/23/21 17:25	08/26/21 10:00
180-126258-3	MGWA-6	Water	08/24/21 10:04	08/26/21 10:00
180-126258-4	MGWA-6A	Water	08/24/21 11:25	08/26/21 10:00
180-126258-5	MGWA-5	Water	08/24/21 14:15	08/26/21 10:00
180-126258-6	MGWC-2	Water	08/24/21 15:43	08/26/21 10:00
180-126258-7	MGWC-3	Water	08/24/21 17:16	08/26/21 10:00
180-126258-8	FB-1	Water	08/23/21 17:05	08/26/21 10:00
180-126258-9	EB-1	Water	08/24/21 13:30	08/26/21 10:00
180-126258-10	DUP-1	Water	08/24/21 00:00	08/26/21 10:00
180-126331-1	MGWC-8	Water	08/25/21 11:12	08/27/21 09:30
180-126331-2	MGWC-1	Water	08/25/21 13:14	08/27/21 09:30
180-126331-3	MGWC-7	Water	08/25/21 14:47	08/27/21 09:30
180-126331-4	MGWC-12	Water	08/25/21 16:26	08/27/21 09:30
180-126331-5	FB-2	Water	08/25/21 11:00	08/27/21 09:30
180-126331-6	EB-2	Water	08/25/21 14:20	08/27/21 09:30
180-126331-7	DUP-2	Water	08/25/21 00:00	08/27/21 09:30





# Method Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

#### Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Client Sample ID: MGWA-10

## Lab Sample ID: 180-126258-1

Date Collected: 08/23/21 15:49

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.48 mL	1.0 g	525451	09/03/21 12:38	MJ	TAL SL
Total/NA	Analysis	9315		1			529523	09/30/21 21:57	EMH	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.48 mL	1.0 g	525698	09/07/21 10:35	MJ	TAL SL
Total/NA	Analysis	9320		1			529524	09/30/21 12:38	EMH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530584	10/08/21 15:36	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-11

## Lab Sample ID: 180-126258-2

Date Collected: 08/23/21 17:25

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.90 mL	1.0 g	525451	09/03/21 12:38	MJ	TAL SL
Total/NA	Analysis	9315		1			529523	09/30/21 21:58	EMH	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.90 mL	1.0 g	525698	09/07/21 10:35	MJ	TAL SL
Total/NA	Analysis	9320		1			529524	09/30/21 12:38	EMH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530584	10/08/21 15:36	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6

## Lab Sample ID: 180-126258-3

Date Collected: 08/24/21 10:04

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.36 mL	1.0 g	525451	09/03/21 12:38	MJ	TAL SL
Total/NA	Analysis	9315		1			529524	09/30/21 21:59	EMH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.36 mL	1.0 g	525698	09/07/21 10:35	MJ	TAL SL
Total/NA	Analysis	9320		1			529524	09/30/21 12:38	EMH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530584	10/08/21 15:36	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-126258-4

Date Collected: 08/24/21 11:25

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.88 mL	1.0 g	525451	09/03/21 12:38	MJ	TAL SL
Total/NA	Analysis	9315		1			529524	09/30/21 21:59	EMH	TAL SL
Instrument ID: GFPCPURPLE										

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Client Sample ID: MGWA-6A

## Lab Sample ID: 180-126258-4

Date Collected: 08/24/21 11:25

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.88 mL	1.0 g	525698	09/07/21 10:35	MJ	TAL SL
Total/NA	Analysis	9320		1			529524	09/30/21 12:38	EMH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530584	10/08/21 15:36	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWA-5

## Lab Sample ID: 180-126258-5

Date Collected: 08/24/21 14:15

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.07 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 19:54	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.07 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:46	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-2

## Lab Sample ID: 180-126258-6

Date Collected: 08/24/21 15:43

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.09 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			530097	10/05/21 10:43	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.09 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:46	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-126258-7

Date Collected: 08/24/21 17:16

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.02 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 19:55	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.02 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:46	ANW	TAL SL
Instrument ID: GFPCPURPLE										

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# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Client Sample ID: MGWC-3

## Lab Sample ID: 180-126258-7

Date Collected: 08/24/21 17:16

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL

## Client Sample ID: FB-1

## Lab Sample ID: 180-126258-8

Date Collected: 08/23/21 17:05

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.07 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 19:56	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.07 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:46	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: EB-1

## Lab Sample ID: 180-126258-9

Date Collected: 08/24/21 13:30

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.48 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 19:56	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.48 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:47	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: DUP-1

## Lab Sample ID: 180-126258-10

Date Collected: 08/24/21 00:00

Matrix: Water

Date Received: 08/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.60 mL	1.0 g	525800	09/08/21 08:51	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 19:56	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.60 mL	1.0 g	525827	09/08/21 10:16	MJ	TAL SL
Total/NA	Analysis	9320		1			529909	10/04/21 12:47	ANW	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			530585	10/08/21 15:38	EMH	TAL SL
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-126331-1**

Date Collected: 08/25/21 11:12

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.0 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:52	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.0 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			530078	10/04/21 12:31	ANW	TAL SL
Instrument ID: GFPCPROTEAN										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-126331-2**

Date Collected: 08/25/21 13:14

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.6 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:53	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.6 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-126331-3**

Date Collected: 08/25/21 14:47

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.6 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:53	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.6 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-126331-4**

Date Collected: 08/25/21 16:26

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.0 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:53	ANW	TAL SL
Instrument ID: GFPCBLUE										

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Client Sample ID: MGWC-12

Lab Sample ID: 180-126331-4

Date Collected: 08/25/21 16:26

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.0 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: FB-2

Lab Sample ID: 180-126331-5

Date Collected: 08/25/21 11:00

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.1 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:53	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.1 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: EB-2

Lab Sample ID: 180-126331-6

Date Collected: 08/25/21 14:20

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.5 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529908	10/04/21 17:53	ANW	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.5 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1			529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL
Instrument ID: NOEQUIP										

## Client Sample ID: DUP-2

Lab Sample ID: 180-126331-7

Date Collected: 08/25/21 00:00

Matrix: Water

Date Received: 08/27/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.2 mL	1.0 g	525966	09/08/21 15:41	MAV	TAL SL
Total/NA	Analysis	9315		1			529910	10/04/21 17:54	FLC	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.2 mL	1.0 g	526057	09/09/21 09:09	MJ	TAL SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	529904	10/04/21 12:33	ANW	TAL SL
Instrument ID: GFPCRED										

Eurofins TestAmerica, Pittsburgh

# Lab Chronicle

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: DUP-2**

**Lab Sample ID: 180-126331-7**

**Date Collected: 08/25/21 00:00**

**Matrix: Water**

**Date Received: 08/27/21 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			530583	10/08/21 15:34	EMH	TAL SL

**Laboratory References:**

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

**Analyst References:**

Lab: TAL SL

Batch Type: Prep

MAV = Melesa Viehmann

MJ = Mary Johns

Batch Type: Analysis

ANW = Amber Woods

EMH = Elizabeth Hoerchler

FLC = Fernando Cruz





# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWA-10**

**Lab Sample ID: 180-126258-1**

Date Collected: 08/23/21 15:49

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.595		0.267	0.272	1.00	0.307	pCi/L	09/03/21 12:38	09/30/21 21:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					09/03/21 12:38	09/30/21 21:57	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.156	U	0.255	0.256	1.00	0.431	pCi/L	09/07/21 10:35	09/30/21 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					09/07/21 10:35	09/30/21 12:38	1
Y Carrier	84.1		40 - 110					09/07/21 10:35	09/30/21 12:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.752		0.369	0.374	5.00	0.431	pCi/L		10/08/21 15:36	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWA-11**

**Lab Sample ID: 180-126258-2**

Date Collected: 08/23/21 17:25

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.987		0.408	0.417	1.00	0.497	pCi/L	09/03/21 12:38	09/30/21 21:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					09/03/21 12:38	09/30/21 21:58	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.203	U	0.304	0.305	1.00	0.511	pCi/L	09/07/21 10:35	09/30/21 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					09/07/21 10:35	09/30/21 12:38	1
Y Carrier	85.6		40 - 110					09/07/21 10:35	09/30/21 12:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.19		0.509	0.517	5.00	0.511	pCi/L		10/08/21 15:36	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWA-6**

**Lab Sample ID: 180-126258-3**

Date Collected: 08/24/21 10:04

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.279	U	0.279	0.280	1.00	0.445	pCi/L	09/03/21 12:38	09/30/21 21:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		40 - 110					09/03/21 12:38	09/30/21 21:59	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399	U	0.325	0.327	1.00	0.517	pCi/L	09/07/21 10:35	09/30/21 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		40 - 110					09/07/21 10:35	09/30/21 12:38	1
Y Carrier	86.0		40 - 110					09/07/21 10:35	09/30/21 12:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.678</b>		0.428	0.430	5.00	0.517	pCi/L		10/08/21 15:36	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWA-6A**

**Lab Sample ID: 180-126258-4**

Date Collected: 08/24/21 11:25

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.371	U	0.283	0.285	1.00	0.425	pCi/L	09/03/21 12:38	09/30/21 21:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/03/21 12:38	09/30/21 21:59	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.225	U	0.277	0.278	1.00	0.459	pCi/L	09/07/21 10:35	09/30/21 12:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/07/21 10:35	09/30/21 12:38	1
Y Carrier	87.5		40 - 110					09/07/21 10:35	09/30/21 12:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.596</b>		0.396	0.398	5.00	0.459	pCi/L		10/08/21 15:36	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWA-5**

**Lab Sample ID: 180-126258-5**

Date Collected: 08/24/21 14:15

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0872	U	0.226	0.227	1.00	0.417	pCi/L	09/08/21 08:51	10/04/21 19:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					09/08/21 08:51	10/04/21 19:54	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434	U	0.366	0.368	1.00	0.585	pCi/L	09/08/21 10:16	10/04/21 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					09/08/21 10:16	10/04/21 12:46	1
Y Carrier	83.4		40 - 110					09/08/21 10:16	10/04/21 12:46	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.521	U	0.430	0.432	5.00	0.585	pCi/L		10/08/21 15:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-2**

**Lab Sample ID: 180-126258-6**

Date Collected: 08/24/21 15:43

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.211	U	0.214	0.215	1.00	0.341	pCi/L	09/08/21 08:51	10/05/21 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					09/08/21 08:51	10/05/21 10:43	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.102	U	0.283	0.283	1.00	0.489	pCi/L	09/08/21 10:16	10/04/21 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					09/08/21 10:16	10/04/21 12:46	1
Y Carrier	82.6		40 - 110					09/08/21 10:16	10/04/21 12:46	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.313	U	0.355	0.355	5.00	0.489	pCi/L		10/08/21 15:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-3**

**Lab Sample ID: 180-126258-7**

Date Collected: 08/24/21 17:16

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.961		0.351	0.361	1.00	0.376	pCi/L	09/08/21 08:51	10/04/21 19:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					09/08/21 08:51	10/04/21 19:55	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.691		0.321	0.328	1.00	0.471	pCi/L	09/08/21 10:16	10/04/21 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					09/08/21 10:16	10/04/21 12:46	1
Y Carrier	82.2		40 - 110					09/08/21 10:16	10/04/21 12:46	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.65		0.476	0.488	5.00	0.471	pCi/L		10/08/21 15:38	1



# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: FB-1**

**Lab Sample ID: 180-126258-8**

Date Collected: 08/23/21 17:05

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0237	U	0.216	0.216	1.00	0.418	pCi/L	09/08/21 08:51	10/04/21 19:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					09/08/21 08:51	10/04/21 19:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.294	0.294	1.00	0.492	pCi/L	09/08/21 10:16	10/04/21 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					09/08/21 10:16	10/04/21 12:46	1
Y Carrier	81.5		40 - 110					09/08/21 10:16	10/04/21 12:46	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.224	U	0.365	0.365	5.00	0.492	pCi/L		10/08/21 15:38	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: EB-1**

**Lab Sample ID: 180-126258-9**

Date Collected: 08/24/21 13:30

Matrix: Water

Date Received: 08/26/21 10:00

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.162	U	0.143	0.143	1.00	0.379	pCi/L	09/08/21 08:51	10/04/21 19:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		40 - 110					09/08/21 08:51	10/04/21 19:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0377	U	0.255	0.255	1.00	0.450	pCi/L	09/08/21 10:16	10/04/21 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		40 - 110					09/08/21 10:16	10/04/21 12:47	1
Y Carrier	84.5		40 - 110					09/08/21 10:16	10/04/21 12:47	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.124	U	0.292	0.292	5.00	0.450	pCi/L		10/08/21 15:38	1

# Client Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: DUP-1**  
Date Collected: 08/24/21 00:00  
Date Received: 08/26/21 10:00

**Lab Sample ID: 180-126258-10**  
Matrix: Water

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213	U	0.254	0.255	1.00	0.419	pCi/L	09/08/21 08:51	10/04/21 19:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					09/08/21 08:51	10/04/21 19:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.675</b>		0.322	0.328	1.00	0.472	pCi/L	09/08/21 10:16	10/04/21 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					09/08/21 10:16	10/04/21 12:47	1
Y Carrier	84.5		40 - 110					09/08/21 10:16	10/04/21 12:47	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.889</b>		0.410	0.415	5.00	0.472	pCi/L		10/08/21 15:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-126331-1**

Date Collected: 08/25/21 11:12

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.954		0.433	0.441	1.00	0.541	pCi/L	09/08/21 15:41	10/04/21 17:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					09/08/21 15:41	10/04/21 17:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.17		0.472	0.484	1.00	0.670	pCi/L	09/09/21 09:09	10/04/21 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					09/09/21 09:09	10/04/21 12:31	1
Y Carrier	74.8		40 - 110					09/09/21 09:09	10/04/21 12:31	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.13		0.641	0.655	5.00	0.670	pCi/L		10/08/21 15:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-1**

**Lab Sample ID: 180-126331-2**

Date Collected: 08/25/21 13:14

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.41		0.390	0.410	1.00	0.334	pCi/L	09/08/21 15:41	10/04/21 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		40 - 110					09/08/21 15:41	10/04/21 17:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.712		0.358	0.364	1.00	0.529	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	68.4		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.12		0.529	0.548	5.00	0.529	pCi/L		10/08/21 15:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-7**

**Lab Sample ID: 180-126331-3**

Date Collected: 08/25/21 14:47

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.668		0.334	0.339	1.00	0.432	pCi/L	09/08/21 15:41	10/04/21 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/08/21 15:41	10/04/21 17:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0989	U	0.280	0.281	1.00	0.485	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	82.6		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.767		0.436	0.440	5.00	0.485	pCi/L		10/08/21 15:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: MGWC-12**

**Lab Sample ID: 180-126331-4**

Date Collected: 08/25/21 16:26

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141	U	0.281	0.282	1.00	0.495	pCi/L	09/08/21 15:41	10/04/21 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					09/08/21 15:41	10/04/21 17:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.296	0.298	1.00	0.459	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	79.6		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.563</b>		0.408	0.410	5.00	0.495	pCi/L		10/08/21 15:34	1



# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: FB-2**

**Lab Sample ID: 180-126331-5**

Date Collected: 08/25/21 11:00

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0388	U	0.254	0.254	1.00	0.478	pCi/L	09/08/21 15:41	10/04/21 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					09/08/21 15:41	10/04/21 17:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.332	U	0.312	0.314	1.00	0.506	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	81.9		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.371	U	0.402	0.404	5.00	0.506	pCi/L		10/08/21 15:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: EB-2**

**Lab Sample ID: 180-126331-6**

Date Collected: 08/25/21 14:20

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0473	U	0.270	0.270	1.00	0.505	pCi/L	09/08/21 15:41	10/04/21 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					09/08/21 15:41	10/04/21 17:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.95		0.417	0.454	1.00	0.487	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	83.7		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.99		0.497	0.528	5.00	0.505	pCi/L		10/08/21 15:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

**Client Sample ID: DUP-2**

**Lab Sample ID: 180-126331-7**

Date Collected: 08/25/21 00:00

Matrix: Water

Date Received: 08/27/21 09:30

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.988		0.344	0.355	1.00	0.352	pCi/L	09/08/21 15:41	10/04/21 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					09/08/21 15:41	10/04/21 17:54	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.255	0.257	1.00	0.407	pCi/L	09/09/21 09:09	10/04/21 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					09/09/21 09:09	10/04/21 12:33	1
Y Carrier	84.1		40 - 110					09/09/21 09:09	10/04/21 12:33	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.29		0.428	0.438	5.00	0.407	pCi/L		10/08/21 15:34	1

# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-525451/23-A**  
**Matrix: Water**  
**Analysis Batch: 529524**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 525451**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1879	U	0.225	0.226	1.00	0.371	pCi/L	09/03/21 12:38	09/30/21 21:59	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					09/03/21 12:38	09/30/21 21:59	1
	87.0									

**Lab Sample ID: LCS 160-525451/1-A**  
**Matrix: Water**  
**Analysis Batch: 529520**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 525451**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.44		1.34	1.00	0.352	pCi/L	92	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	93.6								

**Lab Sample ID: MB 160-525800/24-A**  
**Matrix: Water**  
**Analysis Batch: 530098**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 525800**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2302	U	0.203	0.204	1.00	0.311	pCi/L	09/08/21 08:51	10/05/21 07:01	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					09/08/21 08:51	10/05/21 07:01	1
	94.6									

**Lab Sample ID: LCS 160-525800/1-A**  
**Matrix: Water**  
**Analysis Batch: 529904**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 525800**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.51		1.33	1.00	0.331	pCi/L	93	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	93.4								

**Lab Sample ID: MB 160-525966/23-A**  
**Matrix: Water**  
**Analysis Batch: 529910**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 525966**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2989	U	0.268	0.269	1.00	0.415	pCi/L	09/08/21 15:41	10/04/21 17:56	1

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-525966/23-A  
Matrix: Water  
Analysis Batch: 529910

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 525966

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		40 - 110	09/08/21 15:41	10/04/21 17:56	1

Lab Sample ID: LCS 160-525966/1-A  
Matrix: Water  
Analysis Batch: 529904

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 525966

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	10.41		1.40	1.00	0.411	pCi/L	92	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	75.2		40 - 110

Lab Sample ID: LCSD 160-525966/2-A  
Matrix: Water  
Analysis Batch: 529904

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 525966

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.3	11.00		1.42	1.00	0.342	pCi/L	97	75 - 125	0.21	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	87.5		40 - 110

## Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-525698/23-A  
Matrix: Water  
Analysis Batch: 529524

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 525698

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1695	U	0.258	0.259	1.00	0.434	pCi/L	09/07/21 10:35	09/30/21 12:38	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110	09/07/21 10:35	09/30/21 12:38	1
Y Carrier	85.6		40 - 110	09/07/21 10:35	09/30/21 12:38	1

Lab Sample ID: LCS 160-525698/1-A  
Matrix: Water  
Analysis Batch: 529523

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 525698

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.29	9.537		1.13	1.00	0.436	pCi/L	103	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-525698/1-A**  
**Matrix: Water**  
**Analysis Batch: 529523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 525698**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.6		40 - 110
Y Carrier	81.5		40 - 110

**Lab Sample ID: MB 160-525827/24-A**  
**Matrix: Water**  
**Analysis Batch: 529908**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 525827**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2846	U	0.258	0.259	1.00	0.415	pCi/L	09/08/21 10:16	10/04/21 12:51	1

Carrier	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	94.6		40 - 110	09/08/21 10:16	10/04/21 12:51	1
Y Carrier	87.9		40 - 110	09/08/21 10:16	10/04/21 12:51	1

**Lab Sample ID: LCS 160-525827/1-A**  
**Matrix: Water**  
**Analysis Batch: 529904**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 525827**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	9.27	10.22		1.19	1.00	0.366	pCi/L	110	75 - 125

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	81.5		40 - 110

**Lab Sample ID: MB 160-526057/23-A**  
**Matrix: Water**  
**Analysis Batch: 529904**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 526057**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4075	U	0.288	0.290	1.00	0.446	pCi/L	09/09/21 09:09	10/04/21 12:36	1

Carrier	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	92.8		40 - 110	09/09/21 09:09	10/04/21 12:36	1
Y Carrier	73.6		40 - 110	09/09/21 09:09	10/04/21 12:36	1

**Lab Sample ID: LCS 160-526057/1-A**  
**Matrix: Water**  
**Analysis Batch: 530078**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 526057**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	9.27	11.97		1.43	1.00	0.564	pCi/L	129	75 - 125

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# QC Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-526057/1-A**  
**Matrix: Water**  
**Analysis Batch: 530078**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 526057**

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	75.2		40 - 110
Y Carrier	80.0		40 - 110

**Lab Sample ID: LCSD 160-526057/2-A**  
**Matrix: Water**  
**Analysis Batch: 530078**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 526057**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									Min	Max	Value	Value
Radium-228	9.27	9.586		1.16	1.00	0.447	pCi/L	103	75	125	0.92	1

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	87.5		40 - 110
Y Carrier	79.6		40 - 110





# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Rad

### Prep Batch: 525451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	PrecSep-21	
180-126258-2	MGWA-11	Total/NA	Water	PrecSep-21	
180-126258-3	MGWA-6	Total/NA	Water	PrecSep-21	
180-126258-4	MGWA-6A	Total/NA	Water	PrecSep-21	
MB 160-525451/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-525451/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 525698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-1	MGWA-10	Total/NA	Water	PrecSep_0	
180-126258-2	MGWA-11	Total/NA	Water	PrecSep_0	
180-126258-3	MGWA-6	Total/NA	Water	PrecSep_0	
180-126258-4	MGWA-6A	Total/NA	Water	PrecSep_0	
MB 160-525698/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-525698/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

### Prep Batch: 525800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-5	MGWA-5	Total/NA	Water	PrecSep-21	
180-126258-6	MGWC-2	Total/NA	Water	PrecSep-21	
180-126258-7	MGWC-3	Total/NA	Water	PrecSep-21	
180-126258-8	FB-1	Total/NA	Water	PrecSep-21	
180-126258-9	EB-1	Total/NA	Water	PrecSep-21	
180-126258-10	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-525800/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-525800/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 525827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126258-5	MGWA-5	Total/NA	Water	PrecSep_0	
180-126258-6	MGWC-2	Total/NA	Water	PrecSep_0	
180-126258-7	MGWC-3	Total/NA	Water	PrecSep_0	
180-126258-8	FB-1	Total/NA	Water	PrecSep_0	
180-126258-9	EB-1	Total/NA	Water	PrecSep_0	
180-126258-10	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-525827/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-525827/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

### Prep Batch: 525966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	PrecSep-21	
180-126331-2	MGWC-1	Total/NA	Water	PrecSep-21	
180-126331-3	MGWC-7	Total/NA	Water	PrecSep-21	
180-126331-4	MGWC-12	Total/NA	Water	PrecSep-21	
180-126331-5	FB-2	Total/NA	Water	PrecSep-21	
180-126331-6	EB-2	Total/NA	Water	PrecSep-21	
180-126331-7	DUP-2	Total/NA	Water	PrecSep-21	
MB 160-525966/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-525966/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-525966/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond

Job ID: 180-126258-2

## Rad

### Prep Batch: 526057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-126331-1	MGWC-8	Total/NA	Water	PrecSep_0	
180-126331-2	MGWC-1	Total/NA	Water	PrecSep_0	
180-126331-3	MGWC-7	Total/NA	Water	PrecSep_0	
180-126331-4	MGWC-12	Total/NA	Water	PrecSep_0	
180-126331-5	FB-2	Total/NA	Water	PrecSep_0	
180-126331-6	EB-2	Total/NA	Water	PrecSep_0	
180-126331-7	DUP-2	Total/NA	Water	PrecSep_0	
MB 160-526057/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-526057/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-526057/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

**Eurofins TestAmerica, Pittsburgh**

301 Alpha Drive RIDC Park  
 Pittsburgh, PA 15238  
 Phone (412) 963-7058 Fax (412) 963-2468

**Chain of Custody Record**



<b>Client Information</b>					Sampler: <i>Taylor Goble</i>		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:																																	
Client Contact: SCS Contacts					Phone: <i>770-594-5999</i>		E-Mail: shali.brown@eurofinset.com				Page:																																	
Company: GA Power					<b>Analysis Requested</b>							Job #:																																
Address: 241 Ralph McGill Blvd SE					<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Preservation (MS/MS) (Yes or No)</td> <td>App. III Metals (B, Ca)</td> <td>Cl, F, SO<sub>4</sub>, TDS (EPA 300.0 &amp; SM 2540C)</td> <td>Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)</td> <td>Radium 226 &amp; 228 (SW-846 9316/9320)</td> <td rowspan="5">Total Number of containers</td> </tr> <tr> <td>Sample Identification</td> <td>Sample Date</td> <td>Sample Time</td> <td>Sample Type (C=comp, G=grab)</td> <td>Matrix (W=water, S=solid, O=wastewater, ET=Tissue, A=Air)</td> <td>Preservation Code:</td> </tr> <tr> <td><i>MGWA-10</i></td> <td><i>8-23-21</i></td> <td><i>1549</i></td> <td><i>G</i></td> <td><i>W</i></td> <td><i>W N</i></td> </tr> <tr> <td><i>MGWA-11</i></td> <td><i>8-23-21</i></td> <td><i>1725</i></td> <td><i>G</i></td> <td><i>W</i></td> <td><i>W N</i></td> </tr> <tr> <td><i>MGWA-6</i></td> <td><i>8-24-21</i></td> <td><i>1004</i></td> <td><i>G</i></td> <td><i>W</i></td> <td><i>W N</i></td> </tr> </table>							Field Filtered Sample (Yes or No)	Preservation (MS/MS) (Yes or No)	App. III Metals (B, Ca)	Cl, F, SO <sub>4</sub> , TDS (EPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)	Radium 226 & 228 (SW-846 9316/9320)	Total Number of containers	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, ET=Tissue, A=Air)	Preservation Code:	<i>MGWA-10</i>	<i>8-23-21</i>	<i>1549</i>	<i>G</i>	<i>W</i>	<i>W N</i>	<i>MGWA-11</i>	<i>8-23-21</i>	<i>1725</i>	<i>G</i>	<i>W</i>	<i>W N</i>	<i>MGWA-6</i>	<i>8-24-21</i>	<i>1004</i>	<i>G</i>	<i>W</i>	<i>W N</i>	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 - EDA Z - other (specify) Other:	
Field Filtered Sample (Yes or No)	Preservation (MS/MS) (Yes or No)	App. III Metals (B, Ca)	Cl, F, SO <sub>4</sub> , TDS (EPA 300.0 & SM 2540C)	Detected App. IV Metals (Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Ti)								Radium 226 & 228 (SW-846 9316/9320)	Total Number of containers																															
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, ET=Tissue, A=Air)								Preservation Code:																																
<i>MGWA-10</i>	<i>8-23-21</i>	<i>1549</i>	<i>G</i>	<i>W</i>								<i>W N</i>																																
<i>MGWA-11</i>	<i>8-23-21</i>	<i>1725</i>	<i>G</i>	<i>W</i>								<i>W N</i>																																
<i>MGWA-6</i>	<i>8-24-21</i>	<i>1004</i>	<i>G</i>	<i>W</i>	<i>W N</i>																																							
Due Date Requested:																																												
City: Atlanta					TAT Requested (days):																																							
State, Zip: GA, 30308					PO #:																																							
Phone: 404-506-7116(Tel)					WO #:																																							
Email: SCS Contacts					Project #:																																							
Project Name: Plant McIntosh Ash Pond 1					SSOW#:																																							
Site: Georgia																																												
					Special Instructions/Note: Full App III plus Detected App IV																																							



180-126256 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					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:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Taylor Goble</i>		Date/Time: <i>8-25-21/0825</i>		Company: <i>ACC</i>		Received by: <i>DN</i>	
Relinquished by:		Date/Time:		Company:		Date/Time: <i>8-26-21</i>	
Relinquished by:		Date/Time:		Company:		Date/Time: <i>10:00</i>	

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			
--	--	-------------------	--	---	--	--	--





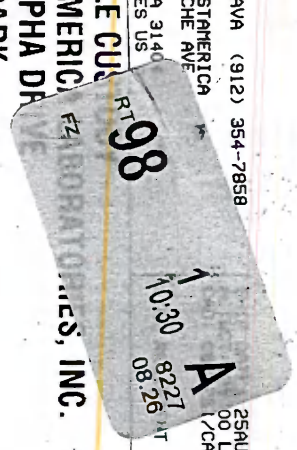
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



Environment Testing  
TestAmerica

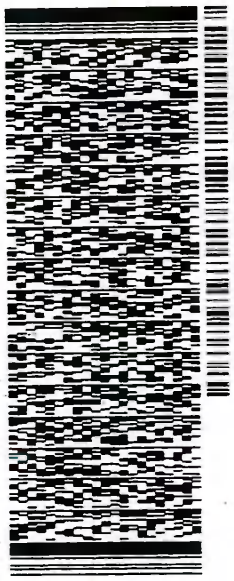
10/18/2021

ORIGIN ID: SAVA (912) 354-7858  
 SHIPPING TESTAMERICA  
 EUROFINSTESTAMERICA  
 5102 LA ROCHE AVE  
 SAVANNAH, GA 31406  
 UNITED STATES US



TO SAMPLE CUR  
 TESTAMERICA  
 301 ALPHA DR  
 RIDC PARK  
 PITTSBURGH PA 15238

(412) 983-7063  
 REF: FORWARD MCINTOSH PER SHALL



40 of 49

1 of 2  
 TRK# 1328 9412 8227  
 [0201]  
 ## MASTER ##

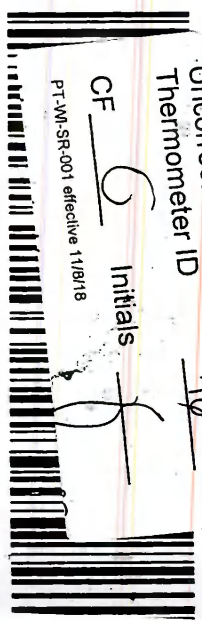
THU, - 26 AUG 2021  
 PRIORITY OVERNIGHT

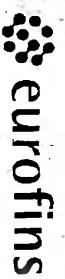
**XH AGCA**

PA-US 152

Uncorrected temp  
 Thermometer ID

4.2  
 1.0  
 C



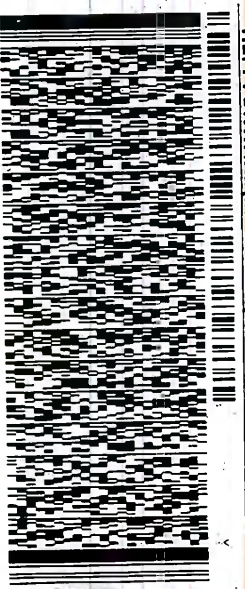


Environment Testing  
TestAmerica

ORIGIN ID:SAVA (912) 354-7858  
SHIPING/TESTAMERICA  
EUROFINS  
5102 LH ROUCHE AVE  
SAVANNAH, GA 31404  
UNITED STATES US

SHIP DATE: 28AUG21  
ACTWGT: 15.00 LB MN  
CAD: 0801261/CAFE3409  
BILL RECIPIENT

TO **SAMPLE CUSTODY**  
**TESTAMERICA LABORATORIES, INC.**  
**301 ALPHA DRIVE**  
**RIDC PARK**  
**PITTSBURGH PA 15238**  
(412) 968-7053  
REF: FORWARD/MCINTOSH) PER SHALL BROWN



MPS# 1328 9412 8363  
0263

Mstr# 1328 9412 8352

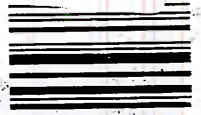
0201

FRI - 27 AUG 10:30A  
PRIORITY OVERNIGHT

**XH AGCA**

15238  
PA-US/ \*PIT

Uncorrected temp 3.8 °C  
Thermometer ID 16  
CF 0 Initials AS  
PT-WM-SR-001 effective 11/8/18



180-126331 Waybill



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11  
12  
13

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Using This Tag  
Environment Testing  
TestAmerica

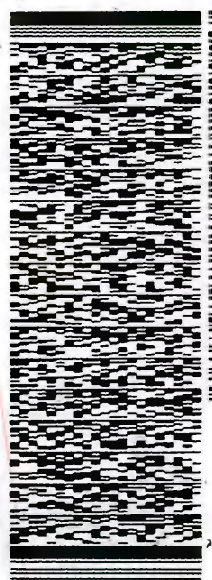
Part # 159449-434 RT2 EXP 11/21

ORIGIN ID:SAVA (912) 354-7858  
SHIPPING  
EUROFINS/TESTAMERICA  
5102 LA ROCHE AVE  
SAVANNAH, GA 31404  
UNITED STATES US

SHIP DATE: 26AUG21  
ACTWT: 25.00 LB MAN  
CAD: 0801261/CAF3409

BILL RECIPIENT

TO SAMPLE CUSTODY  
TESTAMERICA LABORATORIES, INC.  
301 ALPHA DRIVE  
RIDC PARK  
PITTSBURGH PA 15238  
(412) 963-7068  
REF: FORWARD(MCINTOSH) PER SHALL BROWN



1 of 2

TRK# 1328 9412 8352  
0201  
# MASTER #

FRI - 27 AUG 10:30A  
PRIORITY OVERNIGHT

**XH AGCA**

15238  
PA-US PIT











## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-126258-2

**Login Number: 126258**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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: 180-126258-2

**Login Number: 126258**

**List Number: 2**

**Creator: Mazariegos, Leonel A**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 08/31/21 01:13 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
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.	N/A	
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: 180-126258-2

**Login Number: 126331**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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: 180-126258-2

**Login Number: 126331**

**List Number: 2**

**Creator: Mazariegos, Leonel A**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 08/31/21 02:34 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
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.	N/A	
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	





**LEVEL 2A LABORATORY DATA VALIDATIONS**

**McIntosh Ash Pond 1**

**Annual Event**

**August 2021**

## **Georgia Power Company – McIntosh Ash Pond 1**

### **Quality Control Review of Analytical Data – August 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh and St. Louis for groundwater samples collected at McIntosh AP1 between August 23, 2021 and August 25, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 180-126258-1 was revised to correct an errant dilution factor on Inorganic Anions analysis of MGWC-12.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III, and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were met, with the exception of radium-226 on MGWC-1 (180-126331-2) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met, with the exceptions of sulfate on MGWC-12 (180-126331-4) as described in the qualifications section below.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Sample MGWC-12 (180-126331-4) was qualified as estimated (J) for sulfate as the associated matrix spike duplicate (MSD) recovery was outside the QC criteria (88% below the range of 90-110).

- Samples MGWC-1 (180-126331-2) and DUP-2 (180-126331-7) were qualified as estimated (J) for radium-226 as the field relative percent difference (RPD) exceeded QC criteria (35.20% above the limit of 20).

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 sampled between August 23, 2021 and August 25, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## **REFERENCES**

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

## Georgia Power Company – McIntosh AP1

## Sample Summary Table – August 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
126258	MGWA-10	8/23/2021	180-126258-1	GW		X	X	X	X
126258	MGWA-11	8/23/2021	180-126258-2	GW		X	X	X	X
126258	MGWA-6	8/24/2021	180-126258-3	GW		X	X	X	X
126258	MGWA-6A	8/24/2021	180-126258-4	GW		X	X	X	X
126258	MGWA-5	8/24/2021	180-126258-5	GW		X	X	X	X
126258	MGWC-2	8/24/2021	180-126258-6	GW		X	X	X	X
126258	MGWC-3	8/24/2021	180-126258-7	GW		X	X	X	X
126258	FB-1	8/23/2021	180-126258-8	WQ	FB	X	X	X	X
126258	EB-1	8/24/2021	180-126258-9	WQ	EB	X	X	X	X
126258	DUP-1	8/24/2021	180-126258-10	GW	FD (MGWC-2)	X	X	X	X
126258	MGWC-8	8/25/2021	180-126331-1	GW		X	X	X	X
126258	MGWC-1	8/25/2021	180-126331-2	GW		X	X	X	X
126258	MGWC-7	8/25/2021	180-126331-3	GW		X	X	X	X
126258	MGWC-12	8/25/2021	180-126331-4	GW		X	X	X	X
126258	FB-2	8/25/2021	180-126331-5	WQ	FB	X	X	X	X
126258	EB-2	8/25/2021	180-126331-6	WQ	EB	X	X	X	X
126258	DUP-2	8/25/2021	180-126331-7	GW	FD (MGWC-1)	X	X	X	X

## Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 2

Georgia Power Company – McIntosh AP1

Qualifier Summary Table – August 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
126258	MGWC-12	Sulfate			J	MSD outside QC criteria
126258	MGWC-1	Radium-226			J	RPD exceeds field goal

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

# Low-Flow Test Report:

Test Date / Time: 8/24/2021 1:45:12 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWA-5</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.09 ft</b> <b>Total Depth: 63.09 ft</b> <b>Initial Depth to Water: 24.28 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58.09 ft</b> <b>Estimated Total Volume Pumped: 5250 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 175 ml/min Final Draw Down: 9.9 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
---	---	--

## Test Notes:

Sampled at 1415. Mostly cloudy 88 degrees. EB-1 taken here at 1330.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/24/2021 1:45 PM	00:00	7.81 pH	32.35 °C	210.81 µS/cm	7.18 mg/L	2.76 NTU	59.7 mV	24.78 ft	175.00 ml/min
8/24/2021 1:50 PM	05:00	7.79 pH	28.27 °C	226.84 µS/cm	6.33 mg/L	1.81 NTU	62.1 mV	24.86 ft	175.00 ml/min
8/24/2021 1:55 PM	10:00	7.79 pH	27.94 °C	229.78 µS/cm	6.15 mg/L	2.07 NTU	61.5 mV	24.92 ft	175.00 ml/min
8/24/2021 2:00 PM	15:00	7.78 pH	27.71 °C	230.75 µS/cm	5.96 mg/L	1.43 NTU	60.1 mV	24.95 ft	175.00 ml/min
8/24/2021 2:05 PM	20:00	7.78 pH	26.99 °C	229.90 µS/cm	5.88 mg/L	1.32 NTU	78.3 mV	25.00 ft	175.00 ml/min
8/24/2021 2:10 PM	25:00	7.78 pH	27.39 °C	230.14 µS/cm	5.77 mg/L	1.32 NTU	59.9 mV	25.06 ft	175.00 ml/min
8/24/2021 2:15 PM	30:00	7.78 pH	26.54 °C	231.12 µS/cm	5.82 mg/L	1.37 NTU	58.1 mV	25.11 ft	175.00 ml/min

## Samples

Sample ID:	Description:
------------	--------------



# Low-Flow Test Report:

Test Date / Time: 8/24/2021 9:33:56 AM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWA-6</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 31.93 ft</b> <b>Total Depth: 41.93 ft</b> <b>Initial Depth to Water: 22.35 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 36.93 ft</b> <b>Estimated Total Volume Pumped: 4500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min Final Draw Down: 2.5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
---	---	--

## Test Notes:

Sampled at 1004. Foggy 78 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/24/2021 9:33 AM	00:00	7.11 pH	27.18 °C	566.81 µS/cm	4.56 mg/L	2.15 NTU	175.0 mV	22.47 ft	150.00 ml/min
8/24/2021 9:38 AM	05:00	7.12 pH	24.96 °C	493.01 µS/cm	0.65 mg/L	1.30 NTU	96.6 mV	22.49 ft	150.00 ml/min
8/24/2021 9:43 AM	10:00	7.10 pH	24.74 °C	494.14 µS/cm	0.37 mg/L	1.21 NTU	83.3 mV	22.52 ft	150.00 ml/min
8/24/2021 9:48 AM	15:00	7.11 pH	24.33 °C	492.83 µS/cm	0.23 mg/L	1.24 NTU	55.5 mV	22.55 ft	150.00 ml/min
8/24/2021 9:53 AM	20:00	7.11 pH	24.67 °C	491.39 µS/cm	0.20 mg/L	1.17 NTU	57.9 mV	22.56 ft	150.00 ml/min
8/24/2021 9:58 AM	25:00	7.11 pH	24.36 °C	490.19 µS/cm	0.18 mg/L	1.59 NTU	48.2 mV	22.56 ft	150.00 ml/min
8/24/2021 10:03 AM	30:00	7.11 pH	24.28 °C	489.70 µS/cm	0.17 mg/L	1.75 NTU	46.5 mV	22.56 ft	150.00 ml/min

## Samples

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

Test Date / Time: 8/24/2021 10:54:53 AM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWA-6A</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 29.67 ft</b> <b>Total Depth: 39.67 ft</b> <b>Initial Depth to Water: 21.32 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 34.67 ft</b> <b>Estimated Total Volume Pumped: 3900 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 130 ml/min Final Draw Down: 3.9 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1125. Partly cloudy 83 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/24/2021 10:54 AM	00:00	7.31 pH	36.04 °C	408.34 µS/cm	3.73 mg/L	1.87 NTU	-39.0 mV	21.32 ft	130.00 ml/min
8/24/2021 10:59 AM	05:00	7.30 pH	29.48 °C	436.48 µS/cm	0.74 mg/L	1.83 NTU	-50.7 mV	21.44 ft	130.00 ml/min
8/24/2021 11:04 AM	10:00	7.29 pH	28.86 °C	438.73 µS/cm	0.46 mg/L	1.78 NTU	-84.1 mV	21.58 ft	130.00 ml/min
8/24/2021 11:09 AM	15:00	7.29 pH	28.02 °C	441.80 µS/cm	0.35 mg/L	2.65 NTU	-55.0 mV	21.61 ft	130.00 ml/min
8/24/2021 11:14 AM	20:00	7.29 pH	28.54 °C	439.89 µS/cm	0.30 mg/L	1.85 NTU	-89.1 mV	21.65 ft	130.00 ml/min
8/24/2021 11:19 AM	25:00	7.30 pH	28.61 °C	437.79 µS/cm	0.31 mg/L	1.70 NTU	-61.4 mV	21.65 ft	130.00 ml/min
8/24/2021 11:24 AM	30:00	7.28 pH	28.02 °C	442.44 µS/cm	0.26 mg/L	1.81 NTU	-94.3 mV	21.65 ft	130.00 ml/min

## Samples

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

Test Date / Time: 8/23/2021 3:15:52 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWA-10</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 43.09 ft</b> <b>Total Depth: 53.09 ft</b> <b>Initial Depth to Water: 17.87 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 48.09 ft</b> <b>Estimated Total Volume Pumped: 3325 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min Final Draw Down: 14.6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1549. Mostly cloudy 87 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/23/2021 3:15 PM	00:00	6.25 pH	38.50 °C	80.28 µS/cm	6.00 mg/L	2.11 NTU	130.4 mV	18.07 ft	100.00 ml/min
8/23/2021 3:19 PM	03:15	6.17 pH	31.29 °C	74.01 µS/cm	5.82 mg/L	2.11 NTU	117.6 mV	18.07 ft	100.00 ml/min
8/23/2021 3:24 PM	08:15	6.17 pH	29.61 °C	73.80 µS/cm	6.02 mg/L	1.88 NTU	142.6 mV	18.72 ft	100.00 ml/min
8/23/2021 3:29 PM	13:15	6.18 pH	29.86 °C	72.92 µS/cm	5.94 mg/L	1.65 NTU	108.1 mV	18.89 ft	100.00 ml/min
8/23/2021 3:34 PM	18:15	6.17 pH	30.00 °C	73.15 µS/cm	5.92 mg/L	1.44 NTU	99.0 mV	18.96 ft	100.00 ml/min
8/23/2021 3:39 PM	23:15	6.17 pH	29.78 °C	71.34 µS/cm	5.89 mg/L	1.32 NTU	98.2 mV	19.03 ft	100.00 ml/min
8/23/2021 3:44 PM	28:15	6.16 pH	29.11 °C	71.01 µS/cm	5.88 mg/L	1.22 NTU	95.8 mV	19.07 ft	100.00 ml/min
8/23/2021 3:49 PM	33:15	6.16 pH	28.31 °C	72.33 µS/cm	5.91 mg/L	1.15 NTU	93.8 mV	19.09 ft	100.00 ml/min

## Samples

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

Test Date / Time: 8/23/2021 4:55:32 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWA-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 45.81 ft</b> <b>Total Depth: 55.81 ft</b> <b>Initial Depth to Water: 21.46 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 50.81 ft</b> <b>Estimated Total Volume Pumped: 5400 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 180 ml/min Final Draw Down: 3.84 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1725. Partly cloudy 89 degrees. FB-1 poured here at 1705.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/23/2021 4:55 PM	00:00	8.02 pH	37.76 °C	250.20 µS/cm	6.34 mg/L	1.67 NTU	122.1 mV	21.60 ft	180.00 ml/min
8/23/2021 5:00 PM	05:00	8.12 pH	27.58 °C	267.66 µS/cm	6.43 mg/L	1.10 NTU	74.4 mV	21.65 ft	180.00 ml/min
8/23/2021 5:05 PM	10:00	8.14 pH	26.08 °C	271.52 µS/cm	6.52 mg/L	0.98 NTU	80.4 mV	21.71 ft	180.00 ml/min
8/23/2021 5:10 PM	15:00	8.13 pH	26.60 °C	272.69 µS/cm	6.56 mg/L	0.81 NTU	78.0 mV	21.76 ft	180.00 ml/min
8/23/2021 5:15 PM	20:00	8.14 pH	26.71 °C	269.95 µS/cm	6.48 mg/L	0.84 NTU	60.2 mV	21.78 ft	180.00 ml/min
8/23/2021 5:20 PM	25:00	8.12 pH	26.78 °C	271.33 µS/cm	6.42 mg/L	0.75 NTU	73.3 mV	21.78 ft	180.00 ml/min
8/23/2021 5:25 PM	30:00	8.12 pH	27.32 °C	271.90 µS/cm	6.39 mg/L	0.69 NTU	59.8 mV	21.78 ft	180.00 ml/min

## Samples

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

Test Date / Time: 8/25/2021 12:18:46 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-1</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 46.08 ft</b> <b>Total Depth: 56.08 ft</b> <b>Initial Depth to Water: 37.7 ft</b>	<b>Pump Type: Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 51.08 ft</b> <b>Estimated Total Volume Pumped: 11266 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min Final Draw Down: 14.28 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1314. Partly cloudy 86 degrees. Dup-2 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/25/2021 12:18 PM	00:00	7.28 pH	35.23 °C	431.37 µS/cm	5.57 mg/L	5.71 NTU	102.4 mV	38.32 ft	220.00 ml/min
8/25/2021 12:23 PM	05:00	7.36 pH	25.02 °C	453.21 µS/cm	6.29 mg/L	2.47 NTU	75.6 mV	38.80 ft	200.00 ml/min
8/25/2021 12:28 PM	10:00	7.36 pH	24.67 °C	468.10 µS/cm	6.41 mg/L	2.22 NTU	71.3 mV	38.85 ft	200.00 ml/min
8/25/2021 12:33 PM	15:00	7.36 pH	24.04 °C	467.38 µS/cm	6.39 mg/L	1.87 NTU	92.2 mV	38.88 ft	200.00 ml/min
8/25/2021 12:38 PM	20:00	7.30 pH	23.79 °C	469.19 µS/cm	5.28 mg/L	1.55 NTU	55.0 mV	38.89 ft	200.00 ml/min
8/25/2021 12:43 PM	25:00	7.25 pH	23.42 °C	509.93 µS/cm	2.47 mg/L	1.90 NTU	35.7 mV	38.89 ft	200.00 ml/min
8/25/2021 12:48 PM	30:00	7.26 pH	23.12 °C	539.40 µS/cm	1.59 mg/L	1.97 NTU	34.7 mV	38.89 ft	200.00 ml/min
8/25/2021 12:49 PM	30:50	7.25 pH	23.12 °C	541.09 µS/cm	1.52 mg/L	2.02 NTU	35.5 mV	38.89 ft	200.00 ml/min
8/25/2021 12:54 PM	35:50	7.26 pH	23.09 °C	577.65 µS/cm	1.15 mg/L	2.27 NTU	34.2 mV	38.89 ft	200.00 ml/min
8/25/2021 12:59 PM	40:50	7.27 pH	23.05 °C	590.25 µS/cm	0.95 mg/L	2.12 NTU	32.0 mV	38.89 ft	200.00 ml/min
8/25/2021 1:04 PM	45:50	7.27 pH	23.07 °C	584.89 µS/cm	0.66 mg/L	1.57 NTU	33.2 mV	38.89 ft	200.00 ml/min
8/25/2021 1:09 PM	50:50	7.27 pH	23.17 °C	576.67 µS/cm	0.56 mg/L	1.33 NTU	32.4 mV	38.89 ft	200.00 ml/min
8/25/2021 1:14 PM	55:50	7.27 pH	23.30 °C	571.48 µS/cm	0.53 mg/L	1.36 NTU	31.2 mV	38.89 ft	200.00 ml/min

## Samples

# Low-Flow Test Report:

Test Date / Time: 8/24/2021 3:13:21 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-2</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 27.36 ft</b> <b>Total Depth: 37.36 ft</b> <b>Initial Depth to Water: 20.34 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 32.36 ft</b> <b>Estimated Total Volume Pumped: 6000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min Final Draw Down: 13.5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1543. Partly cloudy 86 degrees. Dup-1 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/24/2021 3:13 PM	00:00	7.40 pH	33.36 °C	662.74 µS/cm	1.12 mg/L	1.85 NTU	-33.1 mV	20.86 ft	200.00 ml/min
8/24/2021 3:18 PM	05:00	7.40 pH	28.21 °C	707.69 µS/cm	0.29 mg/L	1.66 NTU	-59.2 mV	21.15 ft	200.00 ml/min
8/24/2021 3:23 PM	10:00	7.41 pH	26.74 °C	709.17 µS/cm	0.20 mg/L	1.51 NTU	-44.2 mV	21.32 ft	200.00 ml/min
8/24/2021 3:28 PM	15:00	7.41 pH	26.09 °C	708.10 µS/cm	0.18 mg/L	1.40 NTU	1.2 mV	21.37 ft	200.00 ml/min
8/24/2021 3:33 PM	20:00	7.42 pH	25.60 °C	708.72 µS/cm	0.17 mg/L	1.33 NTU	-4.5 mV	21.40 ft	200.00 ml/min
8/24/2021 3:38 PM	25:00	7.42 pH	25.23 °C	710.34 µS/cm	0.15 mg/L	1.49 NTU	17.6 mV	21.44 ft	200.00 ml/min
8/24/2021 3:43 PM	30:00	7.42 pH	25.08 °C	702.61 µS/cm	0.14 mg/L	1.55 NTU	9.2 mV	21.47 ft	200.00 ml/min

## Samples

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

Test Date / Time: 8/24/2021 4:46:43 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-3</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 28.76 ft</b> <b>Total Depth: 38.76 ft</b> <b>Initial Depth to Water: 18.76 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 33.76 ft</b> <b>Estimated Total Volume Pumped: 4500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min Final Draw Down: 4.0 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1716. Partly cloudy 86 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/24/2021 4:46 PM	00:00	6.97 pH	38.97 °C	561.24 µS/cm	4.43 mg/L	3.06 NTU	46.6 mV	18.98 ft	150.00 ml/min
8/24/2021 4:51 PM	05:00	6.93 pH	26.95 °C	606.27 µS/cm	0.50 mg/L	2.30 NTU	56.8 mV	19.05 ft	150.00 ml/min
8/24/2021 4:56 PM	10:00	6.93 pH	25.82 °C	611.53 µS/cm	0.25 mg/L	1.12 NTU	72.5 mV	19.10 ft	150.00 ml/min
8/24/2021 5:01 PM	15:00	6.92 pH	25.60 °C	607.22 µS/cm	0.19 mg/L	1.17 NTU	58.7 mV	19.10 ft	150.00 ml/min
8/24/2021 5:06 PM	20:00	6.92 pH	25.39 °C	600.78 µS/cm	0.16 mg/L	1.60 NTU	58.7 mV	19.10 ft	150.00 ml/min
8/24/2021 5:11 PM	25:00	6.92 pH	25.06 °C	599.01 µS/cm	0.14 mg/L	1.88 NTU	77.5 mV	19.10 ft	150.00 ml/min
8/24/2021 5:16 PM	30:00	6.92 pH	24.91 °C	589.84 µS/cm	0.13 mg/L	1.94 NTU	60.9 mV	19.10 ft	150.00 ml/min

## Samples

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

Test Date / Time: 8/25/2021 2:17:52 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-7</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32.29 ft</b> <b>Total Depth: 42.29 ft</b> <b>Initial Depth to Water: 22.29 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37.29 ft</b> <b>Estimated Total Volume Pumped: 3300 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 110 ml/min Final Draw Down: 4.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1447. Mostly cloudy 87 degrees. EB-2 here at 1420 with Peristaltic tubing

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/25/2021 2:17 PM	00:00	7.00 pH	39.76 °C	483.53 µS/cm	3.47 mg/L	5.55 NTU	93.2 mV	22.50 ft	110.00 ml/min
8/25/2021 2:22 PM	05:00	6.90 pH	28.87 °C	502.41 µS/cm	0.54 mg/L	2.43 NTU	74.8 mV	22.55 ft	110.00 ml/min
8/25/2021 2:27 PM	10:00	6.89 pH	27.75 °C	510.85 µS/cm	0.38 mg/L	2.03 NTU	91.3 mV	22.60 ft	110.00 ml/min
8/25/2021 2:32 PM	15:00	6.89 pH	27.16 °C	509.79 µS/cm	0.24 mg/L	1.75 NTU	91.0 mV	22.64 ft	110.00 ml/min
8/25/2021 2:37 PM	20:00	6.89 pH	25.94 °C	508.30 µS/cm	0.20 mg/L	1.71 NTU	67.2 mV	22.64 ft	110.00 ml/min
8/25/2021 2:42 PM	25:00	6.88 pH	25.25 °C	512.72 µS/cm	0.18 mg/L	1.42 NTU	82.7 mV	22.64 ft	110.00 ml/min
8/25/2021 2:47 PM	30:00	6.85 pH	25.07 °C	512.54 µS/cm	0.20 mg/L	1.25 NTU	76.8 mV	22.64 ft	110.00 ml/min

## Samples

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

Test Date / Time: 8/25/2021 10:41:17 AM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.56 ft</b> <b>Total Depth: 52.56 ft</b> <b>Initial Depth to Water: 31.66 ft</b>	<b>Pump Type: Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47.56 ft</b> <b>Estimated Total Volume Pumped: 3925 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min Final Draw Down: 2.0 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1112. Partly cloudy 81 degrees. FB-2 here at 1100

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/25/2021 10:41 AM	00:00	6.19 pH	31.38 °C	535.39 µS/cm	6.40 mg/L	16.80 NTU	184.0 mV	31.75 ft	125.00 ml/min
8/25/2021 10:46 AM	05:00	5.55 pH	26.88 °C	761.03 µS/cm	2.03 mg/L	14.90 NTU	179.2 mV	31.80 ft	125.00 ml/min
8/25/2021 10:51 AM	10:00	5.37 pH	26.24 °C	761.40 µS/cm	1.09 mg/L	9.90 NTU	164.3 mV	31.83 ft	125.00 ml/min
8/25/2021 10:56 AM	15:00	5.31 pH	26.24 °C	779.15 µS/cm	0.88 mg/L	5.58 NTU	155.5 mV	31.84 ft	125.00 ml/min
8/25/2021 11:01 AM	20:00	5.28 pH	26.15 °C	805.84 µS/cm	0.71 mg/L	4.42 NTU	150.2 mV	31.84 ft	125.00 ml/min
8/25/2021 11:06 AM	25:00	5.27 pH	26.30 °C	819.97 µS/cm	0.63 mg/L	4.65 NTU	107.4 mV	31.84 ft	125.00 ml/min
8/25/2021 11:07 AM	26:24	5.27 pH	26.42 °C	836.13 µS/cm	0.61 mg/L	4.58 NTU	104.6 mV	31.84 ft	125.00 ml/min
8/25/2021 11:12 AM	31:24	5.26 pH	26.24 °C	835.99 µS/cm	0.54 mg/L	4.32 NTU	137.4 mV	31.84 ft	125.00 ml/min

## Samples

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

Test Date / Time: 8/25/2021 3:51:52 PM

Project: McIntosh AP-1

Operator Name: Taylor Goble

<b>Location Name: MGWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.9 ft</b> <b>Total Depth: 52.9 ft</b> <b>Initial Depth to Water: 27.57 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47.9 ft</b> <b>Estimated Total Volume Pumped: 5250 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min Final Draw Down: 5.4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843593</b>
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## Test Notes:

Sampled at 1626. Rainy 80 degrees. Extra radium bottles here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 1	+/- 5 %	+/- 0.3	+/- 10	+/- 25	+/- 1	
8/25/2021 3:51 PM	00:00	8.04 pH	36.57 °C	194.98 µS/cm	5.83 mg/L	3.09 NTU	73.6 mV	27.82 ft	150.00 ml/min
8/25/2021 3:56 PM	05:00	8.12 pH	25.06 °C	214.66 µS/cm	6.17 mg/L	2.75 NTU	64.5 mV	27.92 ft	150.00 ml/min
8/25/2021 4:01 PM	10:00	8.12 pH	24.43 °C	217.58 µS/cm	6.20 mg/L	2.10 NTU	61.6 mV	27.97 ft	150.00 ml/min
8/25/2021 4:06 PM	15:00	7.81 pH	23.93 °C	239.33 µS/cm	5.78 mg/L	1.80 NTU	85.1 mV	28.02 ft	150.00 ml/min
8/25/2021 4:11 PM	20:00	7.48 pH	23.94 °C	257.60 µS/cm	2.12 mg/L	1.66 NTU	62.8 mV	28.02 ft	150.00 ml/min
8/25/2021 4:16 PM	25:00	7.45 pH	23.97 °C	253.90 µS/cm	1.35 mg/L	1.41 NTU	70.3 mV	28.02 ft	150.00 ml/min
8/25/2021 4:21 PM	30:00	7.45 pH	23.64 °C	256.88 µS/cm	1.15 mg/L	1.33 NTU	64.3 mV	28.02 ft	150.00 ml/min
8/25/2021 4:26 PM	35:00	7.44 pH	23.75 °C	255.72 µS/cm	1.13 mg/L	1.25 NTU	60.4 mV	28.02 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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## Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: T. Goble

INSTRUMENT S/N: 16040C049743  
 INSTRUMENT TYPE: Hach 2100Q  
 CAL. SOLUTION: 0 NTU - LOT # New DI EXP. DATE: —  
10 NTU - LOT # A1013 EXP. DATE: Apr-22  
20 NTU - LOT # A0231 EXP. DATE: Nov-21

Calibration Date: 8-23-21

Calibration Solution	Instrument Reading	
0.0	0.27	NTU
10.0	10.3	NTU
20.0	20.3	NTU

100 = 102  
 800 = 805

Calibration Date: 8-24-21

Calibration Solution	Instrument Reading	
0.0	0.22	NTU
10.0	10.2	NTU
20.0	20.4	NTU

100 = 103  
 800 = 806

Calibration Date: 8-25-21

Calibration Solution	Instrument Reading	
0.0	0.29	NTU
10.0	10.3	NTU
20.0	20.5	NTU

100 = 104  
 800 = 809

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



### Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: T. Goble  
 WATER LEVEL: Solings  
 WATER LEVEL S/N: 378591

INSTRUMENT S/N: 843593  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:  
 ID: pH 4 LOT #: 21070193 EXP. DATE: 8/22  
 ID: pH 7 LOT #: 21010066 EXP. DATE: 8/22  
 ID: pH 10 LOT #: 21080189 EXP. DATE: 6/22  
 ID: ORP LOT #: 21140141 EXP. DATE: 8/22  
 ID: Cond LOT #: 160949 EXP. DATE: 4/22

**Midday pH check**  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 8-23-21  
 RDO: 100% sat. = 96.15% **Midday pH check**  
 PH: 4.00 = 4.04 7.00 = 6.97 10.00 = 9.92 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1399  
 ORP (mV) 228 = 220.3

Calibration Date: 8-24-21  
 RDO: 100% sat. = 101.44% **Midday pH check**  
 PH: 4.00 = 4.04 7.00 = 7.02 10.00 = 10.01 7.0 = 7.13  
 PH Recal (if needed): 4.00 = 4.07 7.00 = 7.03 10.00 = 10.02 7.0 = 7.02 post recal check  
 CONDUCTIVITY: 1413 = 1459  
 ORP (mV) 228 = 225.9

Calibration Date: 8-25-21  
 RDO: 100% sat. = 101.69% **Midday pH check**  
 PH: 4.00 = 4.08 7.00 = 7.04 10.00 = 10.00 7.0 = 7.05  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1415  
 ORP (mV) 228 = 224.5

Calibration Date:  
 RDO: 100% sat. = **Midday pH check**  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:  
 RDO: 100% sat. = **Midday pH check**  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

1 - Location/Identification		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	Yes	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1  
 Staff: T. Goble  
 Date: 8/26/2021

2 - Protective Outer Casing		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".



Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

3 - Surface Pad

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

4 - Internal Well Casing

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	N/A	No	No	No	No	No	N/A	No

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	MGWA-5	MGWA-6	MGWA-6A	MGWA-9	MGWA-10	MGWA-11	MGWC-1	MGWC-2	MGWC-3	MGWC-4	MGWC-7
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

MGWA-5 - Bollards loose. Corrective action still needed.

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

1 - Location/Identification		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

2 - Protective Outer Casing

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

3 - Surface Pad

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

4 - Internal Well Casing

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".



Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	MGWC-8	MGWC-12	MGWC-19	MGWC-20	MGWC-21	MGWC-22	MGWC-23	MGWC-24	PZ-13	PZ-14	PZ-15
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

MGWC-12 - Well pad is loose, not firm to the ground. Corrective action still needed.

PZ-13 - Redrilled weephole.

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

1 - Location/Identification

		PZ-16	PZ-17	PZ-18								
a	Is the well visible and accessible?	Yes	Yes	Yes								
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes								
c	Does the well require protection from traffic?	No	No	No								
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes								

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1  
 Staff: T. Goble  
 Date: 8/26/2021

2 - Protective Outer Casing		PZ-16	PZ-17	PZ-18								
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes								
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes								
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes								
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes								
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes								

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1  
 Staff: T. Goble  
 Date: 8/26/2021

3 - Surface Pad

		PZ-16	PZ-17	PZ-18								
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes								
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes								
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes								
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	No	Yes	Yes								
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	No	Yes								

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1

Staff: T. Goble

Date: 8/26/2021

4 - Internal Well Casing

		PZ-16	PZ-17	PZ-18								
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes								
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes								
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes								
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes								
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes								
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No								

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

Facility Name: Plant McIntosh AP-1  
 Staff: T. Goble  
 Date: 8/26/2021

5 - Sampling (Groundwater Monitoring Wells Only):

		PZ-16	PZ-17	PZ-18								
a	Does the well recharge adequately when purged?	N/A	N/A	N/A								
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A								
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A								

Note: N/A - Not Applicable

6 - Based on your professional judgment, is the well construction / location appropriate to:

	PZ-16	PZ-17	PZ-18									
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes									

7 - Corrective actions completed and Notes:

- PZ-16 - Well pad is slightly loose, not firm to the ground. Corrective action still needed.
- PZ-17 - Large pile of dirt located on well pad. Corrective action still needed.

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

## ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh  
301 Alpha Drive  
RIDC Park  
Pittsburgh, PA 15238  
Tel: (412)963-7058

Laboratory Job ID: 180-129095-1

Client Project/Site: Plant McIntosh Ash Pond 1

**For:**

Southern Company  
241 Ralph McGill Blvd SE  
B10185  
Atlanta, Georgia 30308

Attn: Kristen N Jurinko



Authorized for release by:  
11/3/2021 10:56:28 PM

Shali Brown, Project Manager II  
(615)301-5031  
[Shali.Brown@Eurofinset.com](mailto:Shali.Brown@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

PA Lab ID: 02-00416





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# Case Narrative

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

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**Job ID: 180-129095-1**

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**Laboratory: Eurofins TestAmerica, Pittsburgh**

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**Narrative**

**Job Narrative  
180-129095-1**

**Comments**

No additional comments.

**Receipt**

The sample was received on 10/27/2021 4:00 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4° C.

**Metals**

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

**Field Service / Mobile Lab**

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

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# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

# Accreditation/Certification Summary

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

## Laboratory: Eurofins TestAmerica, 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	06-27-21 *
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-22
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	03-31-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



# Sample Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-129095-1	MGWC-8	Water	10/26/21 09:58	10/27/21 16:00

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# Method Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

Method	Method Description	Protocol	Laboratory
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Lab Chronicle

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-129095-1**

**Date Collected: 10/26/21 09:58**

**Matrix: Water**

**Date Received: 10/27/21 16:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			25 mL	25 mL	376931	10/29/21 05:52	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			377046	10/29/21 13:43	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			377481	10/26/21 09:58	FDS	TAL PIT
Instrument ID: NOEQUIP										

**Laboratory References:**

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Prep

RJR = Ron Rosenbaum

Batch Type: Analysis

FDS = Sampler Field

RJR = Ron Rosenbaum





# Client Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

**Client Sample ID: MGWC-8**

**Lab Sample ID: 180-129095-1**

Date Collected: 10/26/21 09:58

Matrix: Water

Date Received: 10/27/21 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		10/29/21 05:52	10/29/21 13:43	1

**Method: Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.99				SU			10/26/21 09:58	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# QC Sample Results

Client: Southern Company  
 Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

## Method: EPA 7470A - Mercury (CVAA)

**Lab Sample ID: MB 180-376931/1-A**  
**Matrix: Water**  
**Analysis Batch: 377046**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 376931**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		10/29/21 05:52	10/29/21 13:36	1

**Lab Sample ID: LCS 180-376931/2-A**  
**Matrix: Water**  
**Analysis Batch: 377046**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 376931**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00253		mg/L		101	80 - 120



# QC Association Summary

Client: Southern Company  
Project/Site: Plant McIntosh Ash Pond 1

Job ID: 180-129095-1

## Metals

### Prep Batch: 376931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-129095-1	MGWC-8	Total/NA	Water	7470A	
MB 180-376931/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-376931/2-A	Lab Control Sample	Total/NA	Water	7470A	

### Analysis Batch: 377046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-129095-1	MGWC-8	Total/NA	Water	EPA 7470A	376931
MB 180-376931/1-A	Method Blank	Total/NA	Water	EPA 7470A	376931
LCS 180-376931/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	376931

## Field Service / Mobile Lab

### Analysis Batch: 377481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-129095-1	MGWC-8	Total/NA	Water	Field Sampling	





Do not lift using this



Environment Testing  
TestAmerica

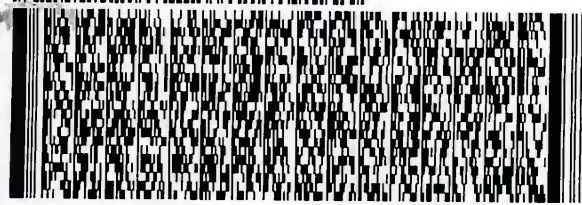
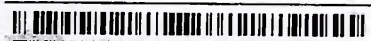
ORIGIN ID: LIYA (678) 966-9991  
GEORGE TAYLOR  
EUROFINS TESTING AMERICA ATL SC  
6215 REGENCY PARKWAY NW  
BRIARWOODS GA 30071  
UNITED STATES US

SHIP DATE: 26OCT21  
ACTWGT: 17.90 LB  
CAD: 859116/CAFE3507

BILL RECIPIENT

**SAMPLE RECIEVING**  
**EUROFINS TESTAMERICA PITTSBURGH**  
**301 ALPHA DR.**  
**RIDC PARK**  
**PITTSBURGH PA 15238**

(412) 963-7068  
REF: ACC



FedEx  
Express



TRK# 5220 7113 8626  
0201

WED - 27 OCT 10:30A  
PRIORITY OVERNIGHT

**NA AGCA**

15238  
PA-US PIT

Uncorrected temp	44 °C
Thermometer ID	8
CF <u>0</u>	Initials <u>le</u>
PT-WI-SR-001 effective 11/8/18	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-129095-1

**Login Number: 129095**

**List Source: Eurofins TestAmerica, Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

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	

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**McIntosh Ash Pond 1**

**Resample Event**

**October 2021**



## **Georgia Power Company – McIntosh Ash Pond 1**

### **Quality Control Review of Analytical Data – October 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Pittsburgh for a groundwater sample collected at McIntosh AP1 October 26, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample location, analytical parameter, QC samples, sampling date, and laboratory sample delivery group (SDG) designation is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the resample was analyzed for an assessment monitoring constituent listed in 40 CFR, Part 257, Appendix IV. The test method included Mercury in Liquid Wastes (USEPA Method 7470A).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were met.

**Accuracy:** Laboratory goals for accuracy were met.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the resample collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this resampling event met the QC criteria established in the analytical method and data validation guidelines. No sample qualifications were required.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from McIntosh AP1 resampled October 26, 2021 in accordance with the analytical method, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – McIntosh AP1

Sample Summary Table – October 2021

						Analyses
SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Metals (7470A)
129095	MGWC-8	10/26/2021	180-129095-1	GW		X

Abbreviations:  
 GW – Groundwater  
 QC – Quality Control

# Low-Flow Test Report:

Test Date / Time: 10/26/2021 9:08:55 AM

Project: Plant McIntosh AP1

Operator Name: Taylor Goble

<b>Location Name: MGWC-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.56 ft</b> <b>Total Depth: 52.56 ft</b> <b>Initial Depth to Water: 32.49 ft</b>	<b>Pump Type: Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 6331.25 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 0.22 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
---	---	--

## Test Notes:

Sampled at 0958. Partly cloudy 63 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 5	
10/26/2021 9:08 AM	00:00	6.23 pH	19.03 °C	414.32 µS/cm	7.07 mg/L	3.33 NTU	85.6 mV	32.49 ft	125.00 ml/min
10/26/2021 9:13 AM	05:00	6.20 pH	20.93 °C	402.98 µS/cm	5.99 mg/L	2.48 NTU	85.7 mV	32.55 ft	125.00 ml/min
10/26/2021 9:18 AM	10:00	6.19 pH	21.47 °C	396.90 µS/cm	5.88 mg/L	2.41 NTU	90.6 mV	32.59 ft	125.00 ml/min
10/26/2021 9:23 AM	15:00	6.13 pH	21.46 °C	396.66 µS/cm	5.61 mg/L	2.17 NTU	97.9 mV	32.63 ft	125.00 ml/min
10/26/2021 9:28 AM	20:00	5.62 pH	21.66 °C	403.08 µS/cm	2.59 mg/L	2.08 NTU	96.0 mV	32.68 ft	125.00 ml/min
10/26/2021 9:33 AM	25:00	5.51 pH	21.75 °C	406.42 µS/cm	1.70 mg/L	1.56 NTU	91.7 mV	32.71 ft	125.00 ml/min
10/26/2021 9:38 AM	30:00	5.39 pH	21.92 °C	466.62 µS/cm	1.25 mg/L	1.39 NTU	101.1 mV	32.71 ft	125.00 ml/min
10/26/2021 9:39 AM	30:39	5.39 pH	21.82 °C	506.83 µS/cm	1.18 mg/L	1.39 NTU	100.1 mV	32.71 ft	125.00 ml/min
10/26/2021 9:44 AM	35:39	5.82 pH	22.04 °C	607.52 µS/cm	0.93 mg/L	1.21 NTU	106.3 mV	32.71 ft	125.00 ml/min
10/26/2021 9:49 AM	40:39	5.93 pH	22.15 °C	650.42 µS/cm	0.70 mg/L	1.25 NTU	107.4 mV	32.71 ft	125.00 ml/min
10/26/2021 9:54 AM	45:39	5.95 pH	22.15 °C	671.42 µS/cm	0.59 mg/L	1.18 NTU	105.5 mV	32.71 ft	125.00 ml/min
10/26/2021 9:59 AM	50:39	5.99 pH	22.11 °C	682.77 µS/cm	0.53 mg/L	1.11 NTU	107.6 mV	32.71 ft	125.00 ml/min

## Samples

Sample ID:	Description:
------------	--------------



### Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: T. Goble

INSTRUMENT S/N: 17120C063767  
INSTRUMENT TYPE: Hach 2100 Q Turbidity Meter  
CAL. SOLUTION: 0 NTU - LOT # ← EXP. DATE: New DI  
10 NTU - LOT # AC139 EXP. DATE: Nov 22  
20 NTU - LOT # AC139 EXP. DATE: Nov 22  
NTU - LOT # \_\_\_\_\_ EXP. DATE: \_\_\_\_\_  
NTU - LOT # \_\_\_\_\_ EXP. DATE: \_\_\_\_\_

Calibration Date: 10-25-21

Calibration Solution	Instrument Reading	
0.0	<u>0.7</u>	NTU
10.0	<u>10.3</u>	NTU
20.0	<u>20.6</u>	NTU
<u>100</u>	<u>102</u>	NTU
<u>400</u>	<u>404</u>	NTU

Calibration Date: 10-26-21

Calibration Solution	Instrument Reading	
0.0	<u>0.6</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.1</u>	NTU
<u>100</u>	<u>101</u>	NTU
<u>400</u>	<u>403</u>	NTU

Calibration Date: \_\_\_\_\_

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU

Calibration Date: \_\_\_\_\_

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU

Calibration Date: \_\_\_\_\_

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU



### Daily Instrument Calibration Log

SITE: Plant McIntosh  
TECHNICIAN: T. Goble

WATER LEVEL: Solingst  
WATER LEVEL S/N: 236956

INSTRUMENT S/N: 714293  
INSTRUMENT TYPE: Smartroll

CAL. SOLUTIONS:	ID:	LOT #:	EXP. DATE:
	pH 4	0GE1407	9/22
	pH 7	2GF007	6/23
	pH 10	2GF458	6/23
	Cond	2GD949	4/22
	ORP	2GA114	11/21
	ID:	LOT #:	EXP. DATE:
	ID:	LOT #:	EXP. DATE:

**Calibration Date:** 10-25-21  
RDO: 100% sat. = 100.49  
PH: 4.00 = 4.03      7.00 = 6.62      10.00 = 9.97  
CONDUCTIVITY: 1413 = 1524  
ORP (mV) 240 = 236.5

**Calibration Date:** 10-26-21  
RDO: 100% sat. = 99.66  
PH: 4.00 = 4.05      7.00 = 7.07      10.00 = 10.05  
CONDUCTIVITY: 1413 = 1472  
ORP (mV) 237.1

**Calibration Date:**  
RDO: 100% sat. = \_\_\_\_\_  
PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_  
CONDUCTIVITY: \_\_\_\_\_  
ORP (mV) \_\_\_\_\_

**Calibration Date:**  
RDO: 100% sat. = \_\_\_\_\_  
PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_  
CONDUCTIVITY: \_\_\_\_\_  
ORP (mV) \_\_\_\_\_

**Calibration Date:**  
RDO: 100% sat. = \_\_\_\_\_  
PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_  
CONDUCTIVITY: \_\_\_\_\_  
ORP (mV) \_\_\_\_\_

## APPENDIX B

# Monitoring Well Repair Documentation





**ATLANTIC COAST  
CONSULTING, INC.**

1150 Northmeadow Parkway  
Suite 100  
Roswell GA 30076  
(770) 594-5998  
[www.atlcc.net](http://www.atlcc.net)

**MEMORANDUM**

Date: August 26, 2021  
 To: Lauren Coker (Southern Company)  
 CC: Kristen Jurinko (Southern Company), Ben Hodges (Georgia Power)  
 From: Atlantic Coast Consulting, Inc.  
 Subject: Plant McIntosh Ash Pond 1- Well Maintenance and Repair Documentation  
 Georgia Power Company

---

Atlantic Coast Consulting, Inc. (ACC) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant McIntosh during the 2021 Annual Groundwater Monitoring 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 McIntosh /Ash Pond 1	6/8/2021	MGWC-1	Well repaired.
Plant McIntosh /Ash Pond 1	8/26/2021	PZ-13	Redrilled weephole.



ATLANTIC COAST CONSULTING, INC.

# PHOTOGRAPHIC LOG

**Client Name:**  
Georgia Power Company

**Site Location:**  
Plant McIntosh AP-1

**Project No.**  
I054-010

**Photo No.**  
**1**

**Date:**  
5/27/21

**Direction Photo Taken:**

Looking southeast.

**Description:**

Damage to well completion due to impact from heavy equipment.



**Photo No.**  
**2**

**Date:**  
6/8/21

**Direction Photo Taken:**

Looking southeast.

**Description:**

Well completion following repair.



107 Mountain Brook Dr., Ste. 104  
Canton, GA 30115



www.gunninsurvey.com  
678.880.7502

DATE: July 23, 2021  
TO: Atlantic Coastal Consulting, Inc  
1150 Northmeadow Parkway  
Suite 100  
Roswell, GA 30076  
ATTN: Evan Perry of Atlantic Coastal Consulting  
SUBJECT: Plant McIntosh Ash Pond 1: Repair of MGWC-1

The following data has been established on the existing wells using Georgia State Plane East Zone (NAD 83 horizontal and NAVD 88 vertical). Wells were surveyed to the following tolerances: 0.01' vertical and 0.5' horizontal via conventional survey methods, GPS, OPUS processing, and level loops. Each well was cross-checked for horizontal and vertical accuracy.

WELL ID	NORTHING	EASTING	ELEVATION	ELEVATION	ELEVATION
	NAIL	NAIL	NAIL	TOP OF CASE	TOP OF PVC
MGWC-1	856813.08	964287.47	62.18	65.47	65.26

Sincerely yours,  
Gunnin Land Surveying, LLC.



Jesse R. Gunnin, L.S. Principal Surveyor



# LOG OF TEST BORING

**BORING MGWC-1**  
PAGE 1 OF 2

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Impoundment  
LOCATION Plant McIntosh

DATE STARTED 11/10/2015 COMPLETED 11/10/2015 SURF. ELEV. 62.18 COORDINATES: N - 856813.08, E - 964287.47

CONTRACTOR Cascade EQUIPMENT Prosonic METHOD Rotosonic

DRILLED BY F. Krauss LOGGED BY W. Shaughnessy CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 57 ft. GROUND WATER DEPTH: DURING 34 ft. COMP. \_\_\_\_\_ DELAYED 31.9 ft. after 24 hrs.

NOTES TOC Elevation: 65.26

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 12/6/15 20:34 - \\ALTRCF001\WSHAUGNESS\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\MCINTOSH\CCR IMPOUNDMENT\MWS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION		GROUNDWATER OBSERVATIONS	WELL DATA
			Weak	Moderate		
5		<b>Poorly-graded Sand with Silt (SP-SM)</b> - SP-SM: dark grayish brown (2.5Y 4/2) topsoil  <b>Sandy Lean Clay (CL)</b> - mottled red (2.5YR 4/8) and light gray (2.5Y 7/2) damp, very stiff - stiff - mottled light gray (2.5Y 7/1) and reddish brown (2.5YR 4/3) low to medium plasticity				Completion: protective aluminum cover with bollards; 4-foot square concrete pad
10		<b>Poorly-graded Sand with Clay (SP-SC)</b> - reddish yellow (7.5YR 6/6) dry, fine-grained  <b>Sandy Lean Clay (CL)</b> - mottled light gray (5Y 7/1) and olive / light olive brown (5Y 5/6) dry, medium stiff, low to medium plasticity - mottled red (2.5YR 5/6), brownish yellow / dark yellowish orange (10YR 6/6) and gray / light olive gray (5Y 6/1) - mottled yellowish brown / moderate yellowish brown (10YR 5/4), red (2.5YR 4/8) and light gray (5Y 7/1) - mottled dusky red (10R 3/2) and yellow / moderate yellow (5Y 7/6) - mottled reddish gray (2.5YR 5/1), yellow / moderate yellow (5Y 7/6) and red (2.5YR 4/8)				
15		<b>Lean Clay (CL)</b> - mottled light gray / yellowish gray (5Y 7/2), red (2.5YR 4/8) and olive yellow (2.5Y 6/6) damp, interbedded with fine-sand lenses (<1" thick)				
20		<b>Fat Clay (CH)</b> - mottled light gray / yellowish gray (5Y 7/2) and reddish yellow (7.5YR 6/8) damp, medium stiff, medium to high plasticity, interbedded with coarse-sand lenses  <b>Sandy Fat Clay (CH)</b> - mottled light gray / yellowish gray (5Y 7/2) and brownish yellow (10YR 6/8) damp, medium stiff, medium to high plasticity, interbedded with pale gray (5Y 8/2) fine-sand lenses (1-2" thick)				← Annular Fill: cement-bentonite grout
25		- light olive brown (2.5Y 5/3)				
30		- mottled light yellowish brown (2.5Y 6/3) and light gray (2.5Y 7/1) damp				
35		- light olive brown (2.5Y 5/4) medium plasticity, white fine-sand lenses (<1" thick)				
40						← Annular Seal: bentonite pellets

(Continued Next Page)





# LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Impoundment  
LOCATION Plant McIntosh

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 12/6/15 20:34 - \\ALTRCFF01\WSHAUGNE\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\MCINTOSH\CCR IMPOUNDMENT\ECSS80075\BORING LOGS\MCINTOSH CCR IMPOUNDMENT MWS.GPJ

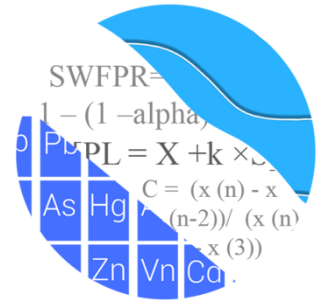
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION Weak Moderate Strong	GROUNDWATER OBSERVATIONS	WELL DATA Completion: protective aluminum cover with bollards; 4-foot square concrete pad
		<b>Fat Clay (CH)</b> - dark greenish gray (10GY 4/1) soft, high plasticity			(CONTINUED) Filter: silica filter sand  Standpipe: 2" OD PVC (SCH 40) Screen: 10 ft; pre-pack  Sump: 0.299999999999997 ft.  Backfill: Bentonite Chips
45		<b>Well-graded Sand with Clay (SW-SC)</b> - strong brown (7.5YR 5/6) wet, fine to coarse-grained			
		<b>Poorly-graded Sand with Silt (SP-SM)</b> - light gray / yellowish gray (5Y 7/2) wet, fine-grained, shell fragments up to 1/2"			
50		<b>Poorly-graded Sand (SP)</b> - light yellowish brown (2.5Y 6/3) wet, fine-grained			
		<b>Poorly-graded Sand with Silt (SP-SM)</b> - light olive brown (2.5Y 5/6) wet, fine-grained			
55		<b>Silt (ML)</b> - dark greenish gray (10Y 4/1) dry, with clay and fine sand, mica			
Bottom of borehole at 57.0 feet.					
60					
65					
70					
75					
80					
85					

**NOTE:**  
Elevation in feet North American Vertical Datum of 1988 (NAVD).  
Coordinates are in North American Datum of 1983 (NAD83) Georgia State Plane East Zone.  
Well resurveyed in July 2021

# APPENDIX C

## Statistical Analyses

# GROUNDWATER STATS CONSULTING



August 24, 2021

Southern Company Services  
Attn: Ms. Lauren Coker  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Plant McIntosh Ash Pond 1 (AP-1)  
Statistical Analysis March 2021

Dear Ms. Coker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the March 2021 Semi-Annual Groundwater Detection and Assessment Monitoring statistical analysis for Georgia Power Company's Plant McIntosh AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III and IV parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Sampling is conducted on a semi-annual basis for all constituents. A list of all parameters is provided below.

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

- **Upgradient well:** MGWA-5, MGWA-6, MGWA-6A, MGWA-10, and MGWA-11
- **Downgradient wells:** MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8, and MGWC-12



Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228 fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter. Additionally, annual Scan events are conducted to determine which Appendix IV constituents are detected in downgradient wells and, therefore, require statistical analysis. Any constituents that are not detected do not require statistical analysis. Selenium was not detected in any of the downgradient wells during the Scan event conducted in January 2021; therefore, no statistical analyses are included for this constituent. A substitution of the most recent reporting limit is used for non-detect data.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

The original background screening was conducted in 2017 by MacStat Consulting. Values identified as outliers were flagged in the database and excluded prior to construction of statistical limits. Both intrawell and interwell prediction limits, combined with a 1-of-2 resample plan, were originally recommended. The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach.

Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

### **Summary of Statistical Methods – Appendix III Parameters:**

Based on the earlier evaluation described above, the following method was selected:

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

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 – March 2021**

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2021 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Several prediction limit exceedances were noted for Appendix III parameters. (this pertained to last sample event) 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: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Calcium: MGWC-2, MGWC-3, and MGWC-8
- Chloride: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Fluoride: MGWC-1, MGWC-12, MGWC-7
- Sulfate: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- TDS: MGWC-1, MGWC-2, MGWC-3, and MGWC-8

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant increasing trends were noted for the following well/constituent pairs:

- Boron: MGWC-7 and MGWC-8
- Calcium: MGWC-8
- Sulfate: MGWC-3 and MGWC-8
- TDS: MGWC-8

Statistically significant decreasing trends were noted for the following well/constituent pairs:

- Boron: MGWA-6 (upgradient) and MGWC-2
- Calcium: MGWA-10 (upgradient)
- Chloride: MGWA-5 (upgradient), MGWA-6 (upgradient), MGWC-2, and MGWC-7
- Fluoride: MGWC-1 and MGWC-7
- Sulfate: MGWA-5 (upgradient), MGWA-6 (upgradient), MGW-10 (upgradient), and MGWC-2
- TDS: MGWC-2

### **Statistical Analysis of Appendix IV Parameters – March 2021**

Interwell upper tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits

were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR §257.95(h) (1-3), the Federal GWPS is:

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

On July 30, 2018, USEPA revised the Federal CCR Rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the State GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements and the CCR Rule, State and Federal GWPS were established for statistical comparison of Appendix IV constituents for the March 2021 sample event (Figures G and H, respectively). To complete the statistical comparison to GWPS, State and Federal confidence intervals were constructed for the Appendix IV constituents in accordance with the State and Federal requirements in each downgradient well (Figures I and J, respectively). As mentioned above, confidence intervals were not constructed for selenium or well/constituent pairs with 100% non-detects. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. The confidence intervals were compared to the GWPS established using the CCR Rules for the Federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Complete graphical results of the confidence intervals follow this letter and the following exceedances were identified for State and Federal confidence intervals:

State:

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

Federal:

- Cobalt: MGWC-7
- Lithium: MGWC-7

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant McIntosh AP-1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Abdul Diane  
Groundwater Analyst



Kristina Rayner  
Groundwater Statistician

# 100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/6/2021 10:36 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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Antimony (mg/L)  
MGWC-1, MGWC-2, MGWC-8

Beryllium (mg/L)  
MGWC-12, MGWC-2, MGWC-7

Cadmium (mg/L)  
MGWC-12, MGWC-3

Lead (mg/L)  
MGWC-1, MGWC-2, MGWC-3, MGWC-8

Mercury (mg/L)  
MGWC-1

Molybdenum (mg/L)  
MGWC-2, MGWC-3

Thallium (mg/L)  
MGWC-7



# Appendix III Interwell Prediction Limit - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 9:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/24/2021	0.57	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	3/24/2021	2.4	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	3/24/2021	1.2	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	3/24/2021	1.5	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	3/24/2021	3.6	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.599	n/a	3/24/2021	13	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.599	n/a	3/24/2021	10	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.599	n/a	3/24/2021	18	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	3/24/2021	0.35	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MGWC-1	22.41	n/a	3/24/2021	120	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	22.41	n/a	3/24/2021	180	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	22.41	n/a	3/24/2021	130	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	22.41	n/a	3/24/2021	180	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	22.41	n/a	3/24/2021	280	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	348.4	n/a	3/24/2021	380	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	348.4	n/a	3/24/2021	490	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	348.4	n/a	3/24/2021	430	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	348.4	n/a	3/24/2021	530	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 9:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Boron (mg/L)</b>	<b>MGWC-1</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.57</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-12	0.18	n/a	3/24/2021	0.08ND	No	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>2.4</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-3	0.18	n/a	3/24/2021	1.2	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>1.5</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-8	0.18	n/a	3/24/2021	3.6	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	3/24/2021	100	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-12	110	n/a	3/24/2021	32	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-2</b>	<b>110</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MGWC-3	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	3/24/2021	51	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-8</b>	<b>110</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	MGWC-1	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-12	9.599	n/a	3/24/2021	5.7	No	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>9.599</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>13</b>	<b>Yes</b>	<b>70</b>	<b>0.3688</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-3	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>9.599</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>10</b>	<b>Yes</b>	<b>70</b>	<b>0.3688</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-8	9.599	n/a	3/24/2021	18	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>MGWC-1</b>	<b>0.19</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.27</b>	<b>Yes</b>	<b>74</b>	<b>n/a</b>	<b>29.73</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003519</b>	<b>NP Inter (normality) 1 of 2</b>
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	3/24/2021	0.11	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	3/24/2021	0.092J	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
<b>Fluoride (mg/L)</b>	<b>MGWC-7</b>	<b>0.19</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.35</b>	<b>Yes</b>	<b>74</b>	<b>n/a</b>	<b>29.73</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003519</b>	<b>NP Inter (normality) 1 of 2</b>
Fluoride (mg/L)	MGWC-8	0.19	n/a	3/24/2021	0.11	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.897	4.559	3/24/2021	7.14	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.897	4.559	3/24/2021	7.15	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.897	4.559	3/24/2021	7.24	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.897	4.559	3/24/2021	6.73	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.897	4.559	3/24/2021	6.26	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.897	4.559	3/24/2021	6.71	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-1</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-12	22.41	n/a	3/24/2021	7.1	No	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>180</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-3	22.41	n/a	3/24/2021	130	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-7</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>180</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-8	22.41	n/a	3/24/2021	280	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-1</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>380</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-12	348.4	n/a	3/24/2021	190	No	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>490</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-3	348.4	n/a	3/24/2021	430	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	348.4	n/a	3/24/2021	330	No	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>530</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>

# Appendix III Trend Test - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:22 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02701	-86	-53	Yes	16	6.25	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3119	-70	-53	Yes	16	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.05875	76	53	Yes	16	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	0.9194	70	53	Yes	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4612	-64	-53	Yes	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-8	18.62	95	53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.2559	-65	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.303	-99	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.092	-107	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.7796	-88	-53	Yes	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-1	-0.04573	-88	-58	Yes	17	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.06356	-79	-58	Yes	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4055	-64	-53	Yes	16	18.75	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.7728	-65	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.76	-98	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-30.66	-102	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.189	86	53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	70.65	79	53	Yes	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-43.05	-87	-53	Yes	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	104	77	53	Yes	16	0	n/a	n/a	0.02	NP

# Appendix III Trend Test - All Results

Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 5/12/2021, 4:22 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	32	53	No	16	62.5	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	21	53	No	16	62.5	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	25	53	No	16	87.5	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-0.02701</b>	<b>-86</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Boron (mg/L)	MGWA-6A (bg)	0	-2	-13	No	6	66.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2041	45	53	No	16	0	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>-0.3119</b>	<b>-70</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Boron (mg/L)	MGWC-3	0.09381	35	53	No	16	0	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.05875</b>	<b>76</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>MGWC-8</b>	<b>0.9194</b>	<b>70</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.4612</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	MGWA-11 (bg)	-0.5986	-11	-53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-5 (bg)	0	0	53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6 (bg)	0	29	53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6A (bg)	2.699	5	13	No	6	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-2	-2.812	-48	-53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-3	0.9167	26	53	No	16	0	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>MGWC-8</b>	<b>18.62</b>	<b>95</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWA-10 (bg)	0	-5	-53	No	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	0	0	53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.2559</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-1.303</b>	<b>-99</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWA-6A (bg)	-0.432	-11	-13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-14	-53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>-2.092</b>	<b>-107</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWC-3	0.2293	50	53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.7796</b>	<b>-88</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWC-8	0.4037	47	53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-43	-58	No	17	64.71	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.01524	22	58	No	17	5.882	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.007973	-31	-58	No	17	17.65	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6 (bg)	-0.000223	-17	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6A (bg)	-0.008022	-1	-13	No	6	16.67	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>MGWC-1</b>	<b>-0.04573</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	MGWC-12	-0.008711	-22	-58	No	17	0	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.06356</b>	<b>-79</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.4055</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>18.75</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-11 (bg)	0.3251	44	53	No	16	37.5	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.7728</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-3.76</b>	<b>-98</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-6A (bg)	-0.6759	-5	-13	No	6	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	3.896	24	53	No	16	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>-30.66</b>	<b>-102</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWC-3</b>	<b>7.189</b>	<b>86</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWC-7	1.051	32	53	No	16	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-8</b>	<b>70.65</b>	<b>79</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
TDS (mg/L)	MGWA-10 (bg)	-6.134	-39	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	0	-2	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	0	5	53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-0.6691	-12	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	10.01	3	13	No	6	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	5.045	16	53	No	16	0	n/a	n/a	0.02	NP
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>-43.05</b>	<b>-87</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
TDS (mg/L)	MGWC-3	1.149	7	53	No	16	0	n/a	n/a	0.02	NP
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>104</b>	<b>77</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>

# Upper Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 10:06 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	61	90.16	n/a	0.04377	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0352	n/a	n/a	n/a	79	32.91	n/a	0.01738	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	79	0	n/a	0.01738	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	69	92.75	n/a	0.02904	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	79	98.73	n/a	0.01738	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	69	69.57	n/a	0.02904	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	79	73.42	n/a	0.01738	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.128	n/a	n/a	n/a	80	2.5	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	74	29.73	n/a	0.02247	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	61	91.8	n/a	0.04377	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	79	29.11	n/a	0.01738	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	69	95.65	n/a	0.02904	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	69	63.77	n/a	0.02904	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	54	88.89	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	69	81.16	n/a	0.02904	NP Inter(NDs)

<b>PLANT MCINTOSH AP 1 GWPS - STATE</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.035	0.035
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.0025
Combined Radium, Total (pCi/L)	5		1.13	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

<b>PLANT MCINTOSH AP 1 GWPS - FEDERAL</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.035	0.035
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.1	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*



# State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 11:10 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-2	0.003422	0.002738	0.0025	Yes	18	0.0005658	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01047	0.007989	0.0025	Yes	18	0.002048	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes	18	0.007948	0	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes	18	0.02118	0	No	0.01	NP (normality)

# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 11:10 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	14	0.0004276	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	14	0.0004543	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	14	0.0000...	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002926	0.002158	0.035	No	18	0.0007064	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001093	0.0006342	0.035	No	18	0.0003869	27.78	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No	18	0.0002158	77.78	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001675	0.001352	0.035	No	18	0.0003189	5.556	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008987	0.0005469	0.035	No	18	0.0002715	38.89	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.035	No	18	0.0001775	77.78	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	18	0.01772	0	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06539	0.04811	2	No	18	0.01505	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05505	0.04955	2	No	18	0.00461	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1533	0.1381	2	No	18	0.01258	0	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	18	0.007246	5.556	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03918	0.03309	2	No	18	0.00551	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	16	0.00058	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	16	0.0005475	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001273	0.000632	0.004	No	16	0.0007764	18.75	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	18	0.0008598	83.33	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003279	0.001306	0.005	No	18	0.001939	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	18	0.000535	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No	18	0.0009037	33.33	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	16	0.0004	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	16	0.006737	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	16	0.000325	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	16	0.00025	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	16	0.0003794	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	16	0.000275	93.75	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No	18	0.001027	61.11	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No	18	0.0005869	88.89	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>0.003422</b>	<b>0.002738</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.0005658</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.0025	No	18	0.0007429	16.67	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01047</b>	<b>0.007989</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.002048</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.019</b>	<b>0.0038</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.007948</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.81	1.09	5	No	19	0.3429	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6886	0.372	5	No	18	0.2801	5.556	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7596	0.4464	5	No	18	0.2588	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.634	1.311	5	No	19	0.2755	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.301	0.9106	5	No	18	0.3224	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.946	1.349	5	No	18	0.4937	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2525	0.1609	4	No	17	0.07312	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2595	0.2076	4	No	17	0.04137	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	17	0.06043	41.18	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.082	4	No	17	0.06265	35.29	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3575	0.2301	4	No	17	0.1017	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No	17	0.04229	17.65	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	14	0.0002405	92.86	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	14	0.0001871	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01272	0.01036	0.03	No	18	0.001954	5.556	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02194	0.01544	0.03	No	18	0.005371	0	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No	18	0.0019	5.556	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01353	0.01116	0.03	No	18	0.001958	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.03</b>	<b>Yes</b>	<b>18</b>	<b>0.02118</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03933	0.02646	0.03	No	18	0.01063	0	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	16	0.0000325	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	16	0.00003	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	16	0.0001482	43.75	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No	16	0.005998	25	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No	16	0.005931	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	16	0.002872	93.75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	16	0.002825	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	16	0.0004045	68.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	16	0.0002707	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	16	0.0001975	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	16	0.000254	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002341	0.0001279	0.002	No	16	0.0003272	18.75	ln(x)	0.01	Param.

# Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:27 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-7	0.01047	0.007989	0.006	Yes	18	0.002048	0	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes	18	0.02118	0	No	0.01	NP (normality)

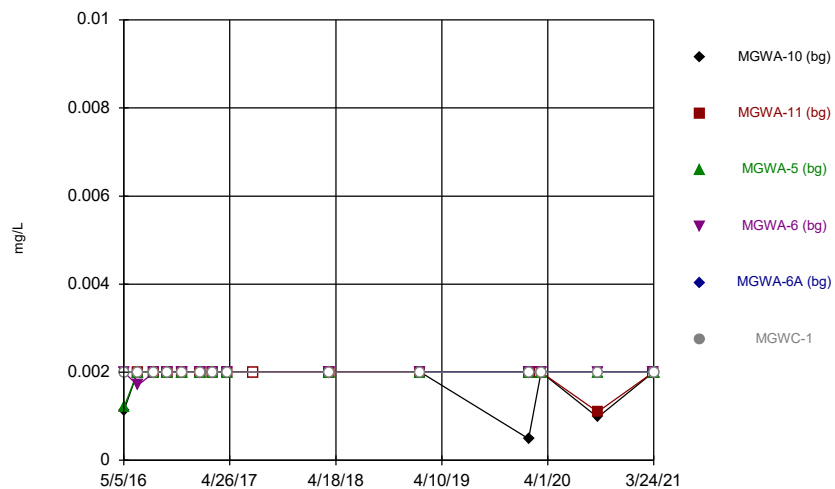
# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:27 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	14	0.0004276	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	14	0.0004543	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	14	0.0000...	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002926	0.002158	0.035	No	18	0.0007064	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001093	0.0006342	0.035	No	18	0.0003869	27.78	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No	18	0.0002158	77.78	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001675	0.001352	0.035	No	18	0.0003189	5.556	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008987	0.0005469	0.035	No	18	0.0002715	38.89	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.035	No	18	0.0001775	77.78	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	18	0.01772	0	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06539	0.04811	2	No	18	0.01505	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05505	0.04955	2	No	18	0.00461	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1533	0.1381	2	No	18	0.01258	0	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	18	0.007246	5.556	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03918	0.03309	2	No	18	0.00551	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	16	0.00058	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	16	0.0005475	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001273	0.000632	0.004	No	16	0.0007764	18.75	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	18	0.0008598	83.33	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003279	0.001306	0.005	No	18	0.001939	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	18	0.000535	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No	18	0.0009037	33.33	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	16	0.0004	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	16	0.006737	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	16	0.000325	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	16	0.00025	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	16	0.0003794	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	16	0.000275	93.75	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	18	0.001027	61.11	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	18	0.0005869	88.89	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003422	0.002738	0.006	No	18	0.0005658	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No	18	0.0007429	16.67	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01047</b>	<b>0.007989</b>	<b>0.006</b>	<b>Yes</b>	<b>18</b>	<b>0.002048</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.006	No	18	0.007948	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.81	1.09	5	No	19	0.3429	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6886	0.372	5	No	18	0.2801	5.556	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7596	0.4464	5	No	18	0.2588	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.634	1.311	5	No	19	0.2755	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.301	0.9106	5	No	18	0.3224	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.946	1.349	5	No	18	0.4937	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2525	0.1609	4	No	17	0.07312	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2595	0.2076	4	No	17	0.04137	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	17	0.06043	41.18	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.082	4	No	17	0.06265	35.29	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3575	0.2301	4	No	17	0.1017	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No	17	0.04229	17.65	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	14	0.0002405	92.86	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	14	0.0001871	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01272	0.01036	0.04	No	18	0.001954	5.556	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02194	0.01544	0.04	No	18	0.005371	0	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No	18	0.0019	5.556	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01353	0.01116	0.04	No	18	0.001958	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.04</b>	<b>Yes</b>	<b>18</b>	<b>0.02118</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03933	0.02646	0.04	No	18	0.01063	0	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	16	0.0000325	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	16	0.00003	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	16	0.0001482	43.75	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No	16	0.005998	25	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	16	0.005931	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	16	0.002872	93.75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	16	0.002825	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	16	0.0004045	68.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	16	0.0002707	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	16	0.0001975	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	16	0.000254	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002341	0.0001279	0.002	No	16	0.0003272	18.75	ln(x)	0.01	Param.

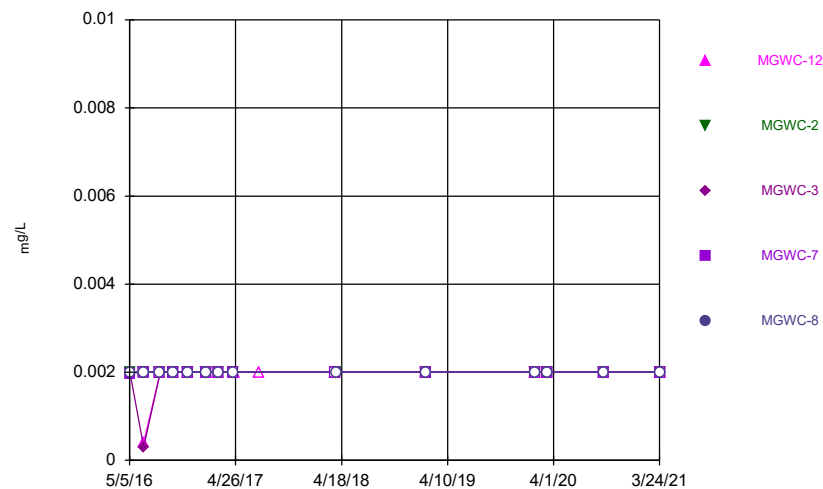
FIGURE A.

### Time Series



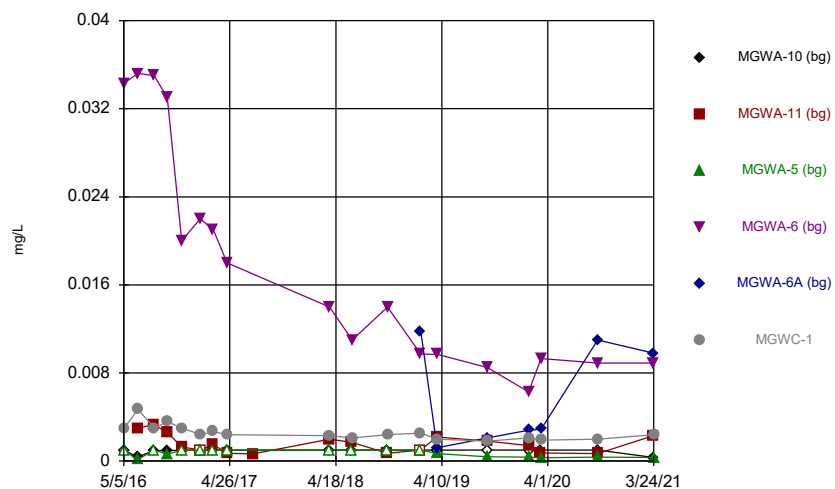
Constituent: Antimony Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



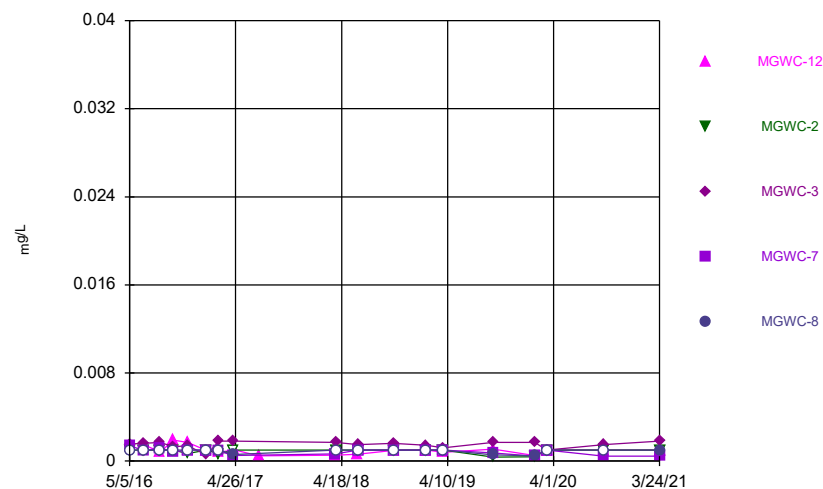
Constituent: Antimony Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



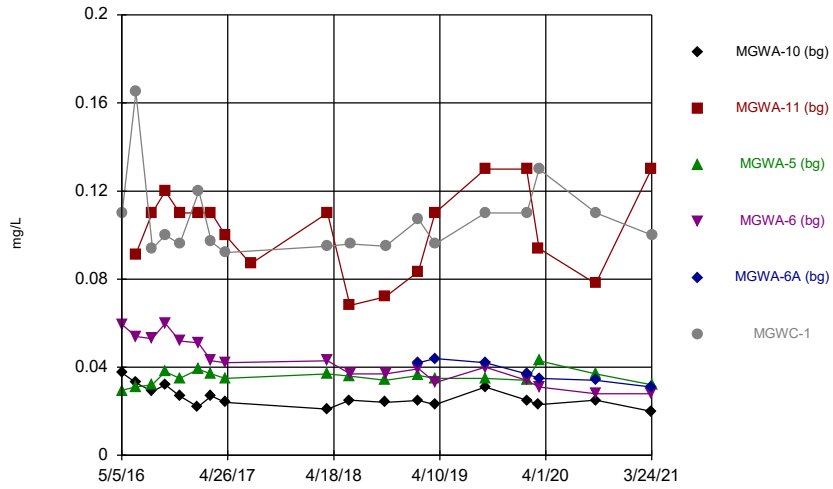
Constituent: Arsenic Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



Constituent: Arsenic Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

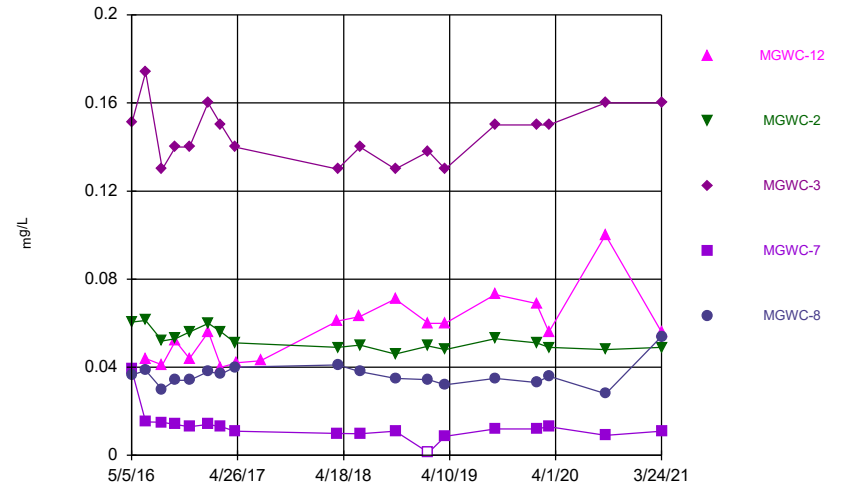
Time Series



Constituent: Barium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

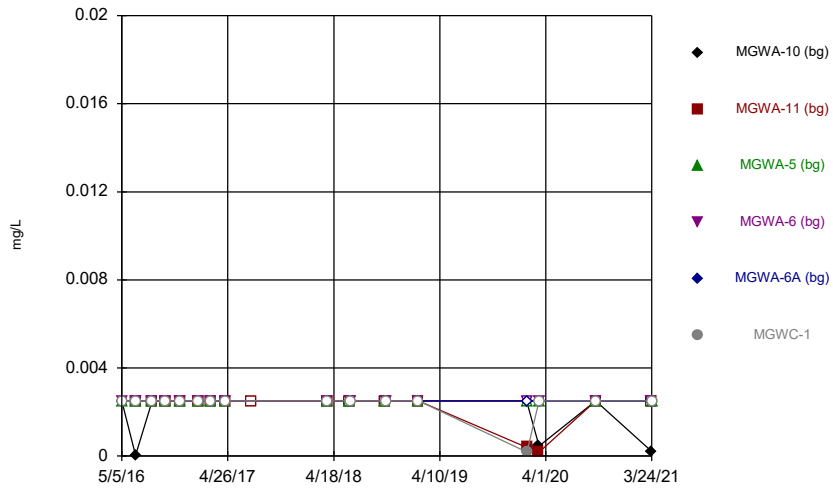
Time Series



Constituent: Barium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

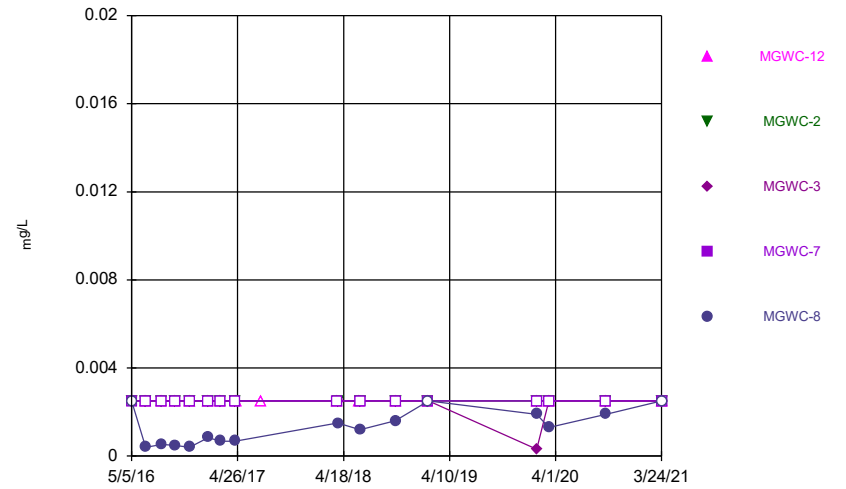
Time Series



Constituent: Beryllium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

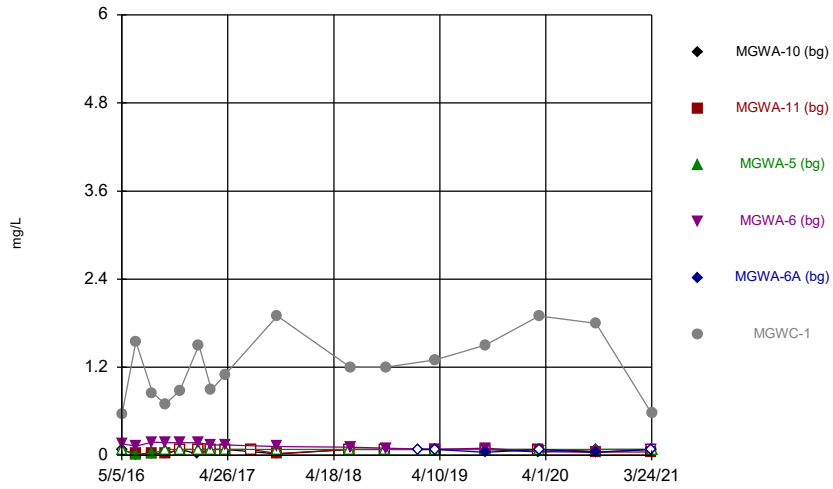
Hollow symbols indicate censored values.

Time Series



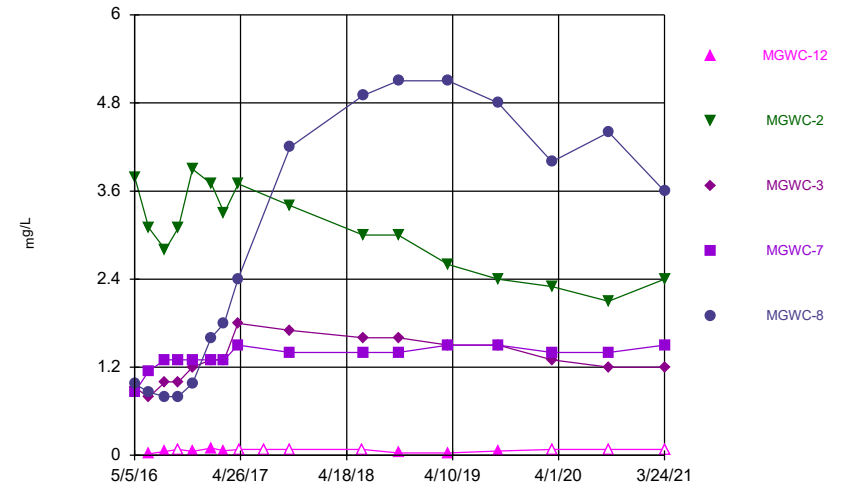
Constituent: Beryllium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



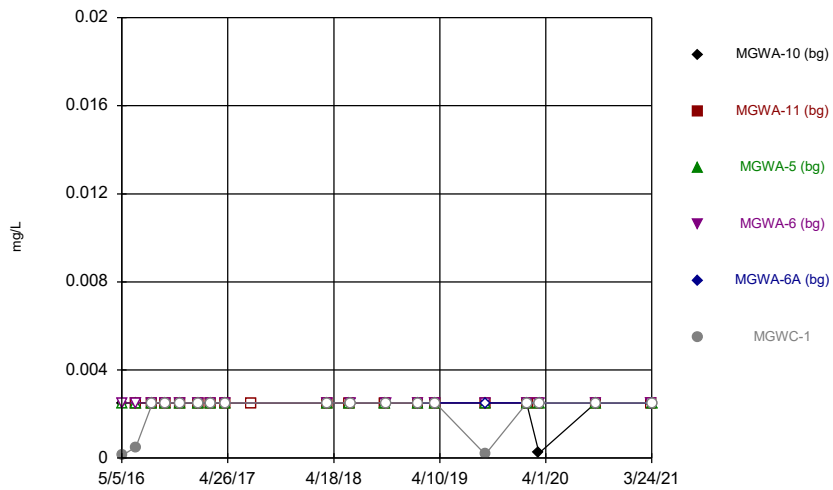
Constituent: Boron Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



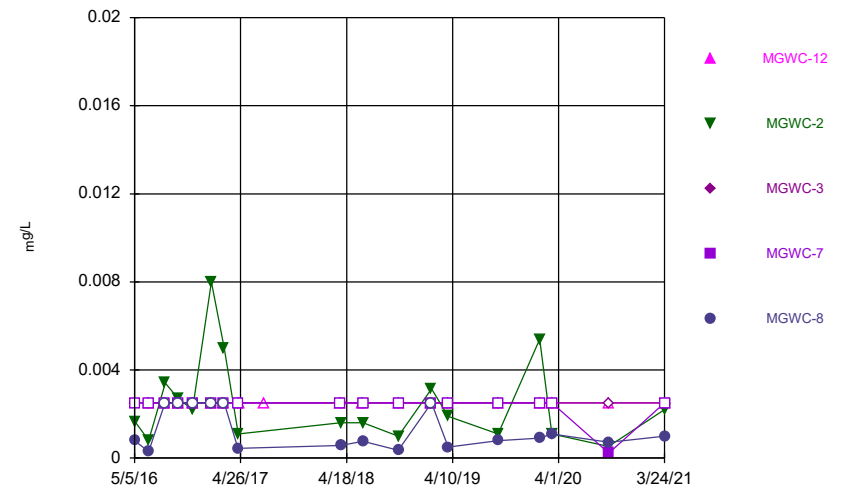
Constituent: Boron Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Cadmium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

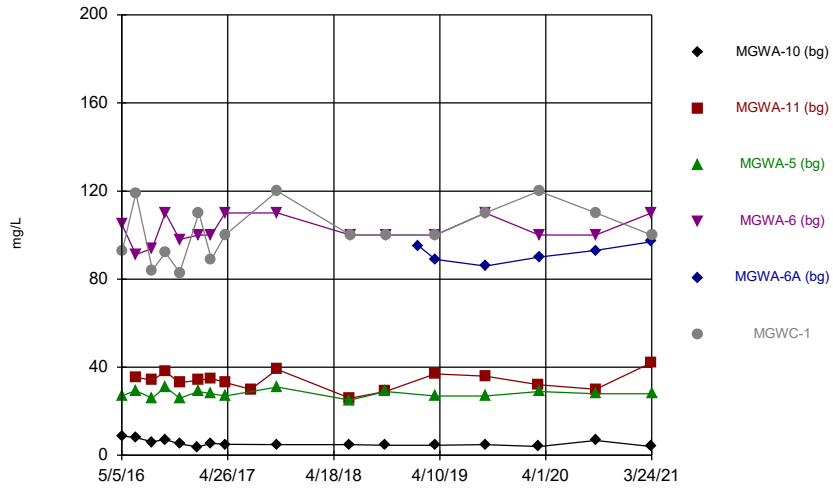
Time Series



Constituent: Cadmium Analysis Run 5/6/2021 9:37 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

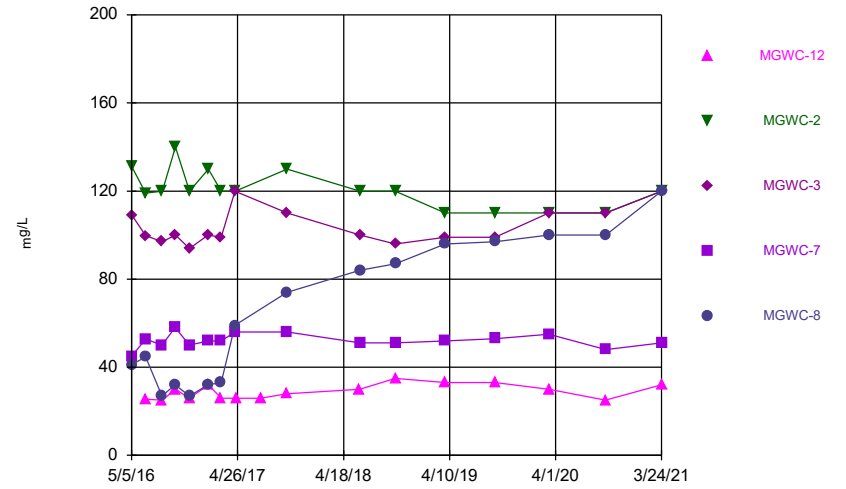


Time Series



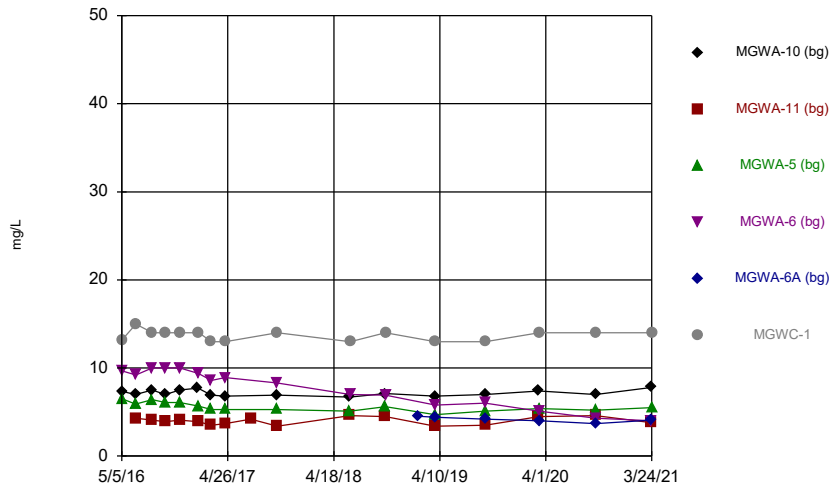
Constituent: Calcium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



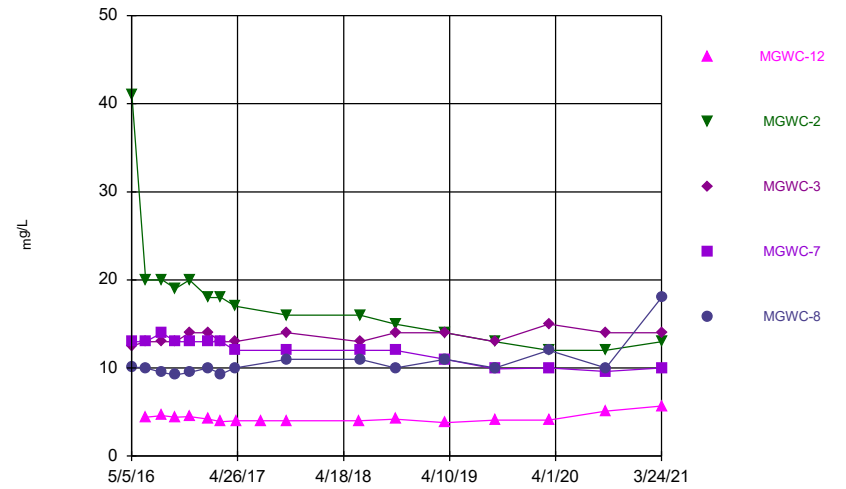
Constituent: Calcium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



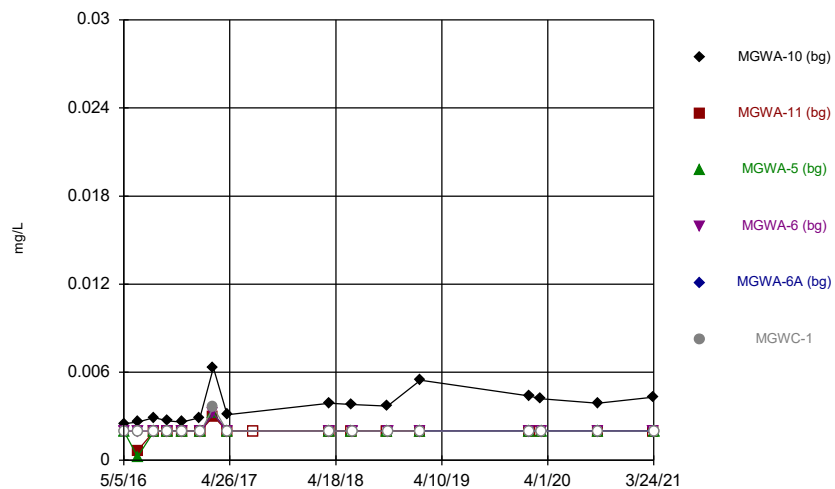
Constituent: Chloride Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



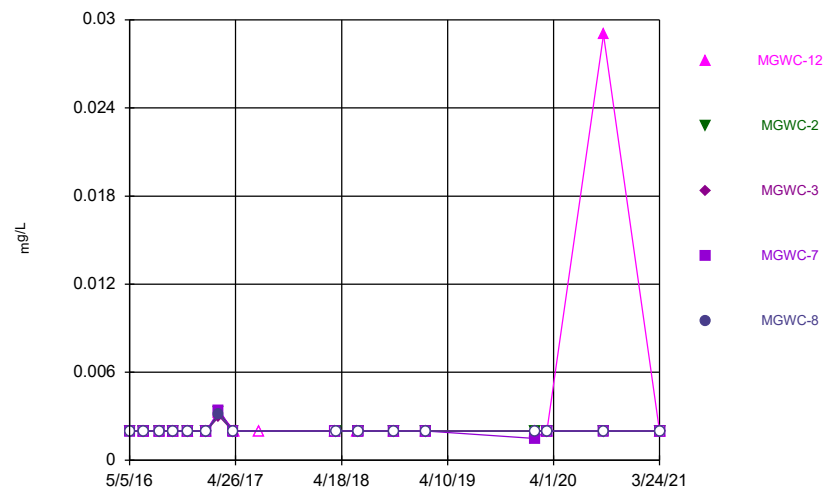
Constituent: Chloride Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



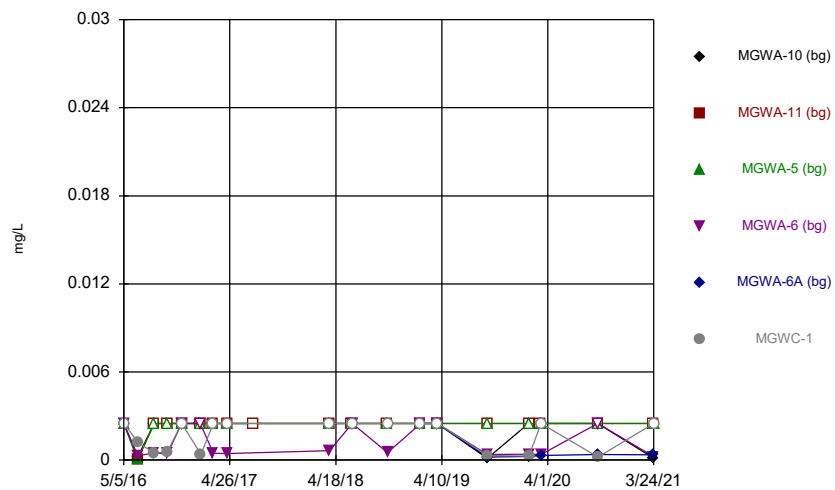
Constituent: Chromium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



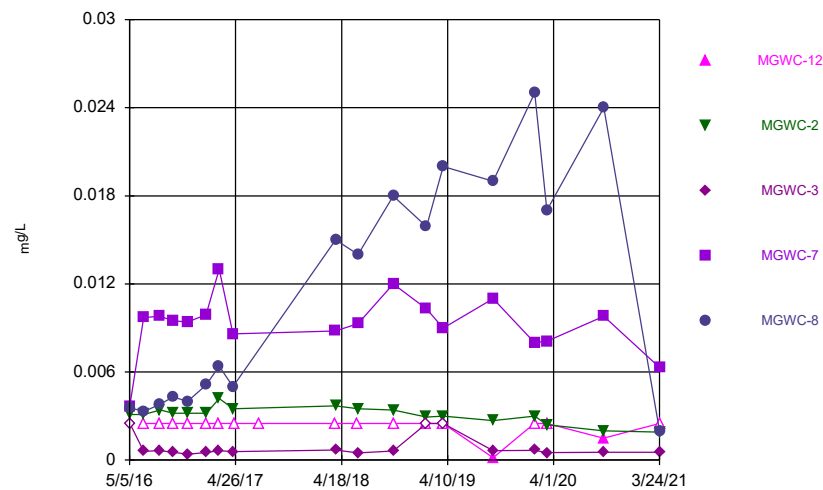
Constituent: Chromium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



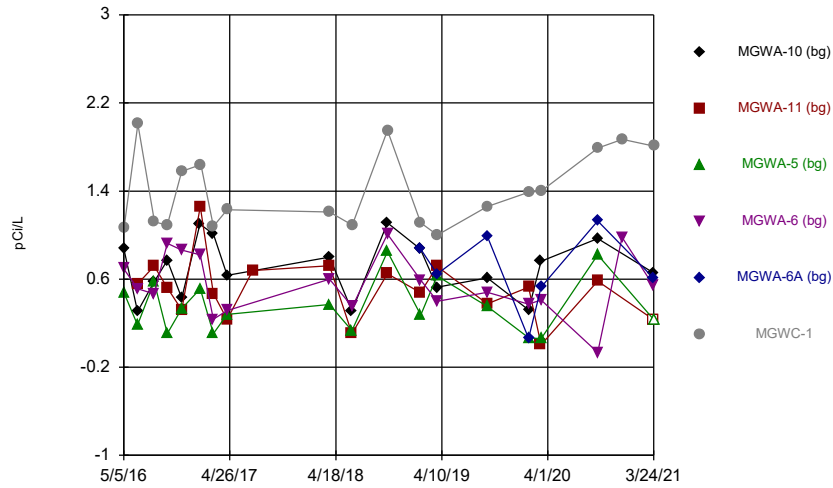
Constituent: Cobalt Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



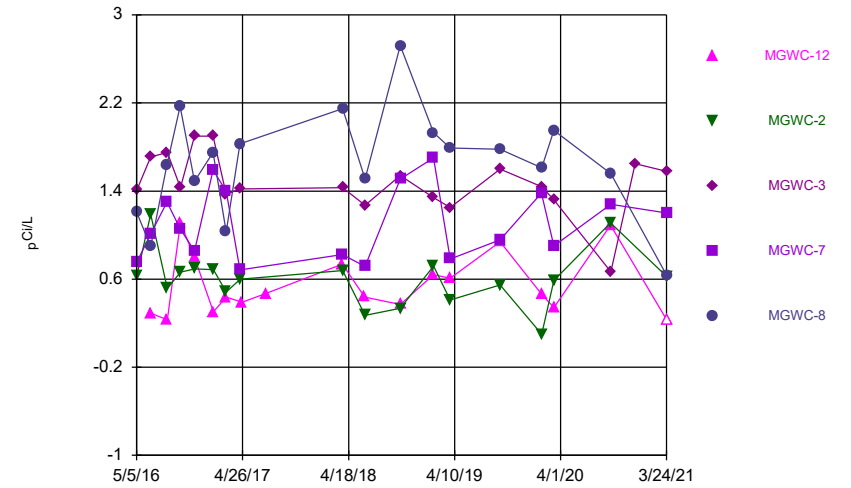
Constituent: Cobalt Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



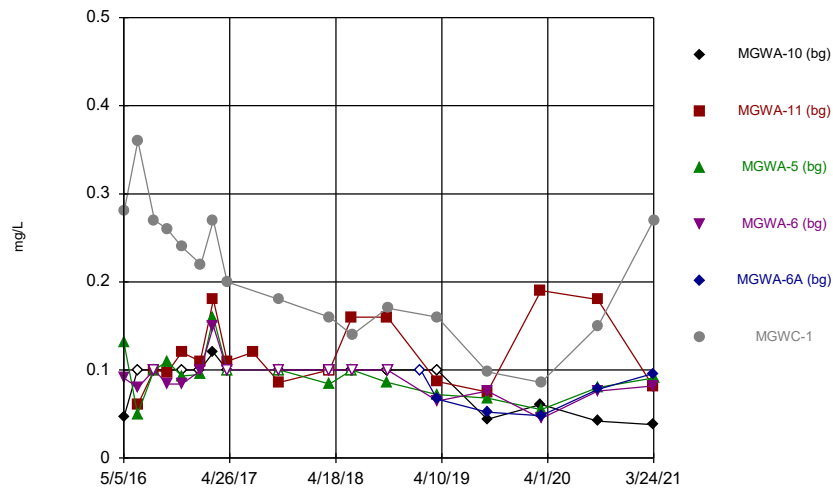
Constituent: Combined Radium 226 + 228 Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



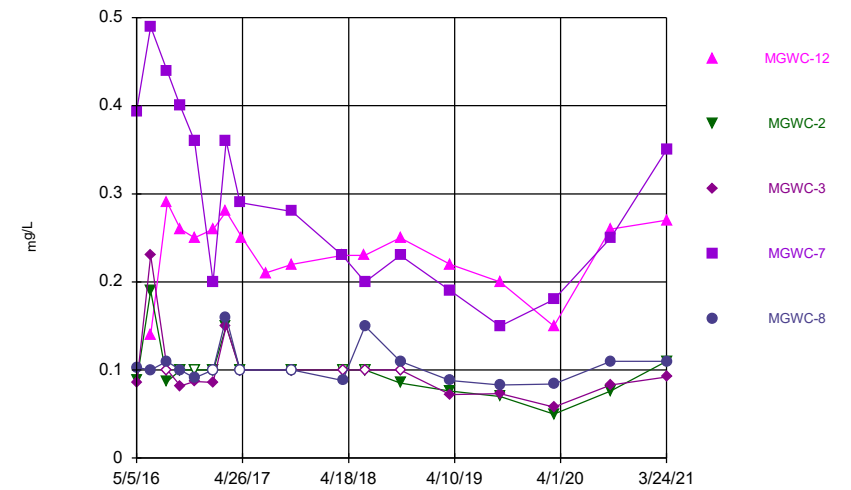
Constituent: Combined Radium 226 + 228 Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



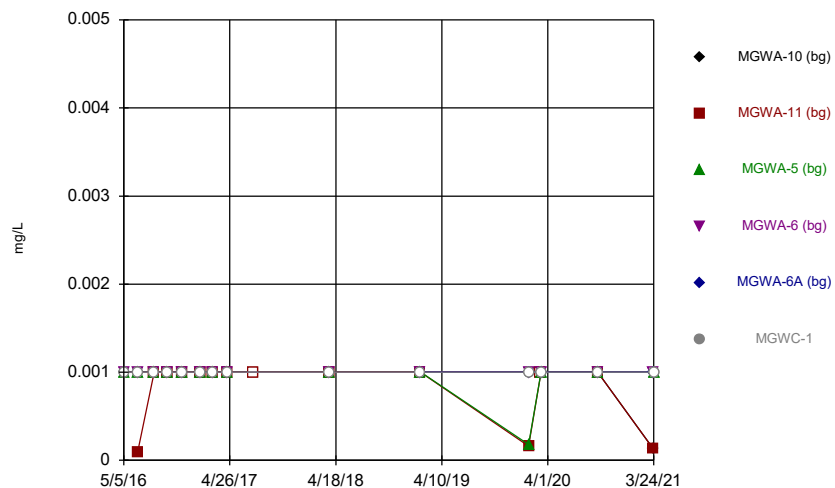
Constituent: Fluoride Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



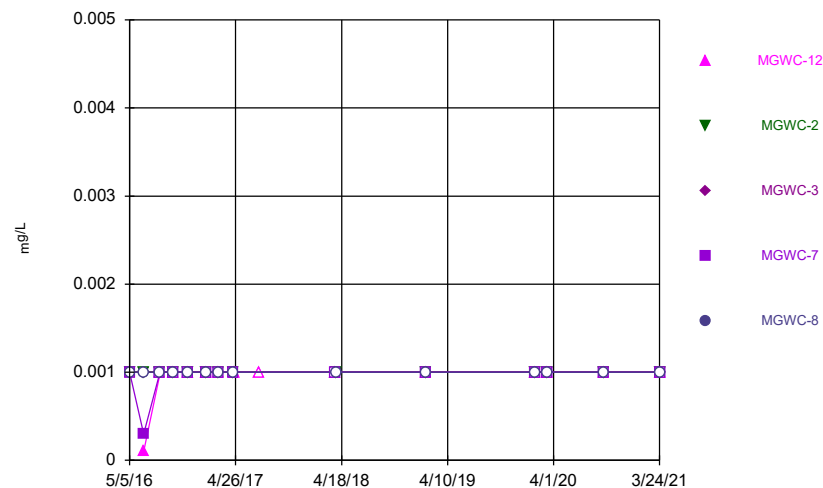
Constituent: Fluoride Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



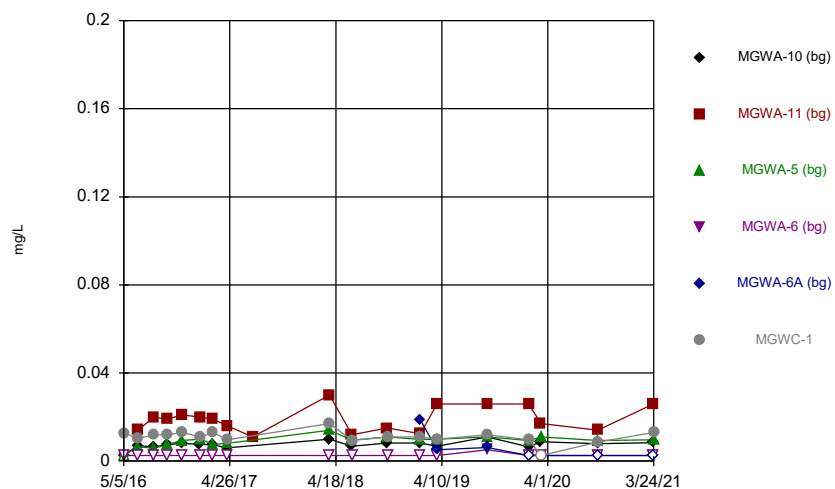
Constituent: Lead Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



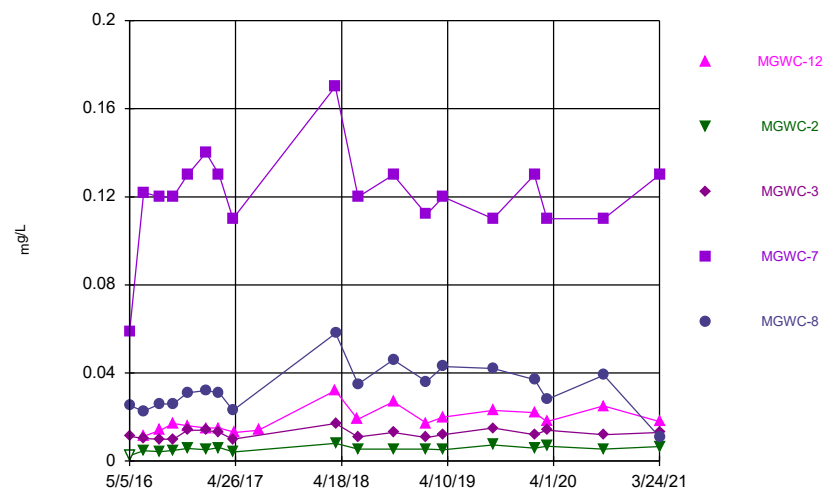
Constituent: Lead Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



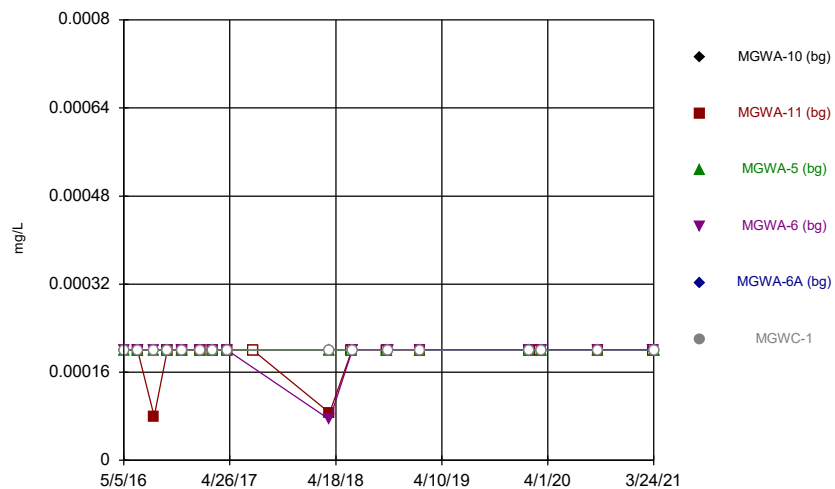
Constituent: Lithium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



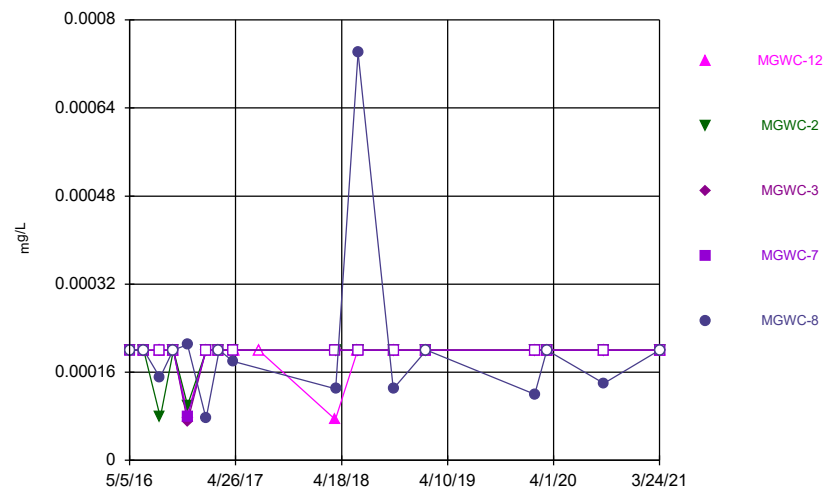
Constituent: Lithium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



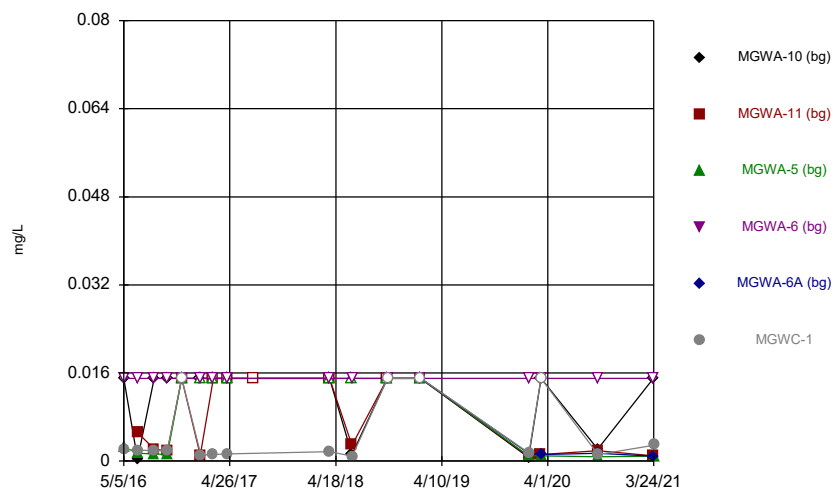
Constituent: Mercury Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



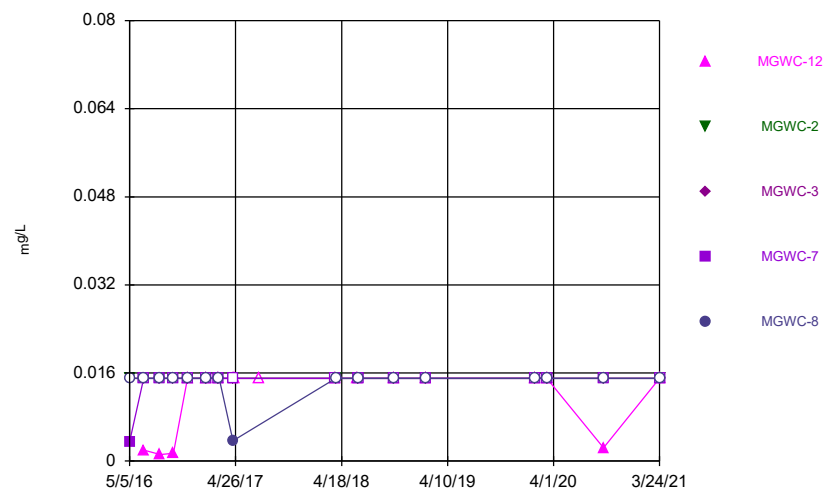
Constituent: Mercury Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



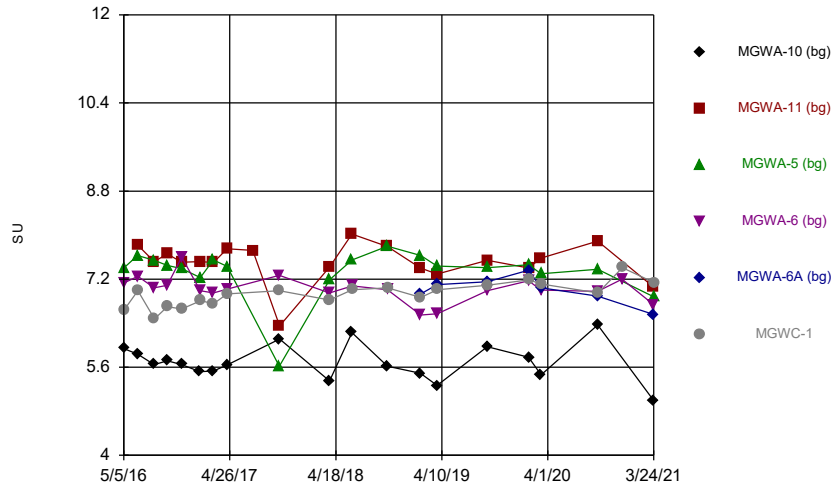
Constituent: Molybdenum Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



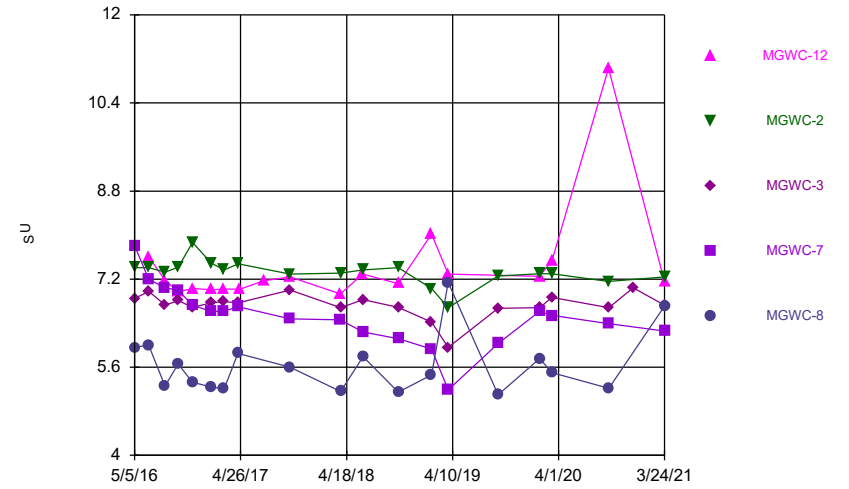
Constituent: Molybdenum Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



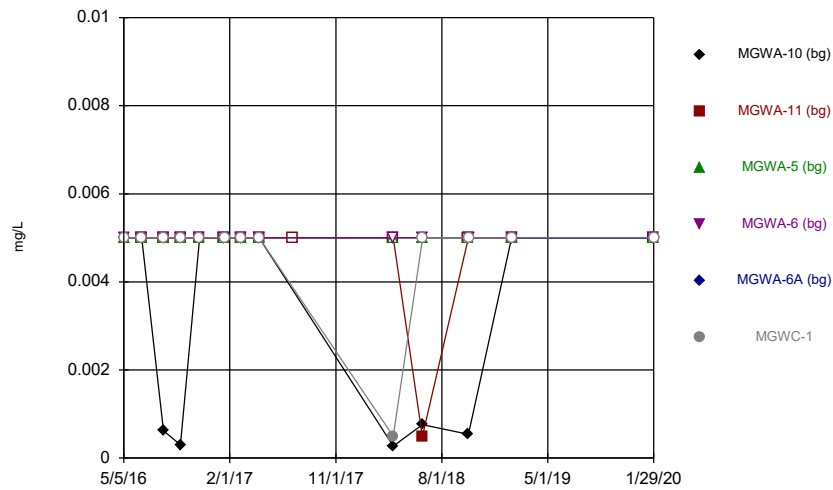
Constituent: pH Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



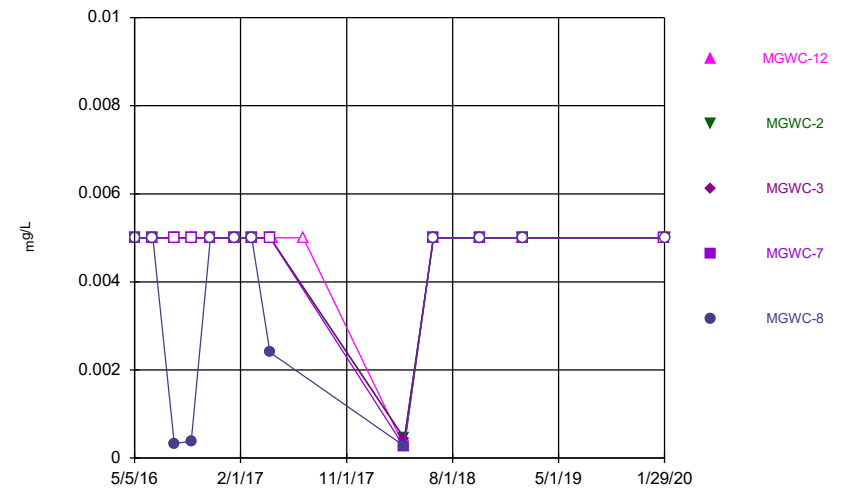
Constituent: pH Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



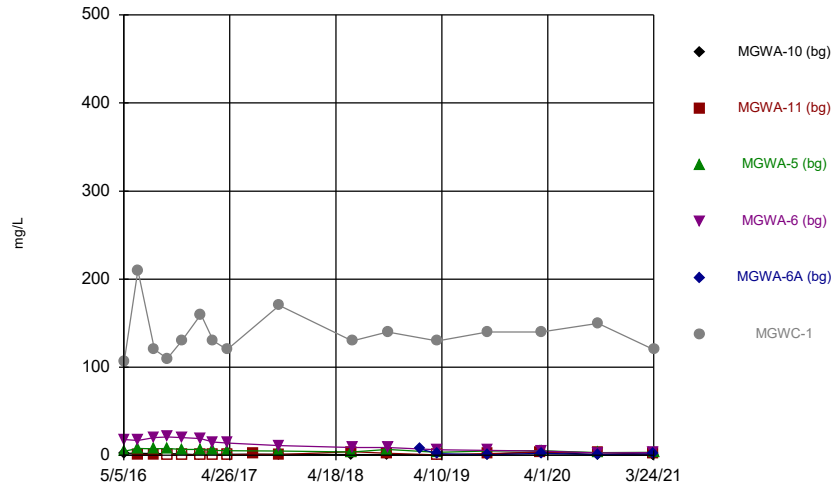
Constituent: Selenium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



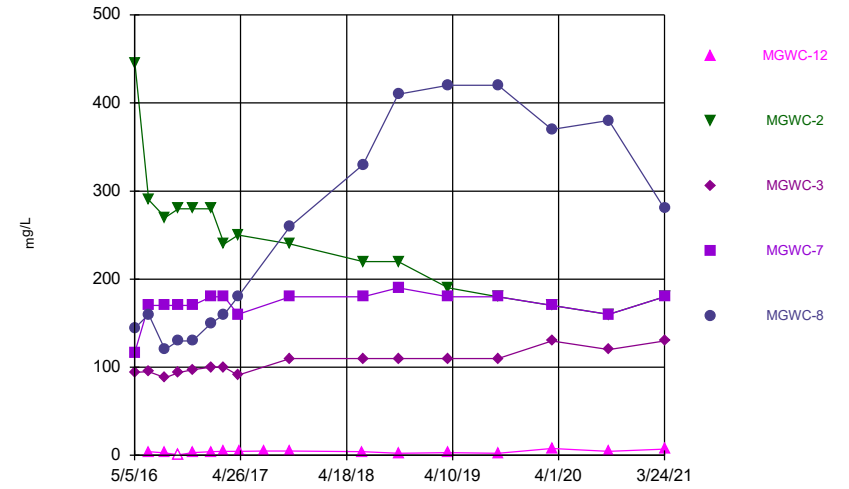
Constituent: Selenium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



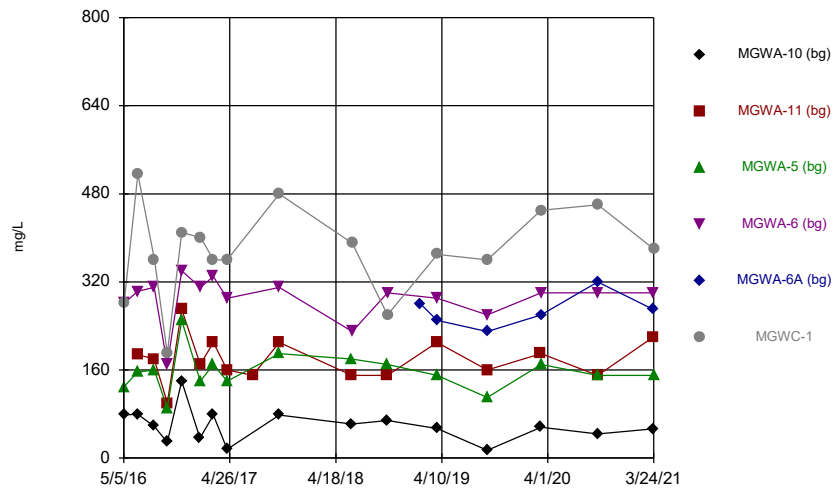
Constituent: Sulfate Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



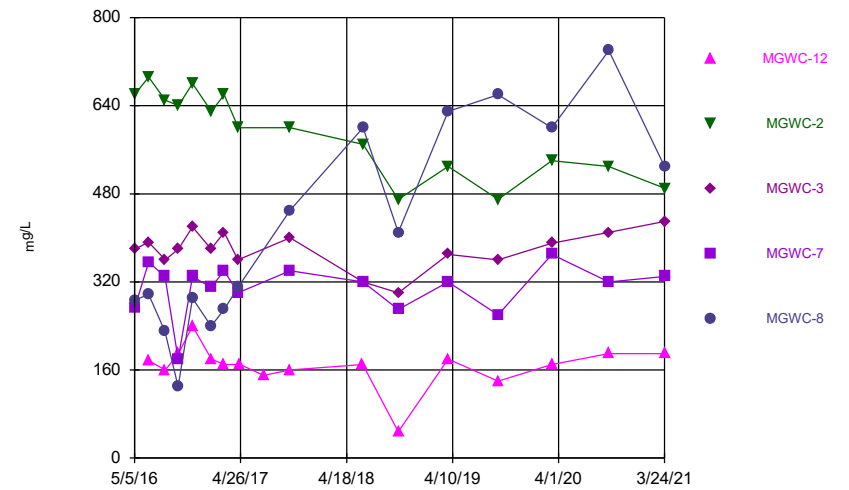
Constituent: Sulfate Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



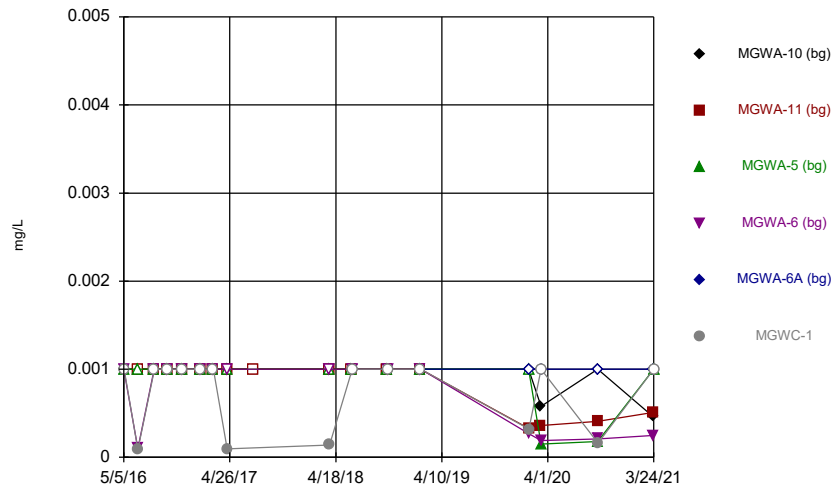
Constituent: TDS Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



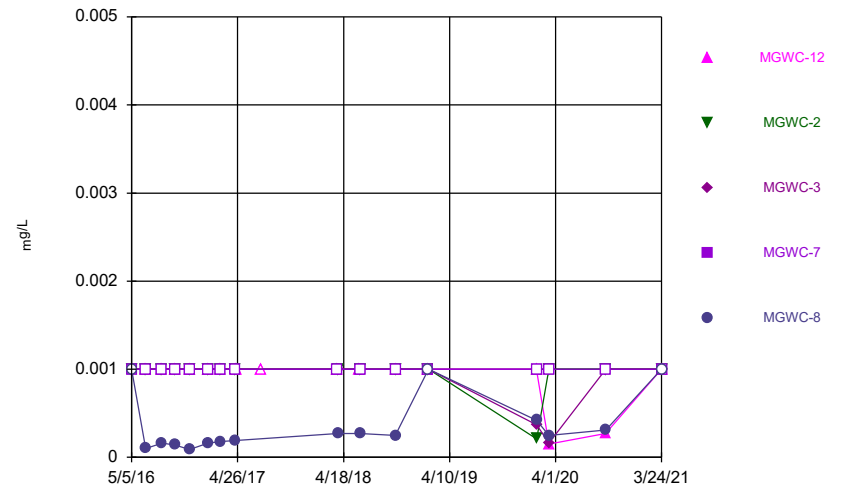
Constituent: TDS Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



Constituent: Thallium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



Constituent: Thallium Analysis Run 5/6/2021 9:38 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.00112 (J)		0.0012 (J)	<0.002		
5/6/2016						<0.002
6/20/2016	<0.002	<0.002	<0.002			
6/21/2016				0.0017 (J)		<0.002
8/15/2016	<0.002	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	<0.002	<0.002	<0.002	<0.002		<0.002
11/16/2016	<0.002	<0.002	<0.002	<0.002		<0.002
1/16/2017	<0.002					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	<0.002	<0.002	<0.002	<0.002		<0.002
4/18/2017	<0.002	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002	<0.002	<0.002		<0.002
1/28/2019	<0.002	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.00049 (J)	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	<0.002	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.00098 (J)	0.0011 (J)	<0.002	<0.002	<0.002	
9/17/2020						<0.002
3/23/2021	<0.002	<0.002		<0.002	<0.002	
3/24/2021			<0.002			<0.002

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00197 (J)	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	0.0004 (J)	<0.002	0.0003 (J)	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	<0.002	<0.002	<0.002	<0.002	<0.002
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			<0.002	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	<0.002	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	0.0343		
5/6/2016						0.00299 (J)
6/20/2016	0.00036 (J)	0.003 (J)	0.00014 (J)			
6/21/2016				0.0352		0.0047 (J)
8/15/2016	0.00096 (J)	0.0033	<0.001	0.035		
8/16/2016						0.003
9/28/2016	0.00095 (J)	0.0026	0.00062 (J)	0.033		0.0036
11/16/2016	<0.001	0.0013	<0.001	0.02		0.003
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	0.022		
1/19/2017						0.0024
3/2/2017	<0.001	0.0015	<0.001	0.021		0.0027
4/18/2017	<0.001	0.00071 (J)	<0.001	0.018		0.0024
7/13/2017		0.00066 (J)				
3/29/2018	<0.001	0.002	<0.001	0.014		0.0023
6/12/2018	<0.001	0.0017	<0.001			
6/13/2018				0.011		0.0021
10/9/2018	<0.001	0.00072 (J)	<0.001			
10/10/2018				0.014		0.0024
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	0.00972	0.0118	0.00255
3/25/2019	<0.001	0.0022	0.00069 (J)		0.0012 (J)	
3/26/2019				0.0097		0.002
9/10/2019	<0.001	0.0018	0.00039 (J)	0.0085	0.0021	0.0018
1/28/2020	<0.001	0.0014	0.00036 (J)	0.0063	0.0028	
1/29/2020						0.0021
3/9/2020	<0.001	0.00073 (J)				
3/10/2020			0.00031 (J)	0.0093	0.0029	0.0019
9/16/2020	<0.001	0.00069 (J)	0.00035 (J)	0.0089	0.011	
9/17/2020						0.002
3/23/2021	0.00033 (J)	0.0023		0.0089	0.0098	
3/24/2021			0.00033 (J)			0.0024

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00143 (J)	<0.001
5/6/2016		<0.001	0.00154 (J)		
6/21/2016	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016				0.0012 (J)	<0.001
8/16/2016	0.00082 (J)	<0.001	0.0017		
9/28/2016				0.00084 (J)	<0.001
9/29/2016	0.0019	<0.001	0.0013		
11/16/2016	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017			0.00056 (J)	<0.001	<0.001
1/18/2017	0.00096 (J)	<0.001			
3/2/2017	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	0.00047 (J)				
3/29/2018	0.00053 (J)			0.00066 (J)	
3/30/2018		<0.001	0.0017		<0.001
6/12/2018	0.00063 (J)				
6/13/2018		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020	0.00051 (J)			0.00046 (J)	
1/29/2020		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			0.0015	0.00045 (J)	<0.001
3/24/2021	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.0376		0.0295	0.0595		
5/6/2016						0.11
6/20/2016	0.033	0.091	0.031			
6/21/2016				0.0539		0.165
8/15/2016	0.029	0.11	0.032	0.053		
8/16/2016						0.094
9/28/2016	0.032	0.12	0.038	0.06		0.1
11/16/2016	0.027	0.11	0.035	0.052		0.096
1/16/2017	0.022					
1/17/2017		0.11	0.039	0.051		
1/19/2017						0.12
3/2/2017	0.027	0.11	0.037	0.043		0.097
4/18/2017	0.024	0.1	0.035	0.042		0.092
7/13/2017		0.087				
3/29/2018	0.021	0.11	0.037	0.043		0.095
6/12/2018	0.025	0.068	0.036			
6/13/2018				0.037		0.096
10/9/2018	0.024	0.072	0.034			
10/10/2018				0.037		0.095
1/28/2019	0.0249	0.0834				
1/29/2019			0.0363	0.0393	0.0421	0.107
3/25/2019	0.023	0.11	0.035		0.044	
3/26/2019				0.033		0.096
9/10/2019	0.031	0.13	0.035	0.04	0.042	0.11
1/28/2020	0.025	0.13	0.034	0.034	0.037	
1/29/2020						0.11
3/9/2020	0.023	0.094				
3/10/2020			0.043	0.031	0.035	0.13
9/16/2020	0.025	0.078	0.037	0.028	0.034	
9/17/2020						0.11
3/23/2021	0.02	0.13		0.028	0.031	
3/24/2021			0.032			0.1

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.039	0.0364
5/6/2016		0.0605	0.151		
6/21/2016	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016				0.015	0.03
8/16/2016	0.041	0.052	0.13		
9/28/2016				0.014	0.034
9/29/2016	0.052	0.053	0.14		
11/16/2016	0.044	0.056	0.14	0.013	0.034
1/17/2017			0.16	0.014	0.038
1/18/2017	0.056	0.06			
3/2/2017	0.04	0.056	0.15	0.013	0.037
4/18/2017			0.14	0.011	0.04
4/19/2017		0.051			
4/25/2017	0.042				
7/13/2017	0.043				
3/29/2018	0.061			0.01	
3/30/2018		0.049	0.13		0.041
6/12/2018	0.063				
6/13/2018		0.05	0.14	0.0098	0.038
10/10/2018	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.073	0.053	0.15	0.012	0.035
1/28/2020	0.069			0.012	
1/29/2020		0.051	0.15		0.033
3/10/2020	0.056	0.049	0.15	0.013	0.036
9/16/2020	0.1	0.048			
9/17/2020			0.16	0.0091 (J)	0.028
3/24/2021	0.056	0.049	0.16	0.011	0.054

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						<0.0025
6/20/2016	3.3E-05 (J)	<0.0025	<0.0025			
6/21/2016				<0.0025		<0.0025
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025	0.0004 (J)	<0.0025	<0.0025	<0.0025	
1/29/2020						0.00018 (J)
3/9/2020	0.00045 (J)	0.00018 (J)				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025
3/23/2021	0.00022 (J)	<0.0025		<0.0025	<0.0025	
3/24/2021			<0.0025			<0.0025

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	<0.0025
5/6/2016		<0.0025	<0.0025		
6/21/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
8/15/2016				<0.0025	0.00053 (J)
8/16/2016	<0.0025	<0.0025	<0.0025		
9/28/2016				<0.0025	0.00049 (J)
9/29/2016	<0.0025	<0.0025	<0.0025		
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
1/17/2017			<0.0025	<0.0025	0.00084 (J)
1/18/2017	<0.0025	<0.0025			
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025	0.00068 (J)
4/18/2017			<0.0025	<0.0025	0.00067 (J)
4/19/2017		<0.0025			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		<0.0025	<0.0025		0.0015 (J)
6/12/2018	<0.0025				
6/13/2018		<0.0025	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025			<0.0025	
1/29/2020		<0.0025	0.00031 (J)		0.0019
3/10/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.0013 (J)
9/16/2020	<0.0025	<0.0025			
9/17/2020			<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.08		<0.08	0.157		
5/6/2016						0.567
6/20/2016	0.011 (J)	0.017 (J)	0.013 (J)			
6/21/2016				0.124		1.55
8/15/2016	0.022 (J)	0.032 (J)	0.023 (J)	0.18		
8/16/2016						0.85
9/28/2016	0.023 (J)	0.021 (J)	<0.08	0.17		0.7
11/16/2016	<0.08	<0.08	<0.08	0.17		0.88
1/16/2017	0.021 (J)					
1/17/2017		<0.08	<0.08	0.17		
1/19/2017						1.5
3/2/2017	<0.08	<0.08	<0.08	0.14		0.89
4/18/2017	<0.08	<0.08	<0.08	0.14		1.1
7/13/2017		<0.08				
10/10/2017	0.021 (J)	0.025 (J)	<0.08	0.12		1.9
6/12/2018	<0.08	<0.08	<0.08			
6/13/2018				0.11		1.2
10/9/2018	<0.08	<0.08	<0.08			
10/10/2018				0.096 (J)		1.2
1/29/2019					<0.08	
3/25/2019	<0.08	<0.08	<0.08		<0.08	
3/26/2019				0.079 (J)		1.3
9/10/2019	<0.08	<0.08	<0.08	0.097	0.04 (J)	1.5
3/9/2020	0.045 (J)	<0.08				
3/10/2020			<0.08	0.051 (J)	<0.08	1.9
9/16/2020	<0.08	0.045 (J)	<0.08	0.041 (J)	0.04 (J)	
9/17/2020						1.8
3/23/2021	<0.08	0.047 (J)		<0.08	<0.08	
3/24/2021			<0.08			0.57

# Time Series

Constituent: Boron (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.855	0.976
5/6/2016		3.78	0.926		
6/21/2016	0.0201 (J)	3.1	0.792	1.15	0.862
8/15/2016				1.3	0.8
8/16/2016	0.055	2.8	1		
9/28/2016				1.3	0.8
9/29/2016	<0.08	3.1	1		
11/16/2016	0.055	3.9	1.2	1.3	0.98
1/17/2017			1.3	1.3	1.6
1/18/2017	0.097	3.7			
3/2/2017	0.064	3.3	1.3	1.3	1.8
4/18/2017			1.8	1.5	2.4
4/19/2017		3.7			
4/25/2017	<0.08				
7/13/2017	<0.08				
10/10/2017	<0.08	3.4	1.7	1.4	4.2
6/12/2018	<0.08				
6/13/2018		3	1.6	1.4	4.9
10/10/2018	0.034 (J)	3	1.6	1.4	5.1
3/26/2019	0.032 (J)	2.6	1.5	1.5	5.1
9/10/2019	0.06 (J)	2.4	1.5	1.5	4.8
3/10/2020	<0.08	2.3	1.3	1.4	4
9/16/2020	<0.08	2.1			
9/17/2020			1.2	1.4	4.4
3/24/2021	<0.08	2.4	1.2	1.5	3.6

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						0.000126 (J)
6/20/2016	<0.0025	<0.0025	<0.0025			
6/21/2016				<0.0025		0.0005 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
3/25/2019	<0.0025	<0.0025	<0.0025		<0.0025	
3/26/2019				<0.0025		<0.0025
9/10/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.00017 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
1/29/2020						<0.0025
3/9/2020	0.00023 (J)	<0.0025				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025
3/23/2021	<0.0025	<0.0025		<0.0025	<0.0025	
3/24/2021			<0.0025			<0.0025

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	0.000784 (J)
5/6/2016		0.00166	<0.0025		
6/21/2016	<0.0025	0.0008 (J)	<0.0025	<0.0025	0.0003 (J)
8/15/2016				<0.0025	<0.0025
8/16/2016	<0.0025	0.0034	<0.0025		
9/28/2016				<0.0025	<0.0025
9/29/2016	<0.0025	0.0027	<0.0025		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025	<0.0025
1/18/2017	<0.0025	0.008			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025	<0.0025
4/18/2017			<0.0025	<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		0.0016 (J)	<0.0025		0.00058 (J)
6/12/2018	<0.0025				
6/13/2018		0.0016 (J)	<0.0025	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	<0.0025	0.0005 (J)
9/10/2019	<0.0025	0.0011	<0.0025	<0.0025	0.00079 (J)
1/28/2020	<0.0025			<0.0025	
1/29/2020		0.0054	<0.0025		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	<0.0025	0.0011 (J)
9/16/2020	<0.0025	0.00053 (J)			
9/17/2020			<0.0025	0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	<0.0025	0.001 (J)

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	8.83		27	105		
5/6/2016						92.5
6/20/2016	8.1	35.5	29.4			
6/21/2016				91.2		119
8/15/2016	6.1	34	26	94		
8/16/2016						84
9/28/2016	7.2	38	31	110		92
11/16/2016	5.2	33	26	98		83
1/16/2017	3.8					
1/17/2017		34	29	100		
1/19/2017						110
3/2/2017	5.4	35	28	100		89
4/18/2017	5	33	27	110		100
7/13/2017		30				
10/10/2017	4.8	39	31	110		120
6/12/2018	4.8	26	25			
6/13/2018				100		100
10/9/2018	4.5	29	29			
10/10/2018				100		100
1/29/2019					95.1	
3/25/2019	4.6	37	27		89	
3/26/2019				100		100
9/10/2019	4.9	36	27	110	86	110
3/9/2020	4	32				
3/10/2020			29	100	90	120
9/16/2020	6.8	30	28	100	93	
9/17/2020						110
3/23/2021	4	42		110	97	
3/24/2021			28			100

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				45	41.2
5/6/2016		131	109		
6/21/2016	25.5	119	99.7	52.8	44.7
8/15/2016				50	27
8/16/2016	25	120	97		
9/28/2016				58	32
9/29/2016	30	140	100		
11/16/2016	26	120	94	50	27
1/17/2017			100	52	32
1/18/2017	32	130			
3/2/2017	26	120	99	52	33
4/18/2017			120	56	59
4/19/2017		120			
4/25/2017	26				
7/13/2017	26				
10/10/2017	28	130	110	56	74
6/12/2018	30				
6/13/2018		120	100	51	84
10/10/2018	35	120	96	51	87
3/26/2019	33	110	99	52	96
9/10/2019	33	110	99	53	97
3/10/2020	30	110	110	55	100
9/16/2020	25	110			
9/17/2020			110	48	100
3/24/2021	32	120	120	51	120

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	7.35		6.51	9.67		
5/6/2016						13.2
6/20/2016	7	4.3	5.9			
6/21/2016				9.2		15
8/15/2016	7.5	4.1	6.4	10		
8/16/2016						14
9/28/2016	7	3.9	6.1	10		14
11/16/2016	7.5	4.1	6.1	10		14
1/16/2017	7.7					
1/17/2017		3.9	5.7	9.4		
1/19/2017						14
3/2/2017	6.9	3.5	5.3	8.6		13
4/18/2017	6.8	3.7	5.3	8.9		13
7/13/2017		4.2				
10/10/2017	6.9	3.4	5.3	8.3		14
6/12/2018	6.7	4.6	5.1			
6/13/2018				7		13
10/9/2018	7.1	4.5	5.6			
10/10/2018				6.9		14
1/29/2019					4.51	
3/25/2019	6.8	3.4	4.7		4.4	
3/26/2019				5.8		13
9/10/2019	7	3.5	5.1	6	4.2	13
3/9/2020	7.4	4.5				
3/10/2020			5.4	5.1	4	14
9/16/2020	7	4.6	5.2	4.3	3.7	
9/17/2020						14
3/23/2021	7.8	3.8		4	4.1	
3/24/2021			5.5			14

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				13	10.1
5/6/2016		41	12.5		
6/21/2016	4.4	20	13	13	10
8/15/2016				14	9.5
8/16/2016	4.6	20	13		
9/28/2016				13	9.2
9/29/2016	4.4	19	13		
11/16/2016	4.5	20	14	13	9.5
1/17/2017			14	13	10
1/18/2017	4.2	18			
3/2/2017	3.9	18	13	13	9.3
4/18/2017			13	12	10
4/19/2017		17			
4/25/2017	4				
7/13/2017	4				
10/10/2017	4	16	14	12	11
6/12/2018	4				
6/13/2018		16	13	12	11
10/10/2018	4.2	15	14	12	10
3/26/2019	3.8	14	14	11	11
9/10/2019	4.1	13	13	9.9	10
3/10/2020	4.1	12	15	10	12
9/16/2020	5.1	12			
9/17/2020			14	9.6	10
3/24/2021	5.7	13	14	10	18



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.00249 (J)		<0.002	<0.002		
5/6/2016						<0.002
6/20/2016	0.0026 (J)	0.00066 (J)	0.00024 (J)			
6/21/2016				<0.002		<0.002
8/15/2016	0.0029	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	0.0027	<0.002	<0.002	<0.002		<0.002
11/16/2016	0.0026	<0.002	<0.002	<0.002		<0.002
1/16/2017	0.0029					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	0.0063	0.003	0.0032	0.0032		0.0036
4/18/2017	0.0031	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	0.0039	<0.002	<0.002	<0.002		<0.002
6/12/2018	0.0038	<0.002	<0.002			
6/13/2018				<0.002		<0.002
10/9/2018	0.0037	<0.002	<0.002			
10/10/2018				<0.002		<0.002
1/28/2019	0.00545	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.0044	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	0.0042	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.0039	<0.002	<0.002	<0.002	<0.002	
9/17/2020						<0.002
3/23/2021	0.0043	<0.002		<0.002	<0.002	
3/24/2021			<0.002			<0.002

# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.002	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
6/12/2018	<0.002				
6/13/2018		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			0.0015 (J)	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	0.029	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						<0.0025
6/20/2016	0.00018 (J)	3.9E-05 (J)	1.2E-05 (J)			
6/21/2016				0.0003 (J)		0.0012 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	0.00049 (J)		
8/16/2016						0.00047 (J)
9/28/2016	<0.0025	<0.0025	<0.0025	0.00043 (J)		0.00058 (J)
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						0.0004 (J)
3/2/2017	<0.0025	<0.0025	<0.0025	0.00046 (J)		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	0.00044 (J)		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	0.00065 (J)		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				0.00051 (J)		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
3/25/2019	<0.0025	<0.0025	<0.0025		<0.0025	
3/26/2019				<0.0025		<0.0025
9/10/2019	0.00011 (J)	<0.0025	<0.0025	0.00037 (J)	0.0002 (J)	0.00032 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	0.00041 (J)	0.00024 (J)	
1/29/2020						0.00027 (J)
3/9/2020	<0.0025	<0.0025				
3/10/2020			<0.0025	0.00038 (J)	0.00032 (J)	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.00038 (J)	
9/17/2020						0.0002 (J)
3/23/2021	0.00014 (J)	<0.0025		0.00025 (J)	0.00036 (J)	
3/24/2021			<0.0025			<0.0025

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0036 (J)	0.00359 (J)
5/6/2016		0.00311 (J)	<0.0025		
6/21/2016	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016				0.0098	0.0038
8/16/2016	<0.0025	0.0034	0.00064 (J)		
9/28/2016				0.0095	0.0043
9/29/2016	<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017			0.00051 (J)	0.0099	0.0051
1/18/2017	<0.0025	0.0032			
3/2/2017	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017			0.00057 (J)	0.0086	0.005
4/19/2017		0.0035			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			0.0088	
3/30/2018		0.0037	0.00068 (J)		0.015
6/12/2018	<0.0025				
6/13/2018		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020	<0.0025			0.008	
1/29/2020		0.003	0.00067		0.025
3/10/2020	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020	0.0015 (J)	0.002 (J)			
9/17/2020			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.879		0.48	0.694		
5/6/2016						1.07
6/20/2016	0.305 (U)	0.556 (U)	0.184			
6/21/2016				0.511 (U)		2.01
8/15/2016	0.577	0.72	0.577	0.467		
8/16/2016						1.12
9/28/2016	0.77	0.521 (U)	0.107 (U)	0.926		1.09
11/16/2016	0.427 (U)	0.322 (U)	0.333 (U)	0.863		1.58
1/16/2017	1.1					
1/17/2017		1.26	0.511 (U)	0.82		
1/19/2017						1.64
3/2/2017	1.01	0.47	0.105 (U)	0.236 (U)		1.08
4/18/2017	0.635	0.233 (U)	0.279 (U)	0.316 (U)		1.23
7/13/2017		0.679				
3/29/2018	0.799	0.723	0.37	0.6		1.21
6/12/2018	0.313 (U)	0.105 (U)	0.133 (U)			
6/13/2018				0.349 (U)		1.09
10/9/2018	1.11	0.65	0.85			
10/10/2018				1.01		1.95
1/28/2019	0.872	0.478				
1/29/2019			0.275 (U)	0.591	0.874	1.11
3/25/2019	0.526	0.717	0.629		0.646	
3/26/2019				0.4		1
9/10/2019	0.612	0.377 (U)	0.354 (U)	0.481	0.988	1.26
1/28/2020	0.322 (U)	0.528	0.0677 (U)	0.374 (U)	0.0609 (U)	
1/29/2020						1.39
3/9/2020	0.761	0.00483 (U)				
3/10/2020			0.0594 (U)	0.41 (U)	0.528	1.4
9/16/2020	0.969	0.583	0.821	-0.0651 (U)	1.13	
9/17/2020						1.79
12/7/2020				0.979		
12/8/2020						1.87
3/23/2021	0.657	<0.465		0.542	0.612	
3/24/2021			<0.465			1.81

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.75	1.21
5/6/2016		0.633	1.41		
6/21/2016	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016				1.3	1.64
8/16/2016	0.232 (U)	0.516	1.75		
9/28/2016				1.06	2.17
9/29/2016	1.11	0.665	1.43		
11/16/2016	0.798	0.694	1.9	0.855	1.49
1/17/2017			1.9	1.59	1.75
1/18/2017	0.302 (U)	0.688			
3/2/2017	0.437	0.484	1.37	1.4	1.03
4/18/2017			1.42	0.684	1.83
4/19/2017		0.599			
4/25/2017	0.391				
7/13/2017	0.47				
3/29/2018	0.736			0.822	
3/30/2018		0.677	1.43		2.15
6/12/2018	0.438				
6/13/2018		0.272 (U)	1.27	0.716	1.51
10/10/2018	0.371	0.336	1.54	1.51	2.72
1/29/2019	0.639	0.719	1.34	1.7	1.93
3/26/2019	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	0.939	0.548	1.6	0.958	1.78
1/28/2020	0.465			1.38	
1/29/2020		0.0985 (U)	1.44		1.61
3/10/2020	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020	1.09	1.11			
9/17/2020			0.666 (U)	1.28	1.56
12/8/2020			1.65		
3/24/2021	<0.465	0.625	1.58	1.2	0.636

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.046 (J)		0.132 (J)	0.091 (J)		
5/6/2016						0.28 (J)
6/20/2016	<0.1	0.06 (J)	0.05 (J)			
6/21/2016				0.08 (J)		0.36
8/15/2016	<0.1	0.1 (J)	0.1 (J)	<0.1		
8/16/2016						0.27
9/28/2016	<0.1	0.097 (J)	0.11 (J)	0.084 (J)		0.26
11/16/2016	<0.1	0.12 (J)	0.093 (J)	0.084 (J)		0.24
1/16/2017	<0.1					
1/17/2017		0.11 (J)	0.095 (J)	0.099 (J)		
1/19/2017						0.22
3/2/2017	0.12 (J)	0.18 (J)	0.16 (J)	0.15 (J)		0.27
4/18/2017	<0.1	0.11 (J)	<0.1	<0.1		0.2
7/13/2017		0.12 (J)				
10/10/2017	<0.1	0.086 (J)	<0.1	<0.1		0.18 (J)
3/29/2018	<0.1	<0.1	0.084 (J)	<0.1		0.16 (J)
6/12/2018	<0.1	0.16 (J)	<0.1			
6/13/2018				<0.1		0.14 (J)
10/9/2018	<0.1	0.16 (J)	0.086 (J)			
10/10/2018				<0.1		0.17 (J)
1/29/2019					<0.1	
3/25/2019	<0.1	0.087 (J)	0.072 (J)		0.067 (J)	
3/26/2019				0.065 (J)		0.16
9/10/2019	0.044 (J)	0.075 (J)	0.068 (J)	0.076 (J)	0.052 (J)	0.098 (J)
3/9/2020	0.061 (J)	0.19				
3/10/2020			0.055 (J)	0.045 (J)	0.048 (J)	0.086 (J)
9/16/2020	0.042 (J)	0.18	0.08 (J)	0.076 (J)	0.078 (J)	
9/17/2020						0.15
3/23/2021	0.038 (J)	0.081 (J)		0.082 (J)	0.096 (J)	
3/24/2021			0.091 (J)			0.27

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.394	0.103 (J)
5/6/2016		0.088 (J)	0.086 (J)		
6/21/2016	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016				0.44	0.11 (J)
8/16/2016	0.29	0.087 (J)	<0.1		
9/28/2016				0.4	0.1 (J)
9/29/2016	0.26	<0.1	0.082 (J)		
11/16/2016	0.25	<0.1	0.087 (J)	0.36	0.091 (J)
1/17/2017			0.086 (J)	0.2	<0.1
1/18/2017	0.26	<0.1			
3/2/2017	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017			<0.1	0.29	<0.1
4/19/2017		<0.1			
4/25/2017	0.25				
7/13/2017	0.21				
10/10/2017	0.22	<0.1	<0.1	0.28	<0.1
3/29/2018	0.23			0.23	
3/30/2018		<0.1	<0.1		0.088 (J)
6/12/2018	0.23				
6/13/2018		<0.1	<0.1	0.2	0.15 (J)
10/10/2018	0.25	0.085 (J)	<0.1	0.23	0.11 (J)
3/26/2019	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020	0.26	0.076 (J)			
9/17/2020			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.11	0.092 (J)	0.35	0.11



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	8.7E-05 (J)	<0.001			
6/21/2016				<0.001		<0.001
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		<0.001
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00016 (J)	0.00018 (J)	<0.001	<0.001	
1/29/2020						<0.001
3/9/2020	<0.001	<0.001				
3/10/2020			<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001	<0.001	<0.001	<0.001	
9/17/2020						<0.001
3/23/2021	0.00013 (J)	0.00013 (J)		<0.001	<0.001	
3/24/2021			<0.001			<0.001

# Time Series

Constituent: Lead (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	0.0001 (J)	<0.001	<0.001	0.0003 (J)	<0.001
8/15/2016				<0.001	<0.001
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	<0.001
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2017			<0.001	<0.001	<0.001
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2017			<0.001	<0.001	<0.001
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		<0.001
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		<0.001	<0.001		<0.001
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			<0.001	<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.005		<0.005	<0.005		
5/6/2016						0.0128 (J)
6/20/2016	0.0071 (J)	0.014 (J)	0.0065 (J)			
6/21/2016				<0.005		0.0102 (J)
8/15/2016	0.0065	0.02	0.0059	<0.005		
8/16/2016						0.012
9/28/2016	0.0075	0.019	0.0075	<0.005		0.012
11/16/2016	0.0081	0.021	0.0094	<0.005		0.013
1/16/2017	0.0076					
1/17/2017		0.02	0.01	<0.005		
1/19/2017						0.011
3/2/2017	0.0073	0.019	0.0076	<0.005		0.013
4/18/2017	0.006	0.016	0.008	<0.005		0.0097
7/13/2017		0.011				
3/29/2018	0.01 (J)	0.03 (J)	0.014 (J)	<0.005		0.017 (J)
6/12/2018	0.0068	0.012	0.0095			
6/13/2018				<0.005		0.0094
10/9/2018	0.0082	0.015	0.011			
10/10/2018				<0.005		0.011
1/28/2019	0.00821	0.0124				
1/29/2019			0.00987	<0.005	0.0184	0.0109
3/25/2019	0.0068	0.026	0.01		0.0052	
3/26/2019				<0.005		0.01
9/10/2019	0.011	0.026	0.011	0.0051	0.0062	0.012
1/28/2020	0.0064	0.026	0.0093	<0.005	<0.005	
1/29/2020						0.0096
3/9/2020	0.0088	0.017				
3/10/2020			0.011	<0.005	<0.005	<0.005
9/16/2020	0.0079	0.014	0.0094	<0.005	<0.005	
9/17/2020						0.0086
3/23/2021	0.0084	0.026		<0.005	<0.005	
3/24/2021			0.0097			0.013

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0586	0.0252 (J)
5/6/2016		<0.005	0.0113 (J)		
6/21/2016	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016				0.12	0.026
8/16/2016	0.014	0.0043 (J)	0.01		
9/28/2016				0.12	0.026
9/29/2016	0.017	0.0048 (J)	0.01		
11/16/2016	0.016	0.0058	0.014	0.13	0.031
1/17/2017			0.014	0.14	0.032
1/18/2017	0.015	0.0051			
3/2/2017	0.015	0.0061	0.013	0.13	0.031
4/18/2017			0.01	0.11	0.023
4/19/2017		0.0042 (J)			
4/25/2017	0.013				
7/13/2017	0.014				
3/29/2018	0.032 (J)			0.17 (J)	
3/30/2018		0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018	0.019				
6/13/2018		0.0054	0.011	0.12	0.035
10/10/2018	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.023	0.0074	0.015	0.11	0.042
1/28/2020	0.022			0.13	
1/29/2020		0.0059	0.012		0.037
3/10/2020	0.018	0.0068	0.014	0.11	0.028
9/16/2020	0.025	0.0055			
9/17/2020			0.012	0.11	0.039
3/24/2021	0.018	0.0066	0.013	0.13	0.011

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0002		<0.0002	<0.0002		
5/6/2016						<0.0002
6/20/2016	<0.0002	<0.0002	<0.0002			
6/21/2016				<0.0002		<0.0002
8/15/2016	<0.0002	8E-05 (J)	<0.0002	<0.0002		
8/16/2016						<0.0002
9/28/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/16/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
1/16/2017	<0.0002					
1/17/2017		<0.0002	<0.0002	<0.0002		
1/19/2017						<0.0002
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
4/18/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
7/13/2017		<0.0002				
3/29/2018	<0.0002	8.6E-05 (J)	<0.0002	7.4E-05 (J)		<0.0002
6/12/2018	<0.0002	<0.0002	<0.0002			
6/13/2018				<0.0002		<0.0002
10/9/2018	<0.0002	<0.0002	<0.0002			
10/10/2018				<0.0002		<0.0002
1/28/2019	<0.0002	<0.0002				
1/29/2019			<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
1/29/2020						<0.0002
3/9/2020	<0.0002	<0.0002				
3/10/2020			<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/17/2020						<0.0002
3/23/2021	<0.0002	<0.0002		<0.0002	<0.0002	
3/24/2021			<0.0002			<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.015		0.0026 (J)	<0.015		
5/6/2016						0.0021 (J)
6/20/2016	0.00031 (J)	0.0052 (J)	0.0014 (J)			
6/21/2016				<0.015		0.002 (J)
8/15/2016	<0.015	0.0022 (J)	0.0013 (J)	<0.015		
8/16/2016						0.0019 (J)
9/28/2016	<0.015	0.0018 (J)	0.0012 (J)	<0.015		0.0018 (J)
11/16/2016	<0.015	<0.015	<0.015	<0.015		<0.015
1/16/2017	<0.015					
1/17/2017		0.0011 (J)	<0.015	<0.015		
1/19/2017						0.0011 (J)
3/2/2017	<0.015	<0.015	<0.015	<0.015		0.0012 (J)
4/18/2017	<0.015	<0.015	<0.015	<0.015		0.0013 (J)
7/13/2017		<0.015				
3/29/2018	<0.015	<0.015	<0.015	<0.015		0.0017 (J)
6/12/2018	0.0012 (J)	0.0029 (J)	<0.015			
6/13/2018				<0.015		0.00087 (J)
10/9/2018	<0.015	<0.015	<0.015			
10/10/2018				<0.015		<0.015
1/28/2019	<0.015	<0.015				
1/29/2019			<0.015	<0.015	<0.015	<0.015
1/28/2020	0.00064 (J)	0.00085 (J)	0.00095 (J)	<0.015	0.0014 (J)	
1/29/2020						0.0015 (J)
3/9/2020	<0.015	0.0012 (J)				
3/10/2020			0.00093 (J)	<0.015	0.0012 (J)	<0.015
9/16/2020	0.0022 (J)	0.0019 (J)	0.00079 (J)	<0.015	0.0014 (J)	
9/17/2020						0.0012 (J)
3/23/2021	<0.015	0.00093 (J)		<0.015	0.00089 (J)	
3/24/2021			0.00089 (J)			0.0029 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00351 (J)	<0.015
5/6/2016		<0.015	<0.015		
6/21/2016	0.002 (J)	<0.015	<0.015	<0.015	<0.015
8/15/2016				<0.015	<0.015
8/16/2016	0.0012 (J)	<0.015	<0.015		
9/28/2016				<0.015	<0.015
9/29/2016	0.0014 (J)	<0.015	<0.015		
11/16/2016	<0.015	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015	<0.015
1/18/2017	<0.015	<0.015			
3/2/2017	<0.015	<0.015	<0.015	<0.015	<0.015
4/18/2017			<0.015	<0.015	0.0037 (J)
4/19/2017		<0.015			
4/25/2017	<0.015				
7/13/2017	<0.015				
3/29/2018	<0.015			<0.015	
3/30/2018		<0.015	<0.015		<0.015
6/12/2018	<0.015				
6/13/2018		<0.015	<0.015	<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015	<0.015
1/28/2020	<0.015			<0.015	
1/29/2020		<0.015	<0.015		<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015	<0.015
9/16/2020	0.0024 (J)	<0.015			
9/17/2020			<0.015	<0.015	<0.015
3/24/2021	<0.015	<0.015	<0.015	<0.015	<0.015



# Time Series

Constituent: pH (SU) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	5.94		7.4	7.13		
5/6/2016						6.64
6/20/2016	5.84 (D)	7.82	7.63			
6/21/2016				7.25		6.99
8/15/2016	5.65	7.52	7.54	7.04		
8/16/2016						6.48
9/28/2016	5.72	7.66	7.45	7.09		6.7
11/16/2016	5.65	7.51	7.39	7.6		6.66
1/16/2017	5.52					
1/17/2017		7.52	7.23	6.99		
1/19/2017						6.81
3/2/2017	5.53	7.5	7.55	6.95		6.75
4/18/2017	5.64	7.75	7.43	7.02		6.93
7/13/2017		7.72				
10/10/2017			5.62	7.27		6.99
10/11/2017	6.11	6.35				
3/29/2018	5.35	7.42	7.19	6.95		6.82
6/12/2018	6.23	8.02	7.55			
6/13/2018				7.08		7.01
10/9/2018	5.62 (D)	7.79 (D)	7.8 (D)			
10/10/2018				7.01 (D)		7.04 (D)
1/28/2019	5.49 (D)	7.4 (D)				
1/29/2019			7.63 (D)	6.55 (D)	6.93 (D)	6.87 (D)
3/25/2019	5.27 (D)	7.29 (D)	7.44 (D)		7.1 (D)	
3/26/2019				6.57 (D)		7.01 (D)
9/10/2019	5.97	7.54	7.41	6.99	7.15	7.09
1/28/2020	5.78	7.4	7.46	7.17	7.36	
1/29/2020						7.19
3/9/2020	5.46	7.58				
3/10/2020			7.3	7	7.04	7.11
9/16/2020	6.37	7.89	7.38	6.98	6.89	
9/17/2020						6.95
12/7/2020				7.2		
12/8/2020						7.41
3/23/2021	5	7.06		6.74	6.56	
3/24/2021			6.88			7.14

# Time Series

Constituent: pH (SU) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				7.81	5.96
5/6/2016		7.41	6.85		
6/21/2016	7.61	7.41	6.98	7.2	6
8/15/2016				7.04	5.26
8/16/2016	7.17	7.33	6.73		
9/28/2016				7	5.66
9/29/2016	6.97	7.42	6.81		
11/16/2016	7.03	7.87	6.69	6.73	5.33
1/17/2017			6.77	6.61	5.24
1/18/2017	7.01	7.49			
3/2/2017	7.02	7.37	6.79	6.62	5.21
4/18/2017			6.77	6.7	5.85
4/19/2017		7.48			
4/25/2017	7.02				
7/13/2017	7.17				
10/10/2017	7.24	7.29	7	6.48	5.6
3/29/2018	6.93			6.46	
3/30/2018		7.31	6.68		5.16
6/12/2018	7.29				
6/13/2018		7.37	6.83	6.24	5.79
10/10/2018	7.12 (D)	7.41 (D)	6.69 (D)	6.12 (D)	5.15 (D)
1/29/2019	8.02 (D)	7.03 (D)	6.42 (D)	5.93 (D)	5.46 (D)
3/26/2019	7.29 (D)	6.68 (D)	5.96 (D)	5.19 (D)	7.14 (D)
9/10/2019		7.26	6.67	6.03	5.1
1/28/2020	7.25			6.61	
1/29/2020		7.3	6.68		5.76
3/10/2020	7.53	7.3	6.87	6.54	5.5
9/16/2020	11.03	7.16			
9/17/2020			6.68	6.39	5.22
12/8/2020			7.04		
3/24/2021	7.15	7.24	6.73	6.26	6.71

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.005		<0.005	<0.005		
5/6/2016						<0.005
6/20/2016	<0.005	<0.005	<0.005			
6/21/2016				<0.005		<0.005
8/15/2016	0.00062 (J)	<0.005	<0.005	<0.005		
8/16/2016						<0.005
9/28/2016	0.0003 (J)	<0.005	<0.005	<0.005		<0.005
11/16/2016	<0.005	<0.005	<0.005	<0.005		<0.005
1/16/2017	<0.005					
1/17/2017		<0.005	<0.005	<0.005		
1/19/2017						<0.005
3/2/2017	<0.005	<0.005	<0.005	<0.005		<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005		<0.005
7/13/2017		<0.005				
3/29/2018	0.00027 (J)	<0.005	<0.005	<0.005		0.0005 (J)
6/12/2018	0.00076 (J)	0.00049 (J)	<0.005			
6/13/2018				<0.005		<0.005
10/9/2018	0.00054 (J)	<0.005	<0.005			
10/10/2018				<0.005		<0.005
1/28/2019	<0.005	<0.005				
1/29/2019			<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
1/29/2020						<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.005	<0.005
5/6/2016		<0.005	<0.005		
6/21/2016	<0.005	<0.005	<0.005	<0.005	<0.005
8/15/2016				<0.005	0.00033 (J)
8/16/2016	<0.005	<0.005	<0.005		
9/28/2016				<0.005	0.00038 (J)
9/29/2016	<0.005	<0.005	<0.005		
11/16/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/17/2017			<0.005	<0.005	<0.005
1/18/2017	<0.005	<0.005			
3/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2017			<0.005	<0.005	0.0024
4/19/2017		<0.005			
4/25/2017	<0.005				
7/13/2017	<0.005				
3/29/2018	0.00027 (J)			0.00026 (J)	
3/30/2018		0.00045 (J)	0.00044 (J)		0.00027 (J)
6/12/2018	<0.005				
6/13/2018		<0.005	<0.005	<0.005	<0.005
10/10/2018	<0.005	<0.005	<0.005	<0.005	<0.005
1/29/2019	<0.005	<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005			<0.005	
1/29/2020		<0.005	<0.005		<0.005

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	2.46		4.47	17.8		
5/6/2016						106
6/20/2016	2.5	1	7.7			
6/21/2016				17		210
8/15/2016	1.9	0.73 (J)	7.5	20		
8/16/2016						120
9/28/2016	1.9	<1	7.8	21		110
11/16/2016	1.7	<1	6.7	20		130
1/16/2017	<1					
1/17/2017		<1	6.7	19		
1/19/2017						160
3/2/2017	1.4	<1	5.6	15		130
4/18/2017	1.3	<1	5.1	14		120
7/13/2017		1.4				
10/10/2017	1.1	0.87 (J)	4.9	11		170
6/12/2018	0.82 (J)	4.1	3.8			
6/13/2018				8.7		130
10/9/2018	0.82 (J)	2.2	6.7			
10/10/2018				8.7		140
1/29/2019					7.08	
3/25/2019	<1	<1	3.4 (J)		1.8 (J)	
3/26/2019				6.3 (J)		130
9/10/2019	1.1	1.8	4.7	5.6	0.6 (J)	140
3/9/2020	4.2	3.4				
3/10/2020			5.2	5	2.4	140
9/16/2020	0.69 (J)	3	3.2	2.7	1	
9/17/2020						150
3/23/2021	<1	1.4		3.2	1.7	
3/24/2021			3.5			120

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				116	144
5/6/2016		445	94.2		
6/21/2016	4	290	95	170	160
8/15/2016				170	120
8/16/2016	2.8	270	88		
9/28/2016				170	130
9/29/2016	<1	280	94		
11/16/2016	3	280	97	170	130
1/17/2017			100	180	150
1/18/2017	4.1	280			
3/2/2017	4.6	240	100	180	160
4/18/2017			91	160	180
4/19/2017		250			
4/25/2017	4.4				
7/13/2017	4.8				
10/10/2017	4.9	240	110	180	260
6/12/2018	4.1				
6/13/2018		220	110	180	330
10/10/2018	2.5	220	110	190	410
3/26/2019	2.9 (J)	190	110	180	420
9/10/2019	2.5	180	110	180	420
3/10/2020	7.8	170	130	170	370
9/16/2020	4.4	160			
9/17/2020			120	160	380
3/24/2021	7.1	180	130	180	280

# Time Series

Constituent: TDS (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	78		129	281		
5/6/2016						282
6/20/2016	80	188	156			
6/21/2016				303		516
8/15/2016	58	180	160	310		
8/16/2016						360
9/28/2016	29	100	91	170		190
11/16/2016	140	270	250	340		410
1/16/2017	36					
1/17/2017		170	140	310		
1/19/2017						400
3/2/2017	78	210	170	330		360
4/18/2017	16	160	140	290		360
7/13/2017		150				
10/10/2017	78	210	190	310		480
6/12/2018	62	150	180			
6/13/2018				230		390
10/9/2018	68	150	170			
10/10/2018				300		260
1/29/2019					280	
3/25/2019	54	210	150		250	
3/26/2019				290		370
9/10/2019	14	160	110	260	230	360
3/9/2020	56	190				
3/10/2020			170	300	260	450
9/16/2020	44	150	150	300	320	
9/17/2020						460
3/23/2021	53	220		300	270	
3/24/2021			150			380

# Time Series

Constituent: TDS (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				272	287
5/6/2016		661	380		
6/21/2016	177	692	392	356	297
8/15/2016				330	230
8/16/2016	160	650	360		
9/28/2016				180	130
9/29/2016	190	640	380		
11/16/2016	240	680	420	330	290
1/17/2017			380	310	240
1/18/2017	180	630			
3/2/2017	170	660	410	340	270
4/18/2017			360	300	310
4/19/2017		600			
4/25/2017	170				
7/13/2017	150				
10/10/2017	160	600	400	340	450
6/12/2018	170				
6/13/2018		570	320	320	600
10/10/2018	48	470	300	270	410
3/26/2019	180	530	370	320	630
9/10/2019	140	470	360	260	660
3/10/2020	170	540	390	370	600
9/16/2020	190	530			
9/17/2020			410	320	740
3/24/2021	190	490	430	330	530



# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	<0.001	<0.001			
6/21/2016				0.0001 (J)		9E-05 (J)
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		9.5E-05 (J)
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		0.00014 (J)
6/12/2018	<0.001	<0.001	<0.001			
6/13/2018				<0.001		<0.001
10/9/2018	<0.001	<0.001	<0.001			
10/10/2018				<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00033 (J)	<0.001	0.00027 (J)	<0.001	
1/29/2020						0.00032 (J)
3/9/2020	0.00058 (J)	0.00036 (J)				
3/10/2020			0.00015 (J)	0.00019 (J)	<0.001	<0.001
9/16/2020	<0.001	0.00041 (J)	0.00018 (J)	0.00021 (J)	<0.001	
9/17/2020						0.00016 (J)
3/23/2021	0.00046 (J)	0.00051 (J)		0.00025 (J)	<0.001	
3/24/2021			<0.001			<0.001

# Time Series

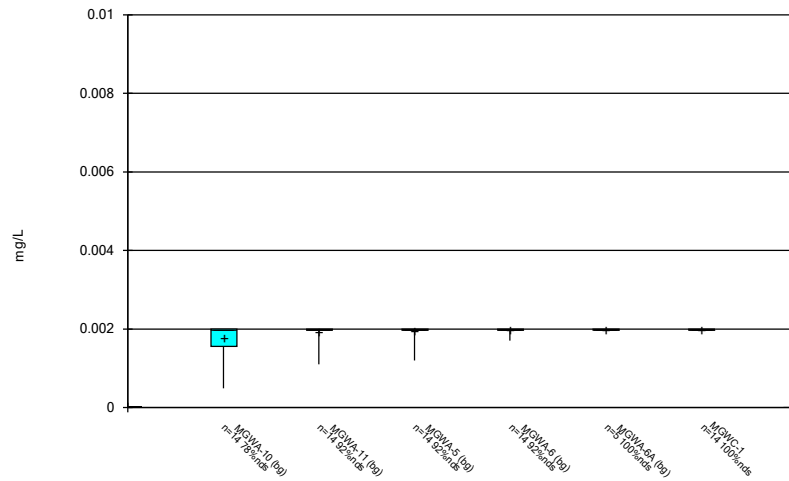
Constituent: Thallium (mg/L) Analysis Run 5/6/2021 9:41 AM View: Constituents

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	<0.001	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016				<0.001	0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	0.00014 (J)
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017			<0.001	<0.001	0.00016 (J)
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017			<0.001	<0.001	0.00019 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		0.00027 (J)
6/12/2018	<0.001				
6/13/2018		<0.001	<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		0.00021 (J)	0.00037 (J)		0.00042 (J)
3/10/2020	0.00015 (J)	<0.001	0.00016 (J)	<0.001	0.00025 (J)
9/16/2020	0.00027 (J)	<0.001			
9/17/2020			<0.001	<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001

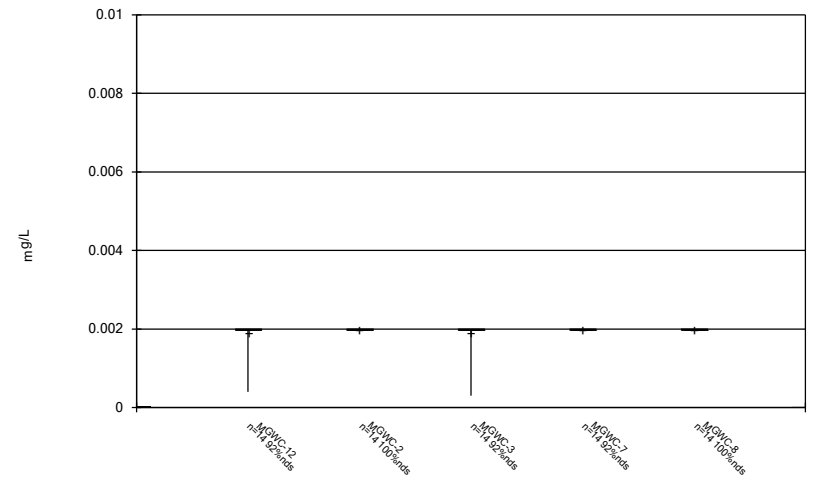
FIGURE B.

Box & Whiskers Plot



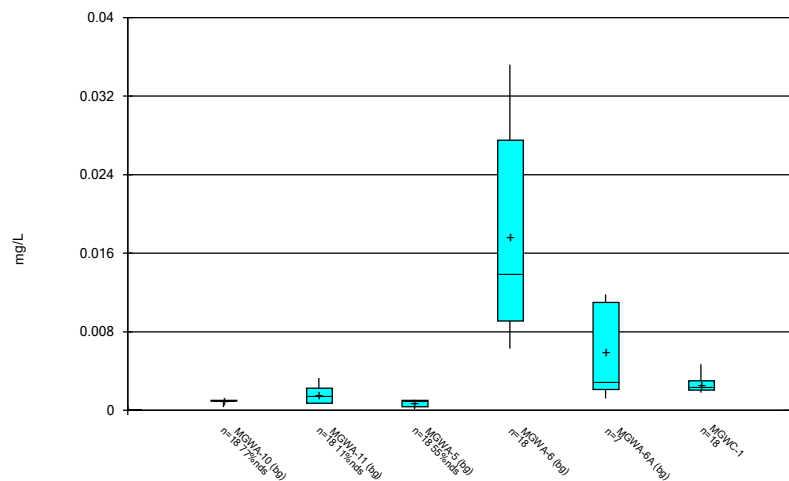
Constituent: Antimony Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



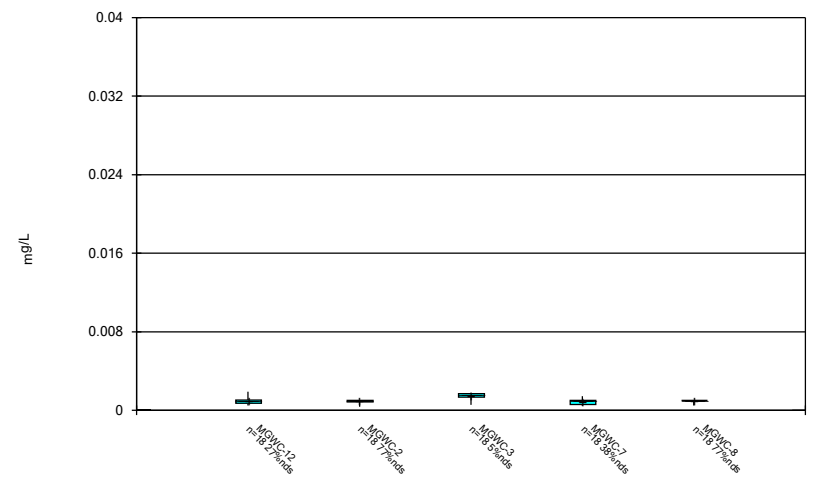
Constituent: Antimony Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



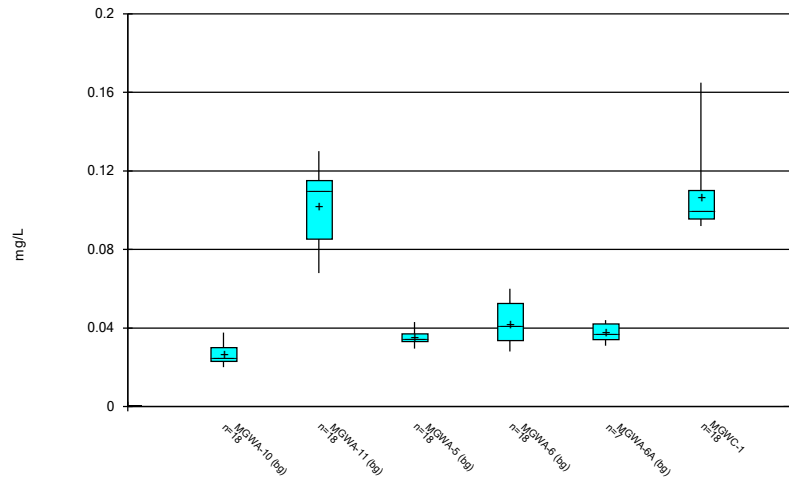
Constituent: Arsenic Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



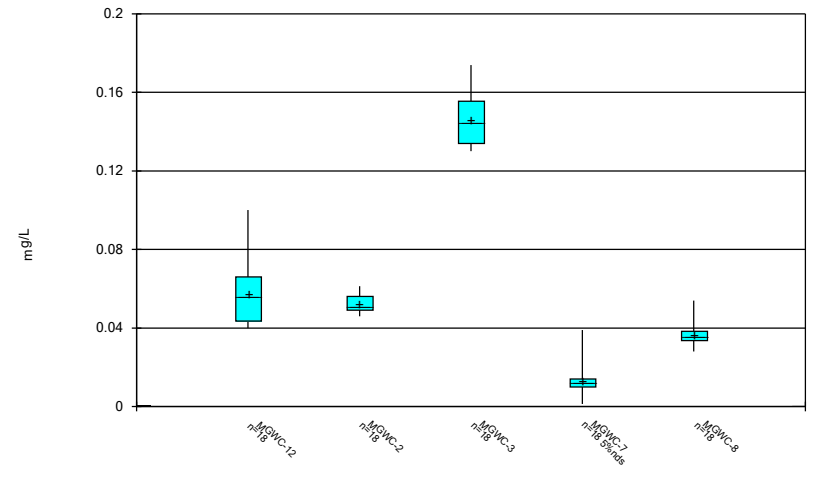
Constituent: Arsenic Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



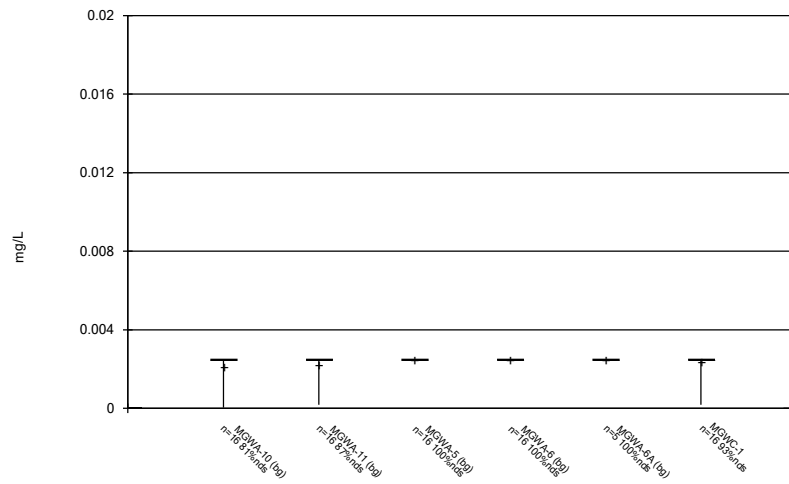
Constituent: Barium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



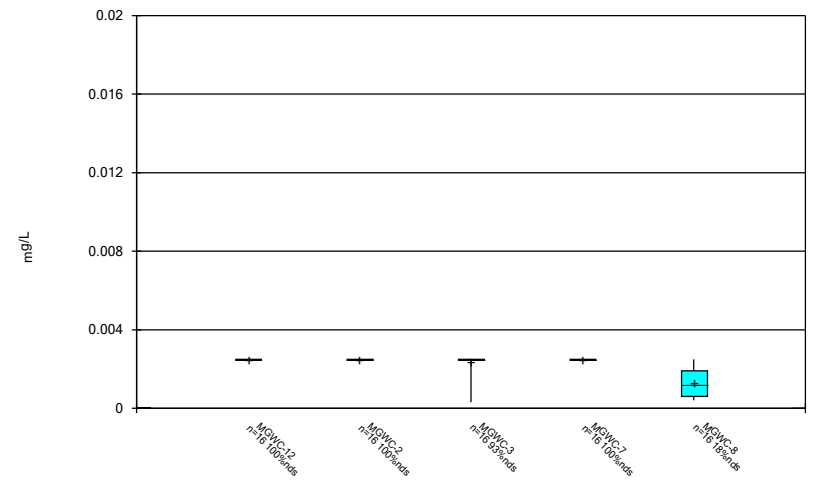
Constituent: Barium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



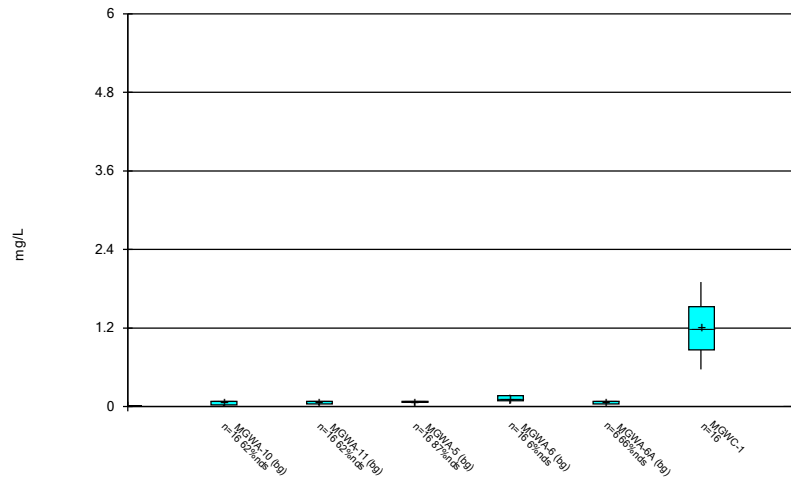
Constituent: Beryllium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



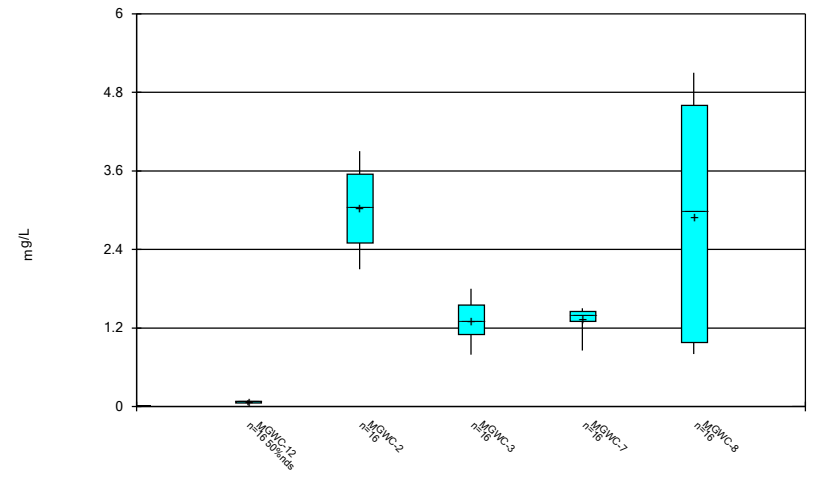
Constituent: Beryllium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



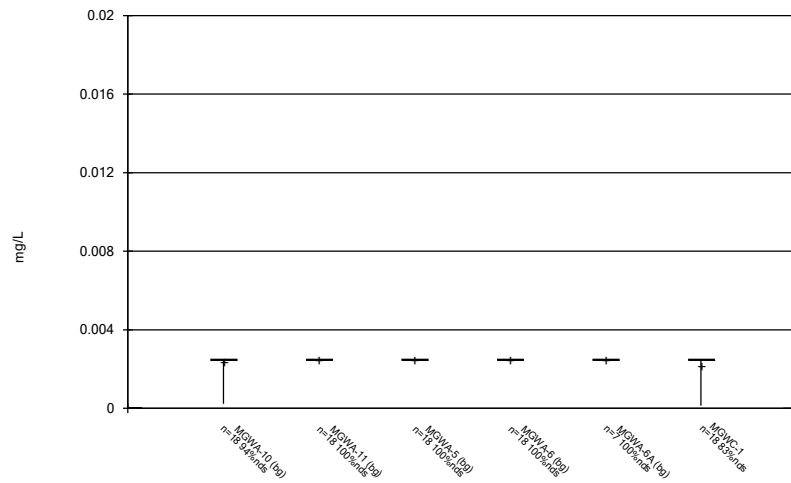
Constituent: Boron Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



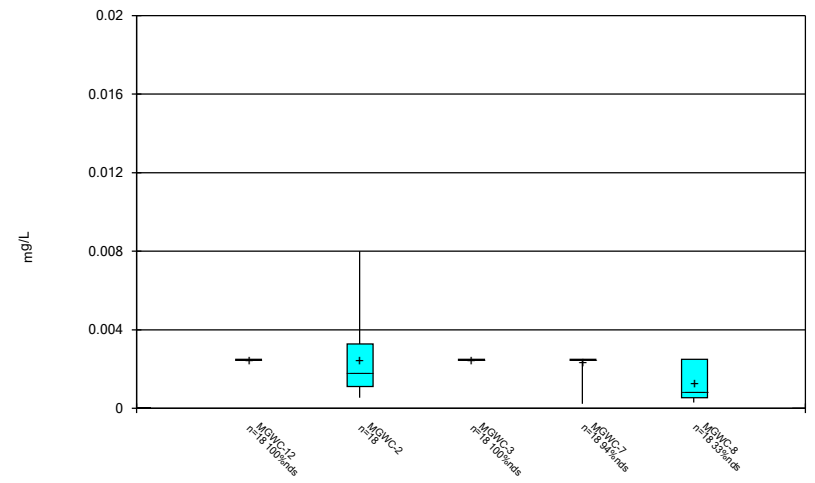
Constituent: Boron Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



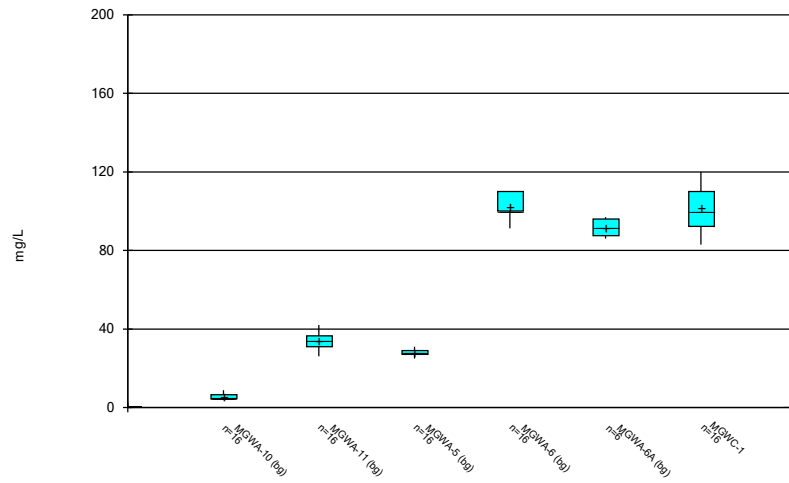
Constituent: Cadmium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



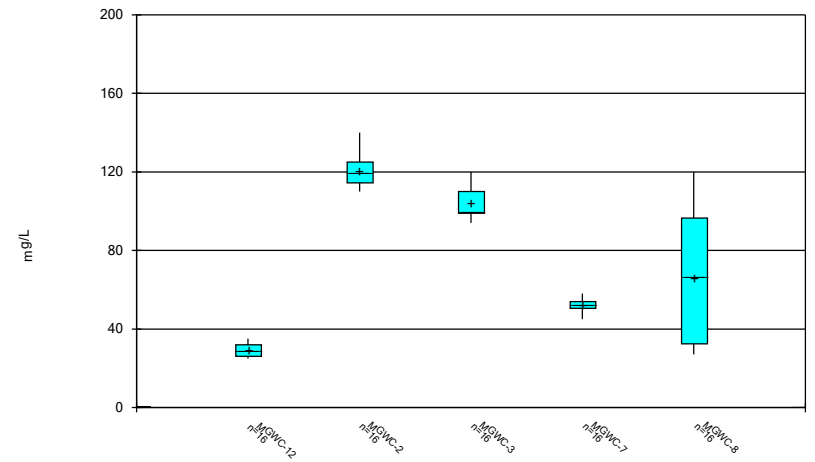
Constituent: Cadmium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



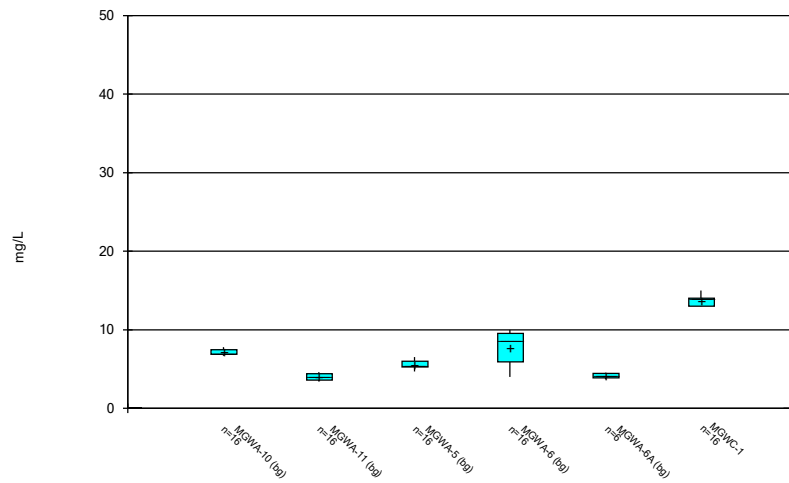
Constituent: Calcium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



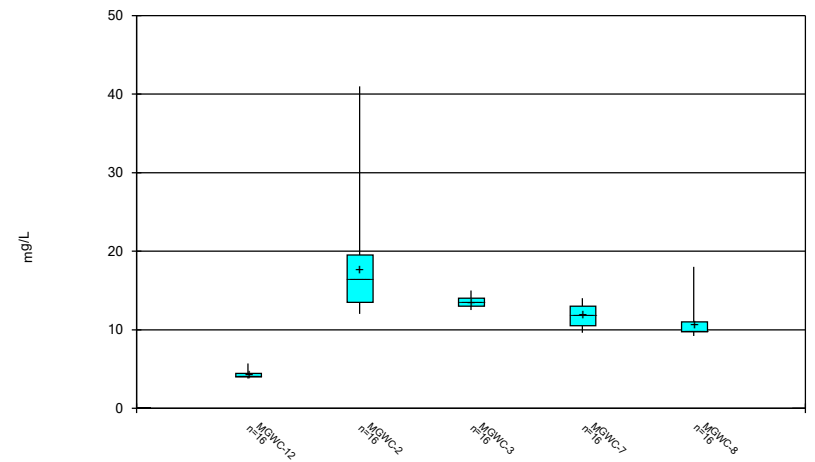
Constituent: Calcium Analysis Run 5/6/2021 9:42 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



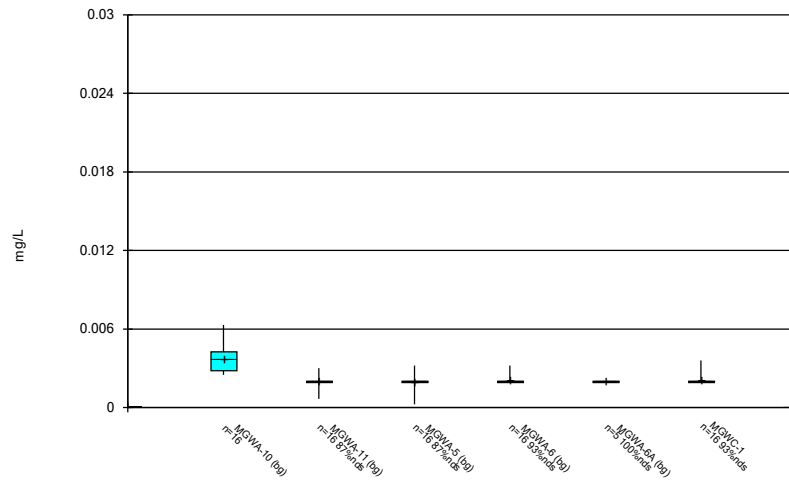
Constituent: Chloride Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



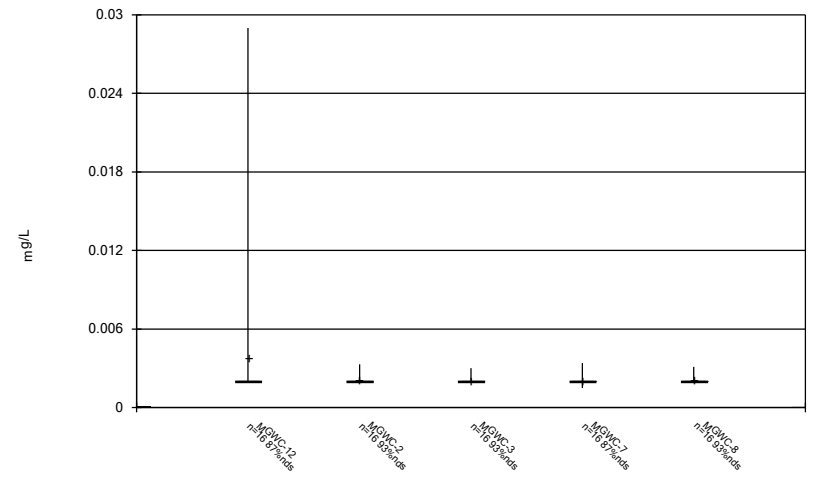
Constituent: Chloride Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



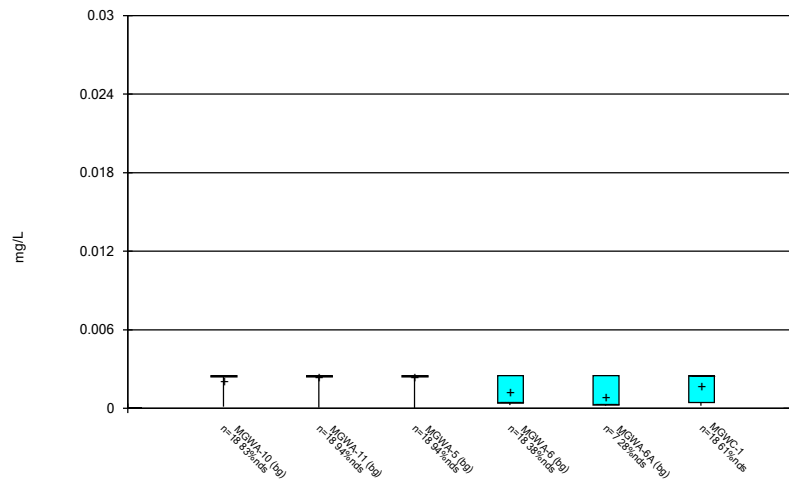
Constituent: Chromium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



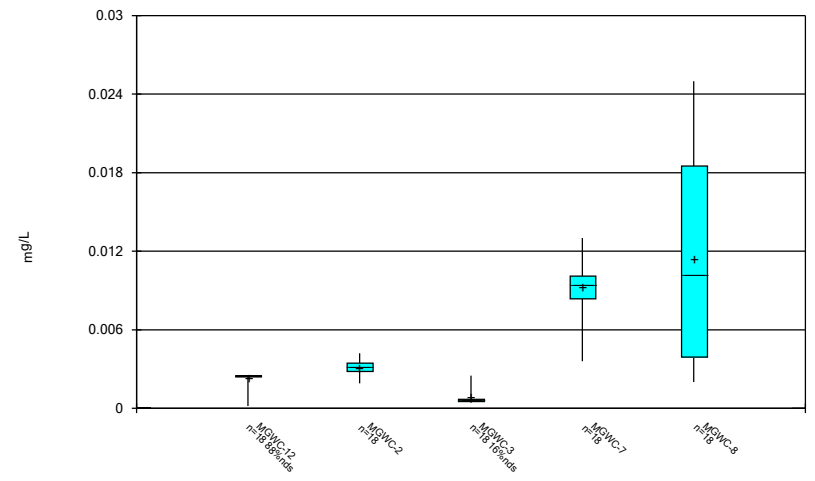
Constituent: Chromium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

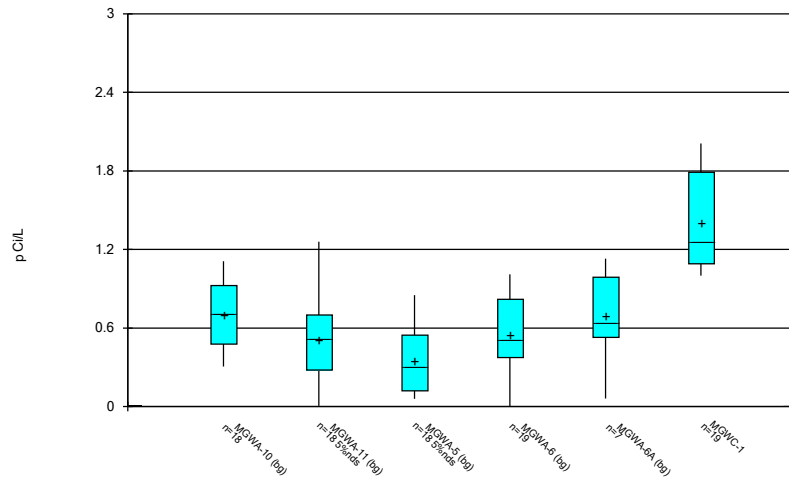
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

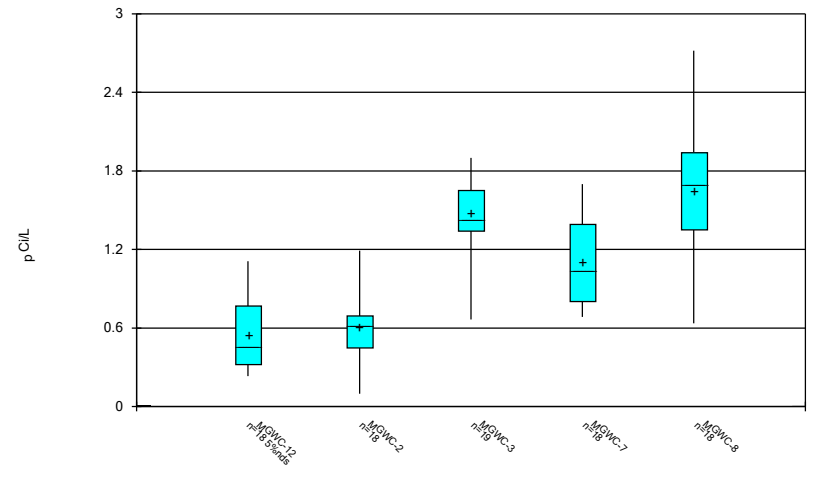


Box & Whiskers Plot



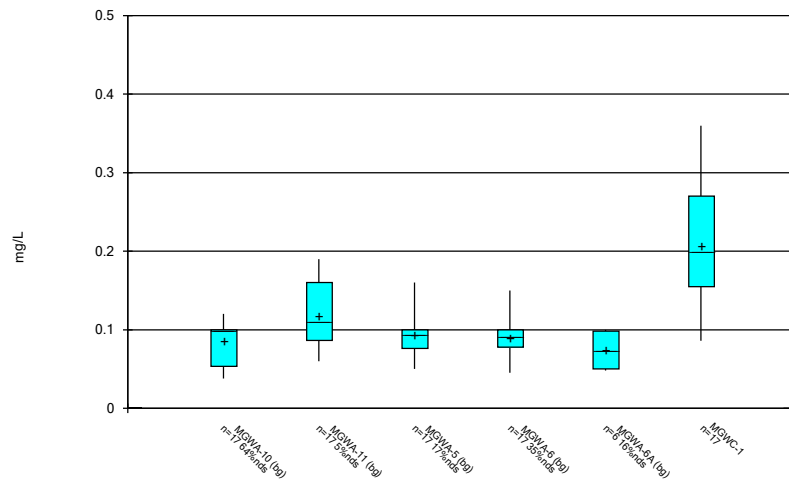
Constituent: Combined Radium 226 + 228 Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



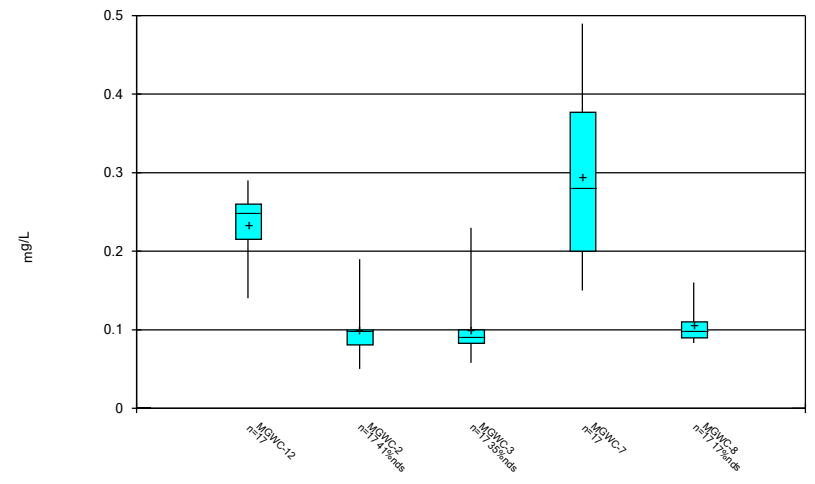
Constituent: Combined Radium 226 + 228 Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



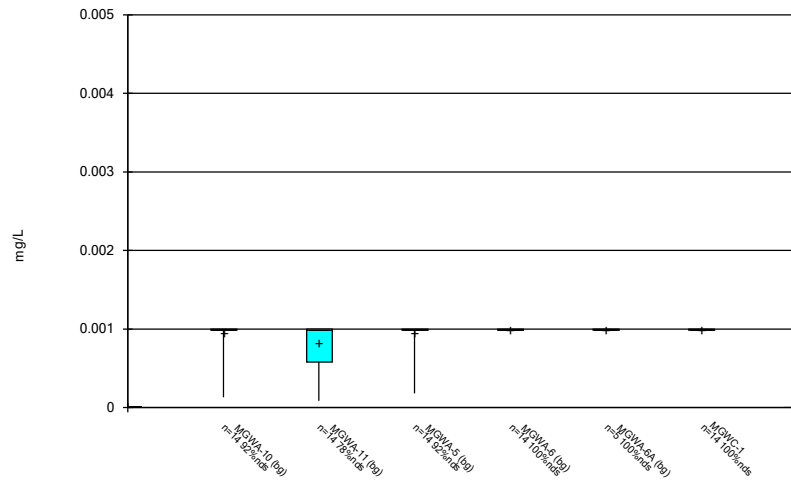
Constituent: Fluoride Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



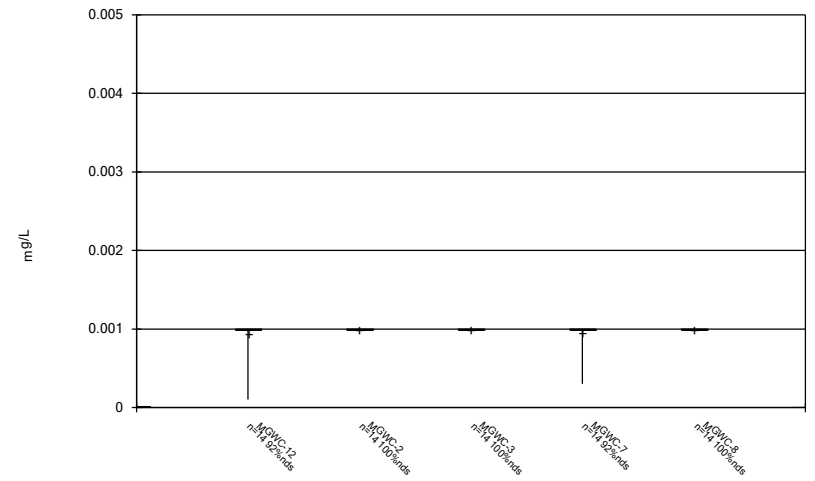
Constituent: Fluoride Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



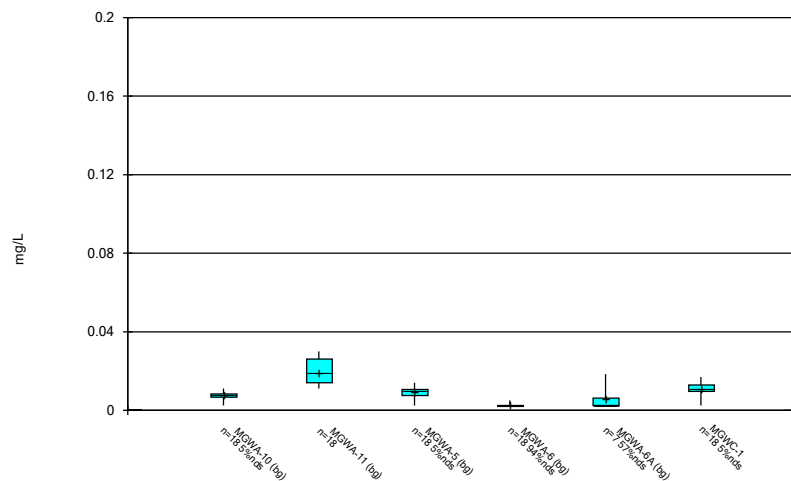
Constituent: Lead Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



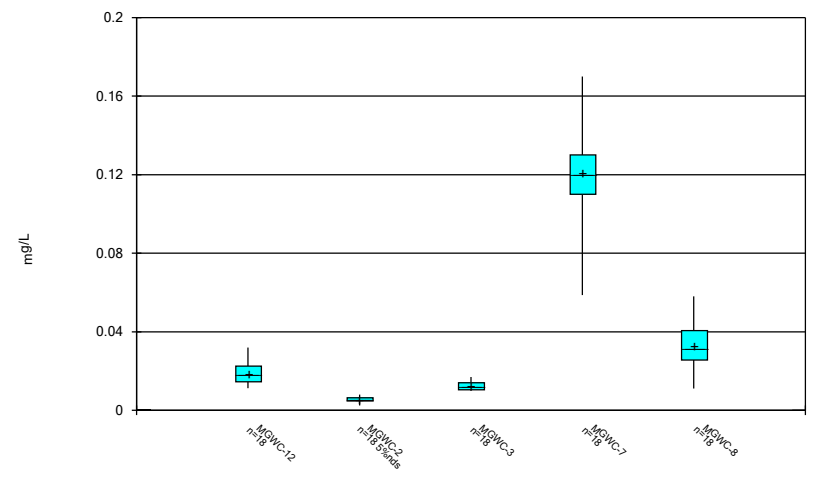
Constituent: Lead Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



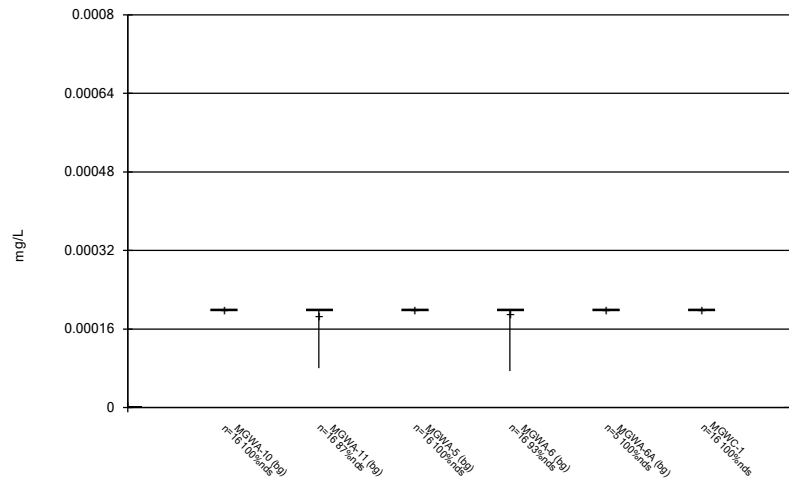
Constituent: Lithium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



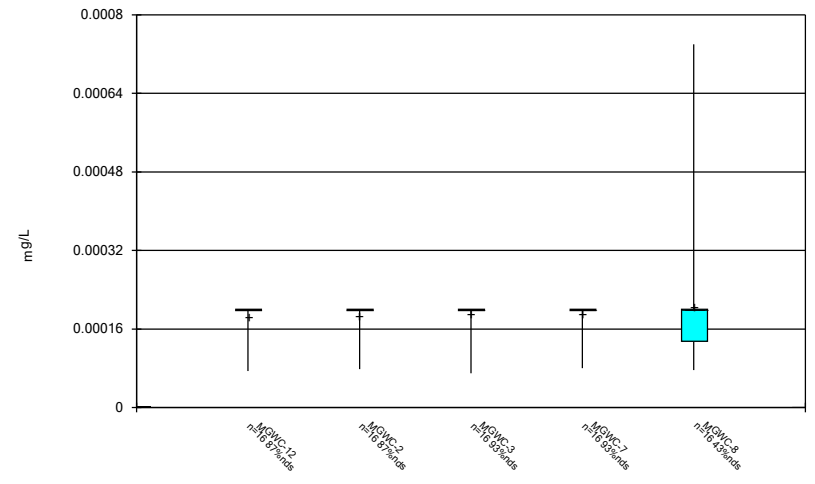
Constituent: Lithium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



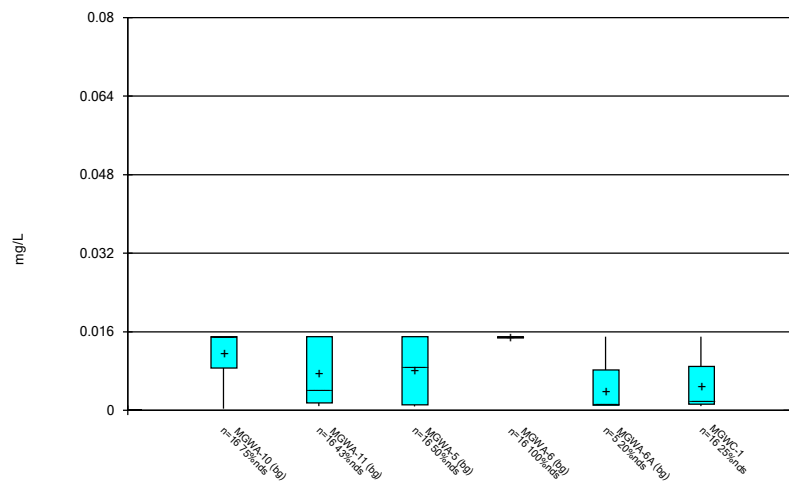
Constituent: Mercury Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



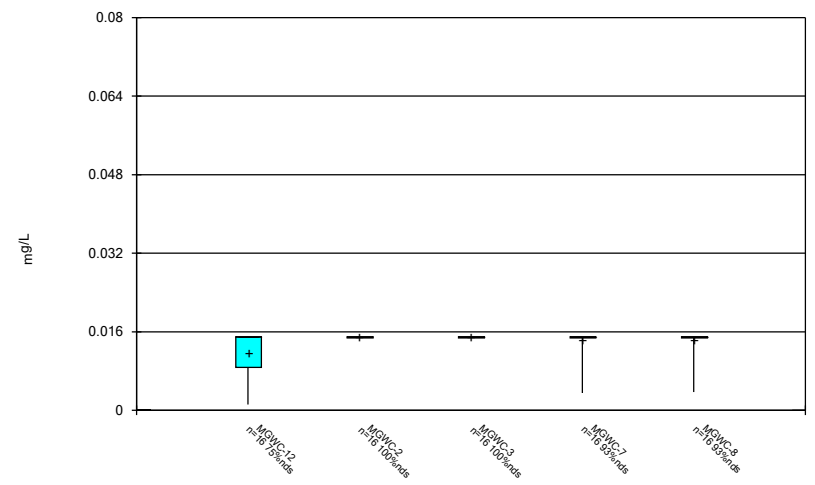
Constituent: Mercury Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



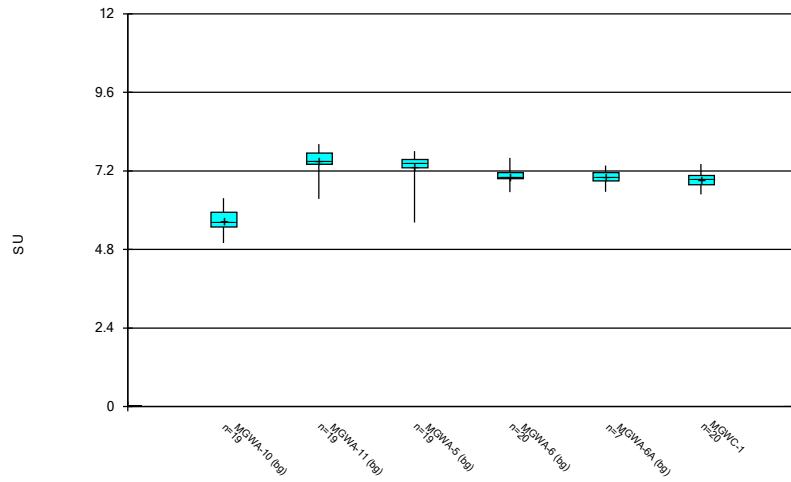
Constituent: Molybdenum Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



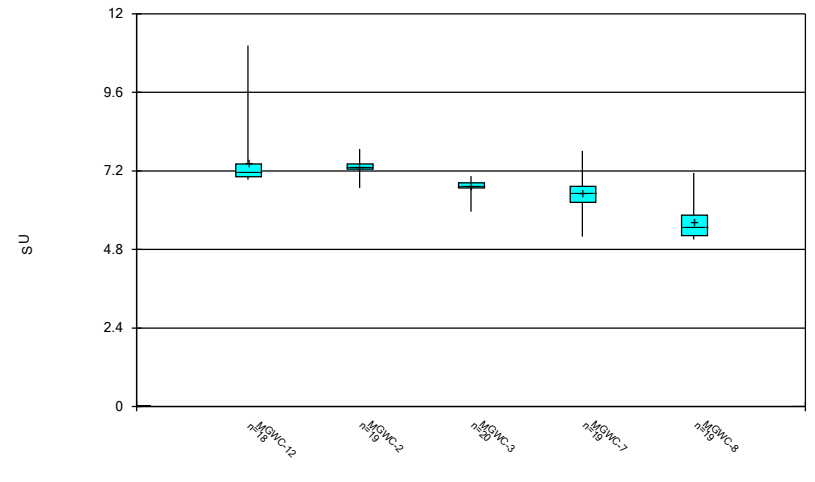
Constituent: Molybdenum Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



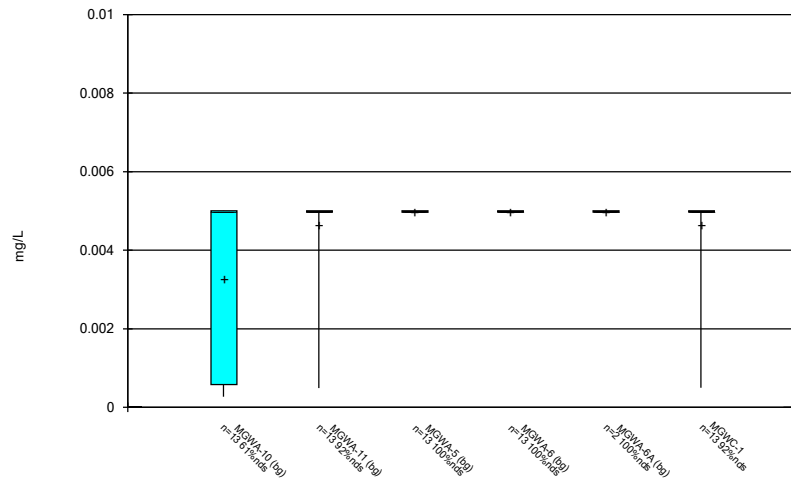
Constituent: pH Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



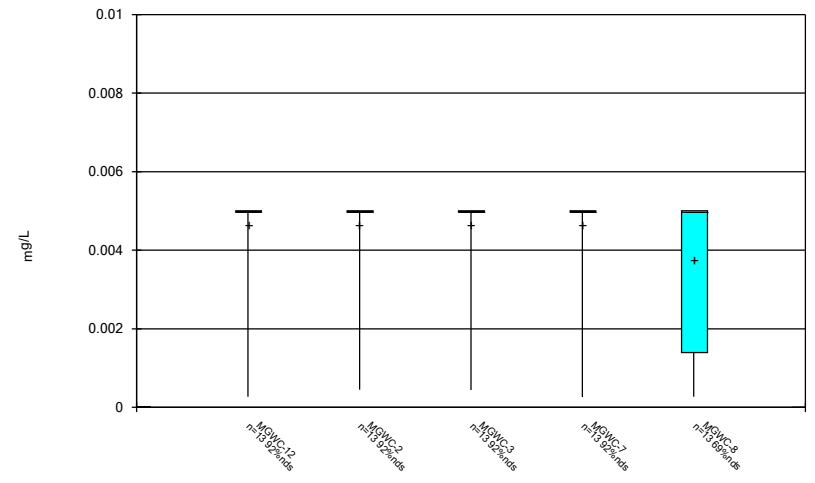
Constituent: pH Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



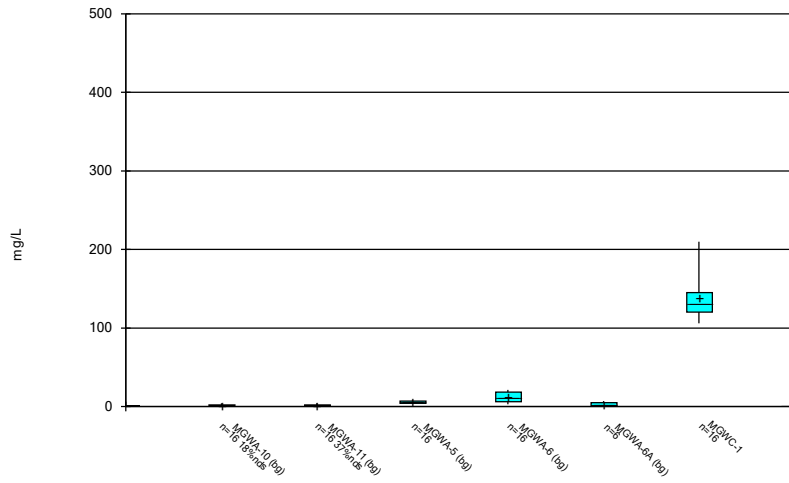
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



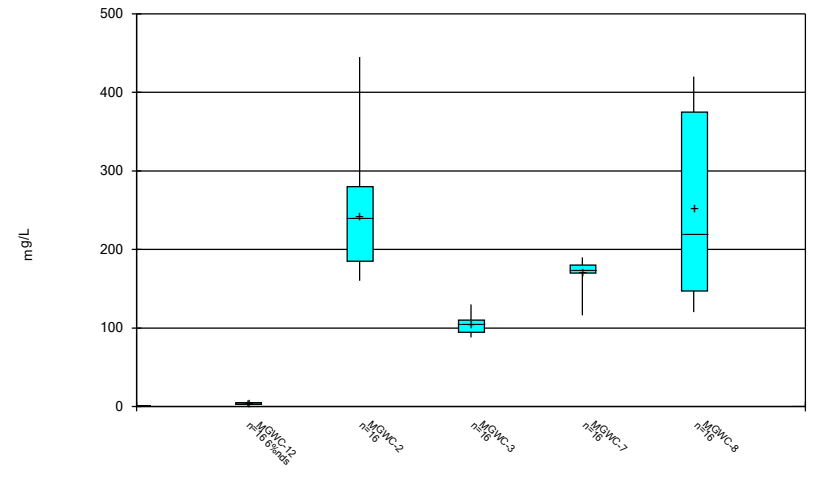
Constituent: Selenium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



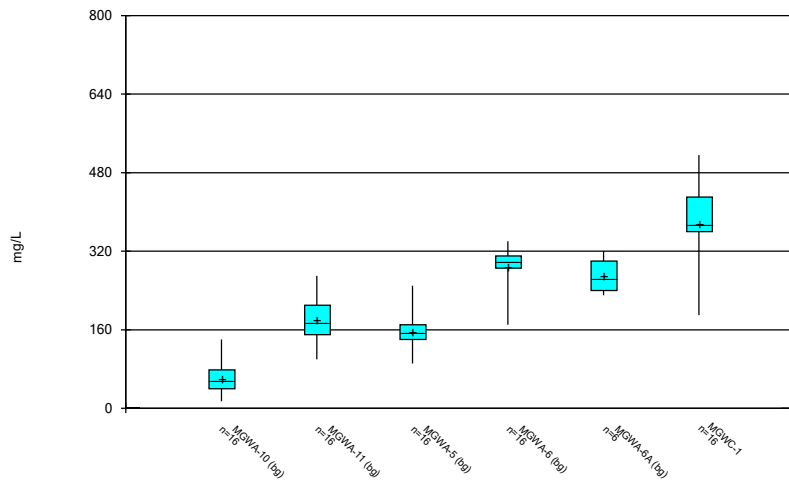
Constituent: Sulfate Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



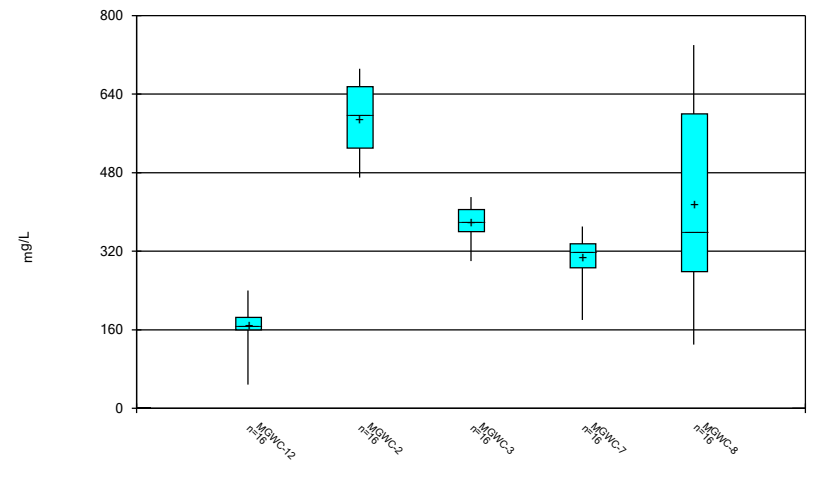
Constituent: Sulfate Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



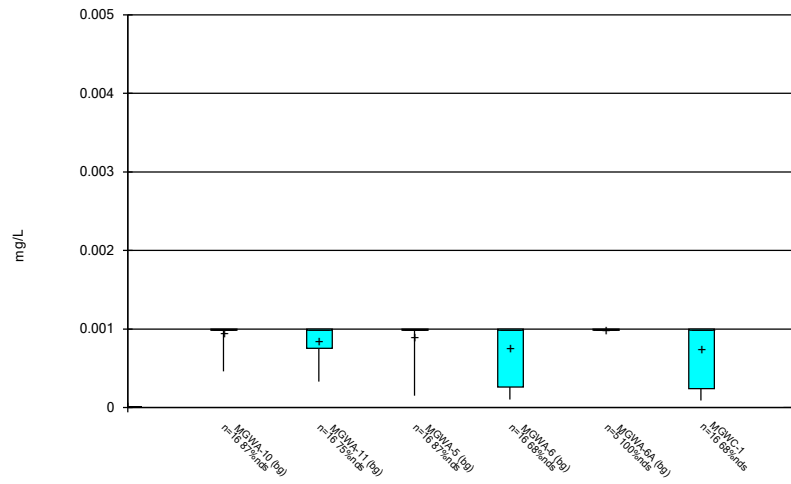
Constituent: TDS Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



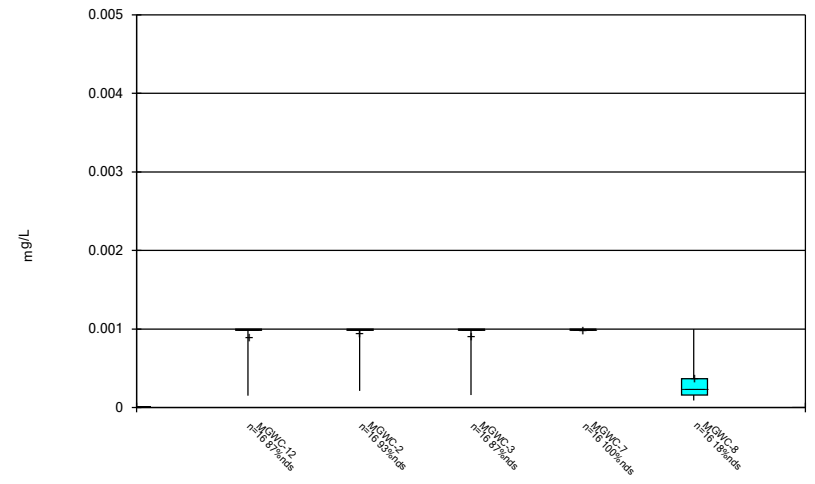
Constituent: TDS Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/6/2021 9:43 AM View: Constituents  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE C.

# Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 9:44 AM

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MGWC-12 pH (SU)

9/10/2019

10.96 (o)



FIGURE D.

# Appendix III Interwell Prediction Limit - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 9:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MGWC-1	0.18	n/a	3/24/2021	0.57	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	3/24/2021	2.4	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	3/24/2021	1.2	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	3/24/2021	1.5	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	3/24/2021	3.6	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.599	n/a	3/24/2021	13	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.599	n/a	3/24/2021	10	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.599	n/a	3/24/2021	18	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	3/24/2021	0.35	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MGWC-1	22.41	n/a	3/24/2021	120	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	22.41	n/a	3/24/2021	180	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	22.41	n/a	3/24/2021	130	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	22.41	n/a	3/24/2021	180	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	22.41	n/a	3/24/2021	280	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	348.4	n/a	3/24/2021	380	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	348.4	n/a	3/24/2021	490	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	348.4	n/a	3/24/2021	430	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	348.4	n/a	3/24/2021	530	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2

# Appendix III Interwell Prediction Limit - All Results

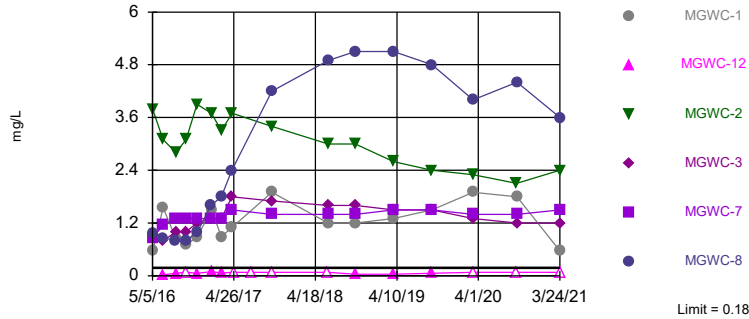
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 9:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Boron (mg/L)</b>	<b>MGWC-1</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.57</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-12	0.18	n/a	3/24/2021	0.08ND	No	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>2.4</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-3	0.18	n/a	3/24/2021	1.2	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.18</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>1.5</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>55.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-8	0.18	n/a	3/24/2021	3.6	Yes	70	n/a	55.71	n/a	n/a	0.0003873	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	3/24/2021	100	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-12	110	n/a	3/24/2021	32	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-2</b>	<b>110</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MGWC-3	110	n/a	3/24/2021	120	Yes	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	3/24/2021	51	No	70	n/a	0	n/a	n/a	0.0003873	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-8</b>	<b>110</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003873</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	MGWC-1	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-12	9.599	n/a	3/24/2021	5.7	No	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>9.599</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>13</b>	<b>Yes</b>	<b>70</b>	<b>0.3688</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-3	9.599	n/a	3/24/2021	14	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>9.599</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>10</b>	<b>Yes</b>	<b>70</b>	<b>0.3688</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-8	9.599	n/a	3/24/2021	18	Yes	70	0.3688	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>MGWC-1</b>	<b>0.19</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.27</b>	<b>Yes</b>	<b>74</b>	<b>n/a</b>	<b>29.73</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003519</b>	<b>NP Inter (normality) 1 of 2</b>
Fluoride (mg/L)	MGWC-12	0.19	n/a	3/24/2021	0.27	Yes	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	3/24/2021	0.11	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	3/24/2021	0.092J	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
<b>Fluoride (mg/L)</b>	<b>MGWC-7</b>	<b>0.19</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>0.35</b>	<b>Yes</b>	<b>74</b>	<b>n/a</b>	<b>29.73</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003519</b>	<b>NP Inter (normality) 1 of 2</b>
Fluoride (mg/L)	MGWC-8	0.19	n/a	3/24/2021	0.11	No	74	n/a	29.73	n/a	n/a	0.0003519	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.897	4.559	3/24/2021	7.14	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.897	4.559	3/24/2021	7.15	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.897	4.559	3/24/2021	7.24	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.897	4.559	3/24/2021	6.73	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.897	4.559	3/24/2021	6.26	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.897	4.559	3/24/2021	6.71	No	84	63043	0	None	x^6	0.0006268	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-1</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>120</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-12	22.41	n/a	3/24/2021	7.1	No	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>180</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-3	22.41	n/a	3/24/2021	130	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-7</b>	<b>22.41</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>180</b>	<b>Yes</b>	<b>70</b>	<b>1.121</b>	<b>12.86</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-8	22.41	n/a	3/24/2021	280	Yes	70	1.121	12.86	None	ln(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-1</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>380</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-12	348.4	n/a	3/24/2021	190	No	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>490</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-3	348.4	n/a	3/24/2021	430	Yes	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	348.4	n/a	3/24/2021	330	No	70	90.53	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>348.4</b>	<b>n/a</b>	<b>3/24/2021</b>	<b>530</b>	<b>Yes</b>	<b>70</b>	<b>90.53</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>

Sanitas™ v.9.6.28 . UG  
Hollow symbols indicate censored values.

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Non-parametric



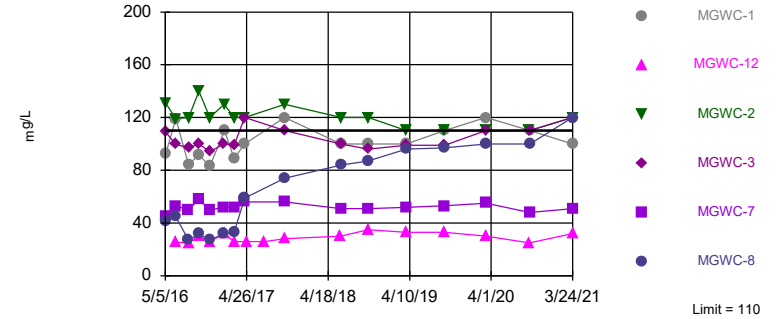
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 55.71% NDs. Annual per-constituent alpha = 0.004638. Individual comparison alpha = 0.0003873 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.28 . UG

Exceeds Limit: MGWC-2, MGWC-3, MGWC-8

Prediction Limit  
Interwell Non-parametric



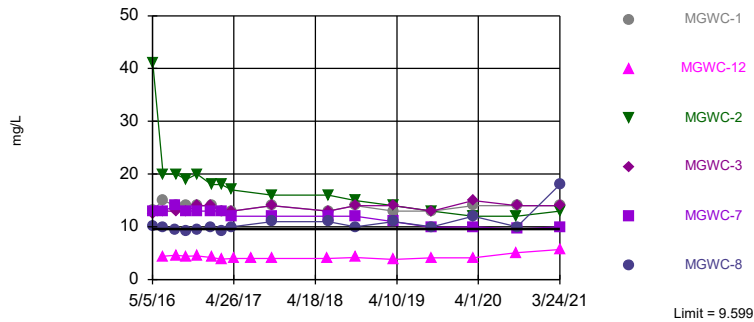
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.004638. Individual comparison alpha = 0.0003873 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.28 . UG

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Parametric



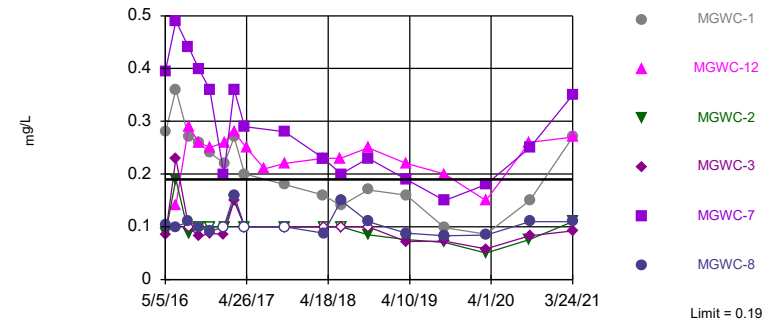
Background Data Summary (based on square root transformation): Mean=2.409, Std. Dev.=0.3688, n=70. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9662, critical = 0.952. Kappa = 1.868 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Chloride Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sanitas™ v.9.6.28 . UG  
Hollow symbols indicate censored values.

Exceeds Limit: MGWC-1, MGWC-12, MGWC-7

Prediction Limit  
Interwell Non-parametric

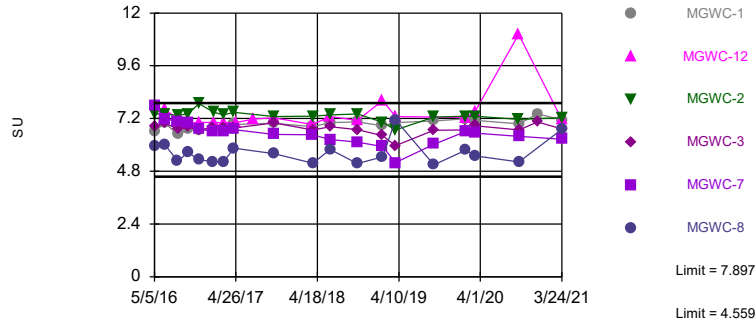


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 74 background values. 29.73% NDs. Annual per-constituent alpha = 0.004215. Individual comparison alpha = 0.0003519 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Within Limits

### Prediction Limit Interwell Parametric



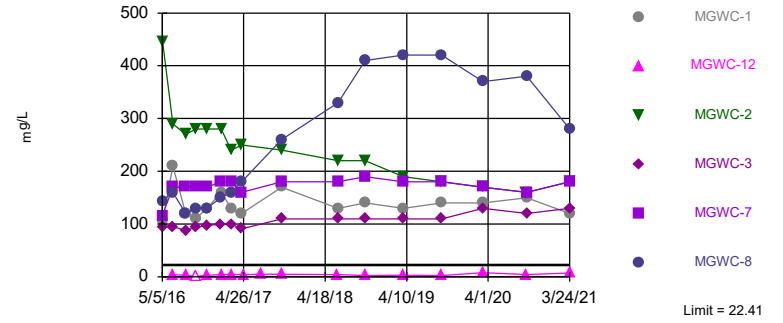
Background Data Summary (based on x<sup>6</sup> transformation): Mean=125775, Std. Dev.=63043, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9631, critical = 0.96. Kappa = 1.853 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

Constituent: pH Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

### Prediction Limit Interwell Parametric

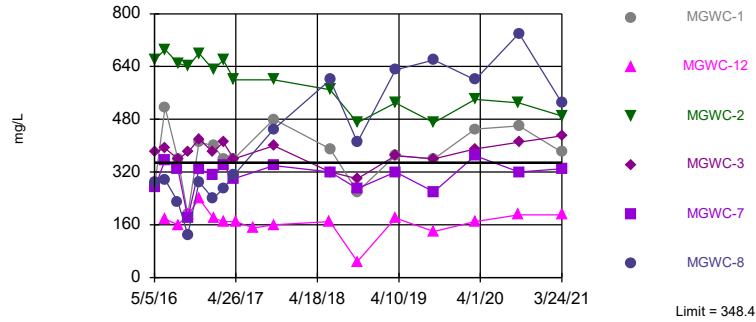


Background Data Summary (based on natural log transformation): Mean=1.016, Std. Dev.=1.121, n=70, 12.86% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9697, critical = 0.952. Kappa = 1.868 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-8

### Prediction Limit Interwell Parametric



Background Data Summary: Mean=179.3, Std. Dev.=90.53, n=70. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9689, critical = 0.952. Kappa = 1.868 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 5/6/2021 9:45 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-8	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	<0.08	0.157	<0.08	0.976	0.855				
5/6/2016						0.567	0.926	3.78	
6/20/2016	0.011 (J)		0.013 (J)						0.017 (J)
6/21/2016		0.124		0.862	1.15	1.55	0.792	3.1	
8/15/2016	0.022 (J)	0.18	0.023 (J)	0.8	1.3				0.032 (J)
8/16/2016						0.85	1	2.8	
9/28/2016	0.023 (J)	0.17	<0.08	0.8	1.3	0.7			0.021 (J)
9/29/2016							1	3.1	
11/16/2016	<0.08	0.17	<0.08	0.98	1.3	0.88	1.2	3.9	<0.08
1/16/2017	0.021 (J)								
1/17/2017		0.17	<0.08	1.6	1.3		1.3		<0.08
1/18/2017								3.7	
1/19/2017						1.5			
3/2/2017	<0.08	0.14	<0.08	1.8	1.3	0.89	1.3	3.3	<0.08
4/18/2017	<0.08	0.14	<0.08	2.4	1.5	1.1	1.8		<0.08
4/19/2017								3.7	
4/25/2017									
7/13/2017									<0.08
10/10/2017	0.021 (J)	0.12	<0.08	4.2	1.4	1.9	1.7	3.4	0.025 (J)
6/12/2018	<0.08		<0.08						<0.08
6/13/2018		0.11		4.9	1.4	1.2	1.6	3	
10/9/2018	<0.08		<0.08						<0.08
10/10/2018		0.096 (J)		5.1	1.4	1.2	1.6	3	
1/29/2019									
3/25/2019	<0.08		<0.08						<0.08
3/26/2019		0.079 (J)		5.1	1.5	1.3	1.5	2.6	
9/10/2019	<0.08	0.097	<0.08	4.8	1.5	1.5	1.5	2.4	<0.08
3/9/2020	0.045 (J)								<0.08
3/10/2020		0.051 (J)	<0.08	4	1.4	1.9	1.3	2.3	
9/16/2020	<0.08	0.041 (J)	<0.08					2.1	0.045 (J)
9/17/2020				4.4	1.4	1.8	1.2		
3/23/2021	<0.08	<0.08							0.047 (J)
3/24/2021			<0.08	3.6	1.5	0.57	1.2	2.4	

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.0201 (J)	
8/15/2016		
8/16/2016	0.055	
9/28/2016		
9/29/2016	<0.08	
11/16/2016	0.055	
1/16/2017		
1/17/2017		
1/18/2017	0.097	
1/19/2017		
3/2/2017	0.064	
4/18/2017		
4/19/2017		
4/25/2017	<0.08	
7/13/2017	<0.08	
10/10/2017	<0.08	
6/12/2018	<0.08	
6/13/2018		
10/9/2018		
10/10/2018	0.034 (J)	
1/29/2019		<0.08
3/25/2019		<0.08
3/26/2019	0.032 (J)	
9/10/2019	0.06 (J)	0.04 (J)
3/9/2020		
3/10/2020	<0.08	<0.08
9/16/2020	<0.08	0.04 (J)
9/17/2020		
3/23/2021		<0.08
3/24/2021	<0.08	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-8	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	8.83	105	27	41.2	45				
5/6/2016						92.5	109	131	
6/20/2016	8.1		29.4						35.5
6/21/2016		91.2		44.7	52.8	119	99.7	119	
8/15/2016	6.1	94	26	27	50				34
8/16/2016						84	97	120	
9/28/2016	7.2	110	31	32	58	92			38
9/29/2016							100	140	
11/16/2016	5.2	98	26	27	50	83	94	120	33
1/16/2017	3.8								
1/17/2017		100	29	32	52		100		34
1/18/2017								130	
1/19/2017						110			
3/2/2017	5.4	100	28	33	52	89	99	120	35
4/18/2017	5	110	27	59	56	100	120		33
4/19/2017								120	
4/25/2017									
7/13/2017									30
10/10/2017	4.8	110	31	74	56	120	110	130	39
6/12/2018	4.8		25						26
6/13/2018		100		84	51	100	100	120	
10/9/2018	4.5		29						29
10/10/2018		100		87	51	100	96	120	
1/29/2019									
3/25/2019	4.6		27						37
3/26/2019		100		96	52	100	99	110	
9/10/2019	4.9	110	27	97	53	110	99	110	36
3/9/2020	4								32
3/10/2020		100	29	100	55	120	110	110	
9/16/2020	6.8	100	28					110	30
9/17/2020				100	48	110	110		
3/23/2021	4	110							42
3/24/2021			28	120	51	100	120	120	



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	25.5	
8/15/2016		
8/16/2016	25	
9/28/2016		
9/29/2016	30	
11/16/2016	26	
1/16/2017		
1/17/2017		
1/18/2017	32	
1/19/2017		
3/2/2017	26	
4/18/2017		
4/19/2017		
4/25/2017	26	
7/13/2017	26	
10/10/2017	28	
6/12/2018	30	
6/13/2018		
10/9/2018		
10/10/2018	35	
1/29/2019		95.1
3/25/2019		89
3/26/2019	33	
9/10/2019	33	86
3/9/2020		
3/10/2020	30	90
9/16/2020	25	93
9/17/2020		
3/23/2021		97
3/24/2021	32	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-8	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	7.35	9.67	6.51	10.1	13				
5/6/2016						13.2	12.5	41	
6/20/2016	7		5.9						4.3
6/21/2016		9.2		10	13	15	13	20	
8/15/2016	7.5	10	6.4	9.5	14				4.1
8/16/2016						14	13	20	
9/28/2016	7	10	6.1	9.2	13	14			3.9
9/29/2016							13	19	
11/16/2016	7.5	10	6.1	9.5	13	14	14	20	4.1
1/16/2017	7.7								
1/17/2017		9.4	5.7	10	13		14		3.9
1/18/2017								18	
1/19/2017						14			
3/2/2017	6.9	8.6	5.3	9.3	13	13	13	18	3.5
4/18/2017	6.8	8.9	5.3	10	12	13	13		3.7
4/19/2017								17	
4/25/2017									
7/13/2017									4.2
10/10/2017	6.9	8.3	5.3	11	12	14	14	16	3.4
6/12/2018	6.7		5.1						4.6
6/13/2018		7		11	12	13	13	16	
10/9/2018	7.1		5.6						4.5
10/10/2018		6.9		10	12	14	14	15	
1/29/2019									
3/25/2019	6.8		4.7						3.4
3/26/2019		5.8		11	11	13	14	14	
9/10/2019	7	6	5.1	10	9.9	13	13	13	3.5
3/9/2020	7.4								4.5
3/10/2020		5.1	5.4	12	10	14	15	12	
9/16/2020	7	4.3	5.2					12	4.6
9/17/2020				10	9.6	14	14		
3/23/2021	7.8	4							3.8
3/24/2021			5.5	18	10	14	14	13	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4.4	
8/15/2016		
8/16/2016	4.6	
9/28/2016		
9/29/2016	4.4	
11/16/2016	4.5	
1/16/2017		
1/17/2017		
1/18/2017	4.2	
1/19/2017		
3/2/2017	3.9	
4/18/2017		
4/19/2017		
4/25/2017	4	
7/13/2017	4	
10/10/2017	4	
6/12/2018	4	
6/13/2018		
10/9/2018		
10/10/2018	4.2	
1/29/2019		4.51
3/25/2019		4.4
3/26/2019	3.8	
9/10/2019	4.1	4.2
3/9/2020		
3/10/2020	4.1	4
9/16/2020	5.1	3.7
9/17/2020		
3/23/2021		4.1
3/24/2021	5.7	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWC-8	MGWA-5 (bg)	MGWC-7	MGWC-2	MGWC-3	MGWC-1	MGWA-11 (bg)
5/5/2016	0.046 (J)	0.091 (J)	0.103 (J)	0.132 (J)	0.394				
5/6/2016						0.088 (J)	0.086 (J)	0.28 (J)	
6/20/2016	<0.1			0.05 (J)					0.06 (J)
6/21/2016		0.08 (J)	0.1 (J)		0.49	0.19 (J)	0.23 (J)	0.36	
8/15/2016	<0.1	<0.1	0.11 (J)	0.1 (J)	0.44				0.1 (J)
8/16/2016						0.087 (J)	<0.1	0.27	
9/28/2016	<0.1	0.084 (J)	0.1 (J)	0.11 (J)	0.4			0.26	0.097 (J)
9/29/2016						<0.1	0.082 (J)		
11/16/2016	<0.1	0.084 (J)	0.091 (J)	0.093 (J)	0.36	<0.1	0.087 (J)	0.24	0.12 (J)
1/16/2017	<0.1								
1/17/2017		0.099 (J)	<0.1	0.095 (J)	0.2		0.086 (J)		0.11 (J)
1/18/2017						<0.1			
1/19/2017								0.22	
3/2/2017	0.12 (J)	0.15 (J)	0.16 (J)	0.16 (J)	0.36	0.15 (J)	0.15 (J)	0.27	0.18 (J)
4/18/2017	<0.1	<0.1	<0.1	<0.1	0.29		<0.1	0.2	0.11 (J)
4/19/2017						<0.1			
4/25/2017									
7/13/2017									0.12 (J)
10/10/2017	<0.1	<0.1	<0.1	<0.1	0.28	<0.1	<0.1	0.18 (J)	0.086 (J)
3/29/2018	<0.1	<0.1		0.084 (J)	0.23			0.16 (J)	<0.1
3/30/2018			0.088 (J)			<0.1	<0.1		
6/12/2018	<0.1			<0.1					0.16 (J)
6/13/2018		<0.1	0.15 (J)		0.2	<0.1	<0.1	0.14 (J)	
10/9/2018	<0.1			0.086 (J)					0.16 (J)
10/10/2018		<0.1	0.11 (J)		0.23	0.085 (J)	<0.1	0.17 (J)	
1/29/2019									
3/25/2019	<0.1			0.072 (J)					0.087 (J)
3/26/2019		0.065 (J)	0.088 (J)		0.19 (J)	0.076 (J)	0.072 (J)	0.16	
9/10/2019	0.044 (J)	0.076 (J)	0.083 (J)	0.068 (J)	0.15	0.07 (J)	0.073 (J)	0.098 (J)	0.075 (J)
3/9/2020	0.061 (J)								0.19
3/10/2020		0.045 (J)	0.084 (J)	0.055 (J)	0.18	0.05 (J)	0.058 (J)	0.086 (J)	
9/16/2020	0.042 (J)	0.076 (J)		0.08 (J)		0.076 (J)			0.18
9/17/2020			0.11		0.25		0.083 (J)	0.15	
3/23/2021	0.038 (J)	0.082 (J)							0.081 (J)
3/24/2021			0.11	0.091 (J)	0.35	0.11	0.092 (J)	0.27	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.14 (J)	
8/15/2016		
8/16/2016	0.29	
9/28/2016		
9/29/2016	0.26	
11/16/2016	0.25	
1/16/2017		
1/17/2017		
1/18/2017	0.26	
1/19/2017		
3/2/2017	0.28	
4/18/2017		
4/19/2017		
4/25/2017	0.25	
7/13/2017	0.21	
10/10/2017	0.22	
3/29/2018	0.23	
3/30/2018		
6/12/2018	0.23	
6/13/2018		
10/9/2018		
10/10/2018	0.25	
1/29/2019		<0.1
3/25/2019		0.067 (J)
3/26/2019	0.22	
9/10/2019	0.2	0.052 (J)
3/9/2020		
3/10/2020	0.15	0.048 (J)
9/16/2020	0.26	0.078 (J)
9/17/2020		
3/23/2021		0.096 (J)
3/24/2021	0.27	

# Prediction Limit

Constituent: pH (SU) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	5.94	5.96	7.13	7.4	7.81				
5/6/2016						6.64	6.85	7.41	
6/20/2016	5.84 (D)			7.63					7.82
6/21/2016		6	7.25		7.2	6.99	6.98	7.41	
8/15/2016	5.65	5.26	7.04	7.54	7.04				7.52
8/16/2016						6.48	6.73	7.33	
9/28/2016	5.72	5.66	7.09	7.45	7	6.7			7.66
9/29/2016							6.81	7.42	
11/16/2016	5.65	5.33	7.6	7.39	6.73	6.66	6.69	7.87	7.51
1/16/2017	5.52								
1/17/2017		5.24	6.99	7.23	6.61		6.77		7.52
1/18/2017								7.49	
1/19/2017						6.81			
3/2/2017	5.53	5.21	6.95	7.55	6.62	6.75	6.79	7.37	7.5
4/18/2017	5.64	5.85	7.02	7.43	6.7	6.93	6.77		7.75
4/19/2017								7.48	
4/25/2017									
7/13/2017									7.72
10/10/2017		5.6	7.27	5.62	6.48	6.99	7	7.29	
10/11/2017	6.11								6.35
3/29/2018	5.35		6.95	7.19	6.46	6.82			7.42
3/30/2018		5.16					6.68	7.31	
6/12/2018	6.23			7.55					8.02
6/13/2018		5.79	7.08		6.24	7.01	6.83	7.37	
10/9/2018	5.62 (D)			7.8 (D)					7.79 (D)
10/10/2018		5.15 (D)	7.01 (D)		6.12 (D)	7.04 (D)	6.69 (D)	7.41 (D)	
1/28/2019	5.49 (D)								7.4 (D)
1/29/2019		5.46 (D)	6.55 (D)	7.63 (D)	5.93 (D)	6.87 (D)	6.42 (D)	7.03 (D)	
3/25/2019	5.27 (D)			7.44 (D)					7.29 (D)
3/26/2019		7.14 (D)	6.57 (D)		5.19 (D)	7.01 (D)	5.96 (D)	6.68 (D)	
9/10/2019	5.97	5.1	6.99	7.41	6.03	7.09	6.67	7.26	7.54
1/28/2020	5.78		7.17	7.46	6.61				7.4
1/29/2020		5.76				7.19	6.68	7.3	
3/9/2020	5.46								7.58
3/10/2020		5.5	7	7.3	6.54	7.11	6.87	7.3	
9/16/2020	6.37		6.98	7.38				7.16	7.89
9/17/2020		5.22			6.39	6.95	6.68		
12/7/2020			7.2						
12/8/2020						7.41	7.04		
3/23/2021	5		6.74						7.06
3/24/2021		6.71		6.88	6.26	7.14	6.73	7.24	

# Prediction Limit

Constituent: pH (SU) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	7.61	
8/15/2016		
8/16/2016	7.17	
9/28/2016		
9/29/2016	6.97	
11/16/2016	7.03	
1/16/2017		
1/17/2017		
1/18/2017	7.01	
1/19/2017		
3/2/2017	7.02	
4/18/2017		
4/19/2017		
4/25/2017	7.02	
7/13/2017	7.17	
10/10/2017	7.24	
10/11/2017		
3/29/2018	6.93	
3/30/2018		
6/12/2018	7.29	
6/13/2018		
10/9/2018		
10/10/2018	7.12 (D)	
1/28/2019		
1/29/2019	8.02 (D)	6.93 (D)
3/25/2019		7.1 (D)
3/26/2019	7.29 (D)	
9/10/2019		7.15
1/28/2020	7.25	7.36
1/29/2020		
3/9/2020		
3/10/2020	7.53	7.04
9/16/2020	11.03	6.89
9/17/2020		
12/7/2020		
12/8/2020		
3/23/2021		6.56
3/24/2021	7.15	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-8	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	2.46	17.8	4.47	144	116				
5/6/2016						106	94.2	445	
6/20/2016	2.5		7.7						1
6/21/2016		17		160	170	210	95	290	
8/15/2016	1.9	20	7.5	120	170				0.73 (J)
8/16/2016						120	88	270	
9/28/2016	1.9	21	7.8	130	170	110			<1
9/29/2016							94	280	
11/16/2016	1.7	20	6.7	130	170	130	97	280	<1
1/16/2017	<1								
1/17/2017		19	6.7	150	180		100		<1
1/18/2017								280	
1/19/2017						160			
3/2/2017	1.4	15	5.6	160	180	130	100	240	<1
4/18/2017	1.3	14	5.1	180	160	120	91		<1
4/19/2017								250	
4/25/2017									
7/13/2017									1.4
10/10/2017	1.1	11	4.9	260	180	170	110	240	0.87 (J)
6/12/2018	0.82 (J)		3.8						4.1
6/13/2018		8.7		330	180	130	110	220	
10/9/2018	0.82 (J)		6.7						2.2
10/10/2018		8.7		410	190	140	110	220	
1/29/2019									
3/25/2019	<1		3.4 (J)						<1
3/26/2019		6.3 (J)		420	180	130	110	190	
9/10/2019	1.1	5.6	4.7	420	180	140	110	180	1.8
3/9/2020	4.2								3.4
3/10/2020		5	5.2	370	170	140	130	170	
9/16/2020	0.69 (J)	2.7	3.2					160	3
9/17/2020				380	160	150	120		
3/23/2021	<1	3.2							1.4
3/24/2021			3.5	280	180	120	130	180	



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4	
8/15/2016		
8/16/2016	2.8	
9/28/2016		
9/29/2016	<1	
11/16/2016	3	
1/16/2017		
1/17/2017		
1/18/2017	4.1	
1/19/2017		
3/2/2017	4.6	
4/18/2017		
4/19/2017		
4/25/2017	4.4	
7/13/2017	4.8	
10/10/2017	4.9	
6/12/2018	4.1	
6/13/2018		
10/9/2018		
10/10/2018	2.5	
1/29/2019		7.08
3/25/2019		1.8 (J)
3/26/2019	2.9 (J)	
9/10/2019	2.5	0.6 (J)
3/9/2020		
3/10/2020	7.8	2.4
9/16/2020	4.4	1
9/17/2020		
3/23/2021		1.7
3/24/2021	7.1	

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-6 (bg)	MGWA-5 (bg)	MGWC-8	MGWC-7	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	78	281	129	287	272				
5/6/2016						282	380	661	
6/20/2016	80		156						188
6/21/2016		303		297	356	516	392	692	
8/15/2016	58	310	160	230	330				180
8/16/2016						360	360	650	
9/28/2016	29	170	91	130	180	190			100
9/29/2016							380	640	
11/16/2016	140	340	250	290	330	410	420	680	270
1/16/2017	36								
1/17/2017		310	140	240	310		380		170
1/18/2017								630	
1/19/2017						400			
3/2/2017	78	330	170	270	340	360	410	660	210
4/18/2017	16	290	140	310	300	360	360		160
4/19/2017								600	
4/25/2017									
7/13/2017									150
10/10/2017	78	310	190	450	340	480	400	600	210
6/12/2018	62		180						150
6/13/2018		230		600	320	390	320	570	
10/9/2018	68		170						150
10/10/2018		300		410	270	260	300	470	
1/29/2019									
3/25/2019	54		150						210
3/26/2019		290		630	320	370	370	530	
9/10/2019	14	260	110	660	260	360	360	470	160
3/9/2020	56								190
3/10/2020		300	170	600	370	450	390	540	
9/16/2020	44	300	150					530	150
9/17/2020				740	320	460	410		
3/23/2021	53	300							220
3/24/2021			150	530	330	380	430	490	

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/6/2021 9:51 AM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	177	
8/15/2016		
8/16/2016	160	
9/28/2016		
9/29/2016	190	
11/16/2016	240	
1/16/2017		
1/17/2017		
1/18/2017	180	
1/19/2017		
3/2/2017	170	
4/18/2017		
4/19/2017		
4/25/2017	170	
7/13/2017	150	
10/10/2017	160	
6/12/2018	170	
6/13/2018		
10/9/2018		
10/10/2018	48	
1/29/2019		280
3/25/2019		250
3/26/2019	180	
9/10/2019	140	230
3/9/2020		
3/10/2020	170	260
9/16/2020	190	320
9/17/2020		
3/23/2021		270
3/24/2021	190	

FIGURE E.

# Appendix III Trend Test - Significant Results

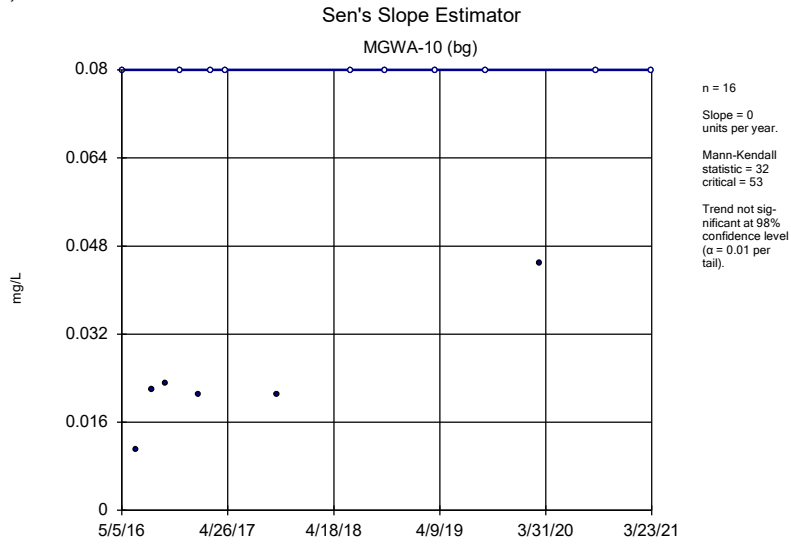
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:22 AM

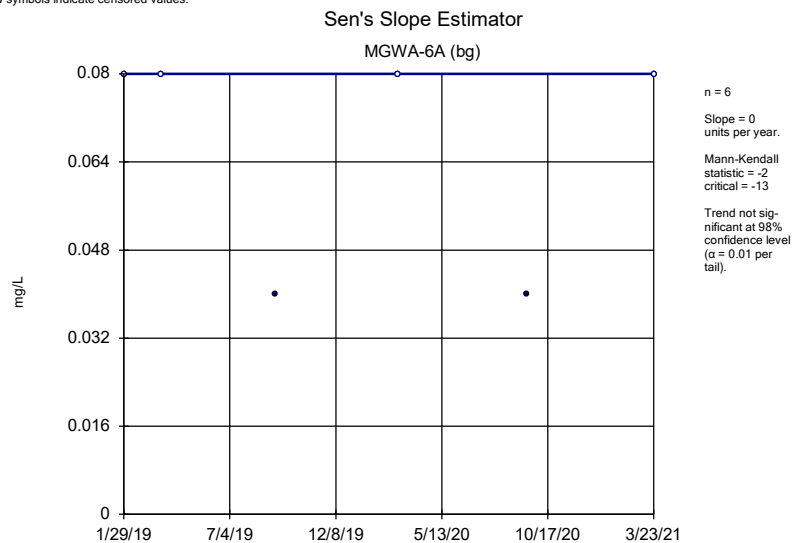
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02701	-86	-53	Yes	16	6.25	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-2	-0.3119	-70	-53	Yes	16	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-7	0.05875	76	53	Yes	16	0	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-8	0.9194	70	53	Yes	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-10 (bg)	-0.4612	-64	-53	Yes	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-8	18.62	95	53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.2559	-65	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.303	-99	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-2	-2.092	-107	-53	Yes	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-7	-0.7796	-88	-53	Yes	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-1	-0.04573	-88	-58	Yes	17	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWC-7	-0.06356	-79	-58	Yes	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.4055	-64	-53	Yes	16	18.75	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.7728	-65	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.76	-98	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-2	-30.66	-102	-53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-3	7.189	86	53	Yes	16	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-8	70.65	79	53	Yes	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-2	-43.05	-87	-53	Yes	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-8	104	77	53	Yes	16	0	n/a	n/a	0.02	NP

# Appendix III Trend Test - All Results

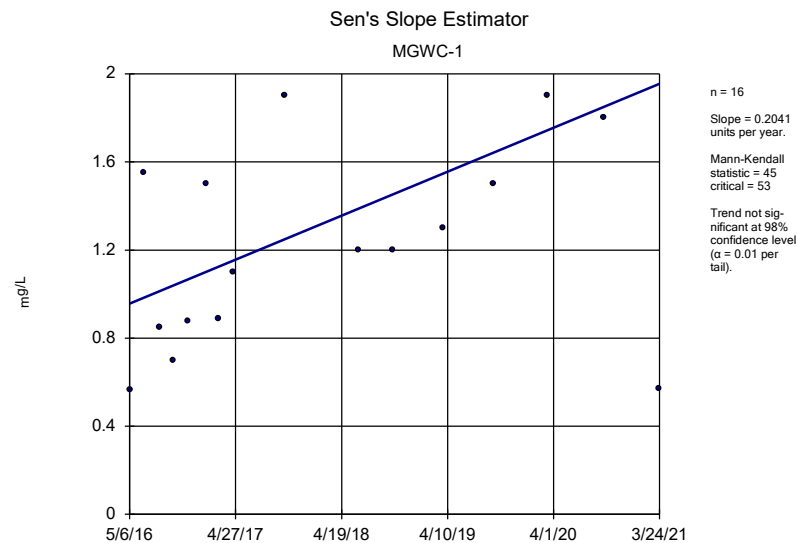
Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 5/12/2021, 4:22 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	32	53	No	16	62.5	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-11 (bg)	0	21	53	No	16	62.5	n/a	n/a	0.02	NP
Boron (mg/L)	MGWA-5 (bg)	0	25	53	No	16	87.5	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-0.02701</b>	<b>-86</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Boron (mg/L)	MGWA-6A (bg)	0	-2	-13	No	6	66.67	n/a	n/a	0.02	NP
Boron (mg/L)	MGWC-1	0.2041	45	53	No	16	0	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>-0.3119</b>	<b>-70</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Boron (mg/L)	MGWC-3	0.09381	35	53	No	16	0	n/a	n/a	0.02	NP
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.05875</b>	<b>76</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>MGWC-8</b>	<b>0.9194</b>	<b>70</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.4612</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	MGWA-11 (bg)	-0.5986	-11	-53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-5 (bg)	0	0	53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6 (bg)	0	29	53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWA-6A (bg)	2.699	5	13	No	6	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-2	-2.812	-48	-53	No	16	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MGWC-3	0.9167	26	53	No	16	0	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>MGWC-8</b>	<b>18.62</b>	<b>95</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWA-10 (bg)	0	-5	-53	No	16	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWA-11 (bg)	0	0	53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.2559</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-1.303</b>	<b>-99</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWA-6A (bg)	-0.432	-11	-13	No	6	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MGWC-1	0	-14	-53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>-2.092</b>	<b>-107</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWC-3	0.2293	50	53	No	16	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.7796</b>	<b>-88</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	MGWC-8	0.4037	47	53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-10 (bg)	0	-43	-58	No	17	64.71	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-11 (bg)	0.01524	22	58	No	17	5.882	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-5 (bg)	-0.007973	-31	-58	No	17	17.65	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6 (bg)	-0.000223	-17	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	MGWA-6A (bg)	-0.008022	-1	-13	No	6	16.67	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>MGWC-1</b>	<b>-0.04573</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	MGWC-12	-0.008711	-22	-58	No	17	0	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.06356</b>	<b>-79</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.4055</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>18.75</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-11 (bg)	0.3251	44	53	No	16	37.5	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.7728</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-3.76</b>	<b>-98</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-6A (bg)	-0.6759	-5	-13	No	6	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MGWC-1	3.896	24	53	No	16	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>-30.66</b>	<b>-102</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>MGWC-3</b>	<b>7.189</b>	<b>86</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	MGWC-7	1.051	32	53	No	16	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-8</b>	<b>70.65</b>	<b>79</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
TDS (mg/L)	MGWA-10 (bg)	-6.134	-39	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-11 (bg)	0	-2	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-5 (bg)	0	5	53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6 (bg)	-0.6691	-12	-53	No	16	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWA-6A (bg)	10.01	3	13	No	6	0	n/a	n/a	0.02	NP
TDS (mg/L)	MGWC-1	5.045	16	53	No	16	0	n/a	n/a	0.02	NP
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>-43.05</b>	<b>-87</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
TDS (mg/L)	MGWC-3	1.149	7	53	No	16	0	n/a	n/a	0.02	NP
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>104</b>	<b>77</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>

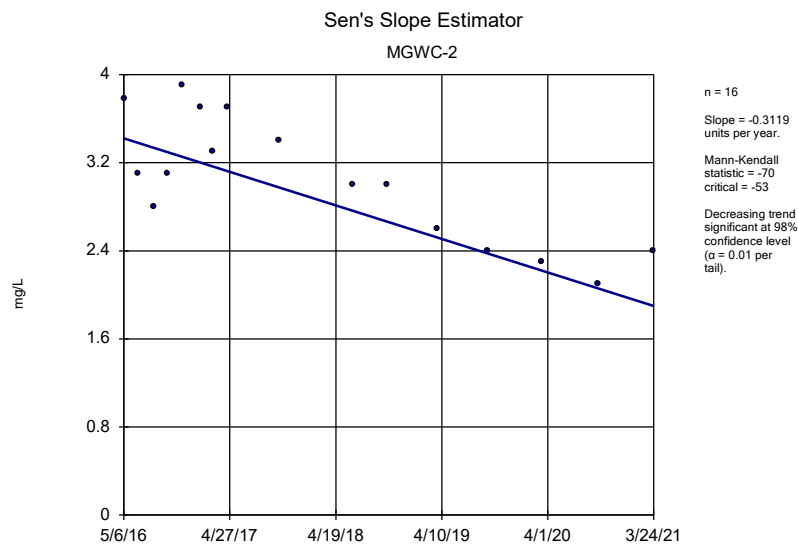




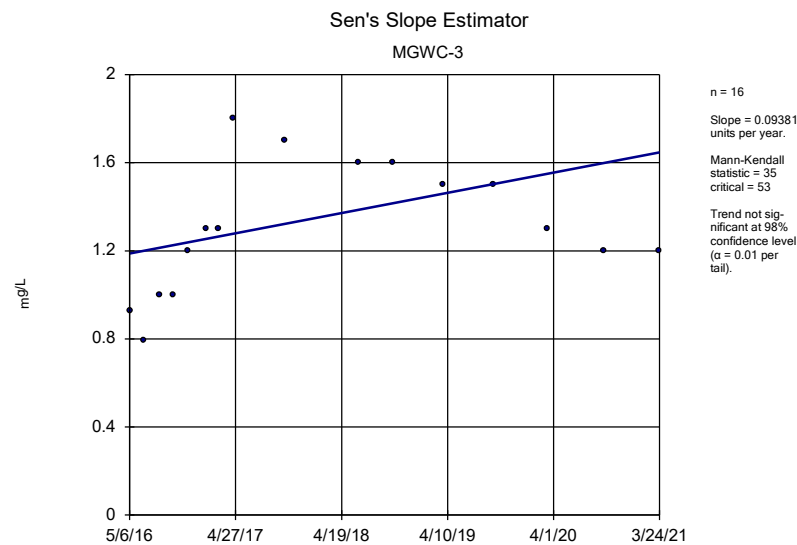
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



Constituent: Boron Analysis Run 5/12/2021 4:17 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



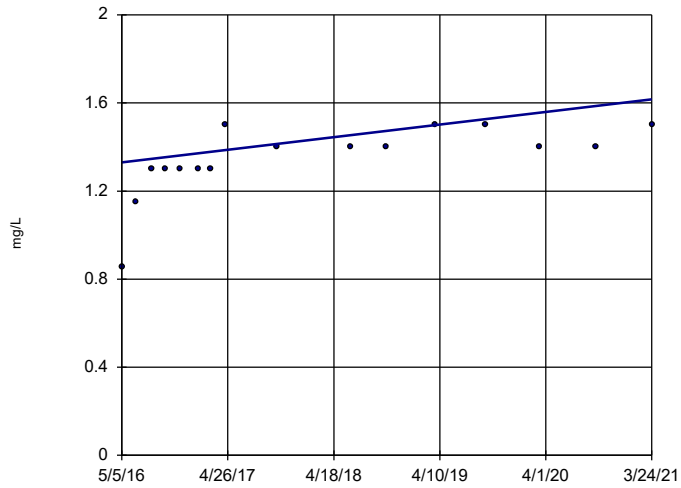
Constituent: Boron Analysis Run 5/12/2021 4:17 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



Constituent: Boron Analysis Run 5/12/2021 4:17 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

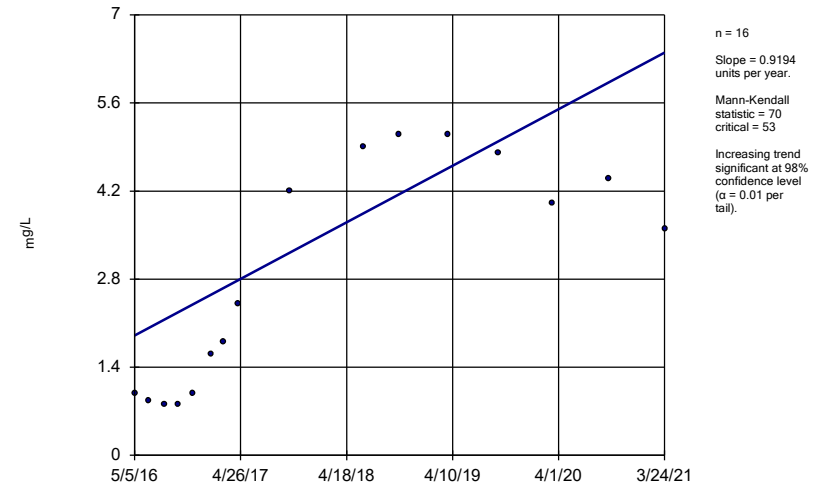


### Sen's Slope Estimator MGWC-7



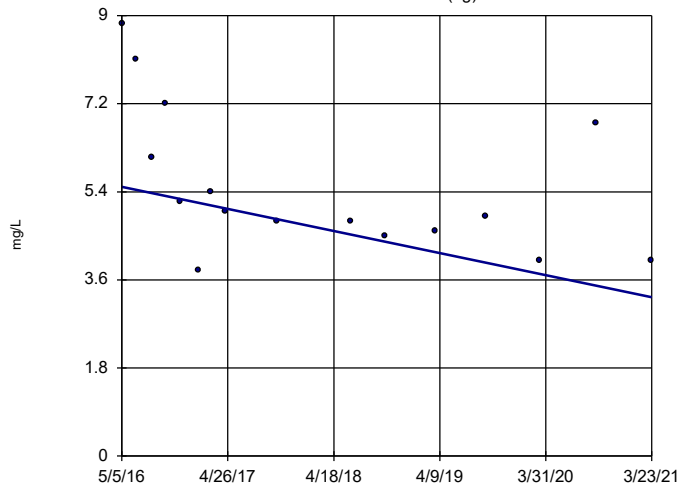
Constituent: Boron Analysis Run 5/12/2021 4:17 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWC-8



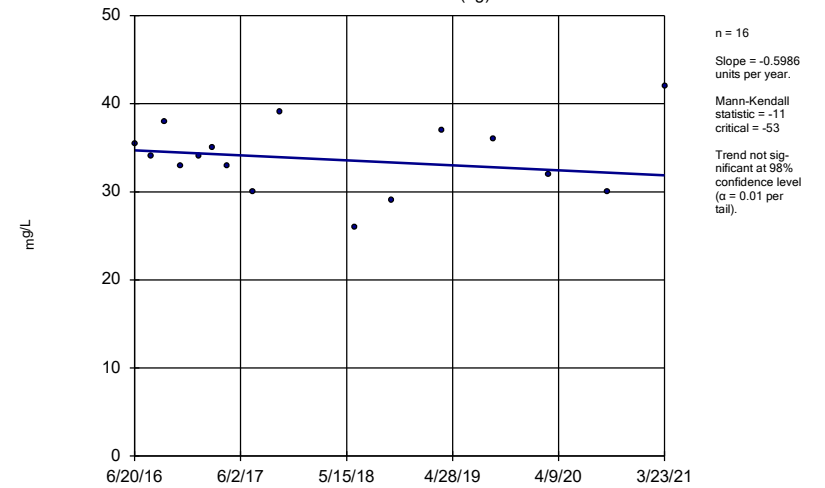
Constituent: Boron Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWA-10 (bg)



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

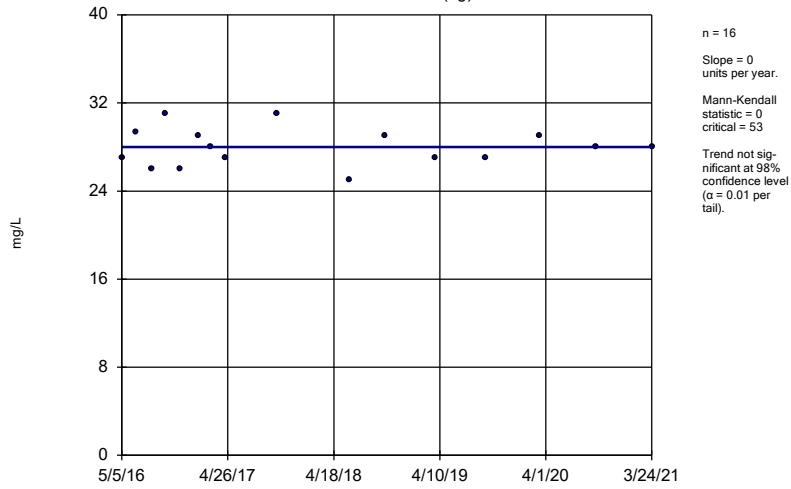
### Sen's Slope Estimator MGWA-11 (bg)



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

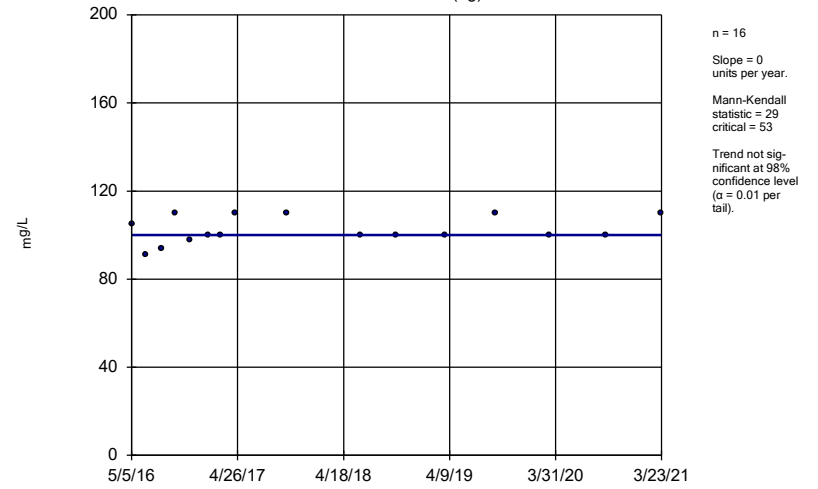
MGWA-5 (bg)



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

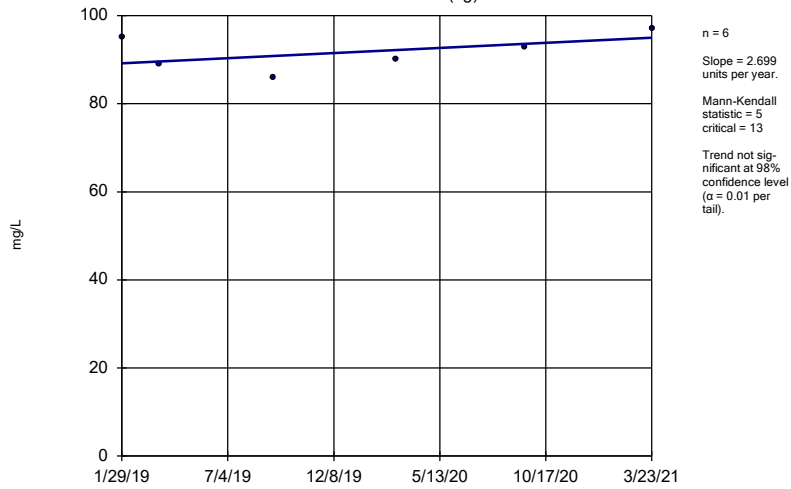
MGWA-6 (bg)



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

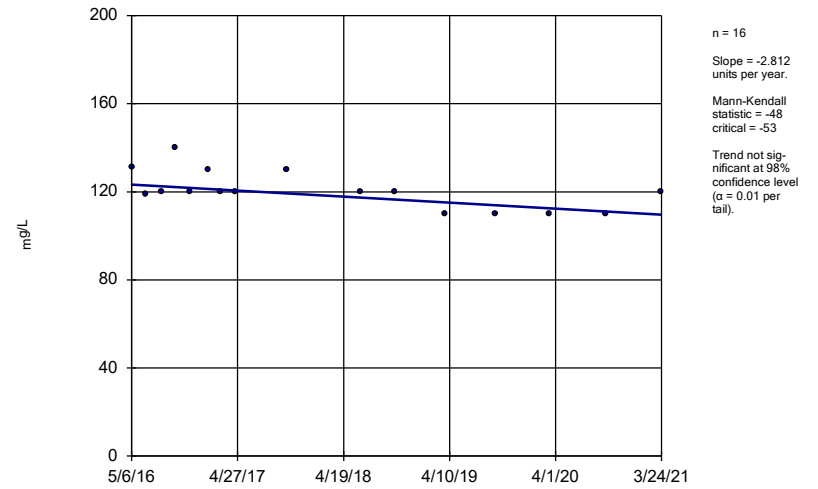
MGWA-6A (bg)



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

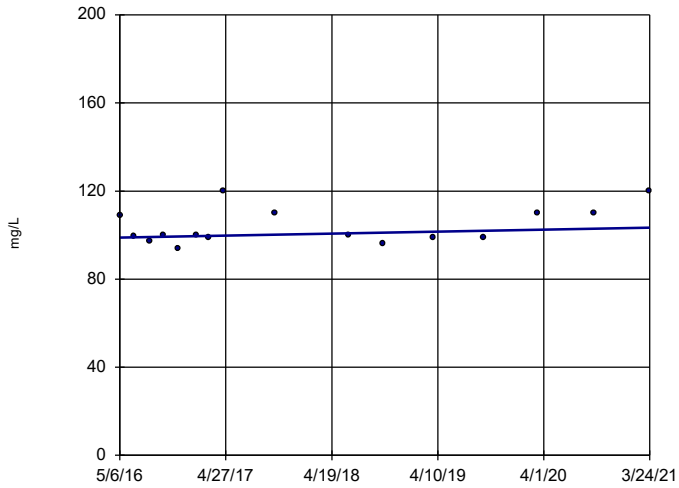
MGWC-2



Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWC-3

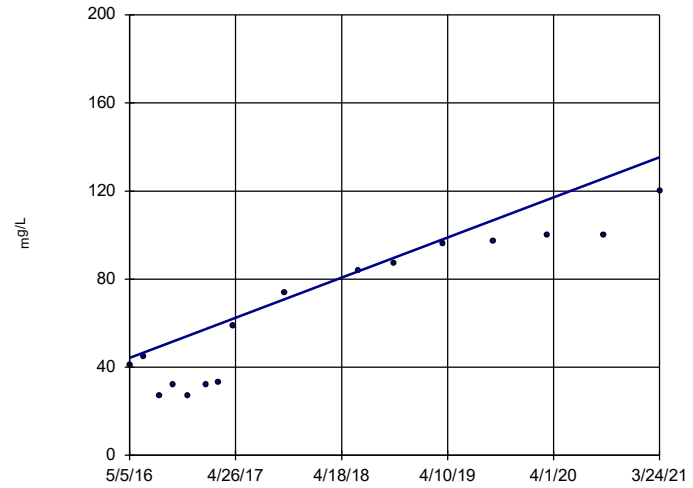


n = 16  
 Slope = 0.9167 units per year.  
 Mann-Kendall statistic = 26  
 critical = 53  
 Trend not significant at 98% confidence level (α = 0.01 per tail).

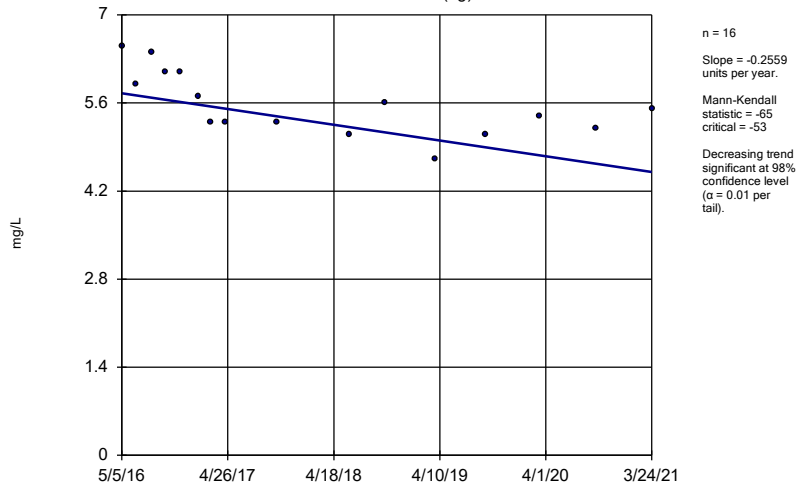
Constituent: Calcium Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWC-8

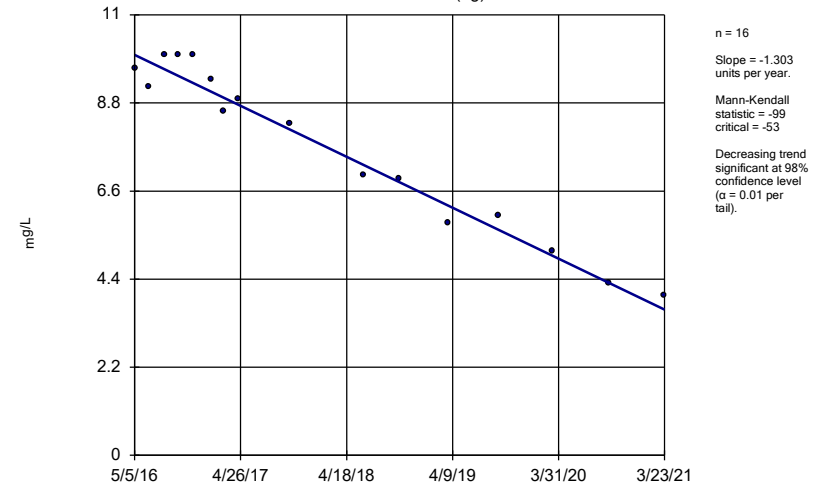


Sen's Slope Estimator  
MGWA-5 (bg)



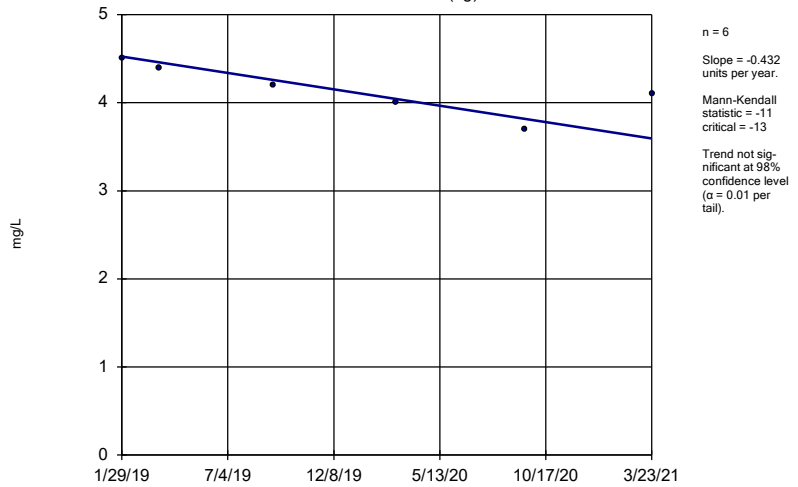
Constituent: Chloride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6 (bg)



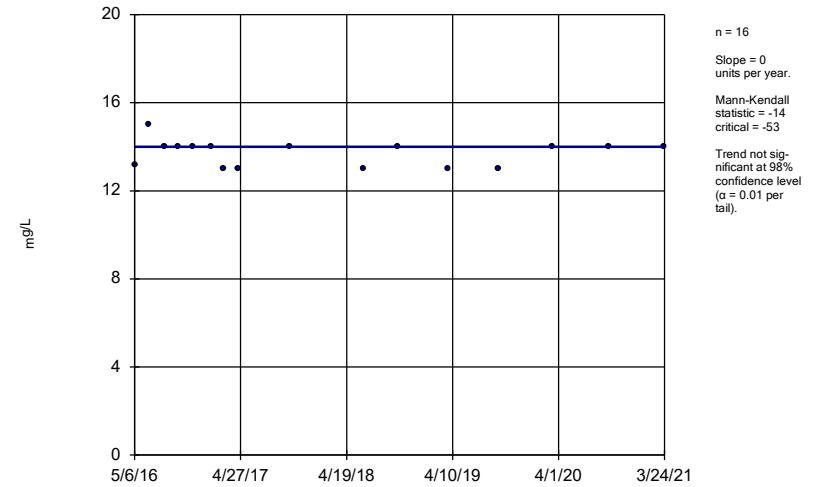
Constituent: Chloride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6A (bg)



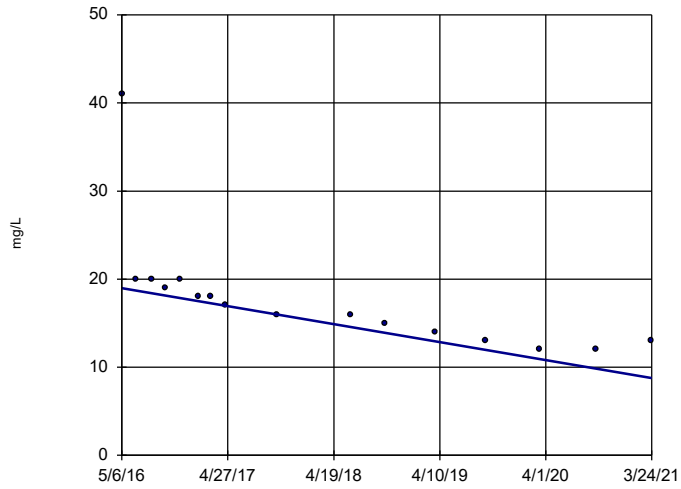
Constituent: Chloride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-1

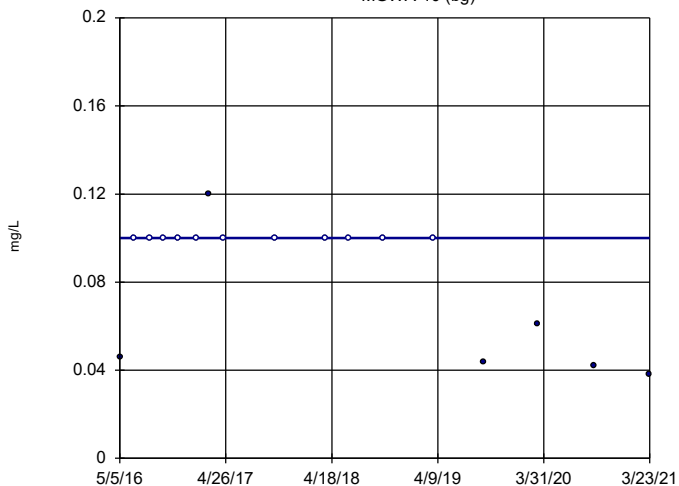


Constituent: Chloride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWC-2



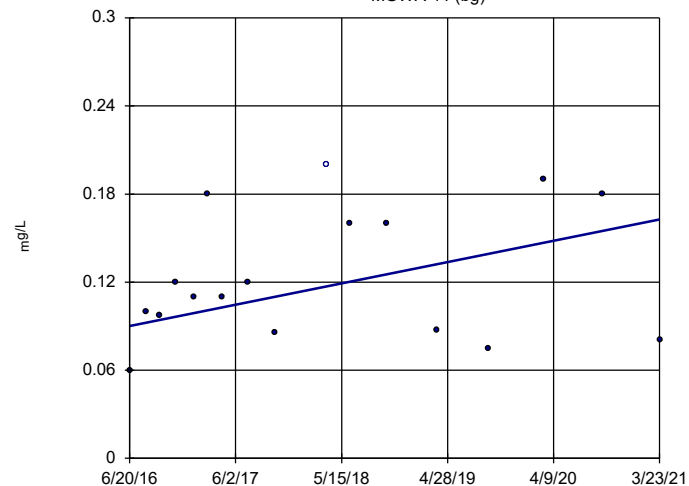
Sen's Slope Estimator  
MGWA-10 (bg)



n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -43  
critical = -58  
Trend not sig-  
nificant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Fluoride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

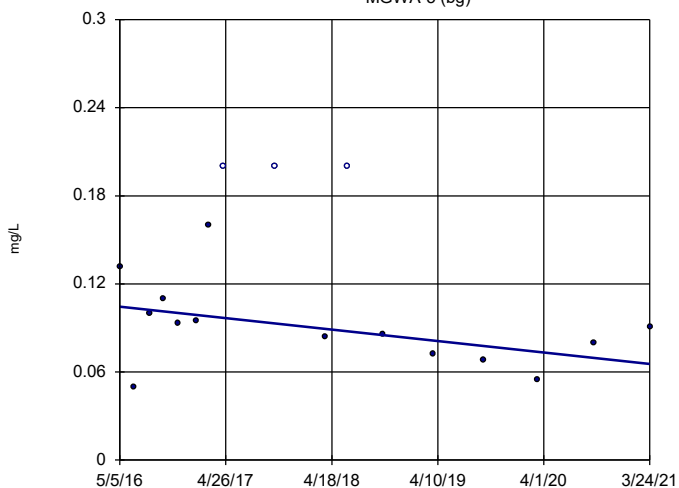
Sen's Slope Estimator  
MGWA-11 (bg)



n = 17  
Slope = 0.01524  
units per year.  
Mann-Kendall  
statistic = 22  
critical = 58  
Trend not sig-  
nificant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Fluoride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

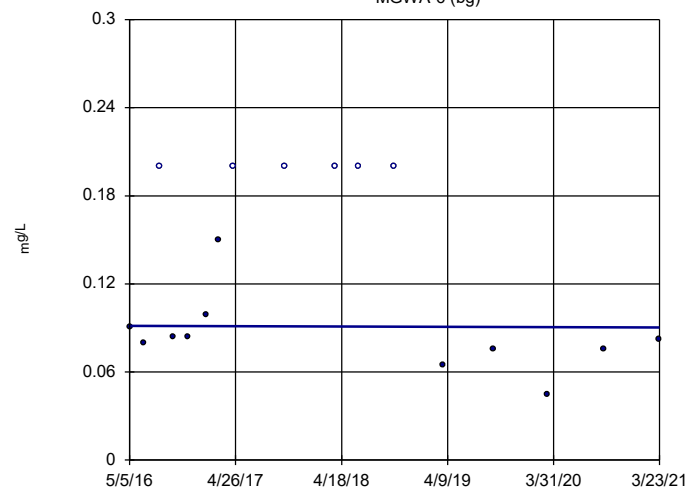
Sen's Slope Estimator  
MGWA-5 (bg)



n = 17  
Slope = -0.007973  
units per year.  
Mann-Kendall  
statistic = -31  
critical = -58  
Trend not sig-  
nificant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Fluoride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6 (bg)



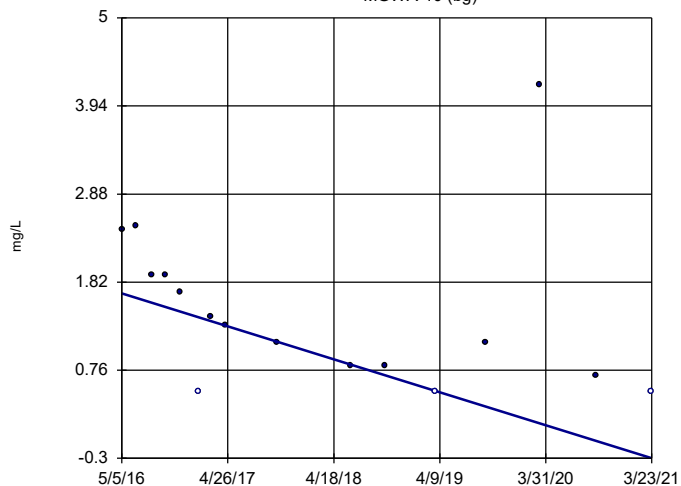
n = 17  
Slope = -0.000223  
units per year.  
Mann-Kendall  
statistic = -17  
critical = -58  
Trend not sig-  
nificant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Fluoride Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



### Sen's Slope Estimator

MGWA-10 (bg)

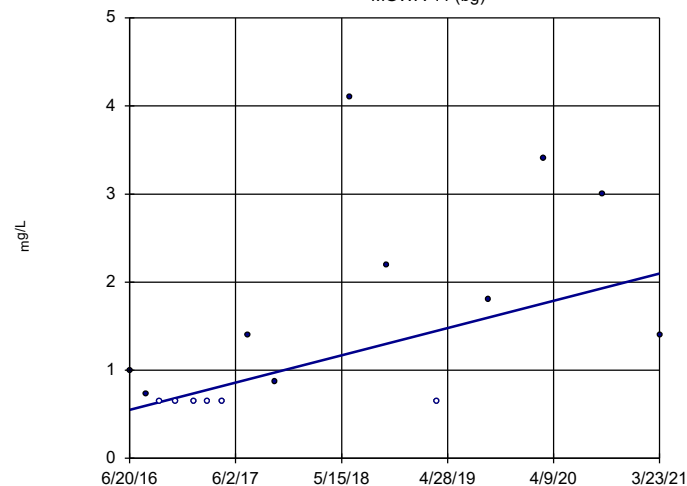


n = 16  
Slope = -0.4055  
units per year.  
Mann-Kendall  
statistic = -64  
critical = -53  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-11 (bg)

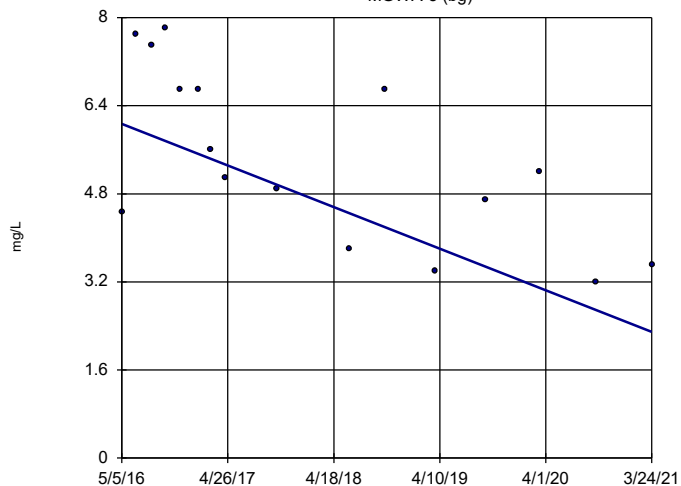


n = 16  
Slope = 0.3251  
units per year.  
Mann-Kendall  
statistic = 44  
critical = 53  
Trend not sig-  
nificant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-5 (bg)

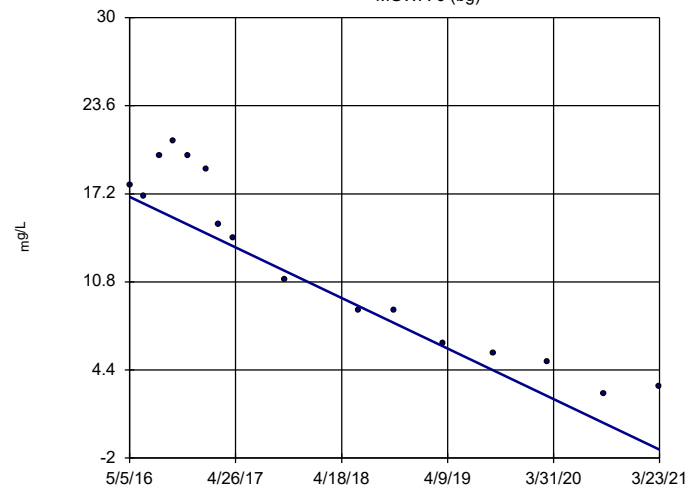


n = 16  
Slope = -0.7728  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -53  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-6 (bg)



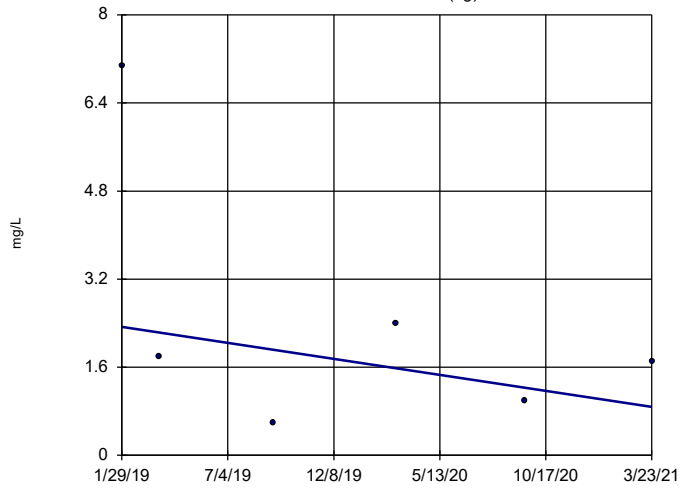
n = 16  
Slope = -3.76  
units per year.  
Mann-Kendall  
statistic = -98  
critical = -53  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



### Sen's Slope Estimator

MGWA-6A (bg)

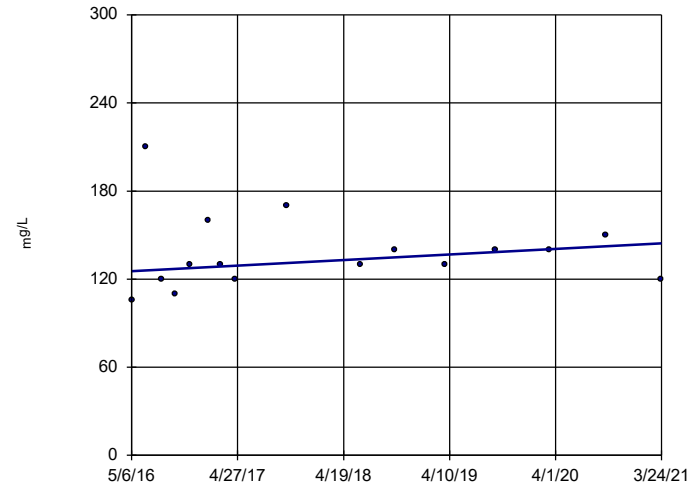


n = 6  
 Slope = -0.6759  
 units per year.  
 Mann-Kendall  
 statistic = -5  
 critical = -13  
 Trend not sig-  
 nificant at 98%  
 confidence level  
 (α = 0.01 per  
 tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWC-1

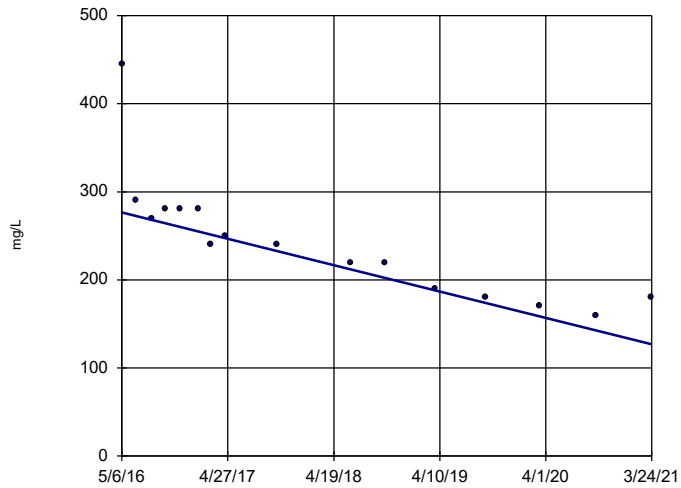


n = 16  
 Slope = 3.896  
 units per year.  
 Mann-Kendall  
 statistic = 24  
 critical = 53  
 Trend not sig-  
 nificant at 98%  
 confidence level  
 (α = 0.01 per  
 tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWC-2

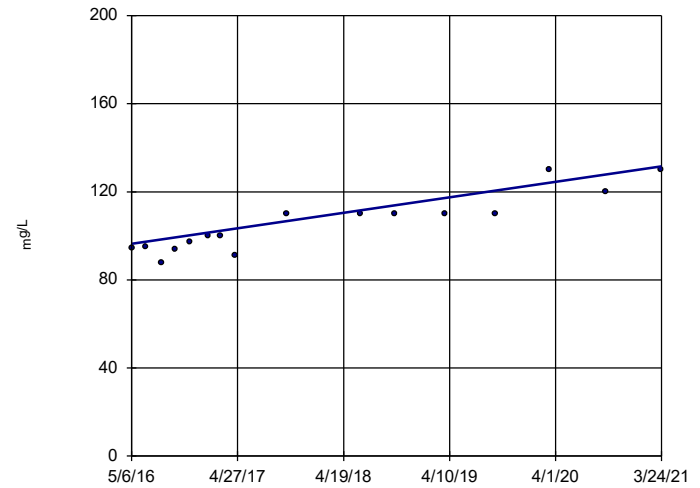


n = 16  
 Slope = -30.66  
 units per year.  
 Mann-Kendall  
 statistic = -102  
 critical = -53  
 Decreasing trend  
 significant at 98%  
 confidence level  
 (α = 0.01 per  
 tail).

Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

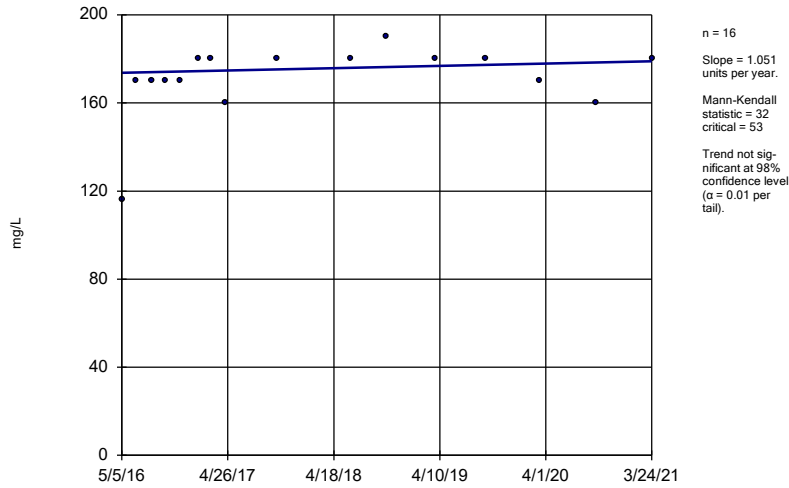
MGWC-3



n = 16  
 Slope = 7.189  
 units per year.  
 Mann-Kendall  
 statistic = 86  
 critical = 53  
 Increasing trend  
 significant at 98%  
 confidence level  
 (α = 0.01 per  
 tail).

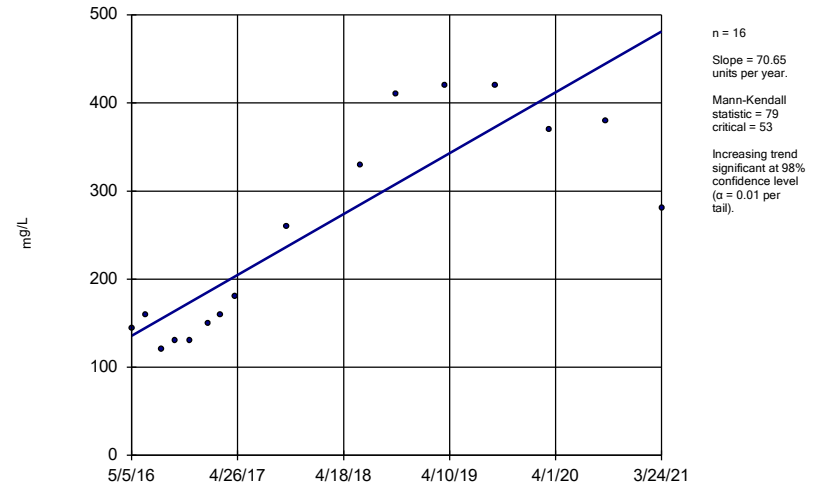
Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-7



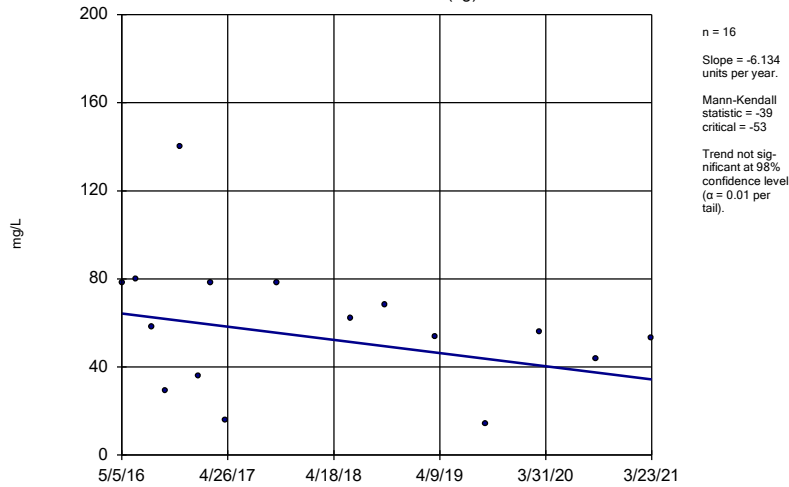
Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-8



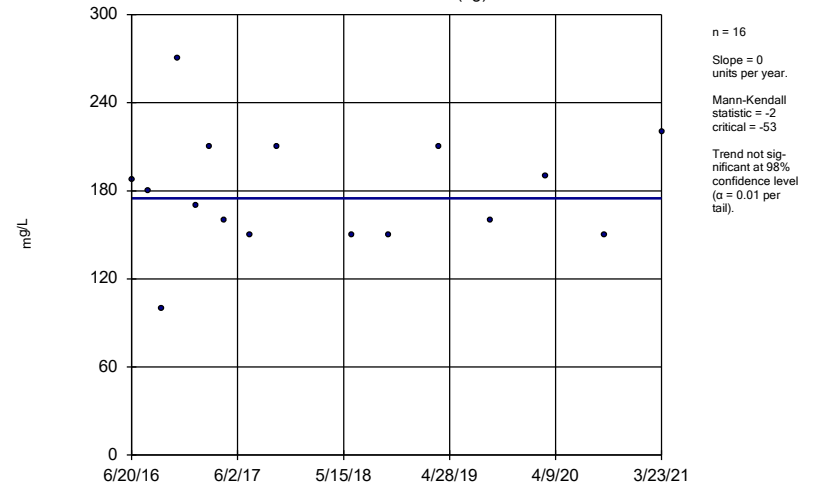
Constituent: Sulfate Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-10 (bg)



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

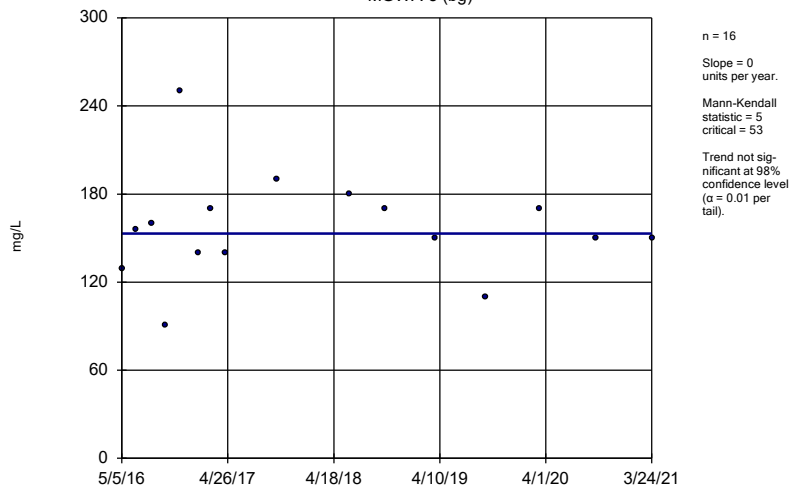
Sen's Slope Estimator  
MGWA-11 (bg)



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

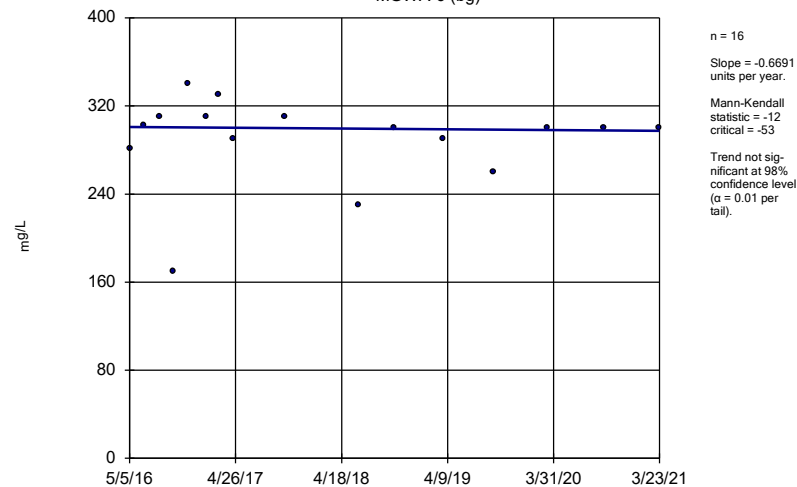
MGWA-5 (bg)



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

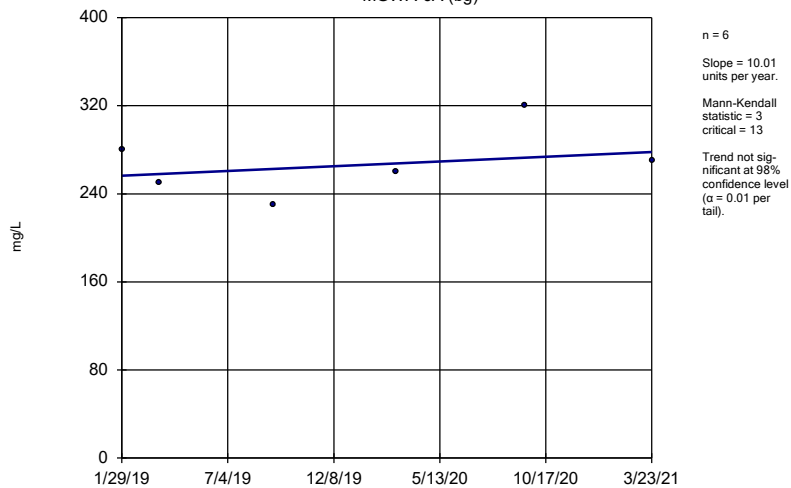
MGWA-6 (bg)



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

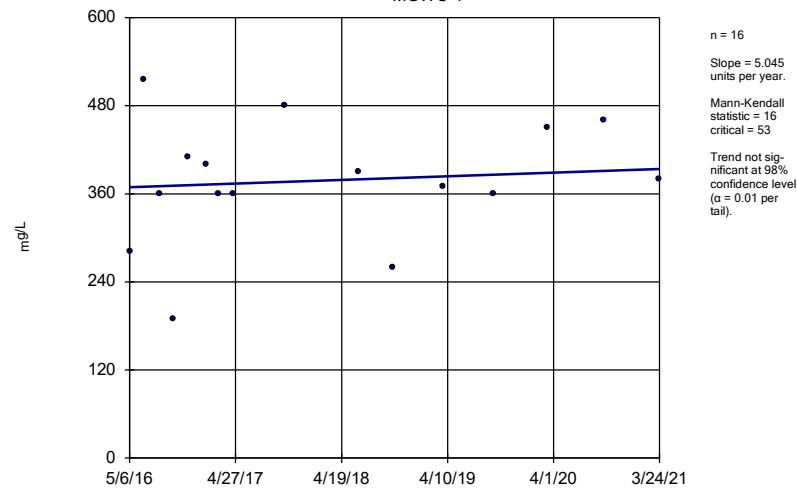
MGWA-6A (bg)



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

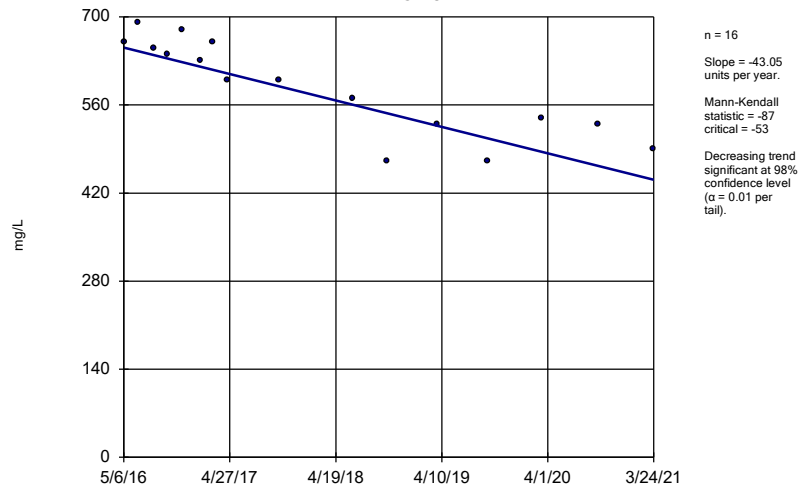
MGWC-1



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

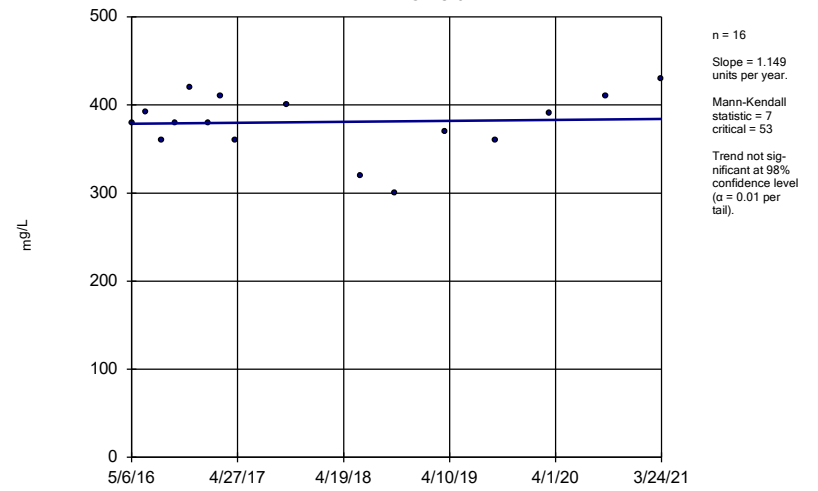
MGWC-2



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

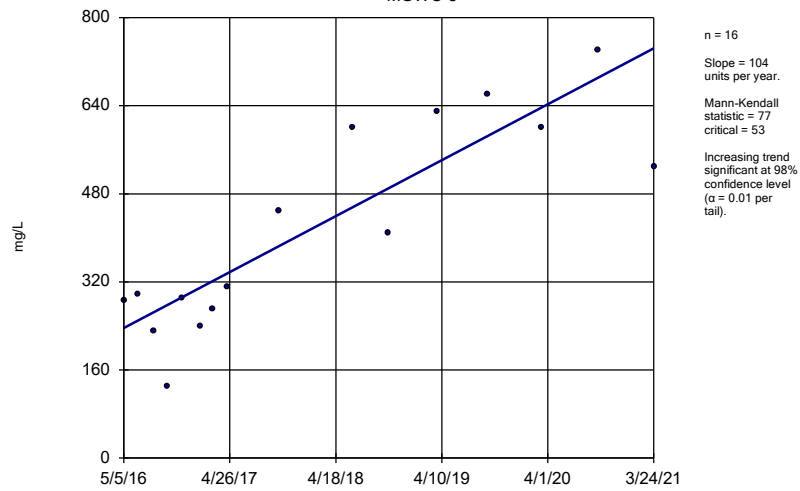
MGWC-3



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWC-8



Constituent: TDS Analysis Run 5/12/2021 4:18 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE F.

# Upper Tolerance Limit Summary Table

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 10:06 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	61	90.16	n/a	0.04377	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0352	n/a	n/a	n/a	79	32.91	n/a	0.01738	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	79	0	n/a	0.01738	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	69	92.75	n/a	0.02904	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	79	98.73	n/a	0.01738	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	69	69.57	n/a	0.02904	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	79	73.42	n/a	0.01738	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.128	n/a	n/a	n/a	80	2.5	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	74	29.73	n/a	0.02247	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	61	91.8	n/a	0.04377	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	79	29.11	n/a	0.01738	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	69	95.65	n/a	0.02904	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	69	63.77	n/a	0.02904	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	54	88.89	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	69	81.16	n/a	0.02904	NP Inter(NDs)

FIGURE G.

<b>PLANT MCINTOSH AP 1 GWPS - STATE</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.035	0.035
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.0025
Combined Radium, Total (pCi/L)	5		1.13	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*



FIGURE H.

<b>PLANT MCINTOSH AP 1 GWPS - FEDERAL</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.035	0.035
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.1	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

FIGURE I.

# State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 11:10 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-2	0.003422	0.002738	0.0025	Yes	18	0.0005658	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01047	0.007989	0.0025	Yes	18	0.002048	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.0025	Yes	18	0.007948	0	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes	18	0.02118	0	No	0.01	NP (normality)

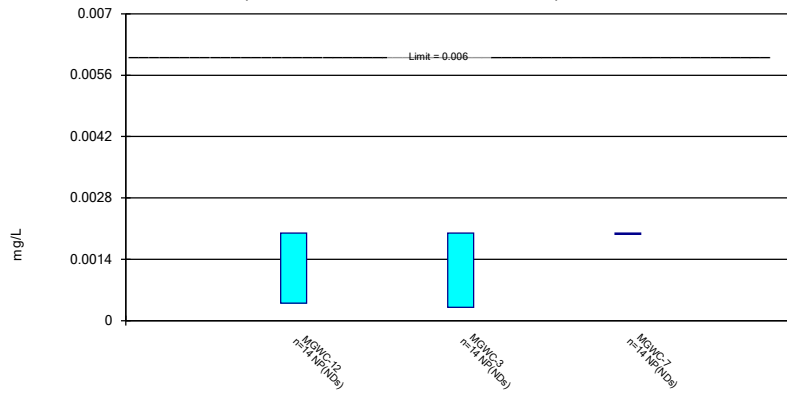
# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/6/2021, 11:10 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	14	0.0004276	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	14	0.0004543	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	14	0.0000...	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002926	0.002158	0.035	No	18	0.0007064	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001093	0.0006342	0.035	No	18	0.0003869	27.78	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No	18	0.0002158	77.78	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001675	0.001352	0.035	No	18	0.0003189	5.556	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008987	0.0005469	0.035	No	18	0.0002715	38.89	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.035	No	18	0.0001775	77.78	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	18	0.01772	0	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06539	0.04811	2	No	18	0.01505	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05505	0.04955	2	No	18	0.00461	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1533	0.1381	2	No	18	0.01258	0	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	18	0.007246	5.556	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03918	0.03309	2	No	18	0.00551	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	16	0.00058	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	16	0.0005475	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001273	0.000632	0.004	No	16	0.0007764	18.75	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	18	0.0008598	83.33	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003279	0.001306	0.005	No	18	0.001939	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	18	0.000535	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No	18	0.0009037	33.33	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	16	0.0004	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	16	0.006737	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	16	0.000325	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	16	0.00025	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	16	0.0003794	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	16	0.000275	93.75	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.0025	No	18	0.001027	61.11	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No	18	0.0005869	88.89	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>0.003422</b>	<b>0.002738</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.0005658</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.0025	No	18	0.0007429	16.67	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01047</b>	<b>0.007989</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.002048</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.019</b>	<b>0.0038</b>	<b>0.0025</b>	<b>Yes</b>	<b>18</b>	<b>0.007948</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.81	1.09	5	No	19	0.3429	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6886	0.372	5	No	18	0.2801	5.556	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7596	0.4464	5	No	18	0.2588	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.634	1.311	5	No	19	0.2755	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.301	0.9106	5	No	18	0.3224	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.946	1.349	5	No	18	0.4937	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2525	0.1609	4	No	17	0.07312	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2595	0.2076	4	No	17	0.04137	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	17	0.06043	41.18	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.082	4	No	17	0.06265	35.29	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3575	0.2301	4	No	17	0.1017	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No	17	0.04229	17.65	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	14	0.0002405	92.86	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	14	0.0001871	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01272	0.01036	0.03	No	18	0.001954	5.556	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02194	0.01544	0.03	No	18	0.005371	0	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No	18	0.0019	5.556	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01353	0.01116	0.03	No	18	0.001958	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.03</b>	<b>Yes</b>	<b>18</b>	<b>0.02118</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03933	0.02646	0.03	No	18	0.01063	0	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	16	0.0000325	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	16	0.00003	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	16	0.0001482	43.75	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.015	No	16	0.005998	25	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.015	No	16	0.005931	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	16	0.002872	93.75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	16	0.002825	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	16	0.0004045	68.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	16	0.0002707	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	16	0.0001975	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	16	0.000254	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002341	0.0001279	0.002	No	16	0.0003272	18.75	ln(x)	0.01	Param.

### Non-Parametric Confidence Interval

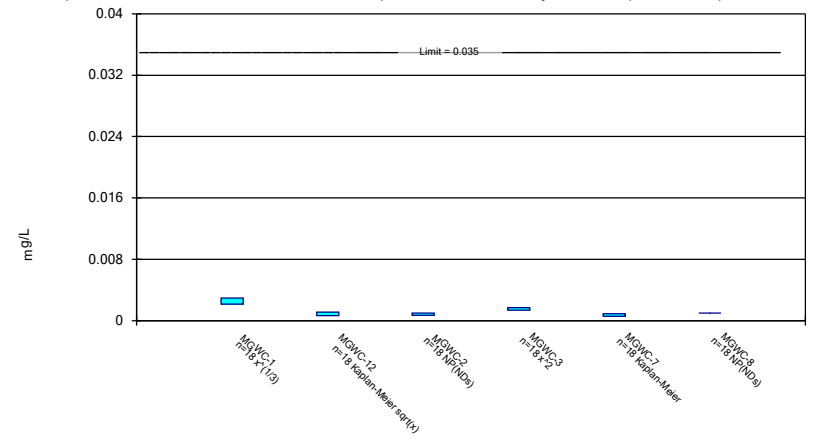
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

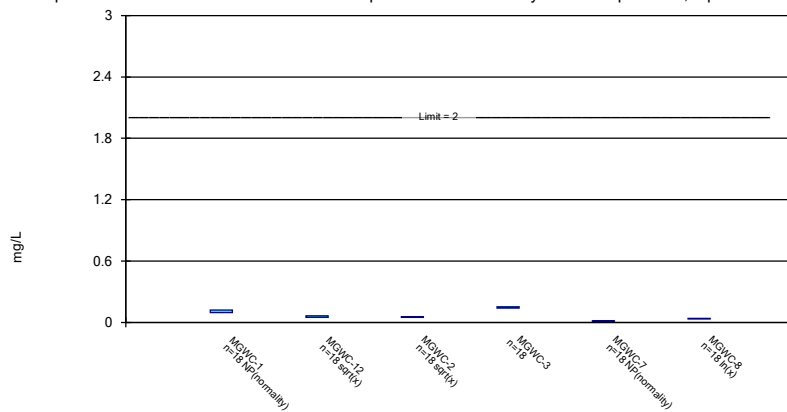
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

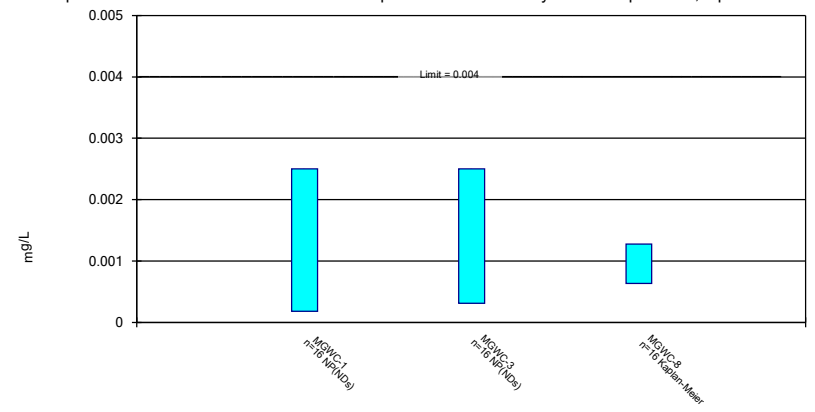
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

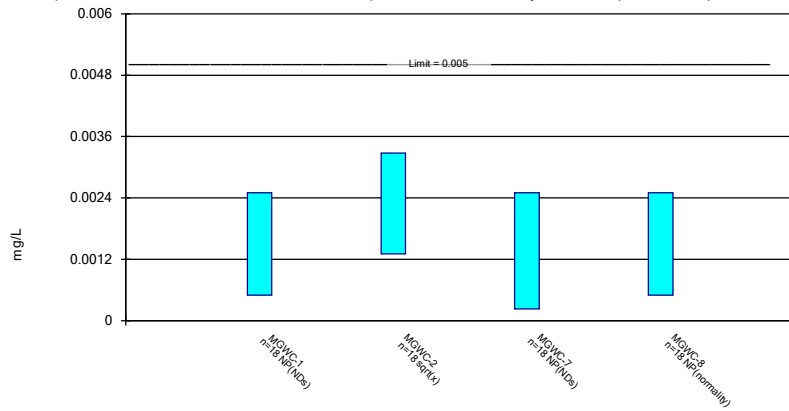
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

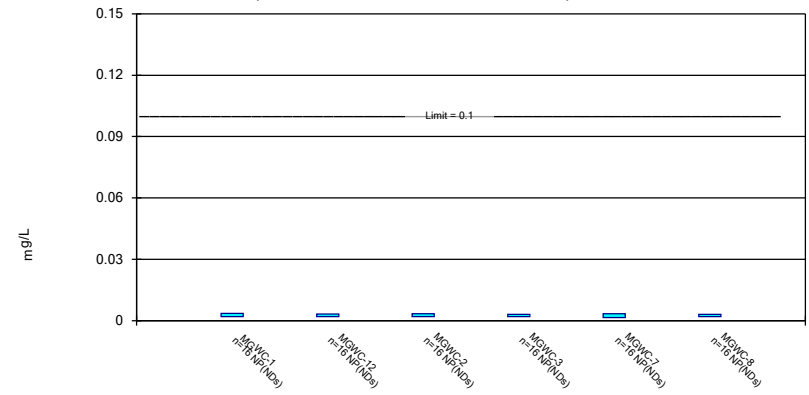
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

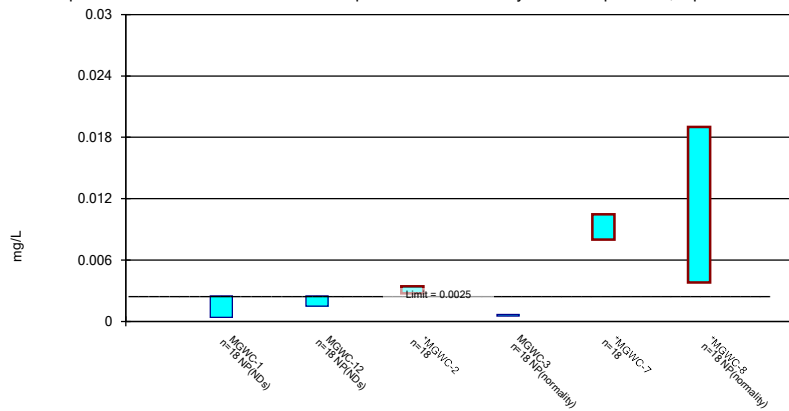
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

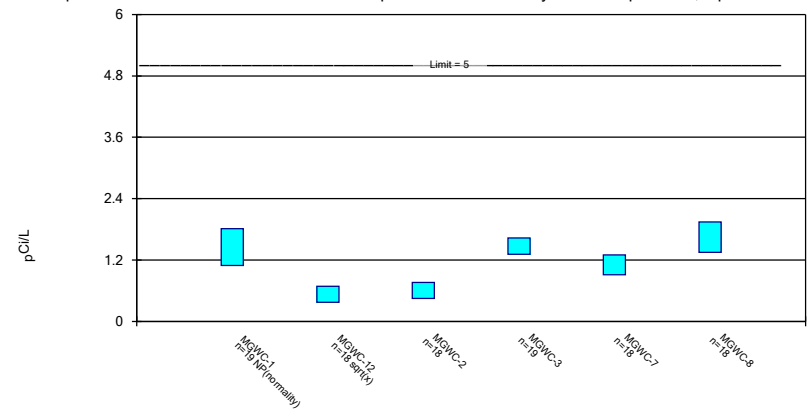
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

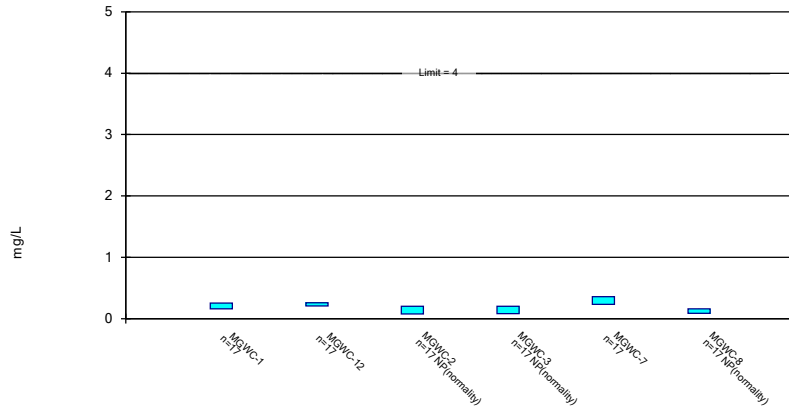
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

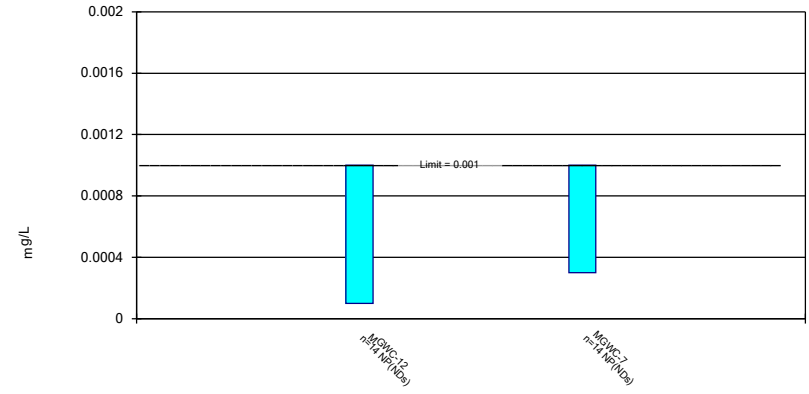
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

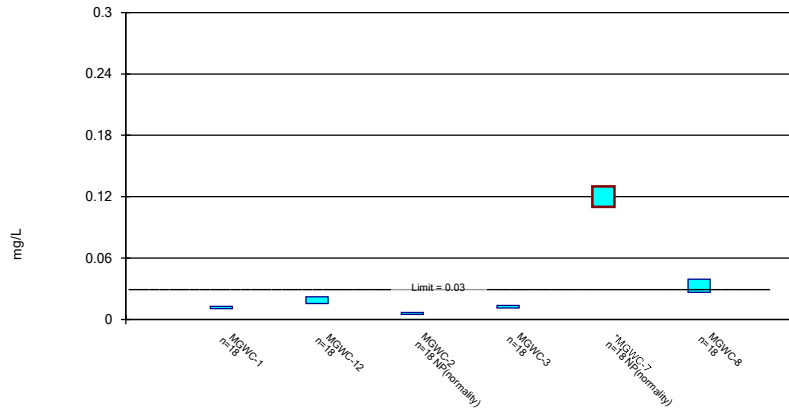
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

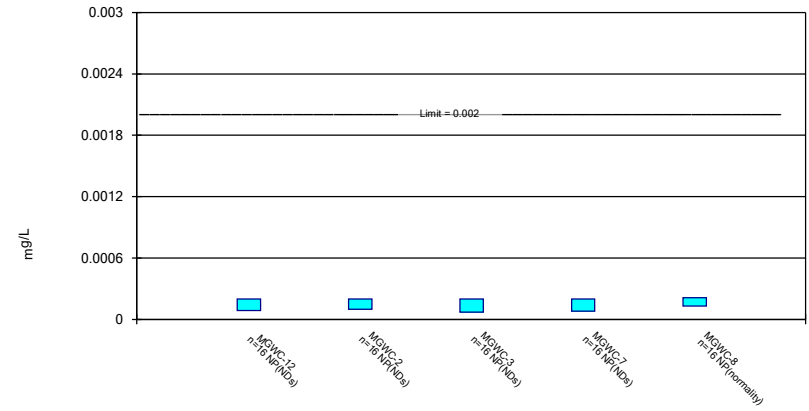
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

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

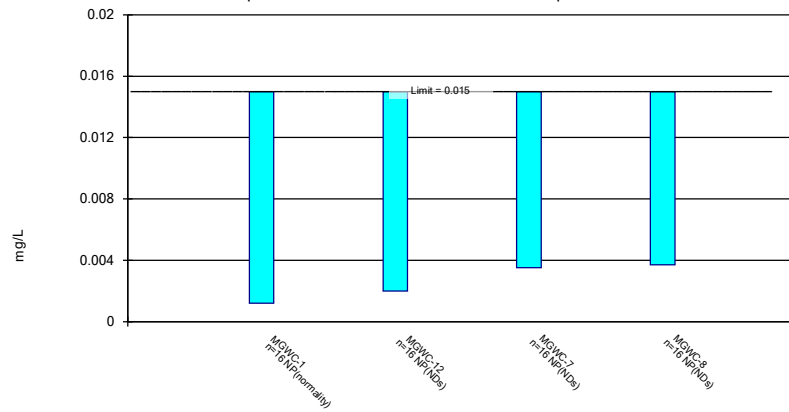


Constituent: Mercury Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



### Non-Parametric Confidence Interval

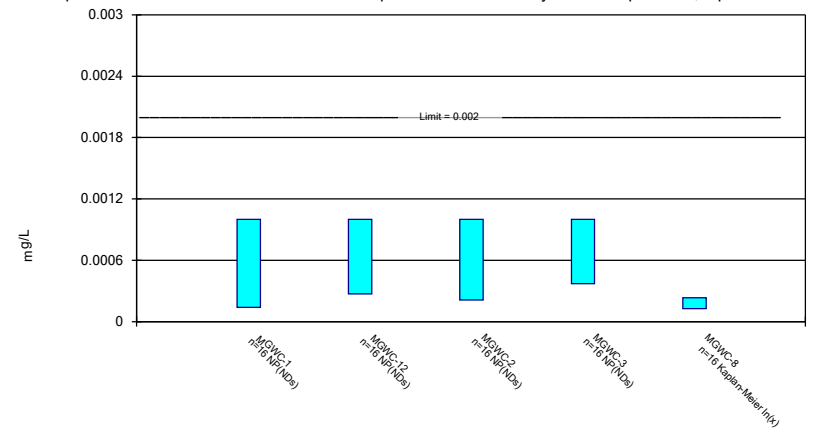
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### 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: Thallium Analysis Run 5/6/2021 11:08 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE J.

# Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:27 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-7	0.01047	0.007989	0.006	Yes	18	0.002048	0	No	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes	18	0.02118	0	No	0.01	NP (normality)

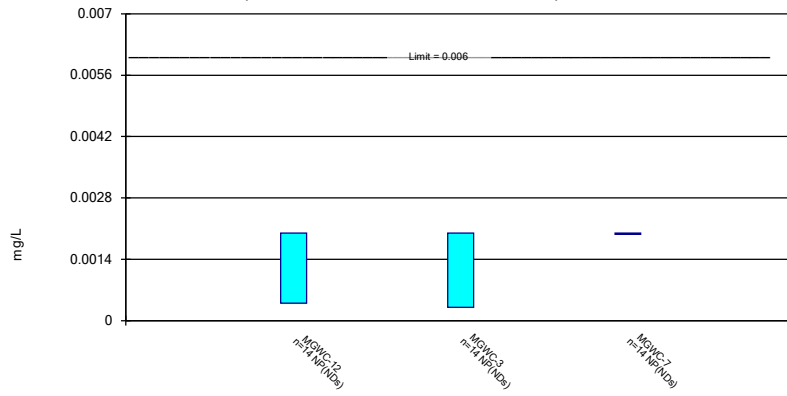
# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 5/12/2021, 4:27 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	14	0.0004276	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	14	0.0004543	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	14	0.0000...	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002926	0.002158	0.035	No	18	0.0007064	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.001093	0.0006342	0.035	No	18	0.0003869	27.78	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.035	No	18	0.0002158	77.78	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001675	0.001352	0.035	No	18	0.0003189	5.556	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008987	0.0005469	0.035	No	18	0.0002715	38.89	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.035	No	18	0.0001775	77.78	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	18	0.01772	0	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06539	0.04811	2	No	18	0.01505	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05505	0.04955	2	No	18	0.00461	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1533	0.1381	2	No	18	0.01258	0	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	18	0.007246	5.556	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03918	0.03309	2	No	18	0.00551	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	16	0.00058	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	16	0.0005475	93.75	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.001273	0.000632	0.004	No	16	0.0007764	18.75	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	18	0.0008598	83.33	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003279	0.001306	0.005	No	18	0.001939	0	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	18	0.000535	94.44	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0025	0.0005	0.005	No	18	0.0009037	33.33	No	0.01	NP (normality)
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	16	0.0004	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	16	0.006737	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	16	0.000325	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	16	0.00025	93.75	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	16	0.0003794	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	16	0.000275	93.75	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.0004	0.006	No	18	0.001027	61.11	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	18	0.0005869	88.89	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003422	0.002738	0.006	No	18	0.0005658	0	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.00051	0.006	No	18	0.0007429	16.67	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01047</b>	<b>0.007989</b>	<b>0.006</b>	<b>Yes</b>	<b>18</b>	<b>0.002048</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-8	0.019	0.0038	0.006	No	18	0.007948	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.81	1.09	5	No	19	0.3429	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6886	0.372	5	No	18	0.2801	5.556	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7596	0.4464	5	No	18	0.2588	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.634	1.311	5	No	19	0.2755	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.301	0.9106	5	No	18	0.3224	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.946	1.349	5	No	18	0.4937	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2525	0.1609	4	No	17	0.07312	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2595	0.2076	4	No	17	0.04137	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.2	0.076	4	No	17	0.06043	41.18	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-3	0.2	0.082	4	No	17	0.06265	35.29	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3575	0.2301	4	No	17	0.1017	0	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.16	0.088	4	No	17	0.04229	17.65	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	14	0.0002405	92.86	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	14	0.0001871	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01272	0.01036	0.04	No	18	0.001954	5.556	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02194	0.01544	0.04	No	18	0.005371	0	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No	18	0.0019	5.556	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01353	0.01116	0.04	No	18	0.001958	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.04</b>	<b>Yes</b>	<b>18</b>	<b>0.02118</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03933	0.02646	0.04	No	18	0.01063	0	No	0.01	Param.
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	16	0.0000...	87.5	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	16	0.0000325	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	16	0.00003	93.75	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	16	0.0001482	43.75	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0012	0.1	No	16	0.005998	25	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.002	0.1	No	16	0.005931	75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	16	0.002872	93.75	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	16	0.002825	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00014	0.002	No	16	0.0004045	68.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	16	0.0002707	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	16	0.0001975	93.75	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	16	0.000254	87.5	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002341	0.0001279	0.002	No	16	0.0003272	18.75	ln(x)	0.01	Param.

### Non-Parametric Confidence Interval

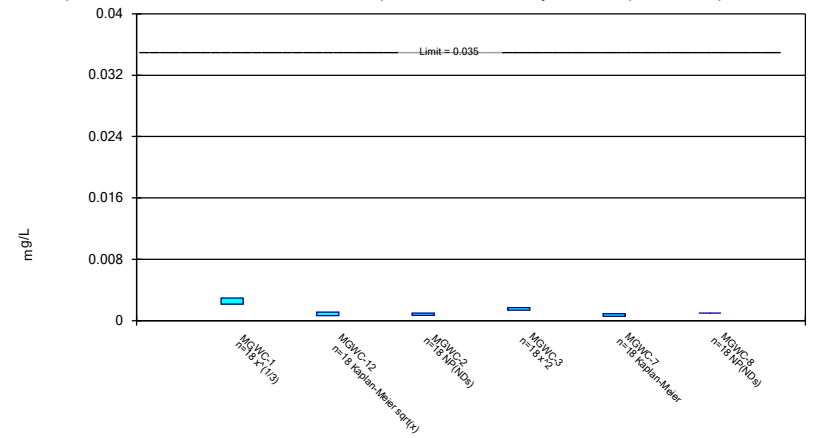
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 5/12/2021 4:24 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

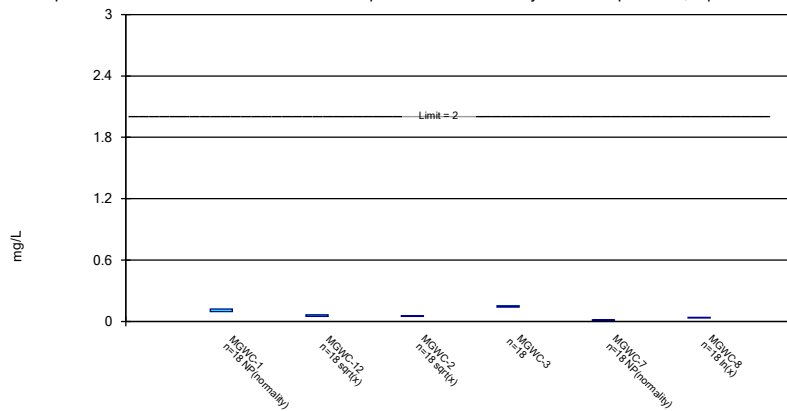
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

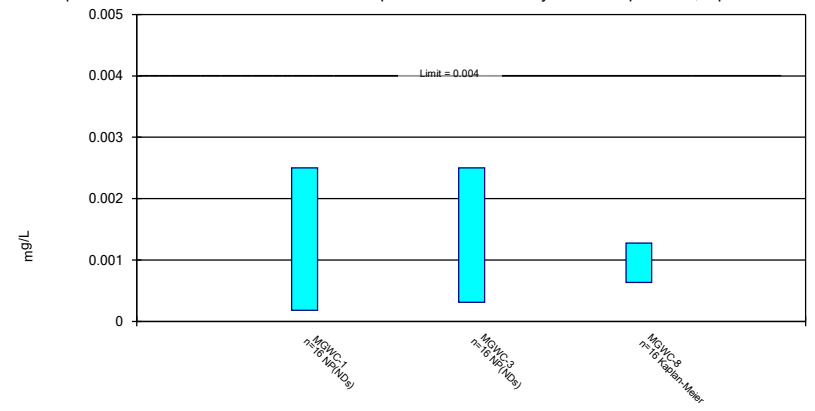
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

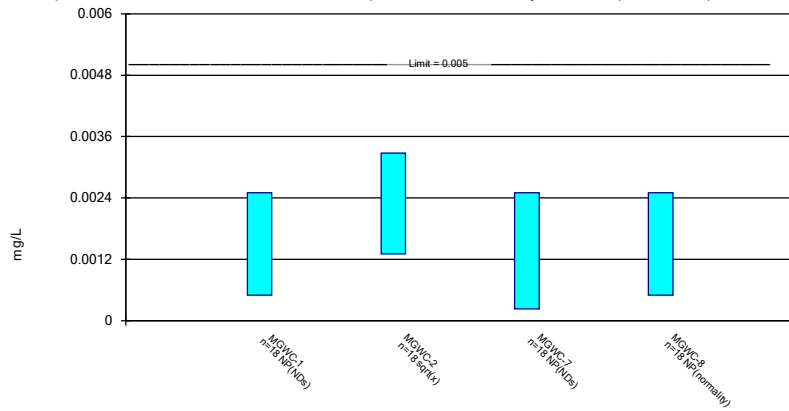
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

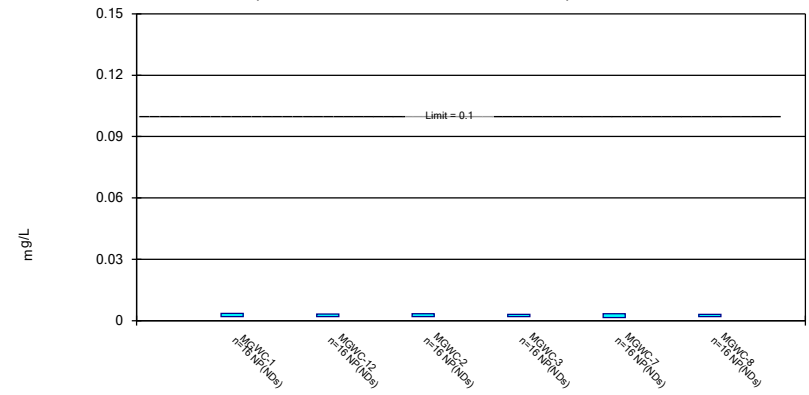
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

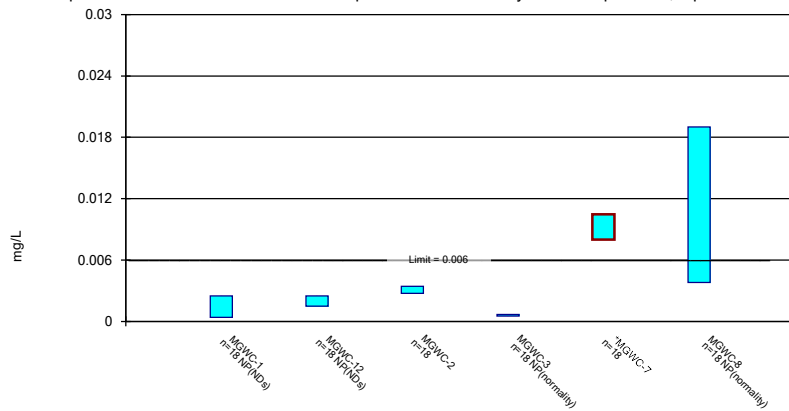
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

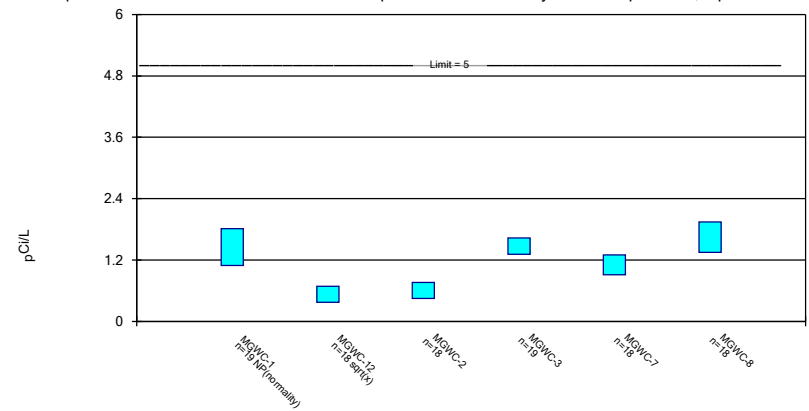
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

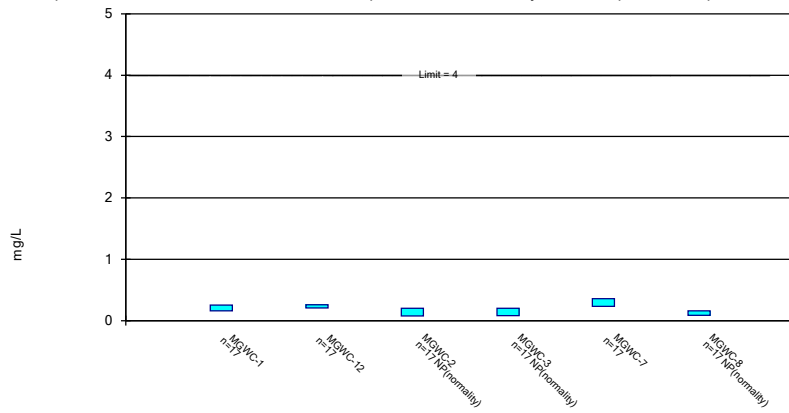
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

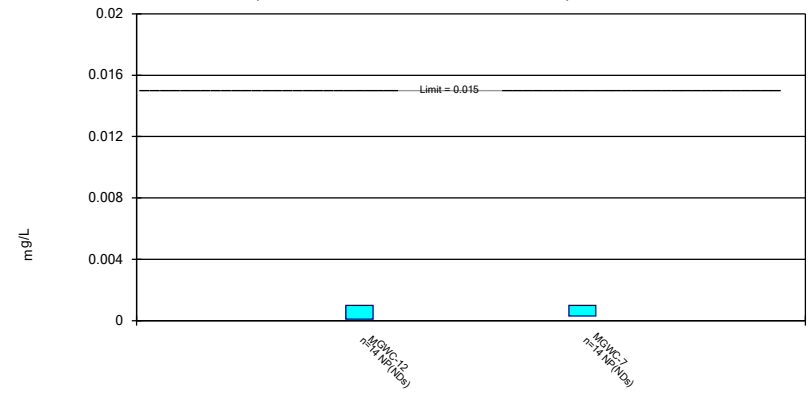
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

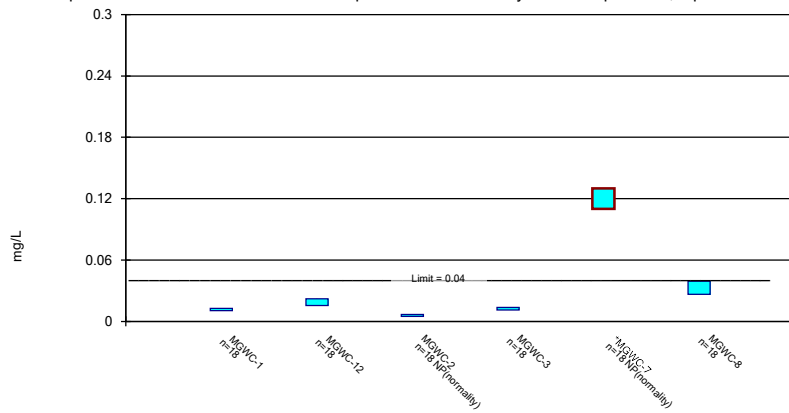
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

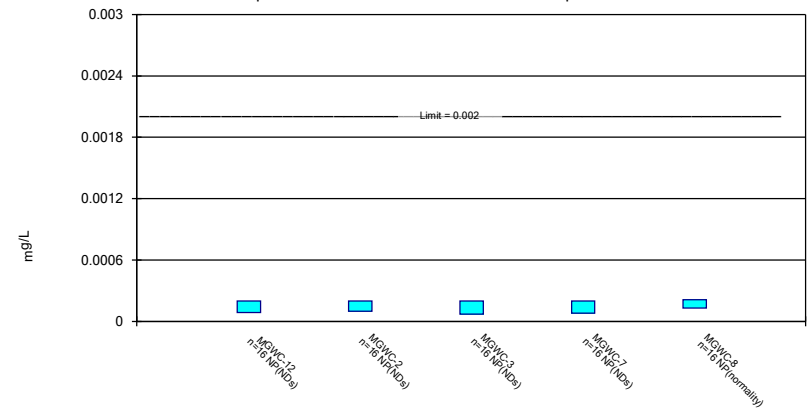
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

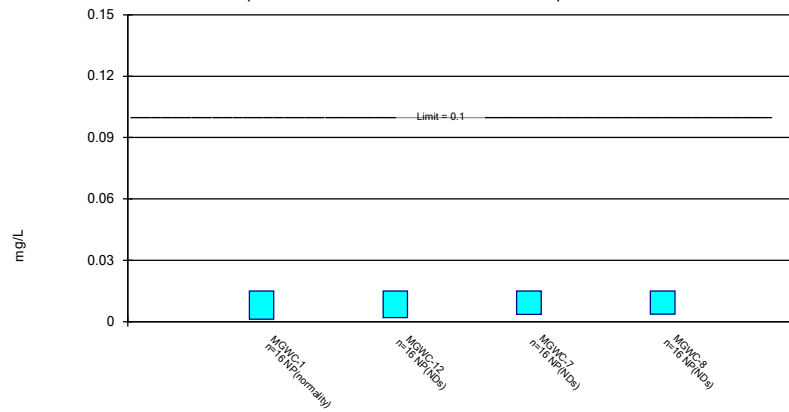
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

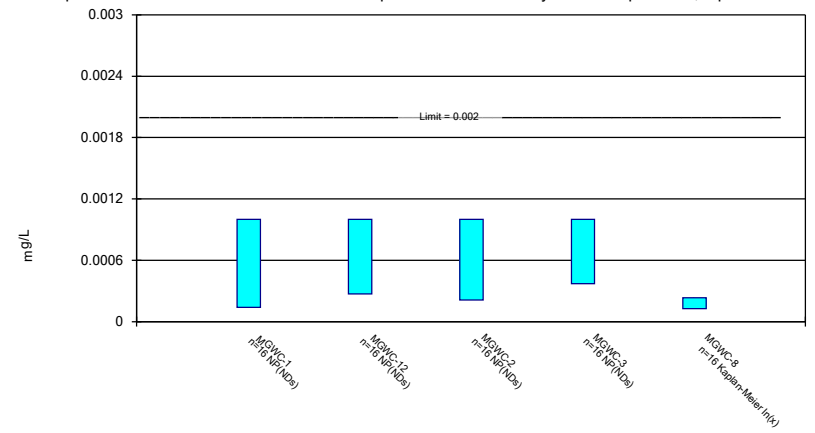
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### 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.



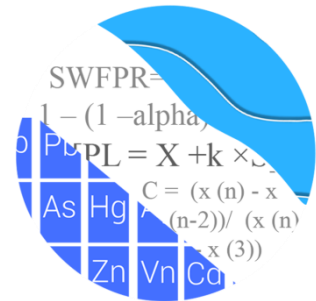
Constituent: Thallium Analysis Run 5/12/2021 4:25 AM View: Confidence Intervals  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



## GROUNDWATER STATS CONSULTING

January 31, 2022

Southern Company Services  
Attn: Ms. Lauren Coker  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308



Re: Plant McIntosh Ash Pond 1 (AP-1)  
Statistical Analysis August 2021

Dear Ms. Coker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August 2021 Semi-Annual Groundwater Detection and Assessment Monitoring statistical analysis for Georgia Power Company's Plant McIntosh AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III and IV parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Sampling is conducted on a semi-annual basis for all constituents. A list of all parameters is provided below.

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

- **Upgradient well:** MGWA-5, MGWA-6, MGWA-6A, MGWA-10, and MGWA-11
- **Downgradient wells:** MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8, and MGWC-12

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed Andrew Collins, Project Manager of Groundwater Stats Consulting

The Coal Combustion Residuals (CCR) program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228 fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter. During the annual Scan event conducted in January 2021, any constituents that are not detected do not require statistical analysis. Selenium was not detected; therefore, this constituent was not sampled during the subsequent events.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening and demonstrated that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

The original background screening was conducted in 2017 by MacStat Consulting. Values identified as outliers were flagged in the database and excluded prior to construction of statistical limits. Both intrawell and interwell prediction limits, combined with a 1-of-2 resample plan, were originally recommended. The Analysis of Variance (ANOVA) was used

to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach.

Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

### **Summary of Statistical Methods – Appendix III Parameters**

Based on the earlier evaluation described above, the following method was selected:

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

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 – August 2021**

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. When values in background have been flagged as outliers, they may be seen in a lighter font and as a disconnected symbol on the graphs. While values flagged as outliers in downgradient wells have no impact on the analysis, two high values for pH in downgradient well MGWC-12 were flagged as these measurements appeared to be anomalous. A summary of flagged values follows this report (Figure C).

#### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through August 2021 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August 2021 sample from each downgradient well is compared to the background limit to determine whether statistically significant increases (SSIs) 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: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Calcium: MGWC-1
- Chloride: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- Sulfate: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8
- TDS: MGWC-1, MGWC-2, MGWC-3, MGWC-7, and MGWC-8

### Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

#### Increasing

- Boron: MGWC-7 and MGWC-8
- Sulfate: MGWC-3 and MGWC-8
- TDS: MGWC-8

#### Decreasing

- Boron: MGWA-6 (upgradient) and MGWC-2
- Chloride: MGWA-5 (upgradient), MGWA-6 (upgradient), MGWC-2, and MGWC-7
- Sulfate: MGWA-5 (upgradient), MGWA-6 (upgradient), MGW-10 (upgradient), and MGWC-2
- TDS: MGWC-2

### **Statistical Methods – Appendix IV Parameters**

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-

specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. Confidence intervals are provided for Appendix IV well/constituent pairs with detections and with current reported data. The methods are described below.

## **Statistical Analysis of Appendix IV Parameters – August 2021**

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. Well/constituent pairs that contain 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. During this analysis, high concentrations from May 2016 through April 2017 for arsenic at upgradient well MGWA-6 were deselected prior to calculating an interwell upper tolerance limit. These historical measurements were considerably higher than more recent measurements; and this step results in a more conservative (i.e. lower) statistical limit from a regulatory perspective. All background data will be re-evaluated for upgradient wells during the next analysis. A summary of these background data ranges follows this letter. No other new values were flagged as outliers and a summary of previously flagged outliers follows this report (Figure C).

### Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for combined radium. When data contained greater than 50% 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). As described in 40 CFR §257.95(h) (1-3), the Federal GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title

- Where an MCL has not been established for a constituent, CCR-rule specified levels have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR Rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the State GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements and the CCR Rule, State and Federal GWPS were established for statistical comparison of Appendix IV constituents for the August 2021 sample event (Figures G and H, respectively).

### Confidence Intervals

To complete the statistical comparison to GWPS, State and Federal confidence intervals were constructed for the Appendix IV constituents in accordance with the State and Federal requirements in each downgradient well (Figures I and J, respectively). As mentioned above, confidence intervals were not constructed for selenium or well/constituent pairs containing 100% non-detects. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. The confidence intervals were compared to the GWPS established using the CCR Rules for the Federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Complete graphical results of the confidence intervals follow this letter and the following exceedances were identified for State and Federal confidence intervals:

State:

- Cobalt: MGWC-2, MGWC-7, and MGWC-8
- Lithium: MGWC-7

Federal:

- Cobalt: MGWC-7
- Lithium: MGWC-7

### **Resample Reports – October 2021**

Additional data were collected in October 2021 for mercury and pH in downgradient well MGWC-8. Interwell prediction limits were constructed for pH, using pooled upgradient well data through August 2021, to compare the October 2021 sample at well MGWC-8 (Figure K). No exceedance was identified for pH; therefore, no further action is necessary. A confidence interval for mercury in well MGWC-8 was compared to the established GWPS and no exceedance was identified (Figure L).

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant McIntosh AP-1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Abdul Diane  
Groundwater Analyst



Andrew Collins  
Project Manager



# 100% Non-Detects: Appendix IV Downgradient

Analysis Run 11/1/2021 2:55 AM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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Antimony (mg/L)  
MGWC-1, MGWC-2, MGWC-8

Beryllium (mg/L)  
MGWC-12, MGWC-2, MGWC-7

Cadmium (mg/L)  
MGWC-12, MGWC-3

Lead (mg/L)  
MGWC-1, MGWC-2, MGWC-3

Mercury (mg/L)  
MGWC-1

Molybdenum (mg/L)  
MGWC-2, MGWC-3

Thallium (mg/L)  
MGWC-7

# Date Ranges

Date: 11/9/2021 4:27 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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Arsenic (mg/L)

MGWA-6 overall:3/29/2018-8/24/2021

# Appendix III Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 5:49 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)	MGWC-1	0.18	n/a	8/25/2021	1.7	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	8/24/2021	2.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	8/24/2021	0.97	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	8/25/2021	1.6	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	8/25/2021	4.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	8/25/2021	120	Yes	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.478	n/a	8/25/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.478	n/a	8/24/2021	13	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.478	n/a	8/24/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.478	n/a	8/25/2021	9.9	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.478	n/a	8/25/2021	11	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	21.25	n/a	8/25/2021	140	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	21.25	n/a	8/24/2021	160	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	21.25	n/a	8/24/2021	130	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	21.25	n/a	8/25/2021	180	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	21.25	n/a	8/25/2021	420	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.2	n/a	8/25/2021	470	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.2	n/a	8/24/2021	510	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.2	n/a	8/24/2021	450	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.2	n/a	8/25/2021	390	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.2	n/a	8/25/2021	720	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 5:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Boron (mg/L)</b>	<b>MGWC-1</b>	<b>0.18</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>1.7</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-12	0.18	n/a	8/25/2021	0.11	No	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>0.18</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>2.2</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-3	0.18	n/a	8/24/2021	0.97	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.18</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>1.6</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-8	0.18	n/a	8/25/2021	4.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-1</b>	<b>110</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>120</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MGWC-12	110	n/a	8/25/2021	31	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	8/24/2021	110	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	8/24/2021	110	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	8/25/2021	59	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	8/25/2021	96	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-1</b>	<b>9.478</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>14</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-12	9.478	n/a	8/25/2021	4.9	No	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>9.478</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>13</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-3	9.478	n/a	8/24/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>9.478</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>9.9</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-8	9.478	n/a	8/25/2021	11	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	8/25/2021	0.097J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	8/25/2021	0.19	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	8/24/2021	0.095J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	8/24/2021	0.11	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	8/25/2021	0.15	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-8	0.19	n/a	8/25/2021	0.038J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.968	5.034	8/25/2021	7.27	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.968	5.034	8/25/2021	7.44	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.968	5.034	8/24/2021	7.42	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.968	5.034	8/24/2021	6.92	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.968	5.034	8/25/2021	6.85	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.968	5.034	8/25/2021	5.26	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-1</b>	<b>21.25</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>140</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-12	21.25	n/a	8/25/2021	6.6	No	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>21.25</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>160</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-3	21.25	n/a	8/24/2021	130	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-7</b>	<b>21.25</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>180</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-8	21.25	n/a	8/25/2021	420	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-1</b>	<b>349.2</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>470</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-12	349.2	n/a	8/25/2021	230	No	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>349.2</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>510</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-3	349.2	n/a	8/24/2021	450	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-7</b>	<b>349.2</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>390</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-8	349.2	n/a	8/25/2021	720	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2

# Appendix III Trend Test Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/1/2021, 2:36 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02491	-95	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2919	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06231	92	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.8615	75	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.2046	-64	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.25	-114	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.995	-117	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.7217	-101	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.3651	-77	-63	Yes	17	23.53	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.7444	-75	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.552	-110	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-29.44	-117	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.17	100	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	65.37	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-40.26	-97	-63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	99.4	91	63	Yes	17	0	n/a	n/a	0.01	NP

# Appendix III Trend Test Summary - All Results

Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 11/1/2021, 2:36 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	38	63	No	17	64.71	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-11 (bg)	0	13	63	No	17	58.82	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-5 (bg)	0	27	63	No	17	88.24	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-0.02491</b>	<b>-95</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>11.76</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	MGWA-6A (bg)	0	0	18	No	7	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-1	0.1794	55	63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>-0.2919</b>	<b>-84</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>
Boron (mg/L)	MGWC-3	0.05324	23	63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.06231</b>	<b>92</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>Boron (mg/L)</b>	<b>MGWC-8</b>	<b>0.8615</b>	<b>75</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)	MGWA-10 (bg)	-0.3893	-58	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-11 (bg)	-0.3238	-11	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-5 (bg)	0	-6	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6 (bg)	0	26	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6A (bg)	-1.286	-1	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWC-1	4.088	50	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-10 (bg)	0	-1	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-11 (bg)	0.02237	8	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.2046</b>	<b>-64</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>Chloride (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-1.25</b>	<b>-114</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>
Chloride (mg/L)	MGWA-6A (bg)	-0.4011	-15	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-1	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>-1.995</b>	<b>-117</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>
Chloride (mg/L)	MGWC-3	0.207	57	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.7217</b>	<b>-101</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>
Chloride (mg/L)	MGWC-8	0.3127	56	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.3651</b>	<b>-77</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>23.53</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-11 (bg)	0.4104	57	63	No	17	35.29	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.7444</b>	<b>-75</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>MGWA-6 (bg)</b>	<b>-3.552</b>	<b>-110</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)	MGWA-6A (bg)	-0.05007	-1	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-1	3.428	29	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>-29.44</b>	<b>-117</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>MGWC-3</b>	<b>7.17</b>	<b>100</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)	MGWC-7	0.9651	39	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-8</b>	<b>65.37</b>	<b>93</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>
TDS (mg/L)	MGWA-10 (bg)	-5.101	-41	-63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-11 (bg)	0	4	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-5 (bg)	0.386	8	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6 (bg)	0	-12	-63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6A (bg)	10.4	6	18	No	7	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-1	13.02	28	63	No	17	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>-40.26</b>	<b>-97</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>
TDS (mg/L)	MGWC-3	5.043	23	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-7	5.428	19	63	No	17	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>99.4</b>	<b>91</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>

# Upper Tolerance Limits Summary Table

Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 11/9/2021, 5:47 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>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	0.002	n/a	n/a	n/a	66	n/a	n/a	89.39	n/a	n/a	0.03387	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.014	n/a	n/a	n/a	76	n/a	n/a	36.84	n/a	n/a	0.02028	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	74	n/a	n/a	93.24	n/a	n/a	0.02247	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	74	n/a	n/a	70.27	n/a	n/a	0.02247	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	84	n/a	n/a	73.81	n/a	n/a	0.01345	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.137	n/a	n/a	n/a	85	0.5577	0.2965	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	79	n/a	n/a	27.85	n/a	n/a	0.01738	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	66	n/a	n/a	92.42	n/a	n/a	0.03387	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	84	n/a	n/a	29.76	n/a	n/a	0.01345	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	74	n/a	n/a	95.95	n/a	n/a	0.02247	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	74	n/a	n/a	62.16	n/a	n/a	0.02247	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	74	n/a	n/a	79.73	n/a	n/a	0.02247	NP Inter(NDs)

<b>PLANT MCINTOSH AP 1 GWPS - STATE</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.0025
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*



<b>PLANT MCINTOSH AP 1 GWPS - FEDERAL</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

# State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	MGWC-2	0.003378	0.002648	0.0025	Yes	19	0.003013	0.0006233	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01037	0.007901	0.0025	Yes	19	0.008911	0.002423	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.02	0.0038	0.0025	Yes	19	0.01192	0.008031	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes	19	0.1207	0.02059	0	None	No	0.01	NP (normality)

# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	15	0.001893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	15	0.001887	0.0004389	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	15	0.001998	0.00007746	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002947	0.002028	0.014	No	19	0.002487	0.0007844	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.00107	0.0006351	0.014	No	19	0.0009847	0.000376	31.58	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	19	0.0008995	0.0002111	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001662	0.001355	0.014	No	19	0.001486	0.0003106	5.263	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008748	0.000543	0.014	No	19	0.0008468	0.0002735	36.84	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	19	0.0009268	0.0001734	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	19	0.107	0.01724	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06456	0.04828	2	No	19	0.05694	0.01469	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05469	0.04934	2	No	19	0.05207	0.004645	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1539	0.1391	2	No	19	0.1465	0.01266	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	19	0.01289	0.007042	5.263	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03878	0.03291	2	No	19	0.03607	0.005494	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	17	0.002364	0.0005627	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	17	0.002371	0.0005312	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.00124	0.0006311	0.004	No	17	0.001318	0.0007532	17.65	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	19	0.002147	0.00084	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003124	0.001228	0.005	No	19	0.002367	0.001936	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	19	0.002381	0.0005208	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0009969	0.0005017	0.005	No	19	0.001464	0.001161	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	17	0.002094	0.0003881	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	17	0.003659	0.006537	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	17	0.002076	0.0003153	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	17	0.002059	0.0002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	17	0.002053	0.0003676	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	17	0.002065	0.0002668	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.00032	0.0025	No	19	0.001638	0.001059	57.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No	19	0.002324	0.000572	89.47	None	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>0.003378</b>	<b>0.002648</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.003013</b>	<b>0.0006233</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.0025	No	19	0.0008642	0.000733	15.79	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01037</b>	<b>0.007901</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.008911</b>	<b>0.002423</b>	<b>0</b>	<b>None</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.02</b>	<b>0.0038</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.01192</b>	<b>0.008031</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.651	1.231	5	No	20	1.441	0.37	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6874	0.4	5	No	19	0.5607	0.263	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7401	0.4354	5	No	19	0.5877	0.2602	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.635	1.327	5	No	20	1.481	0.2711	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.277	0.8988	5	No	19	1.088	0.3228	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.961	1.384	5	No	19	1.673	0.4924	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2463	0.1549	4	No	18	0.2006	0.0755	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2562	0.206	4	No	18	0.2311	0.04143	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1123	0.07175	4	No	18	0.09872	0.03047	38.89	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	18	0.1005	0.03758	33.33	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3489	0.2227	4	No	18	0.2858	0.1043	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.088	4	No	18	0.1014	0.0257	16.67	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	15	0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	15	0.0008993	0.0002665	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.001	No	15	0.000948	0.0002014	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01258	0.0103	0.03	No	19	0.01144	0.00195	5.263	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02166	0.01554	0.03	No	19	0.0186	0.005234	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No	19	0.006067	0.001846	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01344	0.01121	0.03	No	19	0.01233	0.001905	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.03</b>	<b>Yes</b>	<b>19</b>	<b>0.1207</b>	<b>0.02059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03919	0.02704	0.03	No	19	0.03311	0.01037	0	None	No	0.01	Param.

# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	17	0.0001859	0.00003991	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	17	0.0001869	0.00003707	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	17	0.0001924	0.00003153	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	17	0.0001929	0.0000291	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	17	0.0004339	0.0009556	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0011	0.015	No	17	0.004732	0.005892	23.53	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.0024	0.015	No	17	0.01188	0.005798	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	17	0.01432	0.002787	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	17	0.01434	0.002741	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	17	0.0007532	0.0003968	70.59	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	17	0.0009071	0.0002632	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	17	0.0009535	0.0001916	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	17	0.0009135	0.0002469	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002508	0.0001346	0.002	No	17	0.0003641	0.0003169	17.65	Kaplan-Meier	ln(x)	0.01	Param.

# Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-7	0.01037	0.007901	0.006	Yes 19	0.008911	0.002423	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 19	0.1207	0.02059	0	None	No	0.01	NP (normality)

# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	15	0.001893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	15	0.001887	0.0004389	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	15	0.001998	0.00007746	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002947	0.002028	0.014	No	19	0.002487	0.0007844	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.00107	0.0006351	0.014	No	19	0.0009847	0.000376	31.58	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	19	0.0008995	0.0002111	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001662	0.001355	0.014	No	19	0.001486	0.0003106	5.263	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008748	0.000543	0.014	No	19	0.0008468	0.0002735	36.84	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	19	0.0009268	0.0001734	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	19	0.107	0.01724	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06456	0.04828	2	No	19	0.05694	0.01469	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05469	0.04934	2	No	19	0.05207	0.004645	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1539	0.1391	2	No	19	0.1465	0.01266	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	19	0.01289	0.007042	5.263	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03878	0.03291	2	No	19	0.03607	0.005494	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	17	0.002364	0.0005627	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	17	0.002371	0.0005312	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.00124	0.0006311	0.004	No	17	0.001318	0.0007532	17.65	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	19	0.002147	0.00084	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003124	0.001228	0.005	No	19	0.002367	0.001936	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	19	0.002381	0.0005208	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0009969	0.0005017	0.005	No	19	0.001464	0.001161	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	17	0.002094	0.0003881	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	17	0.003659	0.006537	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	17	0.002076	0.0003153	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	17	0.002059	0.0002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	17	0.002053	0.0003676	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	17	0.002065	0.0002668	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.00032	0.006	No	19	0.001638	0.001059	57.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	19	0.002324	0.000572	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003378	0.002648	0.006	No	19	0.003013	0.0006233	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.006	No	19	0.0008642	0.000733	15.79	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01037</b>	<b>0.007901</b>	<b>0.006</b>	<b>Yes</b>	<b>19</b>	<b>0.008911</b>	<b>0.002423</b>	<b>0</b>	<b>None</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-8	0.02	0.0038	0.006	No	19	0.01192	0.008031	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.651	1.231	5	No	20	1.441	0.37	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6874	0.4	5	No	19	0.5607	0.263	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7401	0.4354	5	No	19	0.5877	0.2602	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.635	1.327	5	No	20	1.481	0.2711	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.277	0.8988	5	No	19	1.088	0.3228	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.961	1.384	5	No	19	1.673	0.4924	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2463	0.1549	4	No	18	0.2006	0.0755	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2562	0.206	4	No	18	0.2311	0.04143	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1123	0.07175	4	No	18	0.09872	0.03047	38.89	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	18	0.1005	0.03758	33.33	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3489	0.2227	4	No	18	0.2858	0.1043	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.088	4	No	18	0.1014	0.0257	16.67	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	15	0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	15	0.0008993	0.0002665	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.015	No	15	0.000948	0.0002014	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01258	0.0103	0.04	No	19	0.01144	0.00195	5.263	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02166	0.01554	0.04	No	19	0.0186	0.005234	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No	19	0.006067	0.001846	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01344	0.01121	0.04	No	19	0.01233	0.001905	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.04</b>	<b>Yes</b>	<b>19</b>	<b>0.1207</b>	<b>0.02059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03919	0.02704	0.04	No	19	0.03311	0.01037	0	None	No	0.01	Param.

# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	17	0.0001859	0.00003991	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	17	0.0001869	0.00003707	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	17	0.0001924	0.00003153	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	17	0.0001929	0.0000291	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	17	0.0004339	0.0009556	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0011	0.1	No	17	0.004732	0.005892	23.53	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.0024	0.1	No	17	0.01188	0.005798	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	17	0.01432	0.002787	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	17	0.01434	0.002741	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	17	0.0007532	0.0003968	70.59	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	17	0.0009071	0.0002632	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	17	0.0009535	0.0001916	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	17	0.0009135	0.0002469	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002508	0.0001346	0.002	No	17	0.0003641	0.0003169	17.65	Kaplan-Meier	ln(x)	0.01	Param.

# Appendix IV Trend Test Summary - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/8/2021, 1:29 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>-0.0002542</b>	<b>-83</b>	<b>-68</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.004455</b>	<b>109</b>	<b>68</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>



# Appendix IV Trend Test Summary - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/8/2021, 1:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt (mg/L)	MGWA-10 (bg)	0	-9	-68	No	19	84.21	n/a	n/a	0.02	NP
Cobalt (mg/L)	MGWA-11 (bg)	0	18	68	No	19	94.74	n/a	n/a	0.02	NP
Cobalt (mg/L)	MGWA-5 (bg)	0	16	68	No	19	94.74	n/a	n/a	0.02	NP
Cobalt (mg/L)	MGWA-6 (bg)	0	-7	-68	No	19	42.11	n/a	n/a	0.02	NP
Cobalt (mg/L)	MGWA-6A (bg)	0.00001931	1	20	No	8	25	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>-0.0002542</b>	<b>-83</b>	<b>-68</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Cobalt (mg/L)	MGWC-3	-0.0000117	-22	-68	No	19	15.79	n/a	n/a	0.02	NP
Cobalt (mg/L)	MGWC-7	-0.0004059	-34	-68	No	19	0	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.004455</b>	<b>109</b>	<b>68</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Lithium (mg/L)	MGWA-10 (bg)	0.00008147	15	68	No	19	5.263	n/a	n/a	0.02	NP
Lithium (mg/L)	MGWA-11 (bg)	0.0003456	10	68	No	19	0	n/a	n/a	0.02	NP
Lithium (mg/L)	MGWA-5 (bg)	0.0003793	31	68	No	19	5.263	n/a	n/a	0.02	NP
Lithium (mg/L)	MGWA-6 (bg)	0	8	68	No	19	94.74	n/a	n/a	0.02	NP
Lithium (mg/L)	MGWA-6A (bg)	-0.0001715	-16	-20	No	8	62.5	n/a	n/a	0.02	NP
Lithium (mg/L)	MGWC-7	0	-11	-68	No	19	0	n/a	n/a	0.02	NP

# Appendix III Interwell Prediction Limits - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 2:59 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>
pH (SU)	MGWC-8	7.968	5.034	10/26/2021	5.99	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2

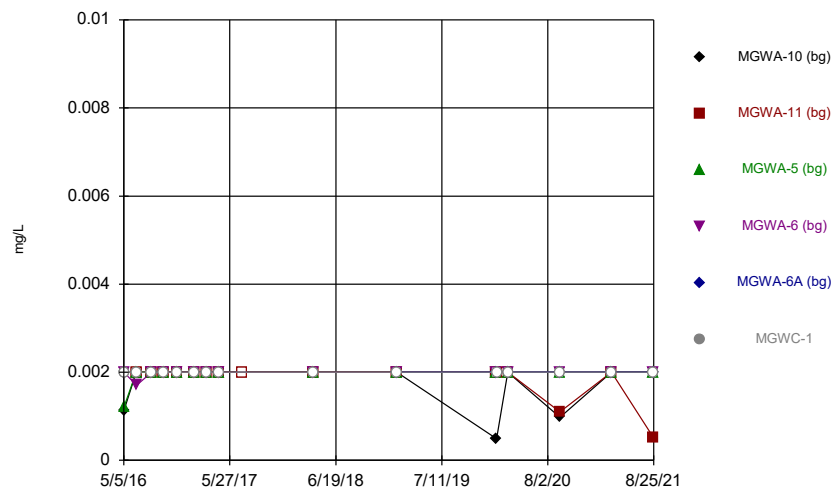
# Federal & State Confidence Intervals - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No 18	0.0004209	0.0009287	44.44	None	No	0.01	NP (normality)

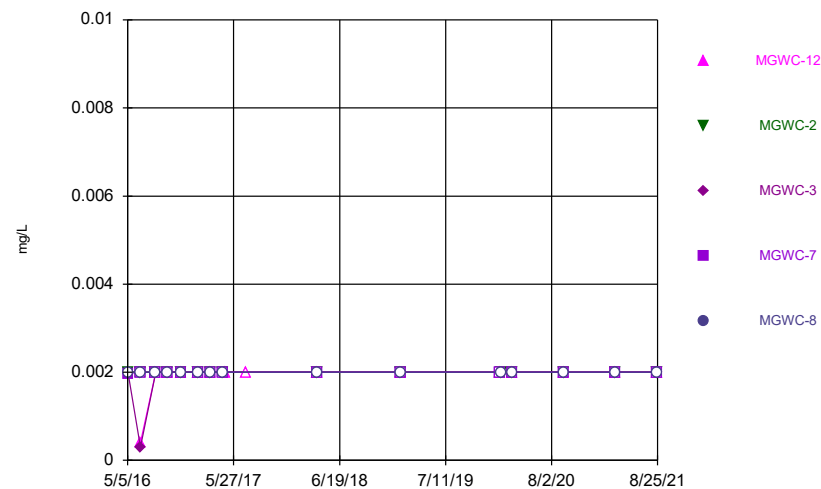
FIGURE A.

Time Series



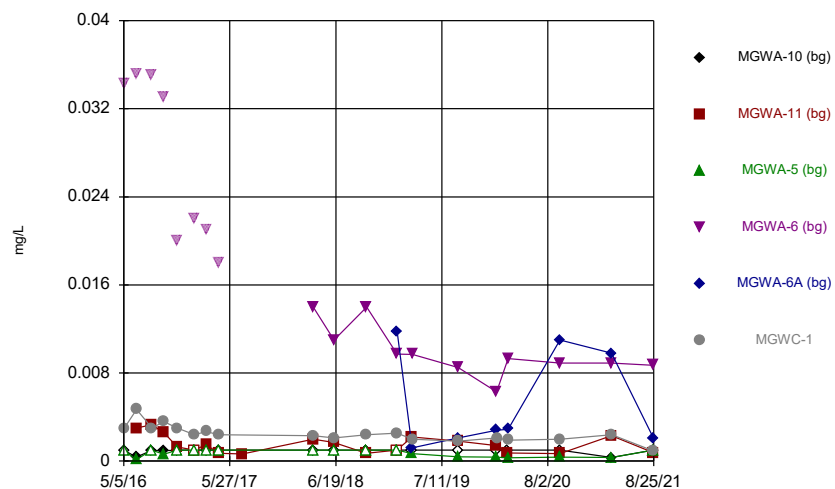
Constituent: Antimony Analysis Run 11/9/2021 4:27 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



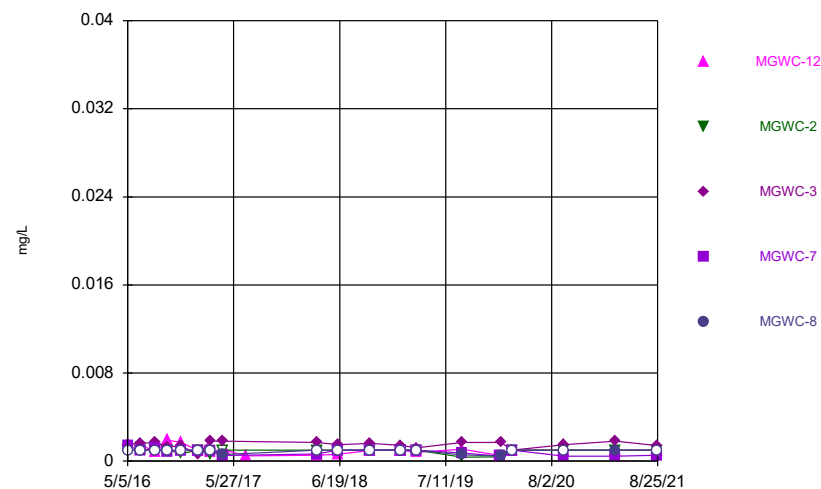
Constituent: Antimony Analysis Run 11/9/2021 4:27 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



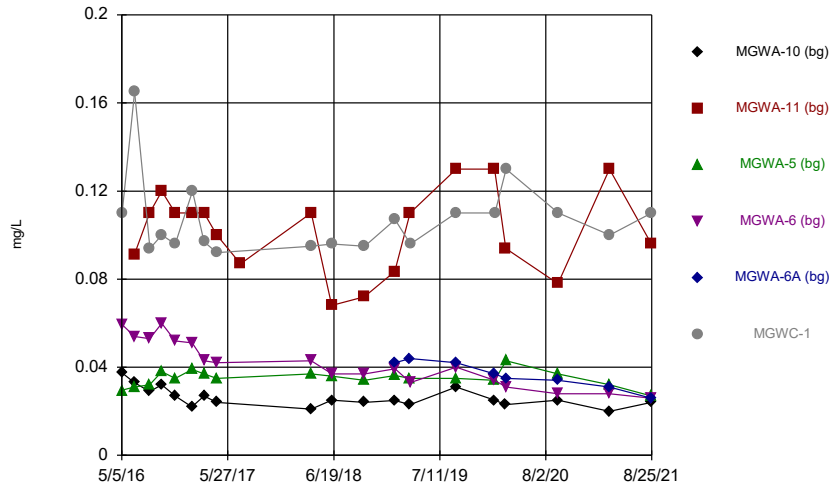
Constituent: Arsenic Analysis Run 11/9/2021 4:27 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



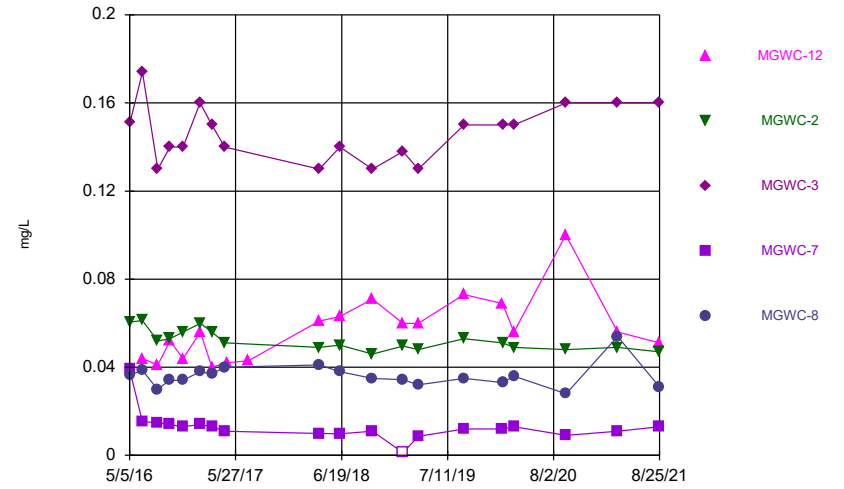
Constituent: Arsenic Analysis Run 11/9/2021 4:27 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



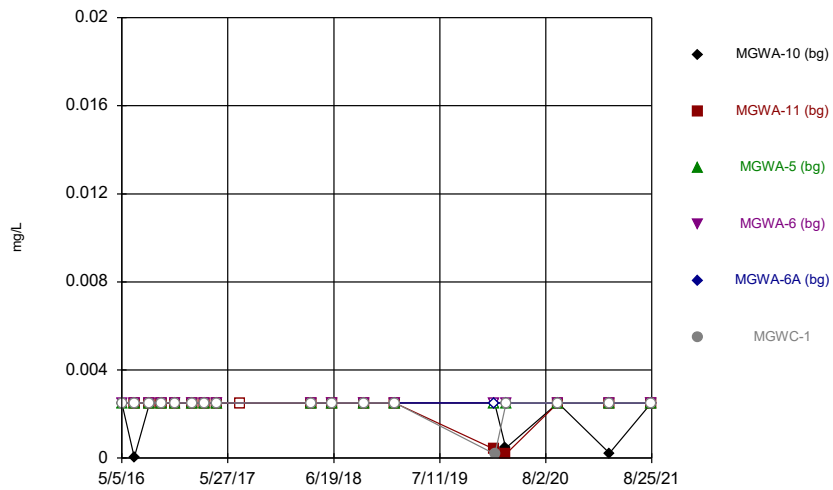
Constituent: Barium Analysis Run 11/9/2021 4:27 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



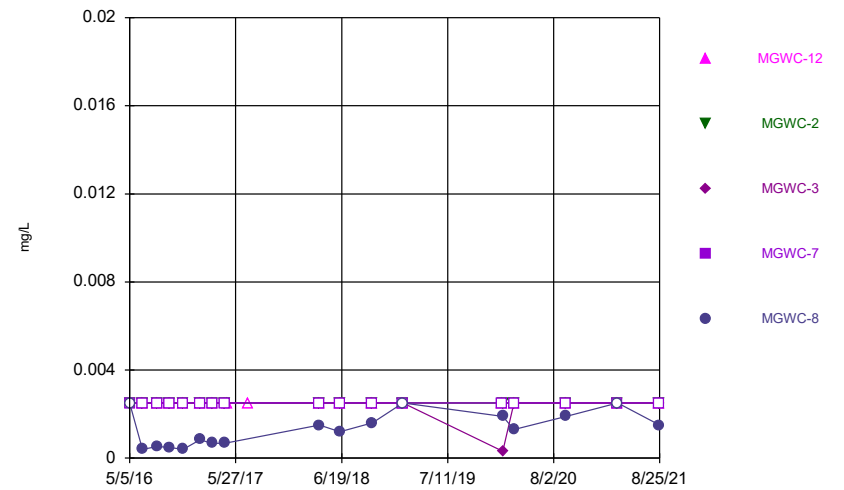
Constituent: Barium Analysis Run 11/9/2021 4:27 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



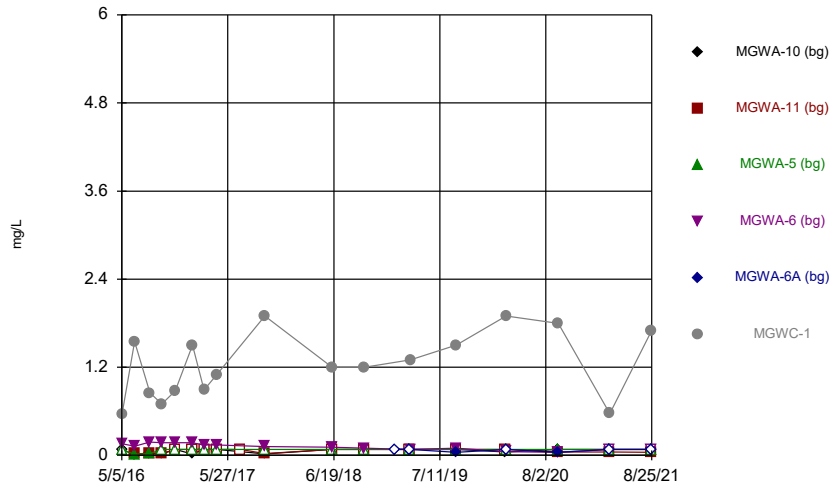
Constituent: Beryllium Analysis Run 11/9/2021 4:27 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



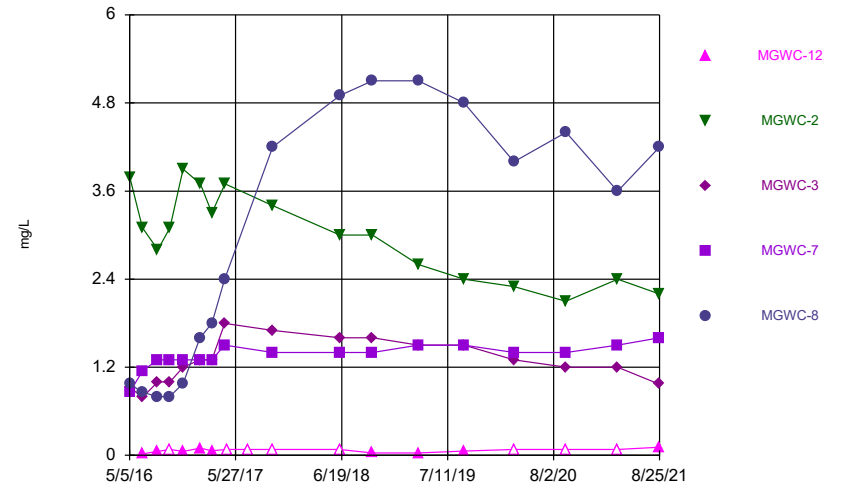
Constituent: Beryllium Analysis Run 11/9/2021 4:27 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



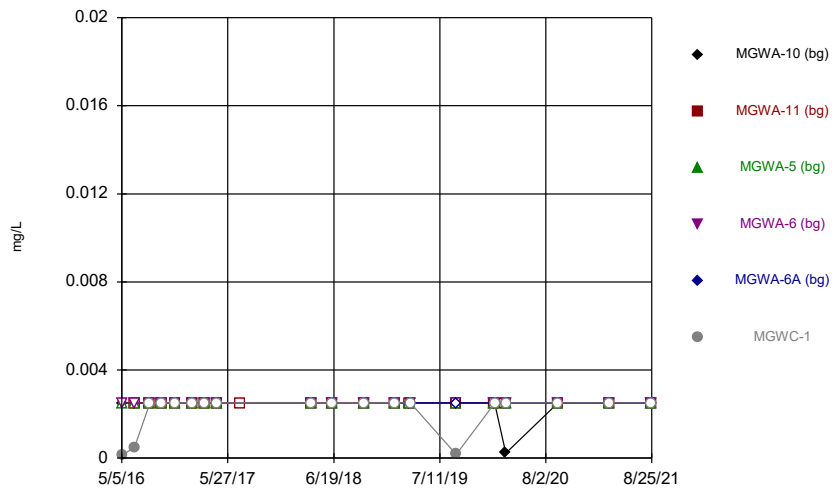
Constituent: Boron Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



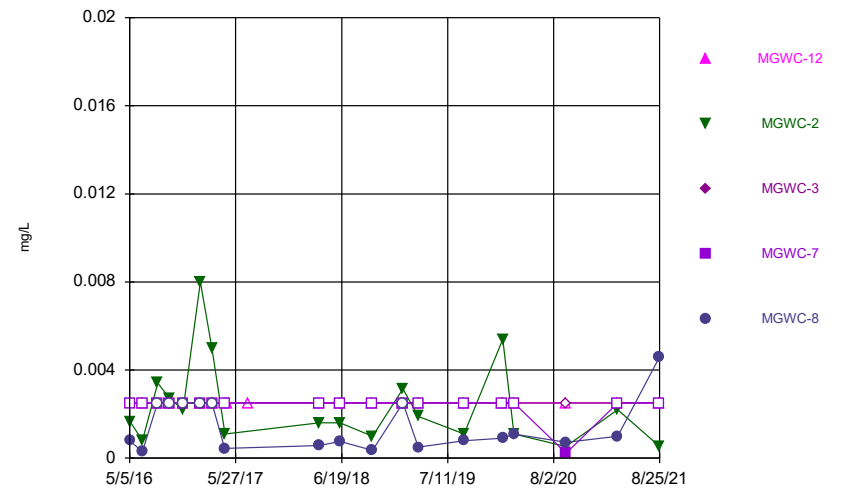
Constituent: Boron Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



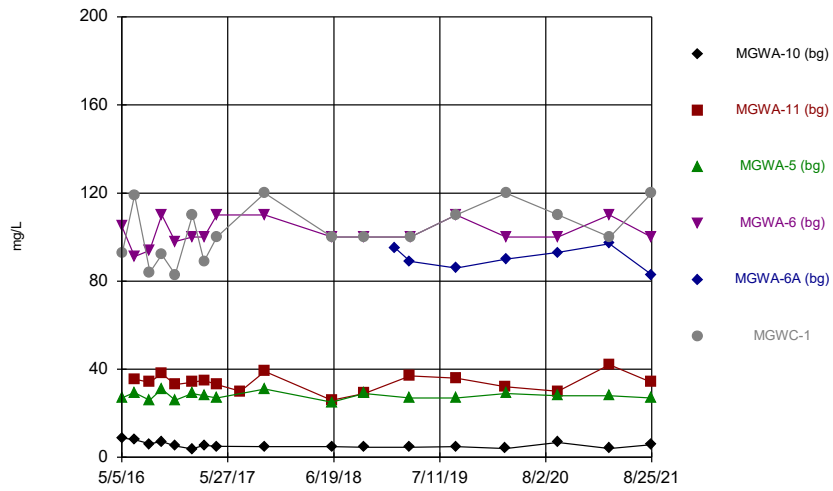
Constituent: Cadmium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



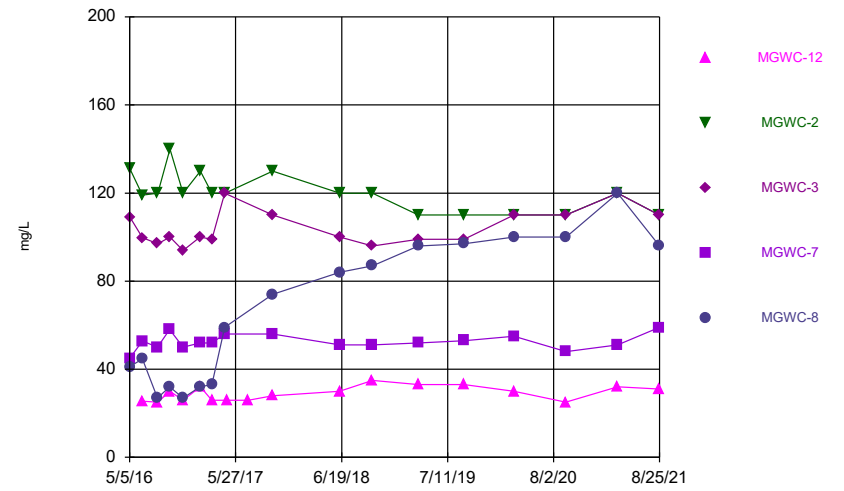
Constituent: Cadmium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



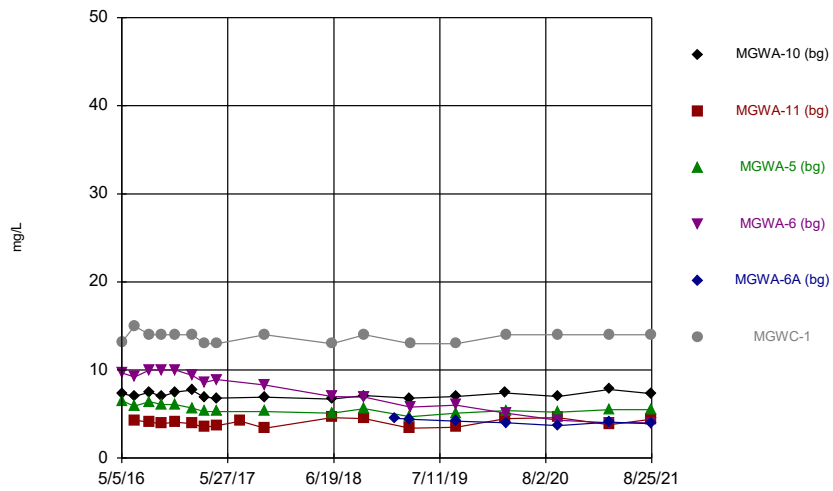
Constituent: Calcium Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



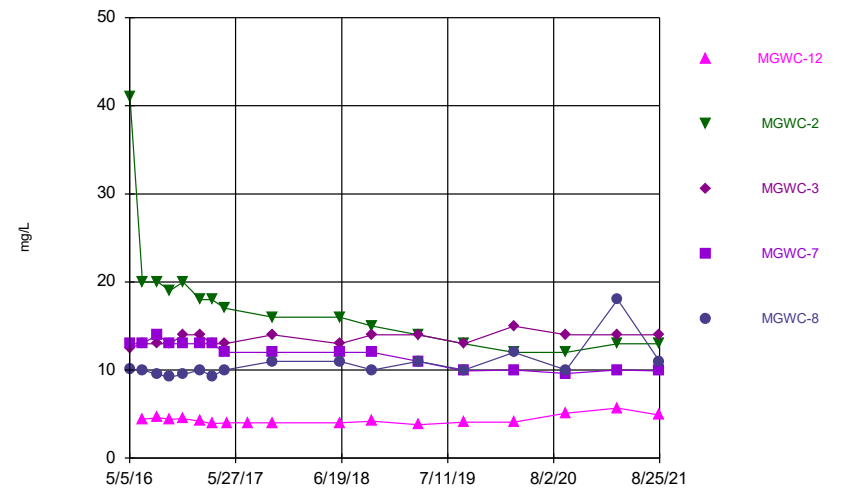
Constituent: Calcium Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



Constituent: Chloride Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

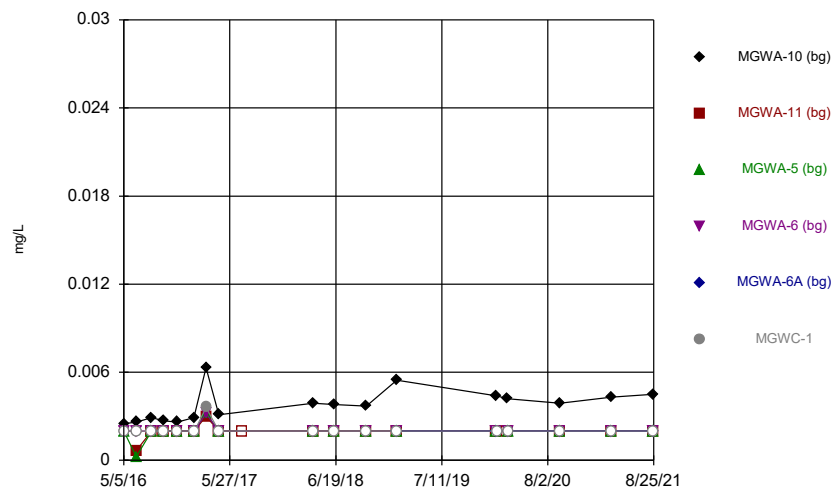
Time Series



Constituent: Chloride Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

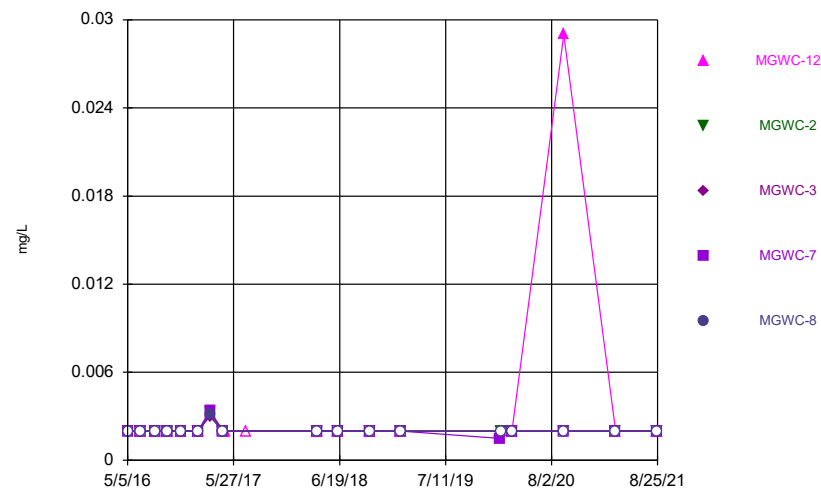


### Time Series



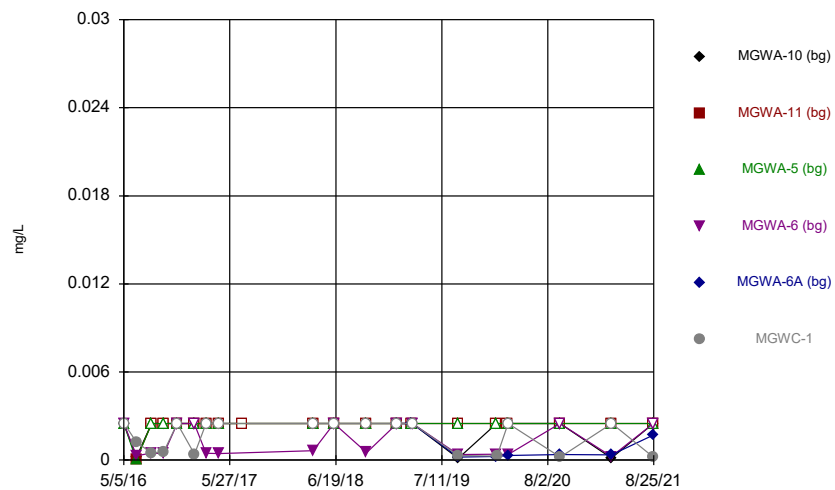
Constituent: Chromium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



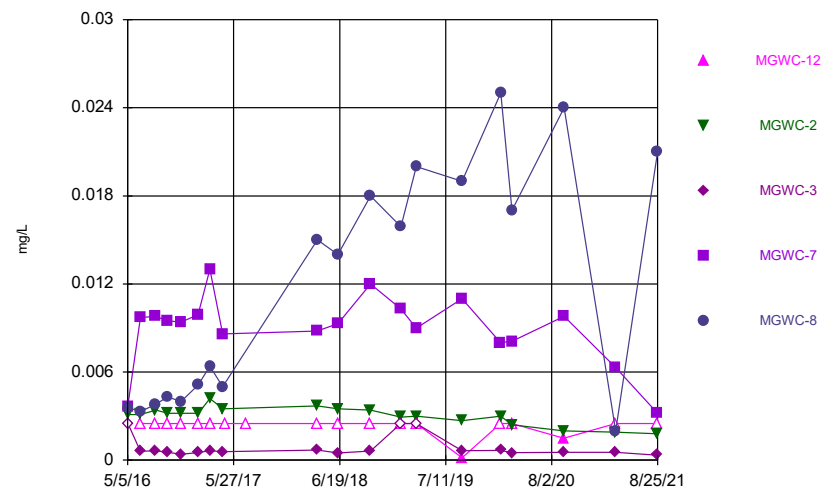
Constituent: Chromium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



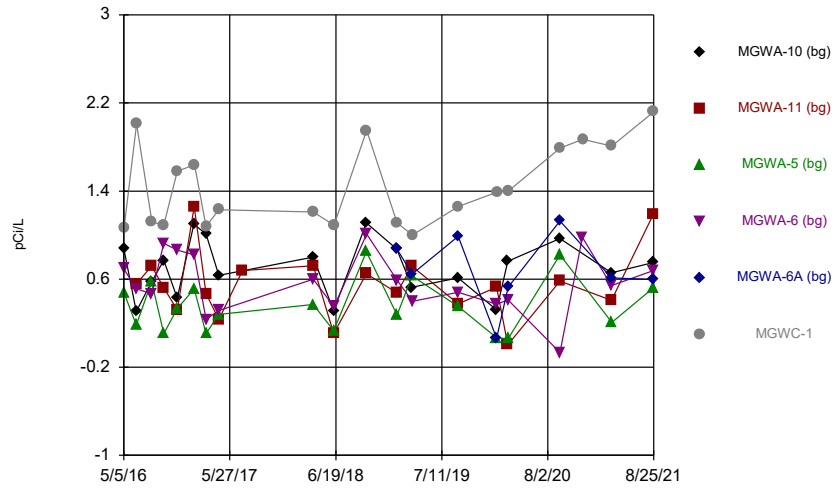
Constituent: Cobalt Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



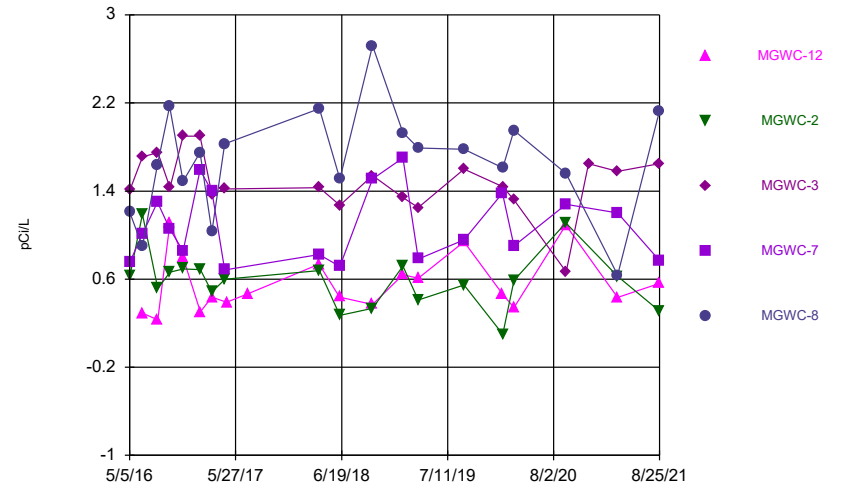
Constituent: Cobalt Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



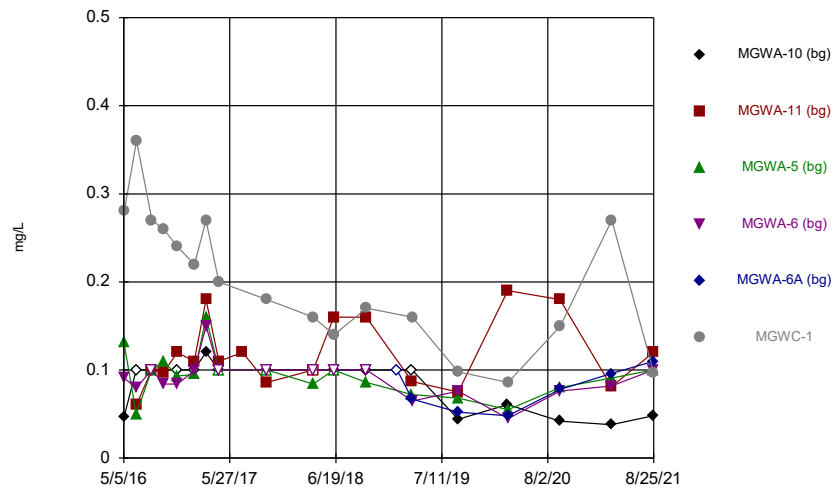
Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



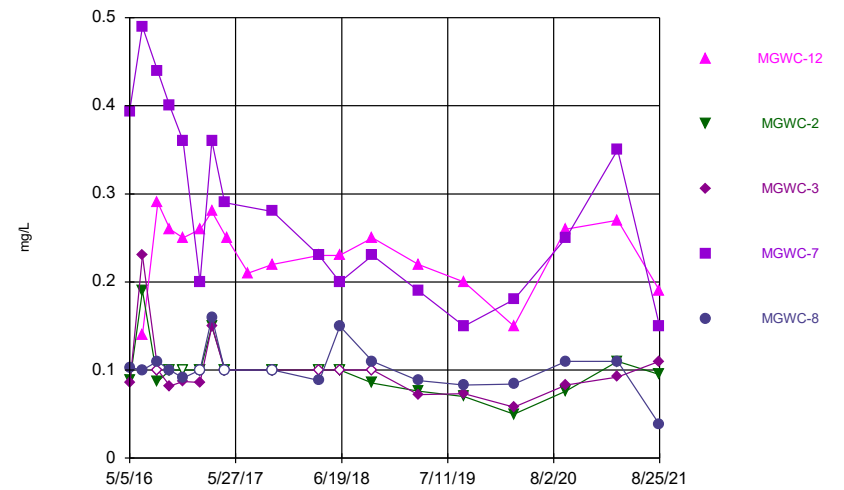
Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



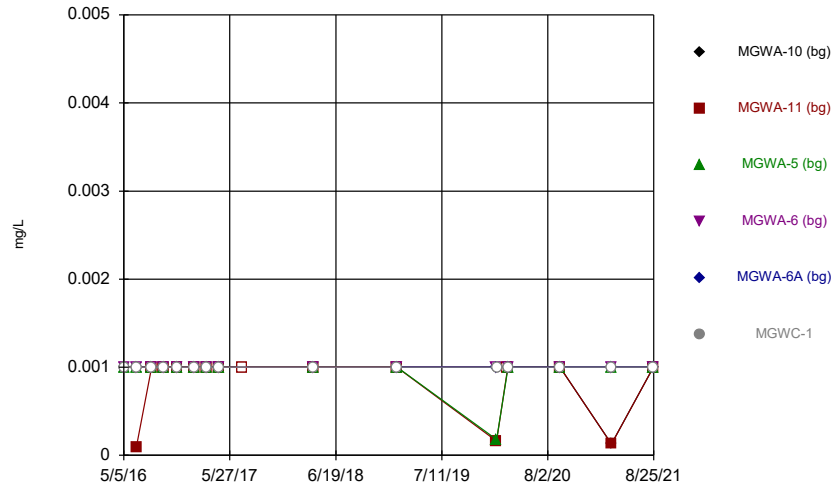
Constituent: Fluoride Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



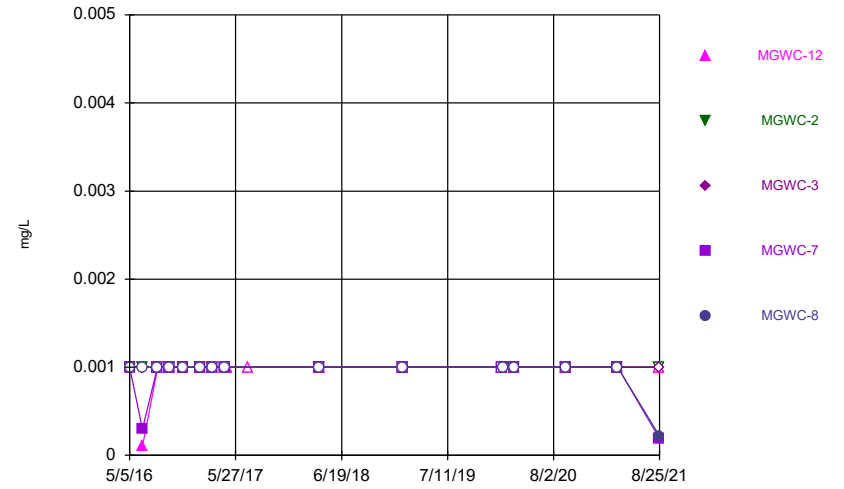
Constituent: Fluoride Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



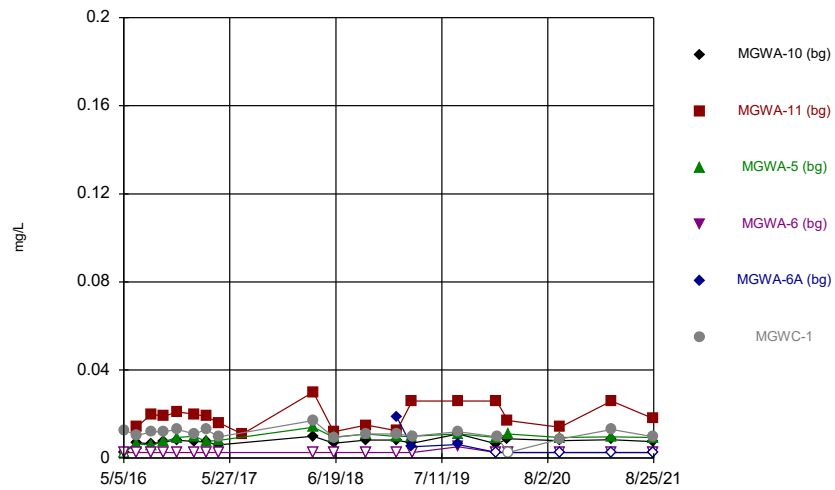
Constituent: Lead Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



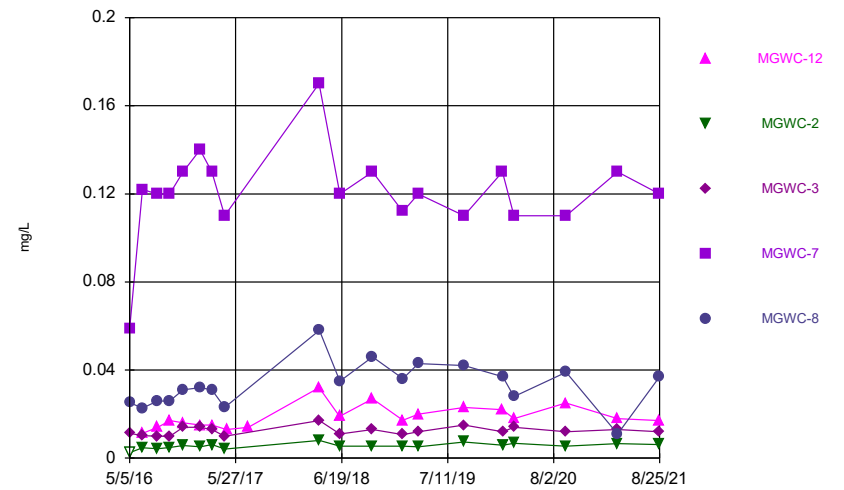
Constituent: Lead Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



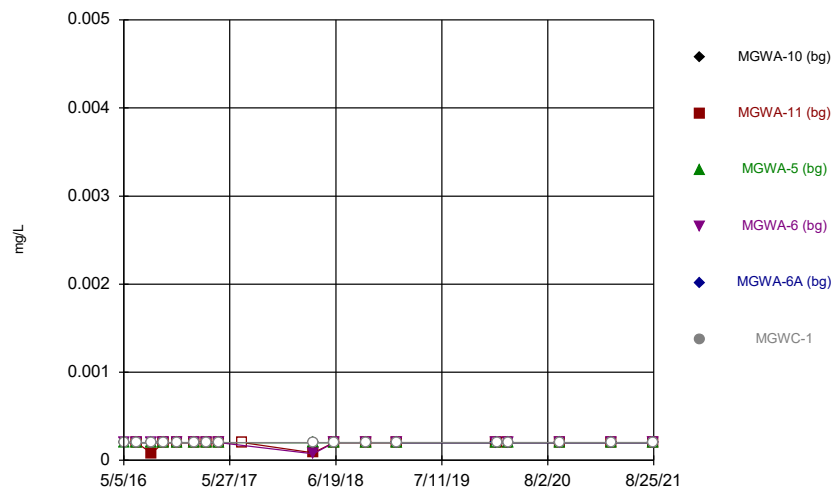
Constituent: Lithium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



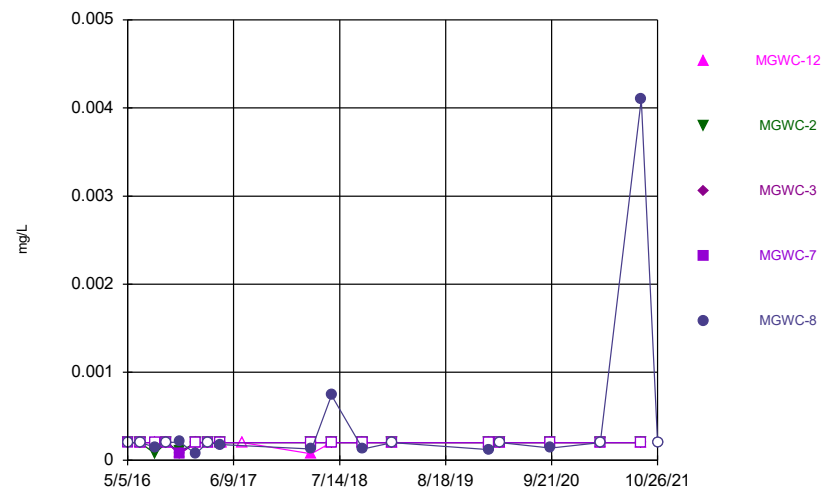
Constituent: Lithium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



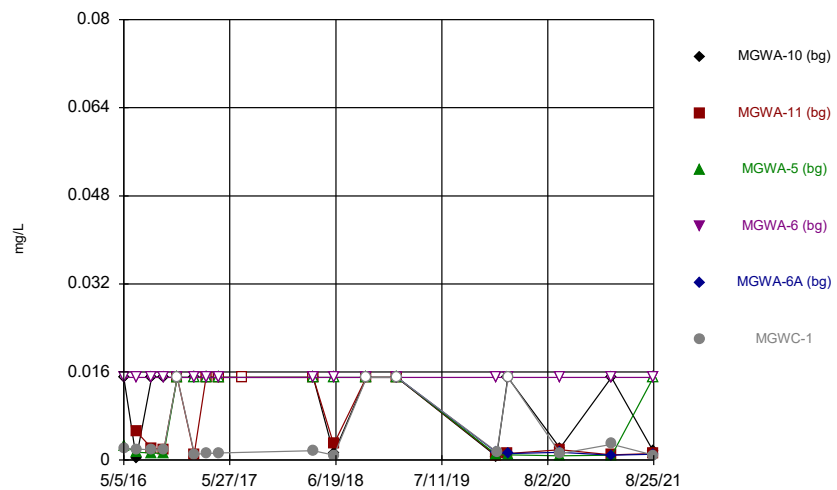
Constituent: Mercury Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



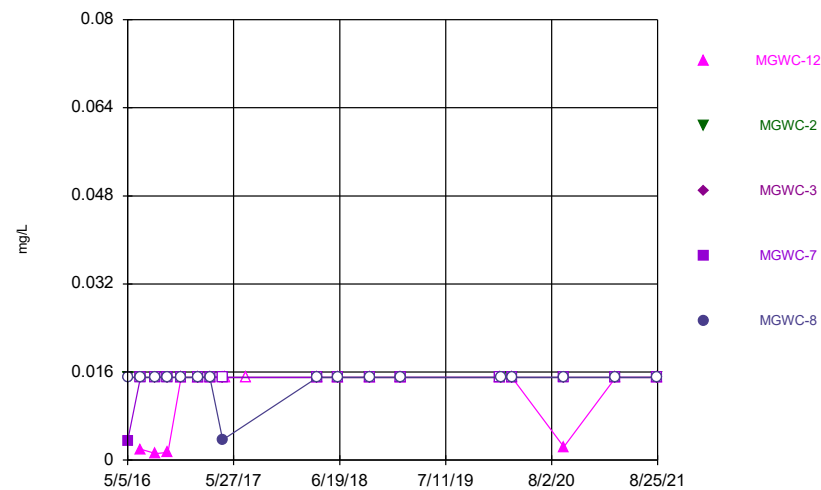
Constituent: Mercury Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



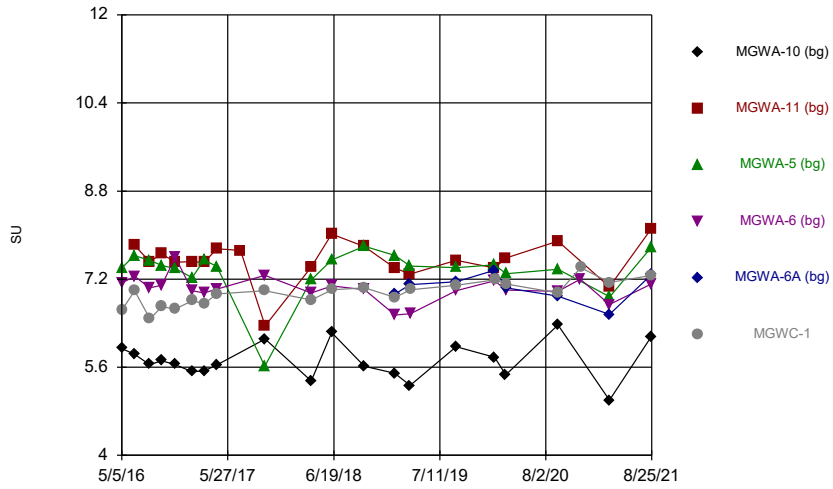
Constituent: Molybdenum Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



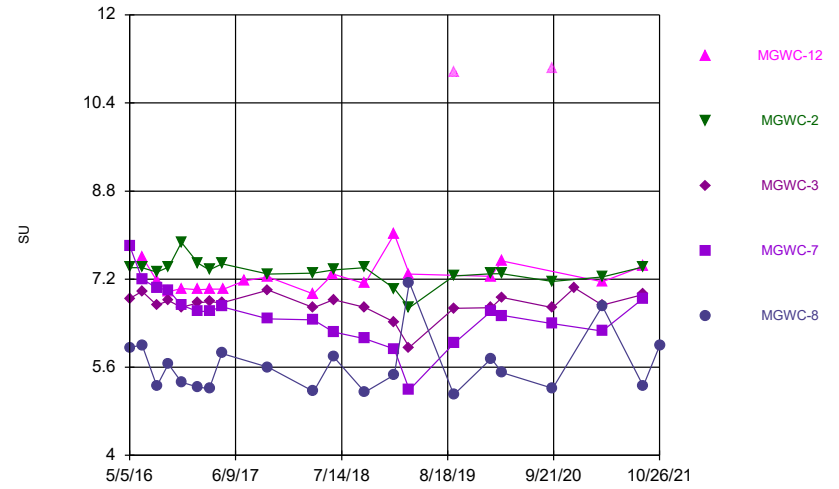
Constituent: Molybdenum Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



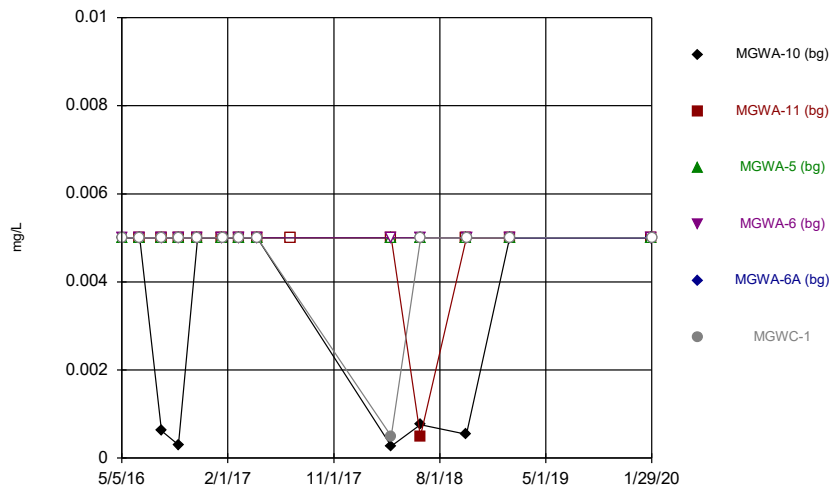
Constituent: pH Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



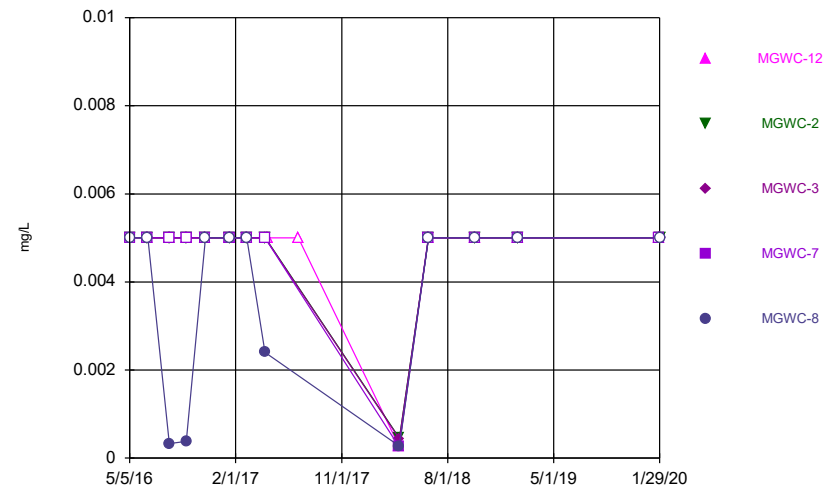
Constituent: pH Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



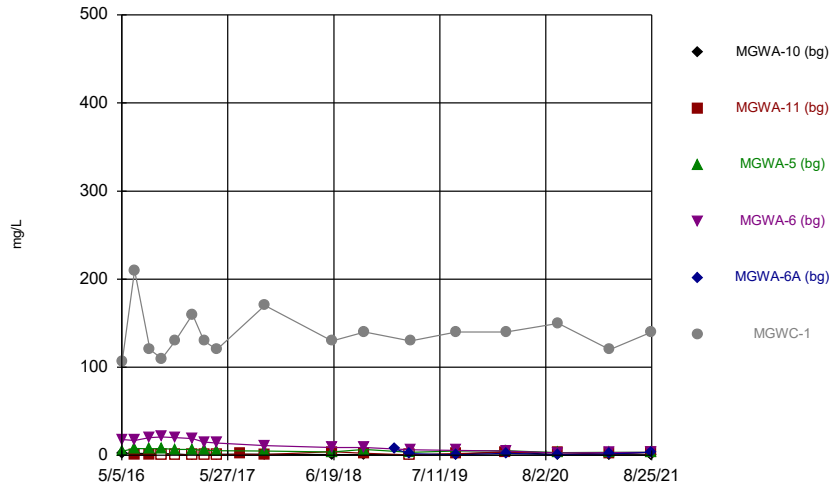
Constituent: Selenium Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



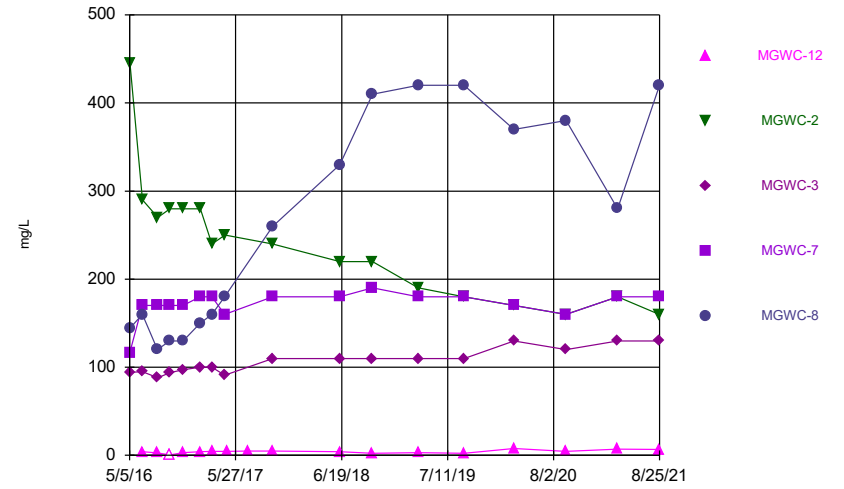
Constituent: Selenium Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



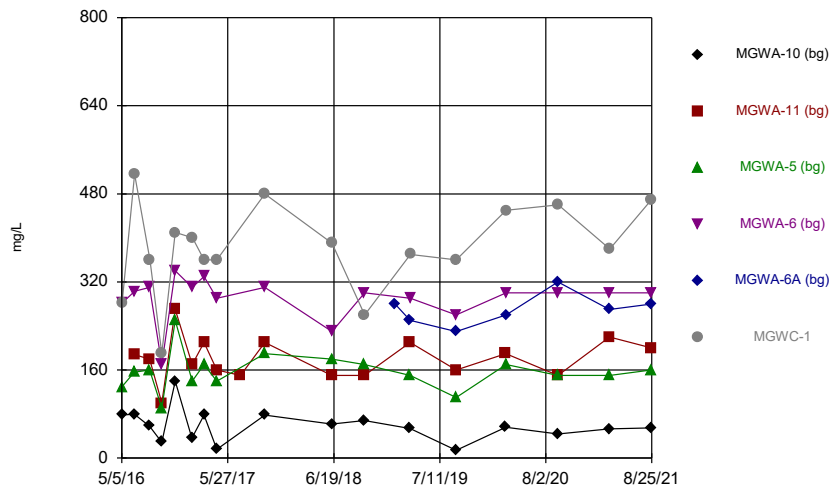
Constituent: Sulfate Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



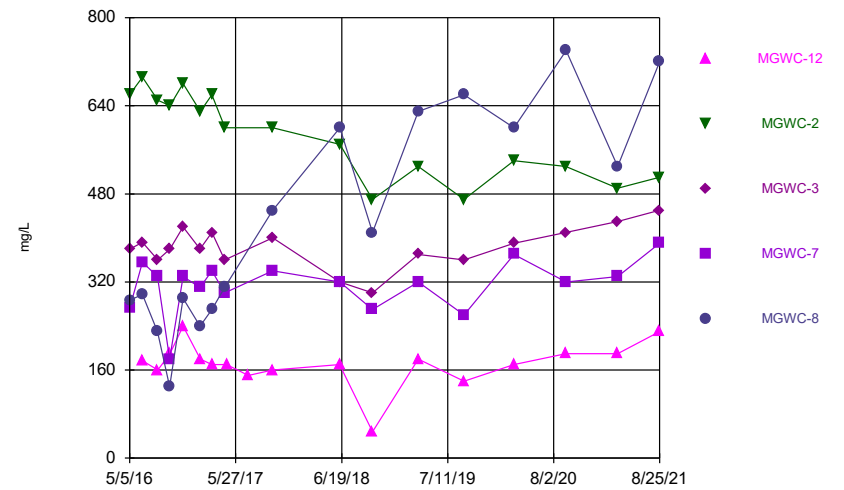
Constituent: Sulfate Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



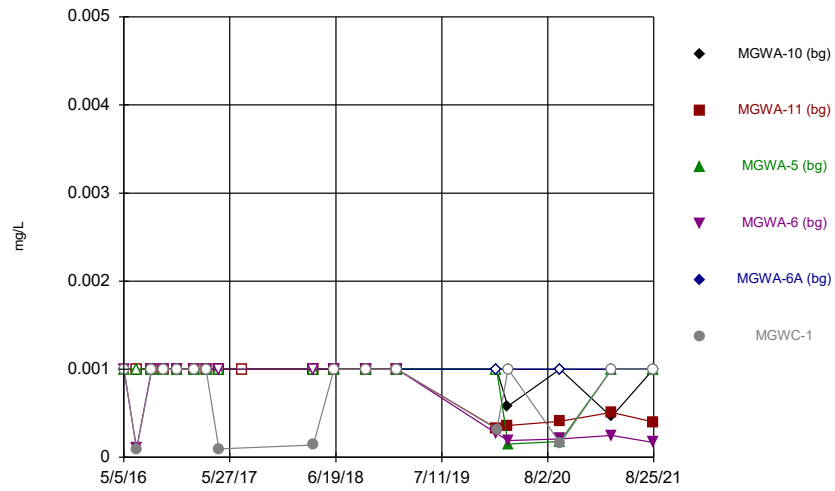
Constituent: TDS Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Time Series



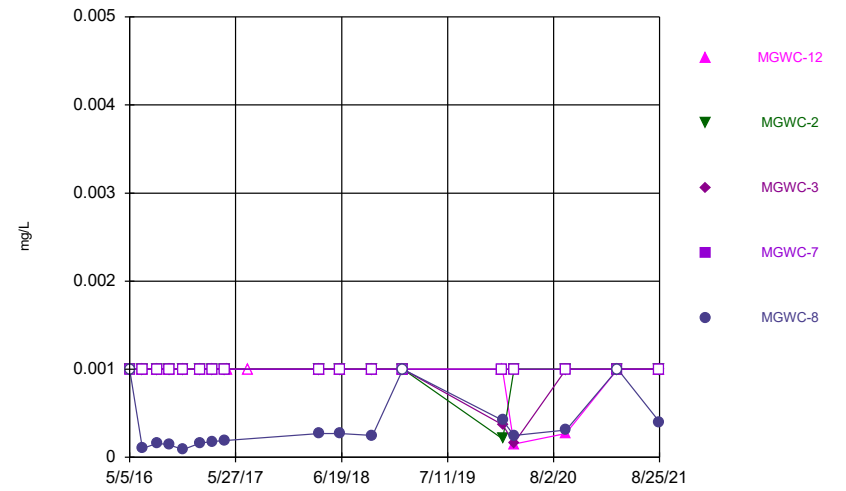
Constituent: TDS Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



Constituent: Thallium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Time Series



Constituent: Thallium Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.00112 (J)		0.0012 (J)	<0.002		
5/6/2016						<0.002
6/20/2016	<0.002	<0.002	<0.002			
6/21/2016				0.0017 (J)		<0.002
8/15/2016	<0.002	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	<0.002	<0.002	<0.002	<0.002		<0.002
11/16/2016	<0.002	<0.002	<0.002	<0.002		<0.002
1/16/2017	<0.002					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	<0.002	<0.002	<0.002	<0.002		<0.002
4/18/2017	<0.002	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002	<0.002	<0.002		<0.002
1/28/2019	<0.002	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.00049 (J)	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	<0.002	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.00098 (J)	0.0011 (J)	<0.002	<0.002	<0.002	
9/17/2020						<0.002
3/23/2021	<0.002	<0.002		<0.002	<0.002	
3/24/2021			<0.002			<0.002
8/23/2021	<0.002	0.00052 (J)				
8/24/2021			<0.002	<0.002	<0.002	
8/25/2021						<0.002



# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00197 (J)	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	0.0004 (J)	<0.002	0.0003 (J)	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	<0.002	<0.002	<0.002	<0.002	<0.002
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			<0.002	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	<0.002	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021		<0.002	<0.002		
8/25/2021	<0.002			<0.002	<0.002

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	0.0343		
5/6/2016						0.00299 (J)
6/20/2016	0.00036 (J)	0.003 (J)	0.00014 (J)			
6/21/2016				0.0352		0.0047 (J)
8/15/2016	0.00096 (J)	0.0033	<0.001	0.035		
8/16/2016						0.003
9/28/2016	0.00095 (J)	0.0026	0.00062 (J)	0.033		0.0036
11/16/2016	<0.001	0.0013	<0.001	0.02		0.003
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	0.022		
1/19/2017						0.0024
3/2/2017	<0.001	0.0015	<0.001	0.021		0.0027
4/18/2017	<0.001	0.00071 (J)	<0.001	0.018		0.0024
7/13/2017		0.00066 (J)				
3/29/2018	<0.001	0.002	<0.001	0.014		0.0023
6/12/2018	<0.001	0.0017	<0.001			
6/13/2018				0.011		0.0021
10/9/2018	<0.001	0.00072 (J)	<0.001			
10/10/2018				0.014		0.0024
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	0.00972	0.0118	0.00255
3/25/2019	<0.001	0.0022	0.00069 (J)		0.0012 (J)	
3/26/2019				0.0097		0.002
9/10/2019	<0.001	0.0018	0.00039 (J)	0.0085	0.0021	0.0018
1/28/2020	<0.001	0.0014	0.00036 (J)	0.0063	0.0028	
1/29/2020						0.0021
3/9/2020	<0.001	0.00073 (J)				
3/10/2020			0.00031 (J)	0.0093	0.0029	0.0019
9/16/2020	<0.001	0.00069 (J)	0.00035 (J)	0.0089	0.011	
9/17/2020						0.002
3/23/2021	0.00033 (J)	0.0023		0.0089	0.0098	
3/24/2021			0.00033 (J)			0.0024
8/23/2021	<0.001	0.00077 (J)				
8/24/2021			<0.001	0.0087	0.0021	
8/25/2021						0.00092 (J)

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00143 (J)	<0.001
5/6/2016		<0.001	0.00154 (J)		
6/21/2016	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016				0.0012 (J)	<0.001
8/16/2016	0.00082 (J)	<0.001	0.0017		
9/28/2016				0.00084 (J)	<0.001
9/29/2016	0.0019	<0.001	0.0013		
11/16/2016	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017			0.00056 (J)	<0.001	<0.001
1/18/2017	0.00096 (J)	<0.001			
3/2/2017	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	0.00047 (J)				
3/29/2018	0.00053 (J)			0.00066 (J)	
3/30/2018		<0.001	0.0017		<0.001
6/12/2018	0.00063 (J)				
6/13/2018		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020	0.00051 (J)			0.00046 (J)	
1/29/2020		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			0.0015	0.00045 (J)	<0.001
3/24/2021	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)
8/24/2021		<0.001	0.0014		
8/25/2021	<0.001			0.00055 (J)	<0.001

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.0376		0.0295	0.0595		
5/6/2016						0.11
6/20/2016	0.033	0.091	0.031			
6/21/2016				0.0539		0.165
8/15/2016	0.029	0.11	0.032	0.053		
8/16/2016						0.094
9/28/2016	0.032	0.12	0.038	0.06		0.1
11/16/2016	0.027	0.11	0.035	0.052		0.096
1/16/2017	0.022					
1/17/2017		0.11	0.039	0.051		
1/19/2017						0.12
3/2/2017	0.027	0.11	0.037	0.043		0.097
4/18/2017	0.024	0.1	0.035	0.042		0.092
7/13/2017		0.087				
3/29/2018	0.021	0.11	0.037	0.043		0.095
6/12/2018	0.025	0.068	0.036			
6/13/2018				0.037		0.096
10/9/2018	0.024	0.072	0.034			
10/10/2018				0.037		0.095
1/28/2019	0.0249	0.0834				
1/29/2019			0.0363	0.0393	0.0421	0.107
3/25/2019	0.023	0.11	0.035		0.044	
3/26/2019				0.033		0.096
9/10/2019	0.031	0.13	0.035	0.04	0.042	0.11
1/28/2020	0.025	0.13	0.034	0.034	0.037	
1/29/2020						0.11
3/9/2020	0.023	0.094				
3/10/2020			0.043	0.031	0.035	0.13
9/16/2020	0.025	0.078	0.037	0.028	0.034	
9/17/2020						0.11
3/23/2021	0.02	0.13		0.028	0.031	
3/24/2021			0.032			0.1
8/23/2021	0.024	0.096				
8/24/2021			0.027	0.026	0.026	
8/25/2021						0.11

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.039	0.0364
5/6/2016		0.0605	0.151		
6/21/2016	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016				0.015	0.03
8/16/2016	0.041	0.052	0.13		
9/28/2016				0.014	0.034
9/29/2016	0.052	0.053	0.14		
11/16/2016	0.044	0.056	0.14	0.013	0.034
1/17/2017			0.16	0.014	0.038
1/18/2017	0.056	0.06			
3/2/2017	0.04	0.056	0.15	0.013	0.037
4/18/2017			0.14	0.011	0.04
4/19/2017		0.051			
4/25/2017	0.042				
7/13/2017	0.043				
3/29/2018	0.061			0.01	
3/30/2018		0.049	0.13		0.041
6/12/2018	0.063				
6/13/2018		0.05	0.14	0.0098	0.038
10/10/2018	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.073	0.053	0.15	0.012	0.035
1/28/2020	0.069			0.012	
1/29/2020		0.051	0.15		0.033
3/10/2020	0.056	0.049	0.15	0.013	0.036
9/16/2020	0.1	0.048			
9/17/2020			0.16	0.0091 (J)	0.028
3/24/2021	0.056	0.049	0.16	0.011	0.054
8/24/2021		0.047	0.16		
8/25/2021	0.051			0.013	0.031

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						<0.0025
6/20/2016	3.3E-05 (J)	<0.0025	<0.0025			
6/21/2016				<0.0025		<0.0025
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025	0.0004 (J)	<0.0025	<0.0025	<0.0025	
1/29/2020						0.00018 (J)
3/9/2020	0.00045 (J)	0.00018 (J)				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025
3/23/2021	0.00022 (J)	<0.0025		<0.0025	<0.0025	
3/24/2021			<0.0025			<0.0025
8/23/2021	<0.0025	<0.0025				
8/24/2021			<0.0025	<0.0025	<0.0025	
8/25/2021						<0.0025

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	<0.0025
5/6/2016		<0.0025	<0.0025		
6/21/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
8/15/2016				<0.0025	0.00053 (J)
8/16/2016	<0.0025	<0.0025	<0.0025		
9/28/2016				<0.0025	0.00049 (J)
9/29/2016	<0.0025	<0.0025	<0.0025		
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025	0.0004 (J)
1/17/2017			<0.0025	<0.0025	0.00084 (J)
1/18/2017	<0.0025	<0.0025			
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025	0.00068 (J)
4/18/2017			<0.0025	<0.0025	0.00067 (J)
4/19/2017		<0.0025			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		<0.0025	<0.0025		0.0015 (J)
6/12/2018	<0.0025				
6/13/2018		<0.0025	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1/28/2020	<0.0025			<0.0025	
1/29/2020		<0.0025	0.00031 (J)		0.0019
3/10/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.0013 (J)
9/16/2020	<0.0025	<0.0025			
9/17/2020			<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/24/2021		<0.0025	<0.0025		
8/25/2021	<0.0025			<0.0025	0.0015 (J)

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.08		<0.08	0.157		
5/6/2016						0.567
6/20/2016	0.011 (J)	0.017 (J)	0.013 (J)			
6/21/2016				0.124		1.55
8/15/2016	0.022 (J)	0.032 (J)	0.023 (J)	0.18		
8/16/2016						0.85
9/28/2016	0.023 (J)	0.021 (J)	<0.08	0.17		0.7
11/16/2016	<0.08	<0.08	<0.08	0.17		0.88
1/16/2017	0.021 (J)					
1/17/2017		<0.08	<0.08	0.17		
1/19/2017						1.5
3/2/2017	<0.08	<0.08	<0.08	0.14		0.89
4/18/2017	<0.08	<0.08	<0.08	0.14		1.1
7/13/2017		<0.08				
10/10/2017	0.021 (J)	0.025 (J)	<0.08	0.12		1.9
6/12/2018	<0.08	<0.08	<0.08			
6/13/2018				0.11		1.2
10/9/2018	<0.08	<0.08	<0.08			
10/10/2018				0.096 (J)		1.2
1/29/2019					<0.08	
3/25/2019	<0.08	<0.08	<0.08		<0.08	
3/26/2019				0.079 (J)		1.3
9/10/2019	<0.08	<0.08	<0.08	0.097	0.04 (J)	1.5
3/9/2020	0.045 (J)	<0.08				
3/10/2020			<0.08	0.051 (J)	<0.08	1.9
9/16/2020	<0.08	0.045 (J)	<0.08	0.041 (J)	0.04 (J)	
9/17/2020						1.8
3/23/2021	<0.08	0.047 (J)		<0.08	<0.08	
3/24/2021			<0.08			0.57
8/23/2021	<0.08	0.043 (J)				
8/24/2021			<0.08	<0.08	<0.08	
8/25/2021						1.7



# Time Series

Constituent: Boron (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.855	0.976
5/6/2016		3.78	0.926		
6/21/2016	0.0201 (J)	3.1	0.792	1.15	0.862
8/15/2016				1.3	0.8
8/16/2016	0.055	2.8	1		
9/28/2016				1.3	0.8
9/29/2016	<0.08	3.1	1		
11/16/2016	0.055	3.9	1.2	1.3	0.98
1/17/2017			1.3	1.3	1.6
1/18/2017	0.097	3.7			
3/2/2017	0.064	3.3	1.3	1.3	1.8
4/18/2017			1.8	1.5	2.4
4/19/2017		3.7			
4/25/2017	<0.08				
7/13/2017	<0.08				
10/10/2017	<0.08	3.4	1.7	1.4	4.2
6/12/2018	<0.08				
6/13/2018		3	1.6	1.4	4.9
10/10/2018	0.034 (J)	3	1.6	1.4	5.1
3/26/2019	0.032 (J)	2.6	1.5	1.5	5.1
9/10/2019	0.06 (J)	2.4	1.5	1.5	4.8
3/10/2020	<0.08	2.3	1.3	1.4	4
9/16/2020	<0.08	2.1			
9/17/2020			1.2	1.4	4.4
3/24/2021	<0.08	2.4	1.2	1.5	3.6
8/24/2021		2.2	0.97		
8/25/2021	0.11			1.6	4.2

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						0.000126 (J)
6/20/2016	<0.0025	<0.0025	<0.0025			
6/21/2016				<0.0025		0.0005 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	<0.0025		
8/16/2016						<0.0025
9/28/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						<0.0025
3/2/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				<0.0025		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
3/25/2019	<0.0025	<0.0025	<0.0025		<0.0025	
3/26/2019				<0.0025		<0.0025
9/10/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.00017 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
1/29/2020						<0.0025
3/9/2020	0.00023 (J)	<0.0025				
3/10/2020			<0.0025	<0.0025	<0.0025	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/17/2020						<0.0025
3/23/2021	<0.0025	<0.0025		<0.0025	<0.0025	
3/24/2021			<0.0025			<0.0025
8/23/2021	<0.0025	<0.0025				
8/24/2021			<0.0025	<0.0025	<0.0025	
8/25/2021						<0.0025

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0025	0.000784 (J)
5/6/2016		0.00166	<0.0025		
6/21/2016	<0.0025	0.0008 (J)	<0.0025	<0.0025	0.0003 (J)
8/15/2016				<0.0025	<0.0025
8/16/2016	<0.0025	0.0034	<0.0025		
9/28/2016				<0.0025	<0.0025
9/29/2016	<0.0025	0.0027	<0.0025		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025	<0.0025
1/18/2017	<0.0025	0.008			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025	<0.0025
4/18/2017			<0.0025	<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			<0.0025	
3/30/2018		0.0016 (J)	<0.0025		0.00058 (J)
6/12/2018	<0.0025				
6/13/2018		0.0016 (J)	<0.0025	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	<0.0025	0.0005 (J)
9/10/2019	<0.0025	0.0011	<0.0025	<0.0025	0.00079 (J)
1/28/2020	<0.0025			<0.0025	
1/29/2020		0.0054	<0.0025		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	<0.0025	0.0011 (J)
9/16/2020	<0.0025	0.00053 (J)			
9/17/2020			<0.0025	0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	<0.0025	0.001 (J)
8/24/2021		0.00054 (J)	<0.0025		
8/25/2021	<0.0025			<0.0025	0.0046

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	8.83		27	105		
5/6/2016						92.5
6/20/2016	8.1	35.5	29.4			
6/21/2016				91.2		119
8/15/2016	6.1	34	26	94		
8/16/2016						84
9/28/2016	7.2	38	31	110		92
11/16/2016	5.2	33	26	98		83
1/16/2017	3.8					
1/17/2017		34	29	100		
1/19/2017						110
3/2/2017	5.4	35	28	100		89
4/18/2017	5	33	27	110		100
7/13/2017		30				
10/10/2017	4.8	39	31	110		120
6/12/2018	4.8	26	25			
6/13/2018				100		100
10/9/2018	4.5	29	29			
10/10/2018				100		100
1/29/2019					95.1	
3/25/2019	4.6	37	27		89	
3/26/2019				100		100
9/10/2019	4.9	36	27	110	86	110
3/9/2020	4	32				
3/10/2020			29	100	90	120
9/16/2020	6.8	30	28	100	93	
9/17/2020						110
3/23/2021	4	42		110	97	
3/24/2021			28			100
8/23/2021	5.8	34				
8/24/2021			27	100	83	
8/25/2021						120

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				45	41.2
5/6/2016		131	109		
6/21/2016	25.5	119	99.7	52.8	44.7
8/15/2016				50	27
8/16/2016	25	120	97		
9/28/2016				58	32
9/29/2016	30	140	100		
11/16/2016	26	120	94	50	27
1/17/2017			100	52	32
1/18/2017	32	130			
3/2/2017	26	120	99	52	33
4/18/2017			120	56	59
4/19/2017		120			
4/25/2017	26				
7/13/2017	26				
10/10/2017	28	130	110	56	74
6/12/2018	30				
6/13/2018		120	100	51	84
10/10/2018	35	120	96	51	87
3/26/2019	33	110	99	52	96
9/10/2019	33	110	99	53	97
3/10/2020	30	110	110	55	100
9/16/2020	25	110			
9/17/2020			110	48	100
3/24/2021	32	120	120	51	120
8/24/2021		110	110		
8/25/2021	31			59	96

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	7.35		6.51	9.67		
5/6/2016						13.2
6/20/2016	7	4.3	5.9			
6/21/2016				9.2		15
8/15/2016	7.5	4.1	6.4	10		
8/16/2016						14
9/28/2016	7	3.9	6.1	10		14
11/16/2016	7.5	4.1	6.1	10		14
1/16/2017	7.7					
1/17/2017		3.9	5.7	9.4		
1/19/2017						14
3/2/2017	6.9	3.5	5.3	8.6		13
4/18/2017	6.8	3.7	5.3	8.9		13
7/13/2017		4.2				
10/10/2017	6.9	3.4	5.3	8.3		14
6/12/2018	6.7	4.6	5.1			
6/13/2018				7		13
10/9/2018	7.1	4.5	5.6			
10/10/2018				6.9		14
1/29/2019					4.51	
3/25/2019	6.8	3.4	4.7		4.4	
3/26/2019				5.8		13
9/10/2019	7	3.5	5.1	6	4.2	13
3/9/2020	7.4	4.5				
3/10/2020			5.4	5.1	4	14
9/16/2020	7	4.6	5.2	4.3	3.7	
9/17/2020						14
3/23/2021	7.8	3.8		4	4.1	
3/24/2021			5.5			14
8/23/2021	7.3	4.4				
8/24/2021			5.5	4	3.9	
8/25/2021						14

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				13	10.1
5/6/2016		41	12.5		
6/21/2016	4.4	20	13	13	10
8/15/2016				14	9.5
8/16/2016	4.6	20	13		
9/28/2016				13	9.2
9/29/2016	4.4	19	13		
11/16/2016	4.5	20	14	13	9.5
1/17/2017			14	13	10
1/18/2017	4.2	18			
3/2/2017	3.9	18	13	13	9.3
4/18/2017			13	12	10
4/19/2017		17			
4/25/2017	4				
7/13/2017	4				
10/10/2017	4	16	14	12	11
6/12/2018	4				
6/13/2018		16	13	12	11
10/10/2018	4.2	15	14	12	10
3/26/2019	3.8	14	14	11	11
9/10/2019	4.1	13	13	9.9	10
3/10/2020	4.1	12	15	10	12
9/16/2020	5.1	12			
9/17/2020			14	9.6	10
3/24/2021	5.7	13	14	10	18
8/24/2021		13	14		
8/25/2021	4.9			9.9	11

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.00249 (J)		<0.002	<0.002		
5/6/2016						<0.002
6/20/2016	0.0026 (J)	0.00066 (J)	0.00024 (J)			
6/21/2016				<0.002		<0.002
8/15/2016	0.0029	<0.002	<0.002	<0.002		
8/16/2016						<0.002
9/28/2016	0.0027	<0.002	<0.002	<0.002		<0.002
11/16/2016	0.0026	<0.002	<0.002	<0.002		<0.002
1/16/2017	0.0029					
1/17/2017		<0.002	<0.002	<0.002		
1/19/2017						<0.002
3/2/2017	0.0063	0.003	0.0032	0.0032		0.0036
4/18/2017	0.0031	<0.002	<0.002	<0.002		<0.002
7/13/2017		<0.002				
3/29/2018	0.0039	<0.002	<0.002	<0.002		<0.002
6/12/2018	0.0038	<0.002	<0.002			
6/13/2018				<0.002		<0.002
10/9/2018	0.0037	<0.002	<0.002			
10/10/2018				<0.002		<0.002
1/28/2019	0.00545	<0.002				
1/29/2019			<0.002	<0.002	<0.002	<0.002
1/28/2020	0.0044	<0.002	<0.002	<0.002	<0.002	
1/29/2020						<0.002
3/9/2020	0.0042	<0.002				
3/10/2020			<0.002	<0.002	<0.002	<0.002
9/16/2020	0.0039	<0.002	<0.002	<0.002	<0.002	
9/17/2020						<0.002
3/23/2021	0.0043	<0.002		<0.002	<0.002	
3/24/2021			<0.002			<0.002
8/23/2021	0.0045	<0.002				
8/24/2021			<0.002	<0.002	<0.002	
8/25/2021						<0.002



# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.002	<0.002
5/6/2016		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016				<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002		
9/28/2016				<0.002	<0.002
9/29/2016	<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017			<0.002	<0.002	<0.002
1/18/2017	<0.002	<0.002			
3/2/2017	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017			<0.002	<0.002	<0.002
4/19/2017		<0.002			
4/25/2017	<0.002				
7/13/2017	<0.002				
3/29/2018	<0.002			<0.002	
3/30/2018		<0.002	<0.002		<0.002
6/12/2018	<0.002				
6/13/2018		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020	<0.002			0.0015 (J)	
1/29/2020		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020	0.029	<0.002			
9/17/2020			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021		<0.002	<0.002		
8/25/2021	<0.002			<0.002	<0.002

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0025		<0.0025	<0.0025		
5/6/2016						<0.0025
6/20/2016	0.00018 (J)	3.9E-05 (J)	1.2E-05 (J)			
6/21/2016				0.0003 (J)		0.0012 (J)
8/15/2016	<0.0025	<0.0025	<0.0025	0.00049 (J)		
8/16/2016						0.00047 (J)
9/28/2016	<0.0025	<0.0025	<0.0025	0.00043 (J)		0.00058 (J)
11/16/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
1/16/2017	<0.0025					
1/17/2017		<0.0025	<0.0025	<0.0025		
1/19/2017						0.0004 (J)
3/2/2017	<0.0025	<0.0025	<0.0025	0.00046 (J)		<0.0025
4/18/2017	<0.0025	<0.0025	<0.0025	0.00044 (J)		<0.0025
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025	<0.0025	0.00065 (J)		<0.0025
6/12/2018	<0.0025	<0.0025	<0.0025			
6/13/2018				<0.0025		<0.0025
10/9/2018	<0.0025	<0.0025	<0.0025			
10/10/2018				0.00051 (J)		<0.0025
1/28/2019	<0.0025	<0.0025				
1/29/2019			<0.0025	<0.0025	<0.0025	<0.0025
3/25/2019	<0.0025	<0.0025	<0.0025		<0.0025	
3/26/2019				<0.0025		<0.0025
9/10/2019	0.00011 (J)	<0.0025	<0.0025	0.00037 (J)	0.0002 (J)	0.00032 (J)
1/28/2020	<0.0025	<0.0025	<0.0025	0.00041 (J)	0.00024 (J)	
1/29/2020						0.00027 (J)
3/9/2020	<0.0025	<0.0025				
3/10/2020			<0.0025	0.00038 (J)	0.00032 (J)	<0.0025
9/16/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.00038 (J)	
9/17/2020						0.0002 (J)
3/23/2021	0.00014 (J)	<0.0025		0.00025 (J)	0.00036 (J)	
3/24/2021			<0.0025			<0.0025
8/23/2021	<0.0025	<0.0025				
8/24/2021			<0.0025	<0.0025	0.0017 (J)	
8/25/2021						0.00018 (J)

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0036 (J)	0.00359 (J)
5/6/2016		0.00311 (J)	<0.0025		
6/21/2016	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016				0.0098	0.0038
8/16/2016	<0.0025	0.0034	0.00064 (J)		
9/28/2016				0.0095	0.0043
9/29/2016	<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017			0.00051 (J)	0.0099	0.0051
1/18/2017	<0.0025	0.0032			
3/2/2017	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017			0.00057 (J)	0.0086	0.005
4/19/2017		0.0035			
4/25/2017	<0.0025				
7/13/2017	<0.0025				
3/29/2018	<0.0025			0.0088	
3/30/2018		0.0037	0.00068 (J)		0.015
6/12/2018	<0.0025				
6/13/2018		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020	<0.0025			0.008	
1/29/2020		0.003	0.00067		0.025
3/10/2020	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020	0.0015 (J)	0.002 (J)			
9/17/2020			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)
8/24/2021		0.0018 (J)	0.00034 (J)		
8/25/2021	<0.0025			0.0032	0.021

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.879		0.48	0.694		
5/6/2016						1.07
6/20/2016	0.305 (U)	0.556 (U)	0.184			
6/21/2016				0.511 (U)		2.01
8/15/2016	0.577	0.72	0.577	0.467		
8/16/2016						1.12
9/28/2016	0.77	0.521 (U)	0.107 (U)	0.926		1.09
11/16/2016	0.427 (U)	0.322 (U)	0.333 (U)	0.863		1.58
1/16/2017	1.1					
1/17/2017		1.26	0.511 (U)	0.82		
1/19/2017						1.64
3/2/2017	1.01	0.47	0.105 (U)	0.236 (U)		1.08
4/18/2017	0.635	0.233 (U)	0.279 (U)	0.316 (U)		1.23
7/13/2017		0.679				
3/29/2018	0.799	0.723	0.37	0.6		1.21
6/12/2018	0.313 (U)	0.105 (U)	0.133 (U)			
6/13/2018				0.349 (U)		1.09
10/9/2018	1.11	0.65	0.85			
10/10/2018				1.01		1.95
1/28/2019	0.872	0.478				
1/29/2019			0.275 (U)	0.591	0.874	1.11
3/25/2019	0.526	0.717	0.629		0.646	
3/26/2019				0.4		1
9/10/2019	0.612	0.377 (U)	0.354 (U)	0.481	0.988	1.26
1/28/2020	0.322 (U)	0.528	0.0677 (U)	0.374 (U)	0.0609 (U)	
1/29/2020						1.39
3/9/2020	0.761	0.00483 (U)				
3/10/2020			0.0594 (U)	0.41 (U)	0.528	1.4
9/16/2020	0.969	0.583	0.821	-0.0651 (U)	1.13	
9/17/2020						1.79
12/7/2020				0.979		
12/8/2020						1.87
3/23/2021	0.657	0.409 (U)		0.542	0.612	
3/24/2021			0.206 (U)			1.81
8/23/2021	0.752	1.19				
8/24/2021			0.521 (U)	0.678	0.596	
8/25/2021						2.12

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.75	1.21
5/6/2016		0.633	1.41		
6/21/2016	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016				1.3	1.64
8/16/2016	0.232 (U)	0.516	1.75		
9/28/2016				1.06	2.17
9/29/2016	1.11	0.665	1.43		
11/16/2016	0.798	0.694	1.9	0.855	1.49
1/17/2017			1.9	1.59	1.75
1/18/2017	0.302 (U)	0.688			
3/2/2017	0.437	0.484	1.37	1.4	1.03
4/18/2017			1.42	0.684	1.83
4/19/2017		0.599			
4/25/2017	0.391				
7/13/2017	0.47				
3/29/2018	0.736			0.822	
3/30/2018		0.677	1.43		2.15
6/12/2018	0.438				
6/13/2018		0.272 (U)	1.27	0.716	1.51
10/10/2018	0.371	0.336	1.54	1.51	2.72
1/29/2019	0.639	0.719	1.34	1.7	1.93
3/26/2019	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	0.939	0.548	1.6	0.958	1.78
1/28/2020	0.465			1.38	
1/29/2020		0.0985 (U)	1.44		1.61
3/10/2020	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020	1.09	1.11			
9/17/2020			0.666 (U)	1.28	1.56
12/8/2020			1.65		
3/24/2021	0.434 (U)	0.625	1.58	1.2	0.636
8/24/2021		0.313 (U)	1.65		
8/25/2021	0.563			0.767	2.13

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	0.046 (J)		0.132 (J)	0.091 (J)		
5/6/2016						0.28 (J)
6/20/2016	<0.1	0.06 (J)	0.05 (J)			
6/21/2016				0.08 (J)		0.36
8/15/2016	<0.1	0.1 (J)	0.1 (J)	<0.1		
8/16/2016						0.27
9/28/2016	<0.1	0.097 (J)	0.11 (J)	0.084 (J)		0.26
11/16/2016	<0.1	0.12 (J)	0.093 (J)	0.084 (J)		0.24
1/16/2017	<0.1					
1/17/2017		0.11 (J)	0.095 (J)	0.099 (J)		
1/19/2017						0.22
3/2/2017	0.12 (J)	0.18 (J)	0.16 (J)	0.15 (J)		0.27
4/18/2017	<0.1	0.11 (J)	<0.1	<0.1		0.2
7/13/2017		0.12 (J)				
10/10/2017	<0.1	0.086 (J)	<0.1	<0.1		0.18 (J)
3/29/2018	<0.1	<0.1	0.084 (J)	<0.1		0.16 (J)
6/12/2018	<0.1	0.16 (J)	<0.1			
6/13/2018				<0.1		0.14 (J)
10/9/2018	<0.1	0.16 (J)	0.086 (J)			
10/10/2018				<0.1		0.17 (J)
1/29/2019					<0.1	
3/25/2019	<0.1	0.087 (J)	0.072 (J)		0.067 (J)	
3/26/2019				0.065 (J)		0.16
9/10/2019	0.044 (J)	0.075 (J)	0.068 (J)	0.076 (J)	0.052 (J)	0.098 (J)
3/9/2020	0.061 (J)	0.19				
3/10/2020			0.055 (J)	0.045 (J)	0.048 (J)	0.086 (J)
9/16/2020	0.042 (J)	0.18	0.08 (J)	0.076 (J)	0.078 (J)	
9/17/2020						0.15
3/23/2021	0.038 (J)	0.081 (J)		0.082 (J)	0.096 (J)	
3/24/2021			0.091 (J)			0.27
8/23/2021	0.048 (J)	0.12				
8/24/2021			0.1	0.1	0.11	
8/25/2021						0.097 (J)

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.394	0.103 (J)
5/6/2016		0.088 (J)	0.086 (J)		
6/21/2016	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016				0.44	0.11 (J)
8/16/2016	0.29	0.087 (J)	<0.1		
9/28/2016				0.4	0.1 (J)
9/29/2016	0.26	<0.1	0.082 (J)		
11/16/2016	0.25	<0.1	0.087 (J)	0.36	0.091 (J)
1/17/2017			0.086 (J)	0.2	<0.1
1/18/2017	0.26	<0.1			
3/2/2017	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017			<0.1	0.29	<0.1
4/19/2017		<0.1			
4/25/2017	0.25				
7/13/2017	0.21				
10/10/2017	0.22	<0.1	<0.1	0.28	<0.1
3/29/2018	0.23			0.23	
3/30/2018		<0.1	<0.1		0.088 (J)
6/12/2018	0.23				
6/13/2018		<0.1	<0.1	0.2	0.15 (J)
10/10/2018	0.25	0.085 (J)	<0.1	0.23	0.11 (J)
3/26/2019	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020	0.26	0.076 (J)			
9/17/2020			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.11	0.092 (J)	0.35	0.11
8/24/2021		0.095 (J)	0.11		
8/25/2021	0.19			0.15	0.038 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	8.7E-05 (J)	<0.001			
6/21/2016				<0.001		<0.001
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		<0.001
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00016 (J)	0.00018 (J)	<0.001	<0.001	
1/29/2020						<0.001
3/9/2020	<0.001	<0.001				
3/10/2020			<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001	<0.001	<0.001	<0.001	
9/17/2020						<0.001
3/23/2021	0.00013 (J)	0.00013 (J)		<0.001	<0.001	
3/24/2021			<0.001			<0.001
8/23/2021	<0.001	<0.001				
8/24/2021			<0.001	<0.001	<0.001	
8/25/2021						<0.001



# Time Series

Constituent: Lead (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	0.0001 (J)	<0.001	<0.001	0.0003 (J)	<0.001
8/15/2016				<0.001	<0.001
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	<0.001
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	<0.001
1/17/2017			<0.001	<0.001	<0.001
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2017			<0.001	<0.001	<0.001
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		<0.001
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		<0.001	<0.001		<0.001
3/10/2020	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020	<0.001	<0.001			
9/17/2020			<0.001	<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021		<0.001	<0.001		
8/25/2021	<0.001			0.00019 (J)	0.00022 (J)

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.005		<0.005	<0.005		
5/6/2016						0.0128 (J)
6/20/2016	0.0071 (J)	0.014 (J)	0.0065 (J)			
6/21/2016				<0.005		0.0102 (J)
8/15/2016	0.0065	0.02	0.0059	<0.005		
8/16/2016						0.012
9/28/2016	0.0075	0.019	0.0075	<0.005		0.012
11/16/2016	0.0081	0.021	0.0094	<0.005		0.013
1/16/2017	0.0076					
1/17/2017		0.02	0.01	<0.005		
1/19/2017						0.011
3/2/2017	0.0073	0.019	0.0076	<0.005		0.013
4/18/2017	0.006	0.016	0.008	<0.005		0.0097
7/13/2017		0.011				
3/29/2018	0.01 (J)	0.03 (J)	0.014 (J)	<0.005		0.017 (J)
6/12/2018	0.0068	0.012	0.0095			
6/13/2018				<0.005		0.0094
10/9/2018	0.0082	0.015	0.011			
10/10/2018				<0.005		0.011
1/28/2019	0.00821	0.0124				
1/29/2019			0.00987	<0.005	0.0184	0.0109
3/25/2019	0.0068	0.026	0.01		0.0052	
3/26/2019				<0.005		0.01
9/10/2019	0.011	0.026	0.011	0.0051	0.0062	0.012
1/28/2020	0.0064	0.026	0.0093	<0.005	<0.005	
1/29/2020						0.0096
3/9/2020	0.0088	0.017				
3/10/2020			0.011	<0.005	<0.005	<0.005
9/16/2020	0.0079	0.014	0.0094	<0.005	<0.005	
9/17/2020						0.0086
3/23/2021	0.0084	0.026		<0.005	<0.005	
3/24/2021			0.0097			0.013
8/23/2021	0.0075	0.018				
8/24/2021			0.0093	<0.005	<0.005	
8/25/2021						0.0096

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.0586	0.0252 (J)
5/6/2016		<0.005	0.0113 (J)		
6/21/2016	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016				0.12	0.026
8/16/2016	0.014	0.0043 (J)	0.01		
9/28/2016				0.12	0.026
9/29/2016	0.017	0.0048 (J)	0.01		
11/16/2016	0.016	0.0058	0.014	0.13	0.031
1/17/2017			0.014	0.14	0.032
1/18/2017	0.015	0.0051			
3/2/2017	0.015	0.0061	0.013	0.13	0.031
4/18/2017			0.01	0.11	0.023
4/19/2017		0.0042 (J)			
4/25/2017	0.013				
7/13/2017	0.014				
3/29/2018	0.032 (J)			0.17 (J)	
3/30/2018		0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018	0.019				
6/13/2018		0.0054	0.011	0.12	0.035
10/10/2018	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.023	0.0074	0.015	0.11	0.042
1/28/2020	0.022			0.13	
1/29/2020		0.0059	0.012		0.037
3/10/2020	0.018	0.0068	0.014	0.11	0.028
9/16/2020	0.025	0.0055			
9/17/2020			0.012	0.11	0.039
3/24/2021	0.018	0.0066	0.013	0.13	0.011
8/24/2021		0.0062	0.012		
8/25/2021	0.017			0.12	0.037

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.0002		<0.0002	<0.0002		
5/6/2016						<0.0002
6/20/2016	<0.0002	<0.0002	<0.0002			
6/21/2016				<0.0002		<0.0002
8/15/2016	<0.0002	8E-05 (J)	<0.0002	<0.0002		
8/16/2016						<0.0002
9/28/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/16/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
1/16/2017	<0.0002					
1/17/2017		<0.0002	<0.0002	<0.0002		
1/19/2017						<0.0002
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
4/18/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
7/13/2017		<0.0002				
3/29/2018	<0.0002	8.6E-05 (J)	<0.0002	7.4E-05 (J)		<0.0002
6/12/2018	<0.0002	<0.0002	<0.0002			
6/13/2018				<0.0002		<0.0002
10/9/2018	<0.0002	<0.0002	<0.0002			
10/10/2018				<0.0002		<0.0002
1/28/2019	<0.0002	<0.0002				
1/29/2019			<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
1/29/2020						<0.0002
3/9/2020	<0.0002	<0.0002				
3/10/2020			<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/17/2020						<0.0002
3/23/2021	<0.0002	<0.0002		<0.0002	<0.0002	
3/24/2021			<0.0002			<0.0002
8/23/2021	<0.0002	<0.0002				
8/24/2021			<0.0002	<0.0002	<0.0002	
8/25/2021						<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/24/2021		<0.0002	<0.0002		
8/25/2021	<0.0002			<0.0002	0.0041
10/26/2021					<0.0002

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.015		0.0026 (J)	<0.015		
5/6/2016						0.0021 (J)
6/20/2016	0.00031 (J)	0.0052 (J)	0.0014 (J)			
6/21/2016				<0.015		0.002 (J)
8/15/2016	<0.015	0.0022 (J)	0.0013 (J)	<0.015		
8/16/2016						0.0019 (J)
9/28/2016	<0.015	0.0018 (J)	0.0012 (J)	<0.015		0.0018 (J)
11/16/2016	<0.015	<0.015	<0.015	<0.015		<0.015
1/16/2017	<0.015					
1/17/2017		0.0011 (J)	<0.015	<0.015		
1/19/2017						0.0011 (J)
3/2/2017	<0.015	<0.015	<0.015	<0.015		0.0012 (J)
4/18/2017	<0.015	<0.015	<0.015	<0.015		0.0013 (J)
7/13/2017		<0.015				
3/29/2018	<0.015	<0.015	<0.015	<0.015		0.0017 (J)
6/12/2018	0.0012 (J)	0.0029 (J)	<0.015			
6/13/2018				<0.015		0.00087 (J)
10/9/2018	<0.015	<0.015	<0.015			
10/10/2018				<0.015		<0.015
1/28/2019	<0.015	<0.015				
1/29/2019			<0.015	<0.015	<0.015	<0.015
1/28/2020	0.00064 (J)	0.00085 (J)	0.00095 (J)	<0.015	0.0014 (J)	
1/29/2020						0.0015 (J)
3/9/2020	<0.015	0.0012 (J)				
3/10/2020			0.00093 (J)	<0.015	0.0012 (J)	<0.015
9/16/2020	0.0022 (J)	0.0019 (J)	0.00079 (J)	<0.015	0.0014 (J)	
9/17/2020						0.0012 (J)
3/23/2021	<0.015	0.00093 (J)		<0.015	0.00089 (J)	
3/24/2021			0.00089 (J)			0.0029 (J)
8/23/2021	0.0016 (J)	0.0012 (J)				
8/24/2021			<0.015	<0.015	0.0011 (J)	
8/25/2021						0.00088 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				0.00351 (J)	<0.015
5/6/2016		<0.015	<0.015		
6/21/2016	0.002 (J)	<0.015	<0.015	<0.015	<0.015
8/15/2016				<0.015	<0.015
8/16/2016	0.0012 (J)	<0.015	<0.015		
9/28/2016				<0.015	<0.015
9/29/2016	0.0014 (J)	<0.015	<0.015		
11/16/2016	<0.015	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015	<0.015
1/18/2017	<0.015	<0.015			
3/2/2017	<0.015	<0.015	<0.015	<0.015	<0.015
4/18/2017			<0.015	<0.015	0.0037 (J)
4/19/2017		<0.015			
4/25/2017	<0.015				
7/13/2017	<0.015				
3/29/2018	<0.015			<0.015	
3/30/2018		<0.015	<0.015		<0.015
6/12/2018	<0.015				
6/13/2018		<0.015	<0.015	<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015	<0.015
1/28/2020	<0.015			<0.015	
1/29/2020		<0.015	<0.015		<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015	<0.015
9/16/2020	0.0024 (J)	<0.015			
9/17/2020			<0.015	<0.015	<0.015
3/24/2021	<0.015	<0.015	<0.015	<0.015	<0.015
8/24/2021		<0.015	<0.015		
8/25/2021	<0.015			<0.015	<0.015

# Time Series

Constituent: pH (SU) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	5.94		7.4	7.13		
5/6/2016						6.64
6/20/2016	5.84 (D)	7.82	7.63			
6/21/2016				7.25		6.99
8/15/2016	5.65	7.52	7.54	7.04		
8/16/2016						6.48
9/28/2016	5.72	7.66	7.45	7.09		6.7
11/16/2016	5.65	7.51	7.39	7.6		6.66
1/16/2017	5.52					
1/17/2017		7.52	7.23	6.99		
1/19/2017						6.81
3/2/2017	5.53	7.5	7.55	6.95		6.75
4/18/2017	5.64	7.75	7.43	7.02		6.93
7/13/2017		7.72				
10/10/2017			5.62	7.27		6.99
10/11/2017	6.11	6.35				
3/29/2018	5.35	7.42	7.19	6.95		6.82
6/12/2018	6.23	8.02	7.55			
6/13/2018				7.08		7.01
10/9/2018	5.62 (D)	7.79 (D)	7.8 (D)			
10/10/2018				7.01 (D)		7.04 (D)
1/28/2019	5.49 (D)	7.4 (D)				
1/29/2019			7.63 (D)	6.55 (D)	6.93 (D)	6.87 (D)
3/25/2019	5.27 (D)	7.29 (D)	7.44 (D)		7.1 (D)	
3/26/2019				6.57 (D)		7.01 (D)
9/10/2019	5.97	7.54	7.41	6.99	7.15	7.09
1/28/2020	5.78	7.4	7.46	7.17	7.36	
1/29/2020						7.19
3/9/2020	5.46	7.58				
3/10/2020			7.3	7	7.04	7.11
9/16/2020	6.37	7.89	7.38	6.98	6.89	
9/17/2020						6.95
12/7/2020				7.2		
12/8/2020						7.41
3/23/2021	5	7.06		6.74	6.56	
3/24/2021			6.88			7.14
8/23/2021	6.16	8.12				
8/24/2021			7.78	7.11	7.28	
8/25/2021						7.27



# Time Series

Constituent: pH (SU) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				7.81	5.96
5/6/2016		7.41	6.85		
6/21/2016	7.61	7.41	6.98	7.2	6
8/15/2016				7.04	5.26
8/16/2016	7.17	7.33	6.73		
9/28/2016				7	5.66
9/29/2016	6.97	7.42	6.81		
11/16/2016	7.03	7.87	6.69	6.73	5.33
1/17/2017			6.77	6.61	5.24
1/18/2017	7.01	7.49			
3/2/2017	7.02	7.37	6.79	6.62	5.21
4/18/2017			6.77	6.7	5.85
4/19/2017		7.48			
4/25/2017	7.02				
7/13/2017	7.17				
10/10/2017	7.24	7.29	7	6.48	5.6
3/29/2018	6.93			6.46	
3/30/2018		7.31	6.68		5.16
6/12/2018	7.29				
6/13/2018		7.37	6.83	6.24	5.79
10/10/2018	7.12 (D)	7.41 (D)	6.69 (D)	6.12 (D)	5.15 (D)
1/29/2019	8.02 (D)	7.03 (D)	6.42 (D)	5.93 (D)	5.46 (D)
3/26/2019	7.29 (D)	6.68 (D)	5.96 (D)	5.19 (D)	7.14 (D)
9/10/2019	10.96 (o)	7.26	6.67	6.03	5.1
1/28/2020	7.25			6.61	
1/29/2020		7.3	6.68		5.76
3/10/2020	7.53	7.3	6.87	6.54	5.5
9/16/2020	11.03 (o)	7.16			
9/17/2020			6.68	6.39	5.22
12/8/2020			7.04		
3/24/2021	7.15	7.24	6.73	6.26	6.71
8/24/2021		7.42	6.92		
8/25/2021	7.44			6.85	5.26
10/26/2021					5.99

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.005		<0.005	<0.005		
5/6/2016						<0.005
6/20/2016	<0.005	<0.005	<0.005			
6/21/2016				<0.005		<0.005
8/15/2016	0.00062 (J)	<0.005	<0.005	<0.005		
8/16/2016						<0.005
9/28/2016	0.0003 (J)	<0.005	<0.005	<0.005		<0.005
11/16/2016	<0.005	<0.005	<0.005	<0.005		<0.005
1/16/2017	<0.005					
1/17/2017		<0.005	<0.005	<0.005		
1/19/2017						<0.005
3/2/2017	<0.005	<0.005	<0.005	<0.005		<0.005
4/18/2017	<0.005	<0.005	<0.005	<0.005		<0.005
7/13/2017		<0.005				
3/29/2018	0.00027 (J)	<0.005	<0.005	<0.005		0.0005 (J)
6/12/2018	0.00076 (J)	0.00049 (J)	<0.005			
6/13/2018				<0.005		<0.005
10/9/2018	0.00054 (J)	<0.005	<0.005			
10/10/2018				<0.005		<0.005
1/28/2019	<0.005	<0.005				
1/29/2019			<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
1/29/2020						<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.005	<0.005
5/6/2016		<0.005	<0.005		
6/21/2016	<0.005	<0.005	<0.005	<0.005	<0.005
8/15/2016				<0.005	0.00033 (J)
8/16/2016	<0.005	<0.005	<0.005		
9/28/2016				<0.005	0.00038 (J)
9/29/2016	<0.005	<0.005	<0.005		
11/16/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/17/2017			<0.005	<0.005	<0.005
1/18/2017	<0.005	<0.005			
3/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2017			<0.005	<0.005	0.0024
4/19/2017		<0.005			
4/25/2017	<0.005				
7/13/2017	<0.005				
3/29/2018	0.00027 (J)			0.00026 (J)	
3/30/2018		0.00045 (J)	0.00044 (J)		0.00027 (J)
6/12/2018	<0.005				
6/13/2018		<0.005	<0.005	<0.005	<0.005
10/10/2018	<0.005	<0.005	<0.005	<0.005	<0.005
1/29/2019	<0.005	<0.005	<0.005	<0.005	<0.005
1/28/2020	<0.005			<0.005	
1/29/2020		<0.005	<0.005		<0.005

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/9/2021 4:28 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	2.46		4.47	17.8		
5/6/2016						106
6/20/2016	2.5	1	7.7			
6/21/2016				17		210
8/15/2016	1.9	0.73 (J)	7.5	20		
8/16/2016						120
9/28/2016	1.9	<1	7.8	21		110
11/16/2016	1.7	<1	6.7	20		130
1/16/2017	<1					
1/17/2017		<1	6.7	19		
1/19/2017						160
3/2/2017	1.4	<1	5.6	15		130
4/18/2017	1.3	<1	5.1	14		120
7/13/2017		1.4				
10/10/2017	1.1	0.87 (J)	4.9	11		170
6/12/2018	0.82 (J)	4.1	3.8			
6/13/2018				8.7		130
10/9/2018	0.82 (J)	2.2	6.7			
10/10/2018				8.7		140
1/29/2019					7.08	
3/25/2019	<1	<1	3.4 (J)		1.8 (J)	
3/26/2019				6.3 (J)		130
9/10/2019	1.1	1.8	4.7	5.6	0.6 (J)	140
3/9/2020	4.2	3.4				
3/10/2020			5.2	5	2.4	140
9/16/2020	0.69 (J)	3	3.2	2.7	1	
9/17/2020						150
3/23/2021	<1	1.4		3.2	1.7	
3/24/2021			3.5			120
8/23/2021	<1	3.4				
8/24/2021			3.6	3.5	3.3	
8/25/2021						140

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				116	144
5/6/2016		445	94.2		
6/21/2016	4	290	95	170	160
8/15/2016				170	120
8/16/2016	2.8	270	88		
9/28/2016				170	130
9/29/2016	<1	280	94		
11/16/2016	3	280	97	170	130
1/17/2017			100	180	150
1/18/2017	4.1	280			
3/2/2017	4.6	240	100	180	160
4/18/2017			91	160	180
4/19/2017		250			
4/25/2017	4.4				
7/13/2017	4.8				
10/10/2017	4.9	240	110	180	260
6/12/2018	4.1				
6/13/2018		220	110	180	330
10/10/2018	2.5	220	110	190	410
3/26/2019	2.9 (J)	190	110	180	420
9/10/2019	2.5	180	110	180	420
3/10/2020	7.8	170	130	170	370
9/16/2020	4.4	160			
9/17/2020			120	160	380
3/24/2021	7.1	180	130	180	280
8/24/2021		160	130		
8/25/2021	6.6			180	420

# Time Series

Constituent: TDS (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	78		129	281		
5/6/2016						282
6/20/2016	80	188	156			
6/21/2016				303		516
8/15/2016	58	180	160	310		
8/16/2016						360
9/28/2016	29	100	91	170		190
11/16/2016	140	270	250	340		410
1/16/2017	36					
1/17/2017		170	140	310		
1/19/2017						400
3/2/2017	78	210	170	330		360
4/18/2017	16	160	140	290		360
7/13/2017		150				
10/10/2017	78	210	190	310		480
6/12/2018	62	150	180			
6/13/2018				230		390
10/9/2018	68	150	170			
10/10/2018				300		260
1/29/2019					280	
3/25/2019	54	210	150		250	
3/26/2019				290		370
9/10/2019	14	160	110	260	230	360
3/9/2020	56	190				
3/10/2020			170	300	260	450
9/16/2020	44	150	150	300	320	
9/17/2020						460
3/23/2021	53	220		300	270	
3/24/2021			150			380
8/23/2021	55	200				
8/24/2021			160	300	280	
8/25/2021						470

# Time Series

Constituent: TDS (mg/L) Analysis Run 11/9/2021 4:28 PM

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				272	287
5/6/2016		661	380		
6/21/2016	177	692	392	356	297
8/15/2016				330	230
8/16/2016	160	650	360		
9/28/2016				180	130
9/29/2016	190	640	380		
11/16/2016	240	680	420	330	290
1/17/2017			380	310	240
1/18/2017	180	630			
3/2/2017	170	660	410	340	270
4/18/2017			360	300	310
4/19/2017		600			
4/25/2017	170				
7/13/2017	150				
10/10/2017	160	600	400	340	450
6/12/2018	170				
6/13/2018		570	320	320	600
10/10/2018	48	470	300	270	410
3/26/2019	180	530	370	320	630
9/10/2019	140	470	360	260	660
3/10/2020	170	540	390	370	600
9/16/2020	190	530			
9/17/2020			410	320	740
3/24/2021	190	490	430	330	530
8/24/2021		510	450		
8/25/2021	230			390	720

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-11 (bg)	MGWA-5 (bg)	MGWA-6 (bg)	MGWA-6A (bg)	MGWC-1
5/5/2016	<0.001		<0.001	<0.001		
5/6/2016						<0.001
6/20/2016	<0.001	<0.001	<0.001			
6/21/2016				0.0001 (J)		9E-05 (J)
8/15/2016	<0.001	<0.001	<0.001	<0.001		
8/16/2016						<0.001
9/28/2016	<0.001	<0.001	<0.001	<0.001		<0.001
11/16/2016	<0.001	<0.001	<0.001	<0.001		<0.001
1/16/2017	<0.001					
1/17/2017		<0.001	<0.001	<0.001		
1/19/2017						<0.001
3/2/2017	<0.001	<0.001	<0.001	<0.001		<0.001
4/18/2017	<0.001	<0.001	<0.001	<0.001		9.5E-05 (J)
7/13/2017		<0.001				
3/29/2018	<0.001	<0.001	<0.001	<0.001		0.00014 (J)
6/12/2018	<0.001	<0.001	<0.001			
6/13/2018				<0.001		<0.001
10/9/2018	<0.001	<0.001	<0.001			
10/10/2018				<0.001		<0.001
1/28/2019	<0.001	<0.001				
1/29/2019			<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001	0.00033 (J)	<0.001	0.00027 (J)	<0.001	
1/29/2020						0.00032 (J)
3/9/2020	0.00058 (J)	0.00036 (J)				
3/10/2020			0.00015 (J)	0.00019 (J)	<0.001	<0.001
9/16/2020	<0.001	0.00041 (J)	0.00018 (J)	0.00021 (J)	<0.001	
9/17/2020						0.00016 (J)
3/23/2021	0.00046 (J)	0.00051 (J)		0.00025 (J)	<0.001	
3/24/2021			<0.001			<0.001
8/23/2021	<0.001	0.0004 (J)				
8/24/2021			<0.001	0.00017 (J)	<0.001	
8/25/2021						<0.001



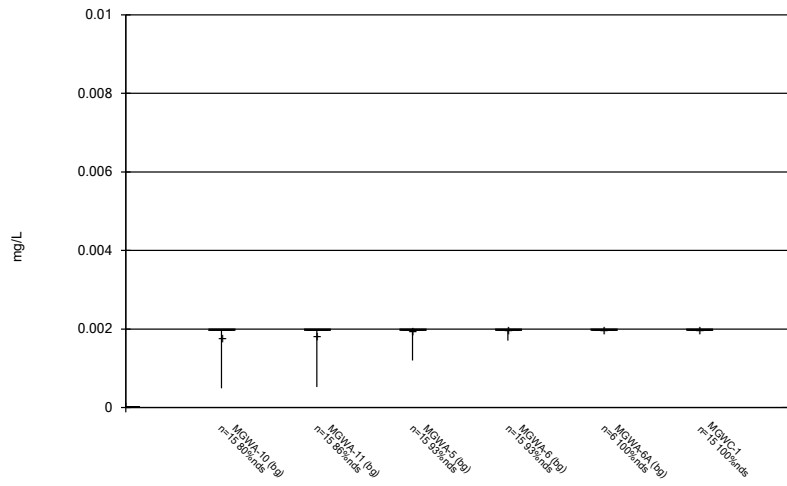
# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/9/2021 4:28 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.001	<0.001
5/6/2016		<0.001	<0.001		
6/21/2016	<0.001	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016				<0.001	0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001		
9/28/2016				<0.001	0.00014 (J)
9/29/2016	<0.001	<0.001	<0.001		
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017			<0.001	<0.001	0.00016 (J)
1/18/2017	<0.001	<0.001			
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017			<0.001	<0.001	0.00019 (J)
4/19/2017		<0.001			
4/25/2017	<0.001				
7/13/2017	<0.001				
3/29/2018	<0.001			<0.001	
3/30/2018		<0.001	<0.001		0.00027 (J)
6/12/2018	<0.001				
6/13/2018		<0.001	<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020	<0.001			<0.001	
1/29/2020		0.00021 (J)	0.00037 (J)		0.00042 (J)
3/10/2020	0.00015 (J)	<0.001	0.00016 (J)	<0.001	0.00025 (J)
9/16/2020	0.00027 (J)	<0.001			
9/17/2020			<0.001	<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021		<0.001	<0.001		
8/25/2021	<0.001			<0.001	0.0004 (J)

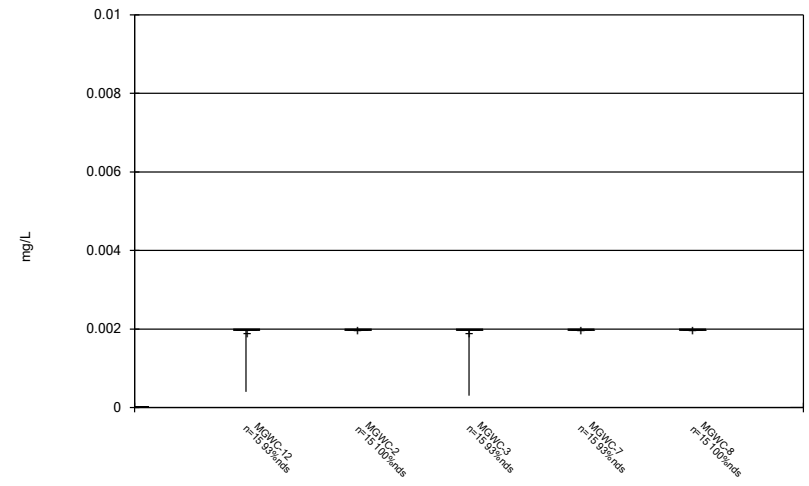
FIGURE B.

### Box & Whiskers Plot



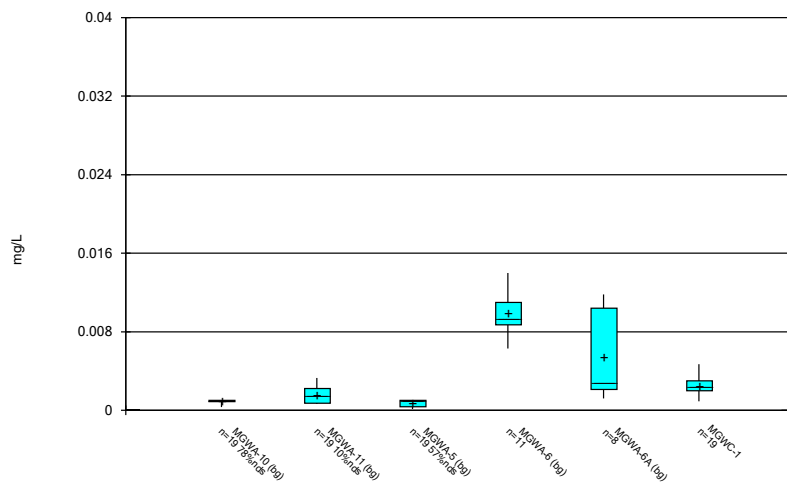
Constituent: Antimony Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



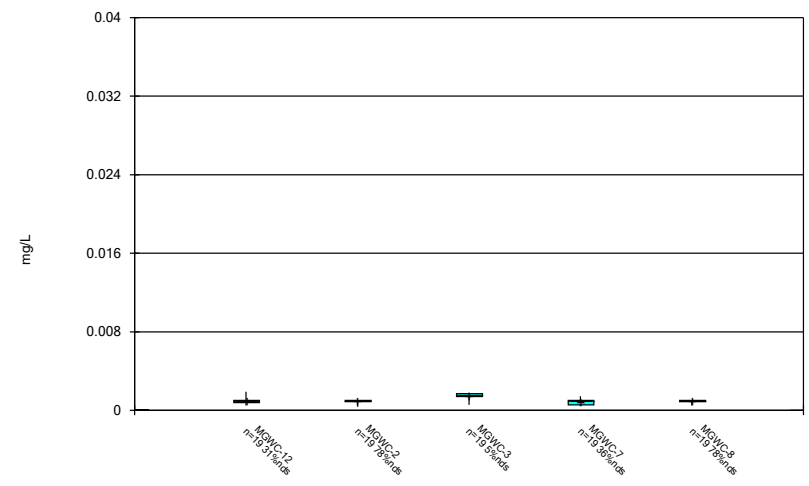
Constituent: Antimony Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



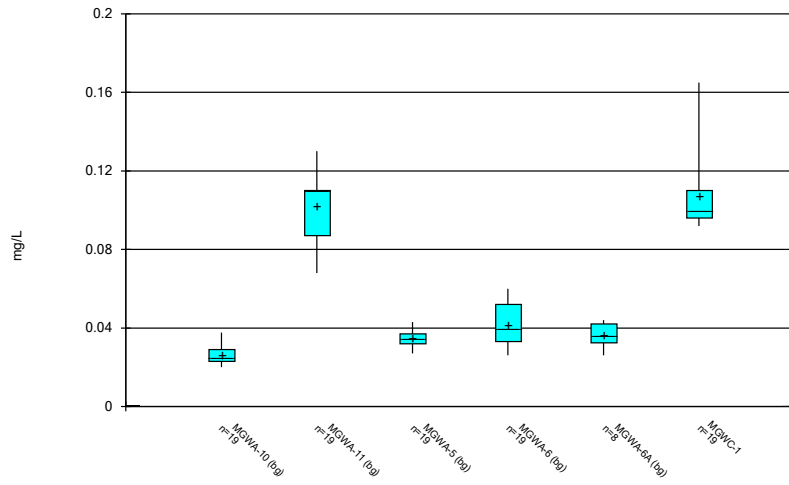
Constituent: Arsenic Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



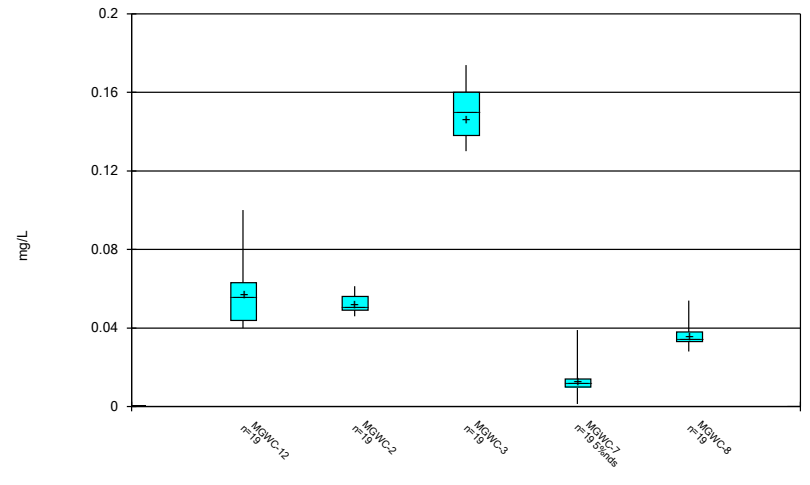
Constituent: Arsenic Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



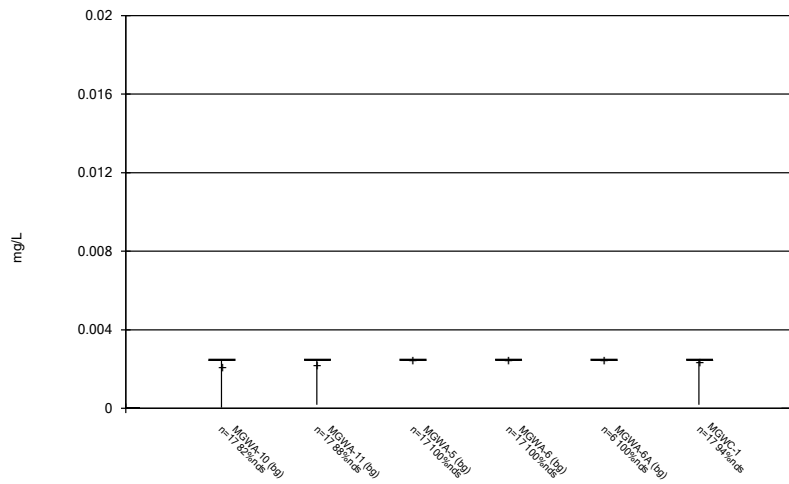
Constituent: Barium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



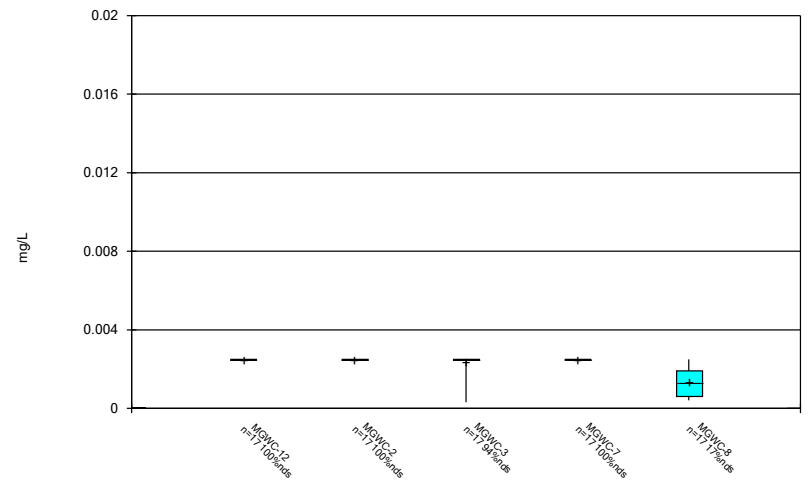
Constituent: Barium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



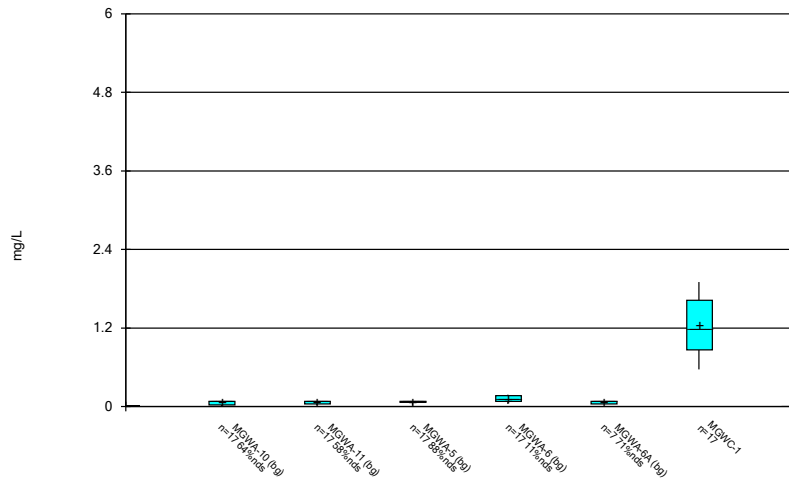
Constituent: Beryllium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



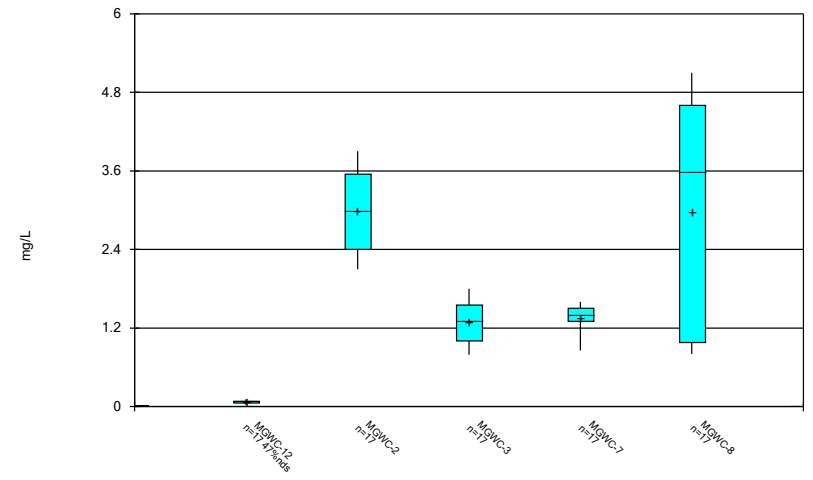
Constituent: Beryllium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



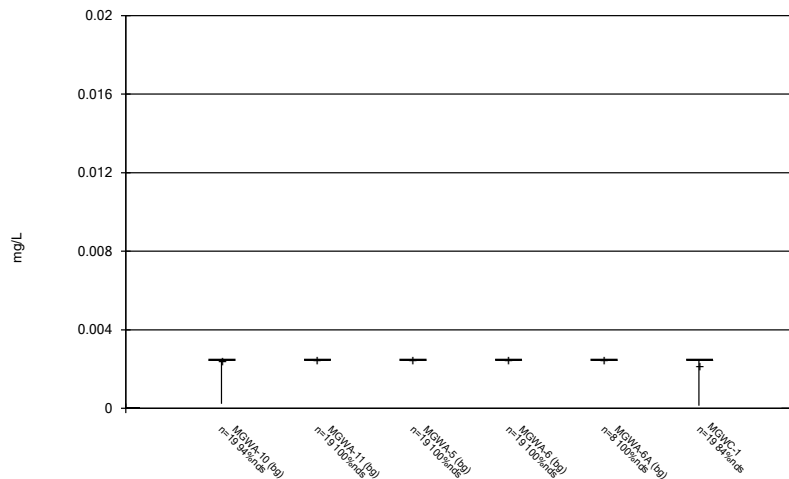
Constituent: Boron Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



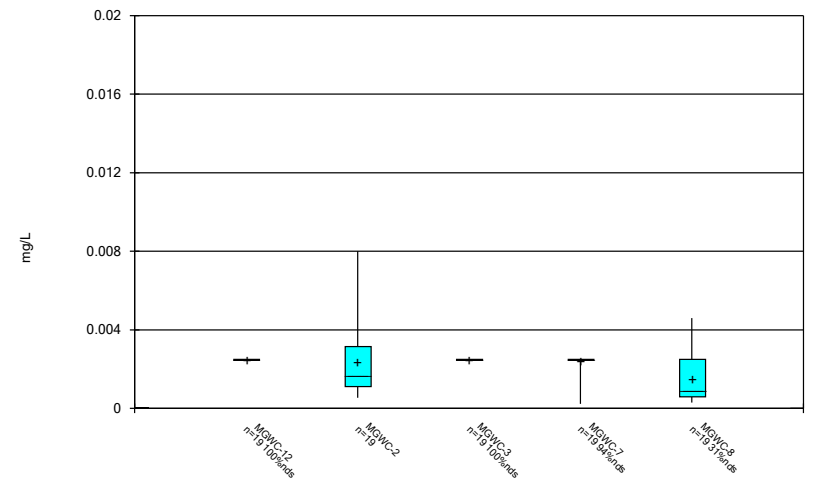
Constituent: Boron Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



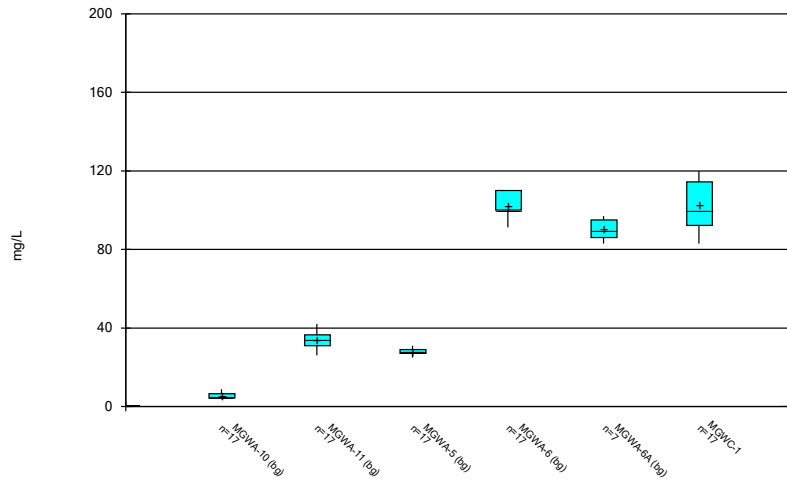
Constituent: Cadmium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



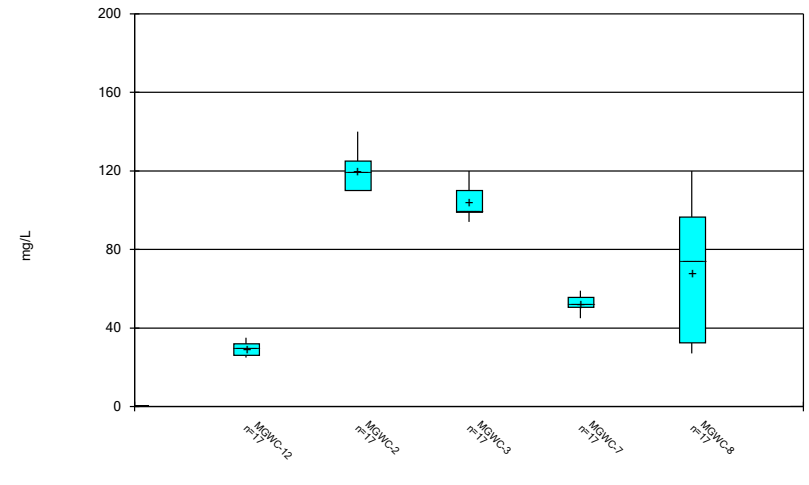
Constituent: Cadmium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



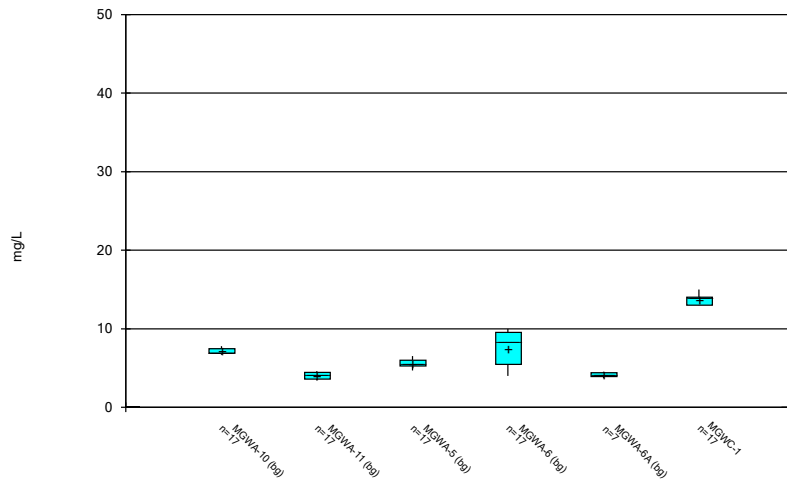
Constituent: Calcium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



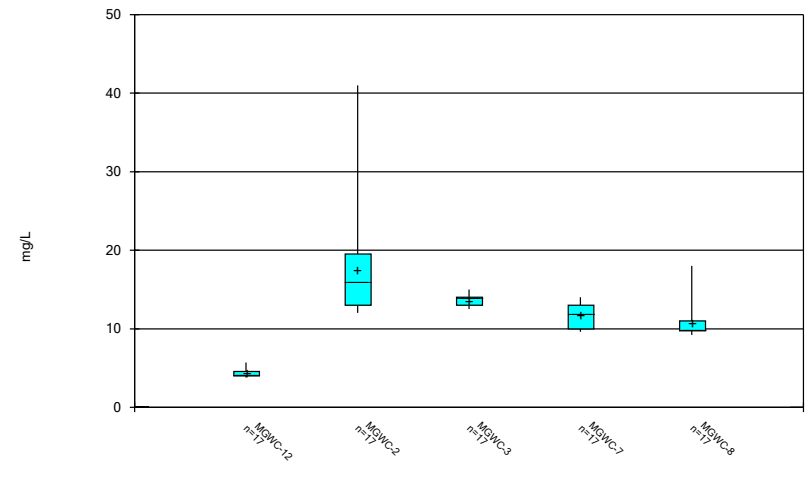
Constituent: Calcium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



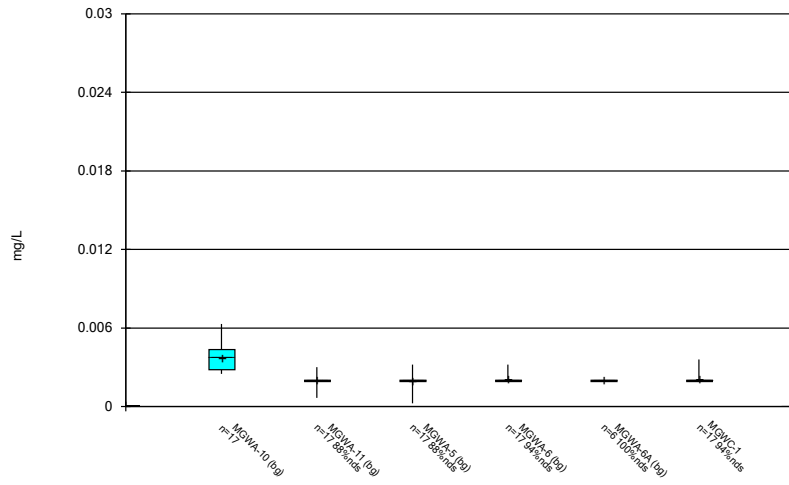
Constituent: Chloride Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



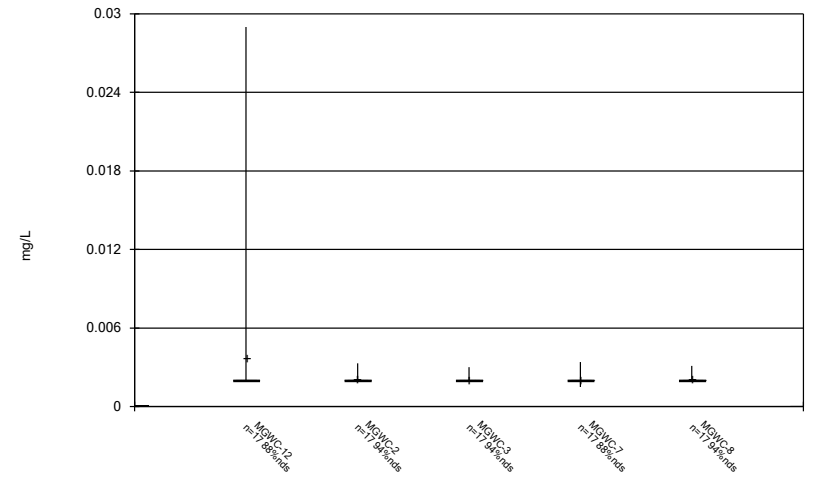
Constituent: Chloride Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



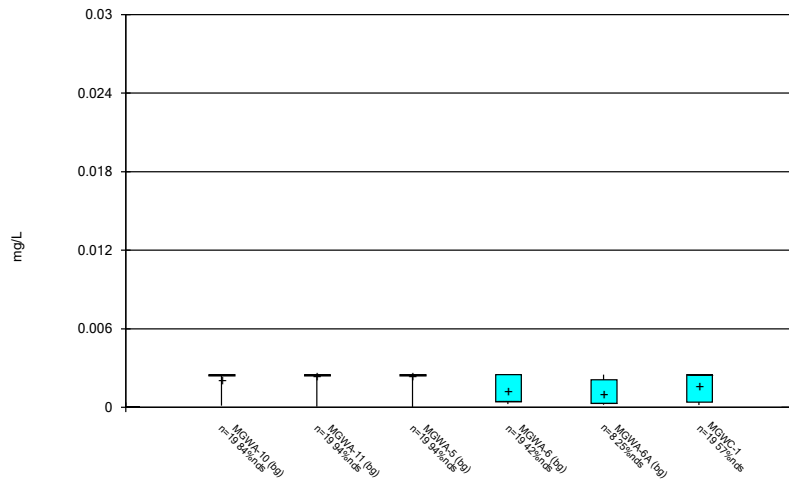
Constituent: Chromium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



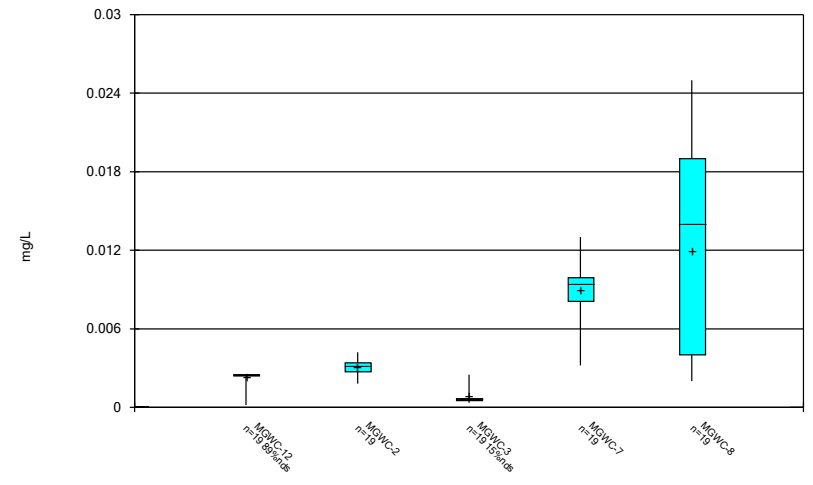
Constituent: Chromium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



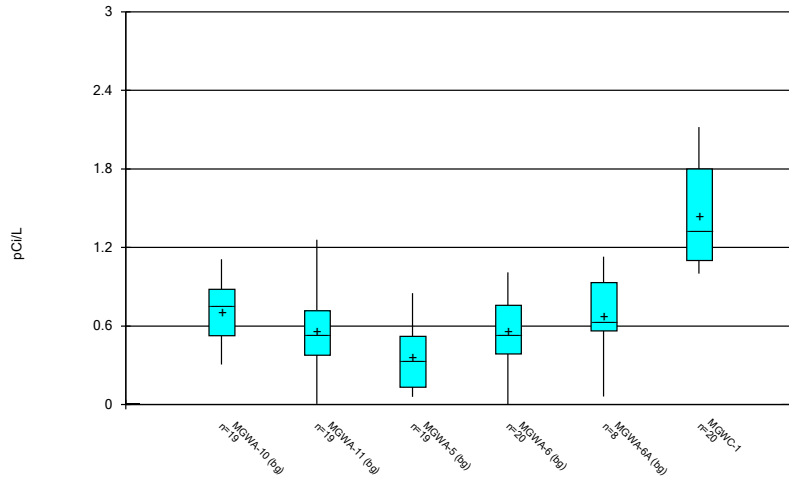
Constituent: Cobalt Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



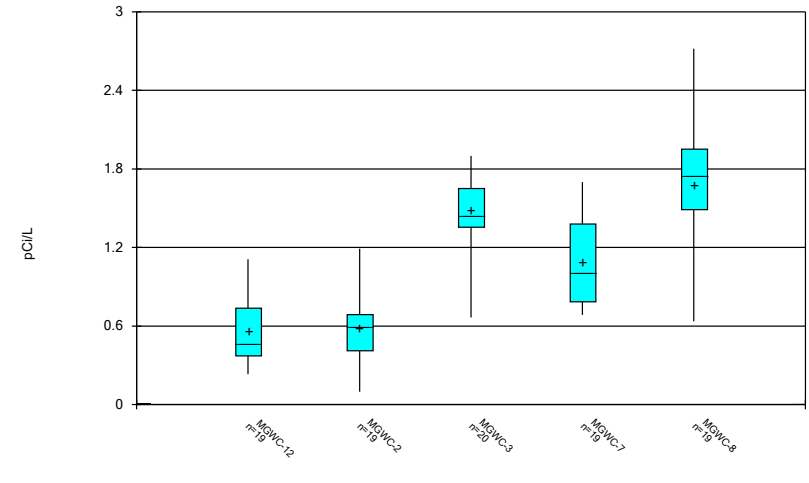
Constituent: Cobalt Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



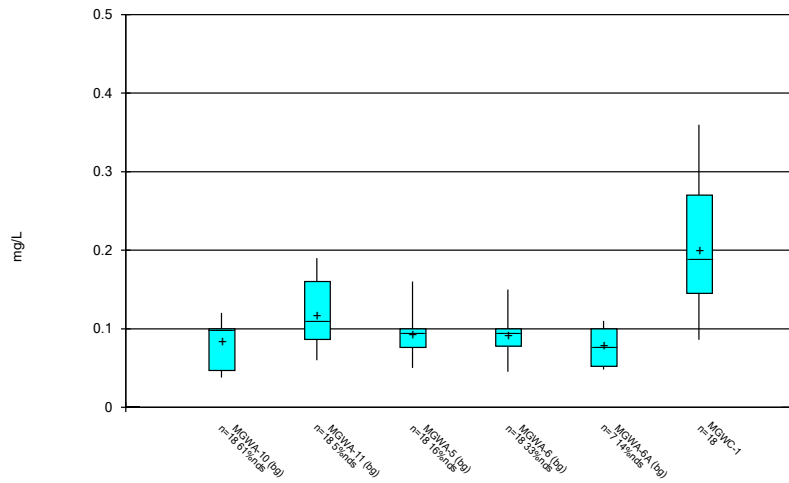
Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



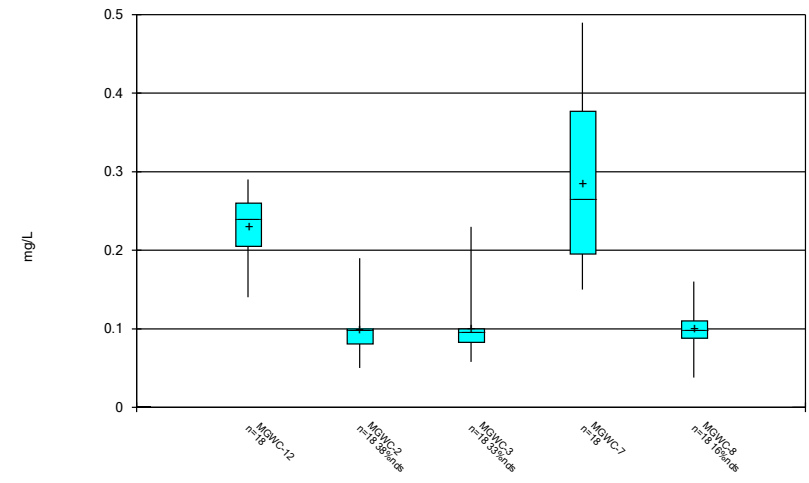
Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

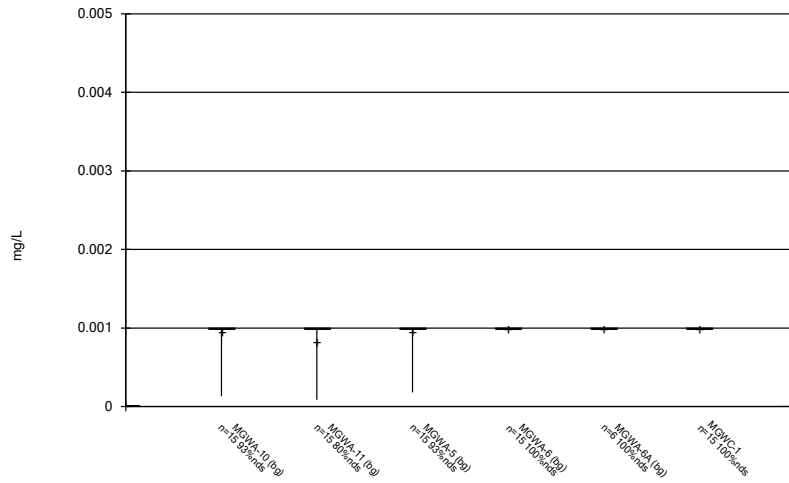
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

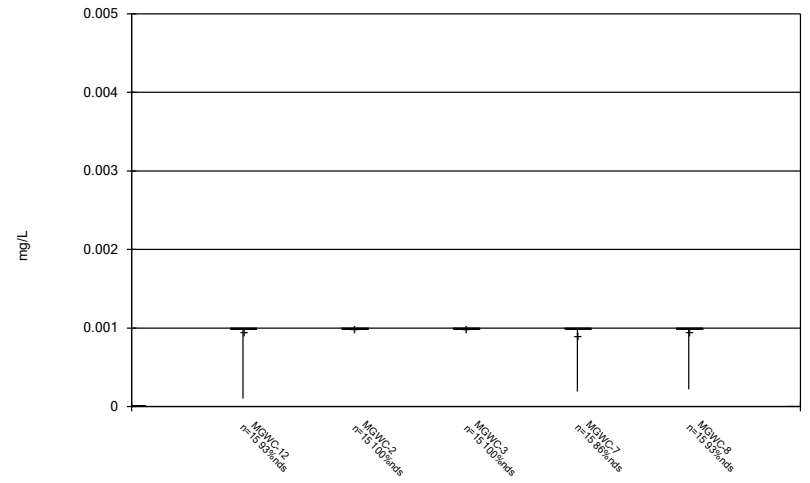


### Box & Whiskers Plot



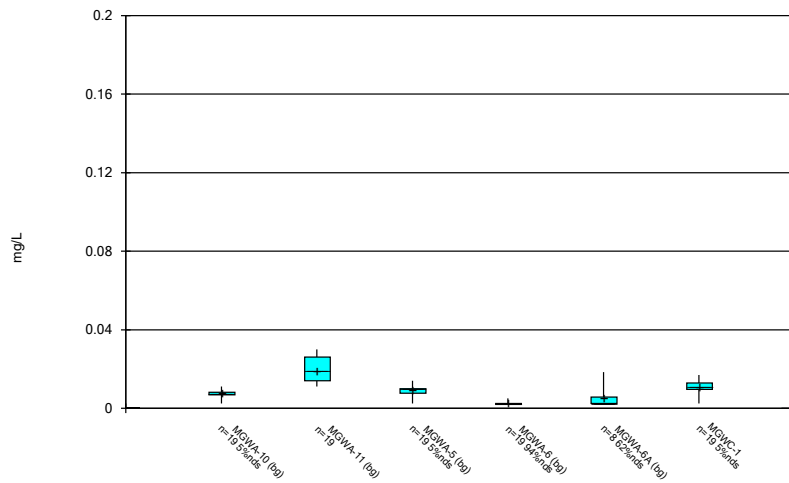
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



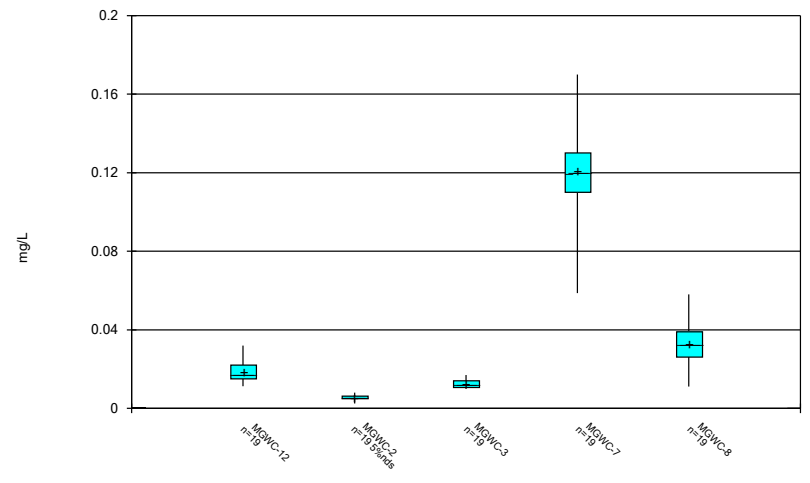
Constituent: Lead Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



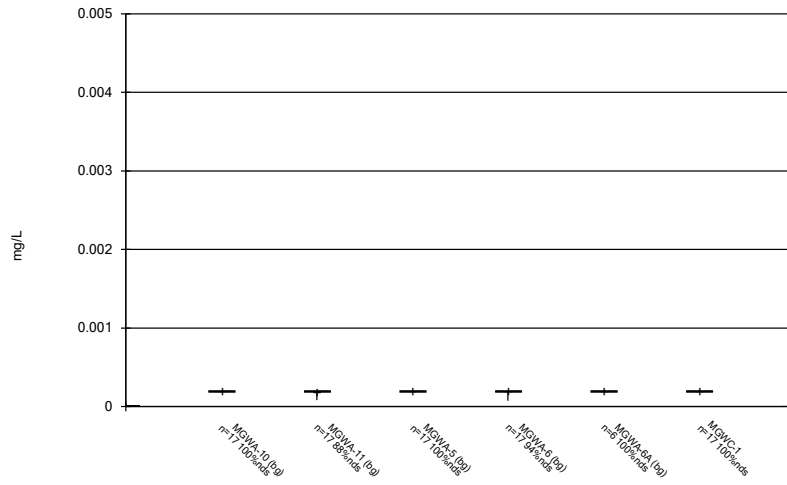
Constituent: Lithium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



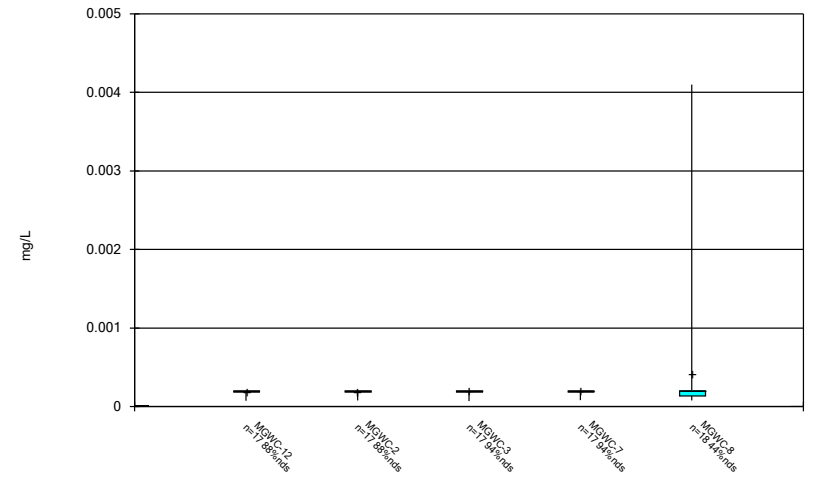
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Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



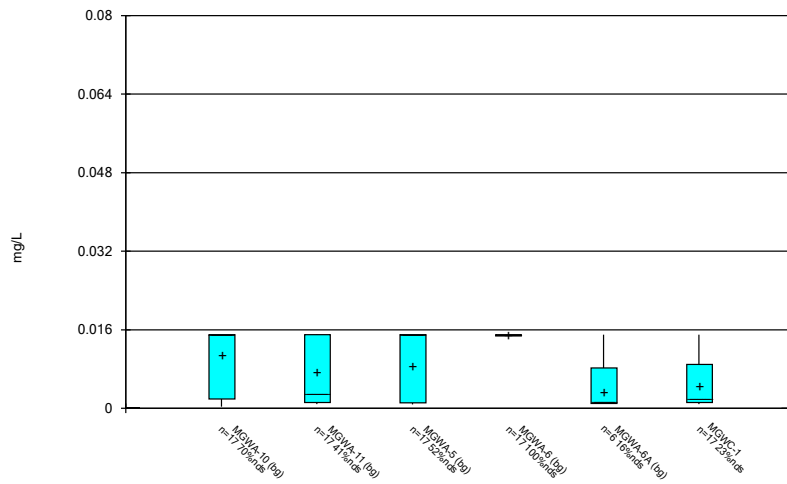
Constituent: Mercury Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



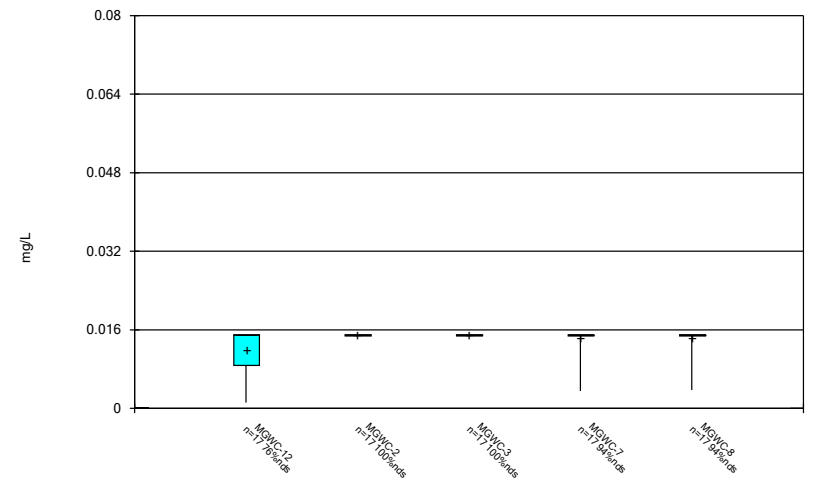
Constituent: Mercury Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



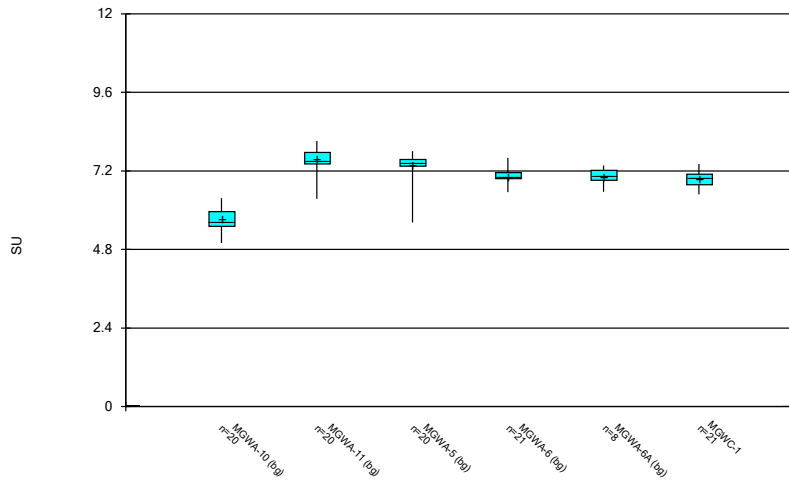
Constituent: Molybdenum Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



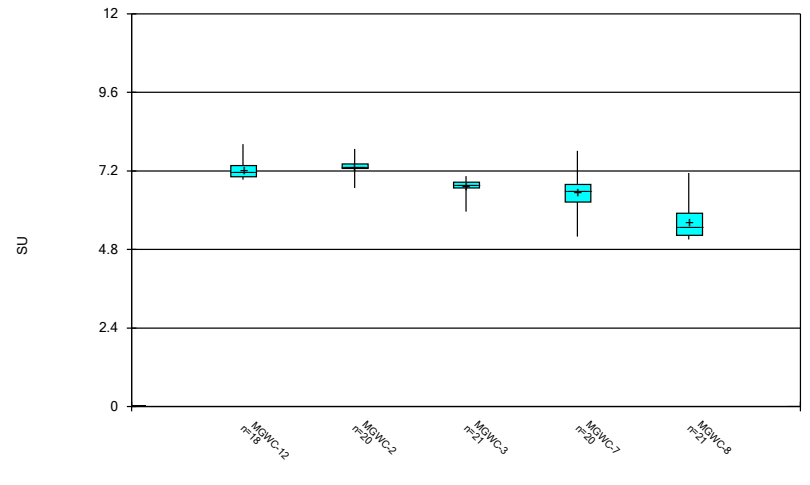
Constituent: Molybdenum Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



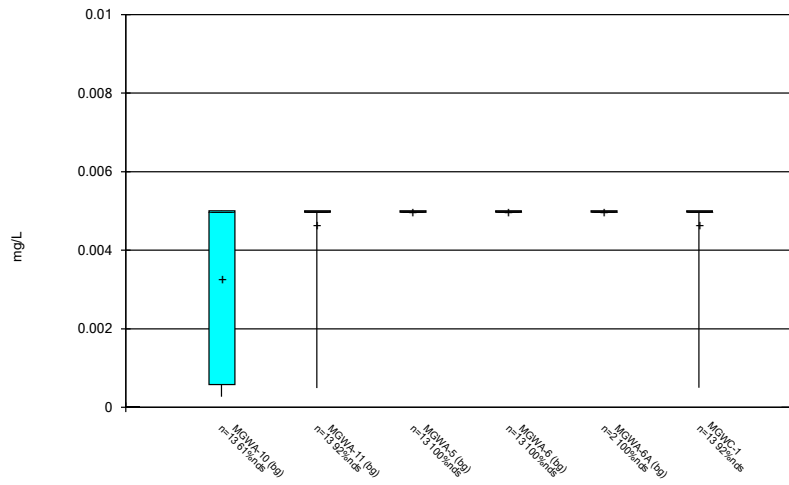
Constituent: pH Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



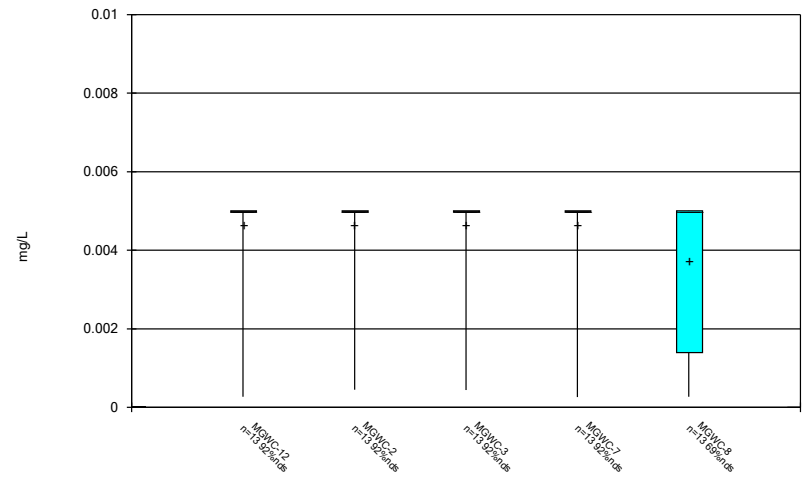
Constituent: pH Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



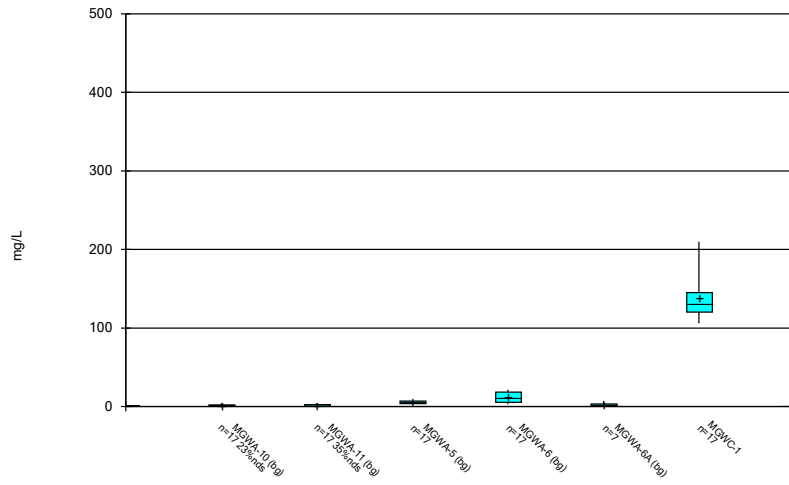
Constituent: Selenium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Box & Whiskers Plot



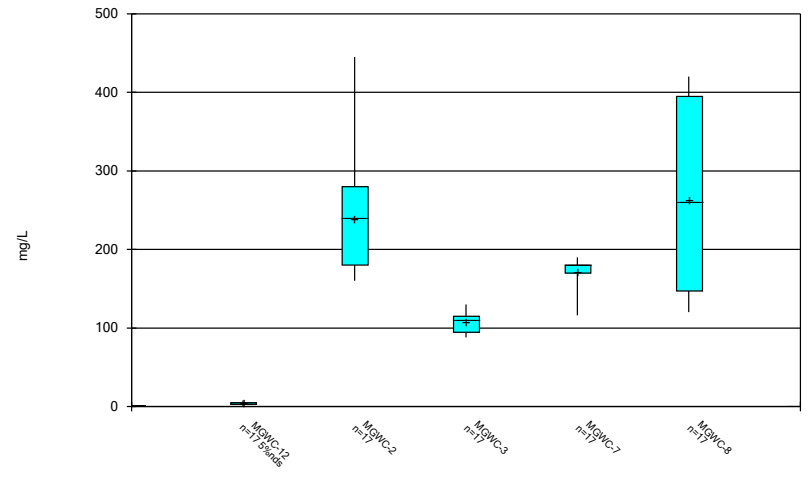
Constituent: Selenium Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



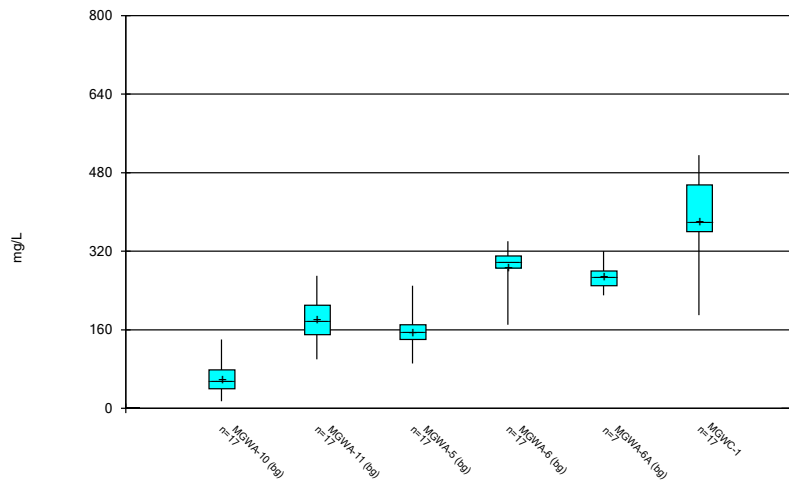
Constituent: Sulfate Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



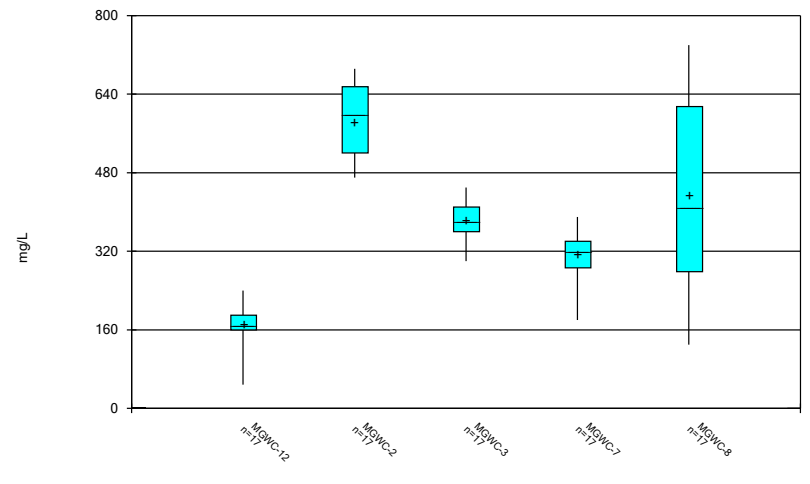
Constituent: Sulfate Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



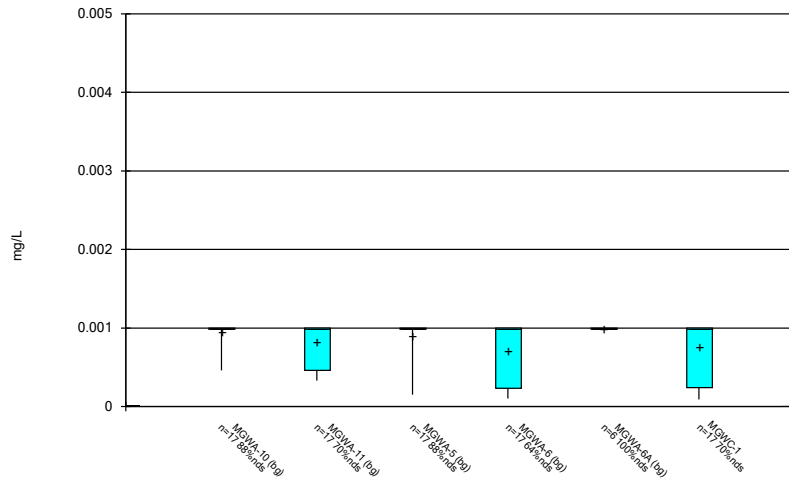
Constituent: TDS Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



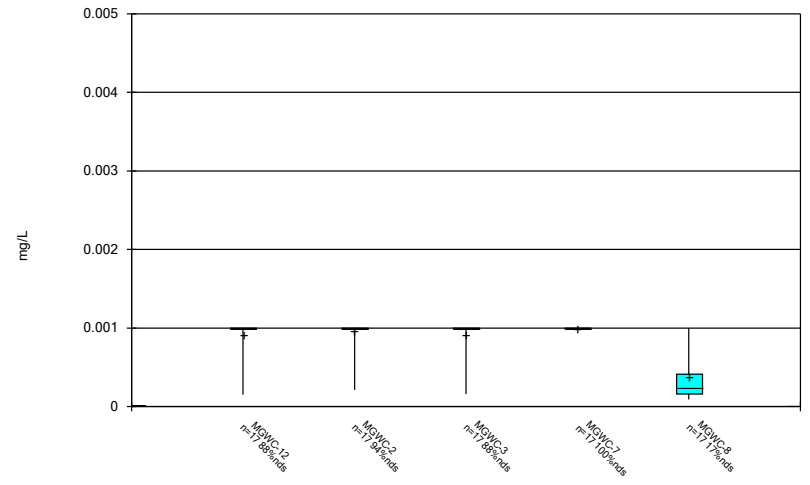
Constituent: TDS Analysis Run 11/9/2021 4:30 PM  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/9/2021 4:30 PM  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE C.

# Outlier Summary

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 4:31 PM

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MGWC-12 pH (SU)

9/10/2019	10.96 (o)
9/16/2020	11.03 (o)

FIGURE D.



# Appendix III Interwell Prediction Limits - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 5:49 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)	MGWC-1	0.18	n/a	8/25/2021	1.7	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-2	0.18	n/a	8/24/2021	2.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-3	0.18	n/a	8/24/2021	0.97	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-7	0.18	n/a	8/25/2021	1.6	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Boron (mg/L)	MGWC-8	0.18	n/a	8/25/2021	4.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MGWC-1	110	n/a	8/25/2021	120	Yes	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Chloride (mg/L)	MGWC-1	9.478	n/a	8/25/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-2	9.478	n/a	8/24/2021	13	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-3	9.478	n/a	8/24/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-7	9.478	n/a	8/25/2021	9.9	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Chloride (mg/L)	MGWC-8	9.478	n/a	8/25/2021	11	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-1	21.25	n/a	8/25/2021	140	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-2	21.25	n/a	8/24/2021	160	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-3	21.25	n/a	8/24/2021	130	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-7	21.25	n/a	8/25/2021	180	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MGWC-8	21.25	n/a	8/25/2021	420	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-1	349.2	n/a	8/25/2021	470	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-2	349.2	n/a	8/24/2021	510	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-3	349.2	n/a	8/24/2021	450	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-7	349.2	n/a	8/25/2021	390	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	MGWC-8	349.2	n/a	8/25/2021	720	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2

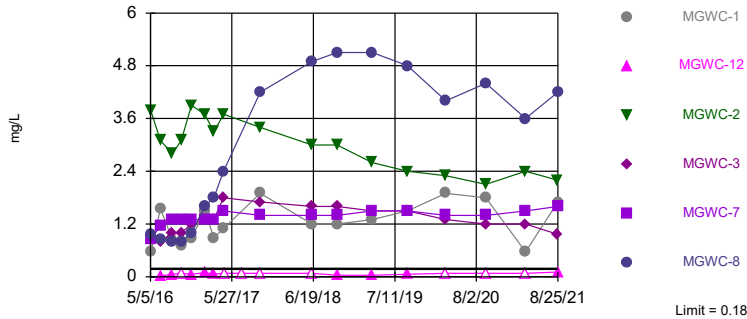
# Appendix III Interwell Prediction Limits - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 5:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Boron (mg/L)</b>	<b>MGWC-1</b>	<b>0.18</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>1.7</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-12	0.18	n/a	8/25/2021	0.11	No	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>0.18</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>2.2</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-3	0.18	n/a	8/24/2021	0.97	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.18</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>1.6</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>57.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	MGWC-8	0.18	n/a	8/25/2021	4.2	Yes	75	n/a	n/a	57.33	n/a	n/a	0.0003431	NP Inter (NDs) 1 of 2
<b>Calcium (mg/L)</b>	<b>MGWC-1</b>	<b>110</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>120</b>	<b>Yes</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003431</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	MGWC-12	110	n/a	8/25/2021	31	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-2	110	n/a	8/24/2021	110	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-3	110	n/a	8/24/2021	110	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-7	110	n/a	8/25/2021	59	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
Calcium (mg/L)	MGWC-8	110	n/a	8/25/2021	96	No	75	n/a	n/a	0	n/a	n/a	0.0003431	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-1</b>	<b>9.478</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>14</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-12	9.478	n/a	8/25/2021	4.9	No	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>9.478</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>13</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-3	9.478	n/a	8/24/2021	14	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>9.478</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>9.9</b>	<b>Yes</b>	<b>75</b>	<b>2.397</b>	<b>0.366</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	MGWC-8	9.478	n/a	8/25/2021	11	Yes	75	2.397	0.366	0	None	sqrt(x)	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	MGWC-1	0.19	n/a	8/25/2021	0.097J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-12	0.19	n/a	8/25/2021	0.19	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-2	0.19	n/a	8/24/2021	0.095J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-3	0.19	n/a	8/24/2021	0.11	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-7	0.19	n/a	8/25/2021	0.15	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MGWC-8	0.19	n/a	8/25/2021	0.038J	No	79	n/a	n/a	27.85	n/a	n/a	0.0003077	NP Inter (normality) 1 of 2
pH (SU)	MGWC-1	7.968	5.034	8/25/2021	7.27	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-12	7.968	5.034	8/25/2021	7.44	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-2	7.968	5.034	8/24/2021	7.42	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-3	7.968	5.034	8/24/2021	6.92	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-7	7.968	5.034	8/25/2021	6.85	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
pH (SU)	MGWC-8	7.968	5.034	8/25/2021	5.26	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-1</b>	<b>21.25</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>140</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-12	21.25	n/a	8/25/2021	6.6	No	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>21.25</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>160</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-3	21.25	n/a	8/24/2021	130	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>MGWC-7</b>	<b>21.25</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>180</b>	<b>Yes</b>	<b>75</b>	<b>1.005</b>	<b>1.101</b>	<b>13.33</b>	<b>None</b>	<b>ln(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	MGWC-8	21.25	n/a	8/25/2021	420	Yes	75	1.005	1.101	13.33	None	ln(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-1</b>	<b>349.2</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>470</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-12	349.2	n/a	8/25/2021	230	No	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>349.2</b>	<b>n/a</b>	<b>8/24/2021</b>	<b>510</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-3	349.2	n/a	8/24/2021	450	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>MGWC-7</b>	<b>349.2</b>	<b>n/a</b>	<b>8/25/2021</b>	<b>390</b>	<b>Yes</b>	<b>75</b>	<b>180.6</b>	<b>90.52</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	MGWC-8	349.2	n/a	8/25/2021	720	Yes	75	180.6	90.52	0	None	No	0.001254	Param Inter 1 of 2

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Non-parametric

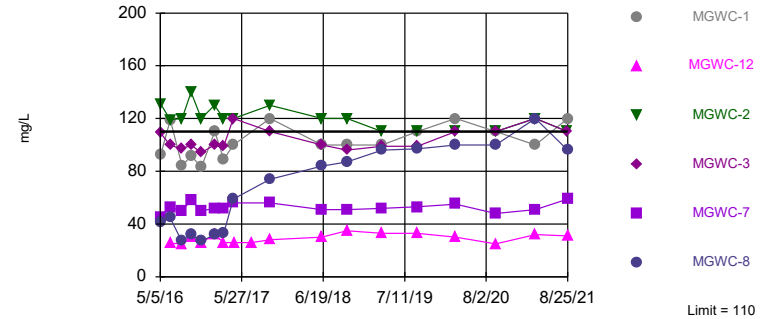


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 75 background values. 57.33% NDs. Annual per-constituent alpha = 0.004109. Individual comparison alpha = 0.0003431 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 11/9/2021 5:48 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1

Prediction Limit  
Interwell Non-parametric

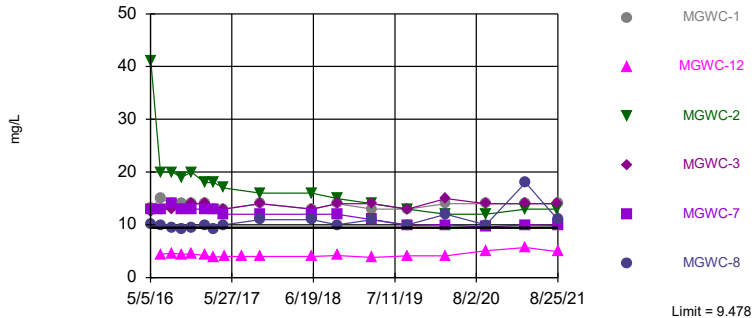


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. Annual per-constituent alpha = 0.004109. Individual comparison alpha = 0.0003431 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 11/9/2021 5:48 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Parametric

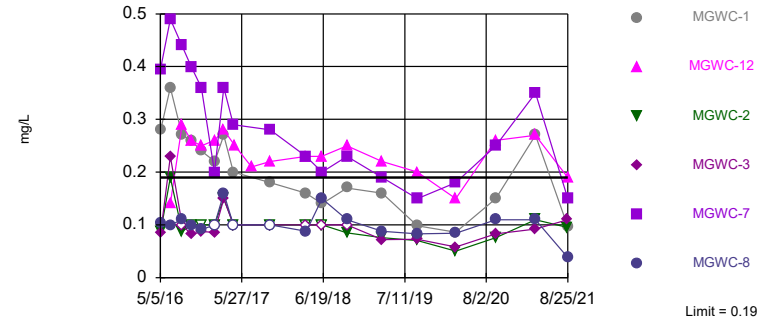


Background Data Summary (based on square root transformation): Mean=2.397, Std. Dev.=0.366, n=75. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9616, critical = 0.956. Kappa = 1.862 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Chloride Analysis Run 11/9/2021 5:48 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Within Limit

Prediction Limit  
Interwell Non-parametric

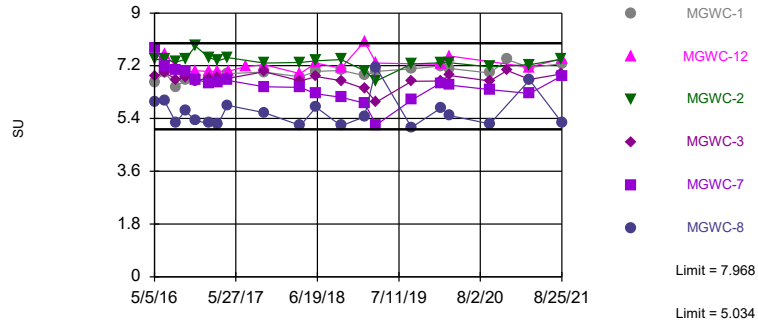


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 79 background values. 27.85% NDs. Annual per-constituent alpha = 0.003686. Individual comparison alpha = 0.0003077 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 11/9/2021 5:48 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Within Limits

Prediction Limit  
Interwell Parametric

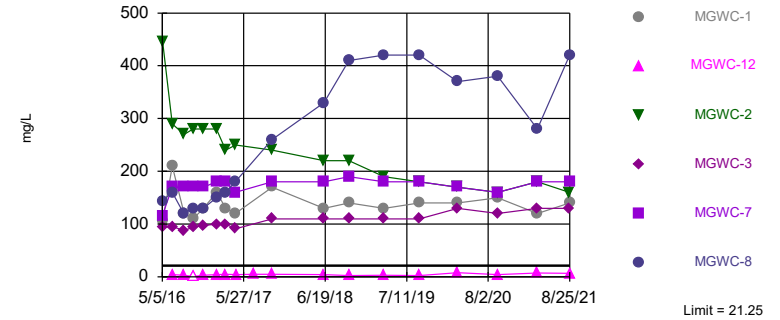


Background Data Summary (based on  $x^5$  transformation): Mean=17676, Std. Dev.=7817, n=89. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9635, critical = 0.961. Kappa = 1.848 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

Constituent: pH Analysis Run 11/9/2021 5:48 PM View: Appendix III  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Hollow symbols indicate censored values.  
 Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Parametric

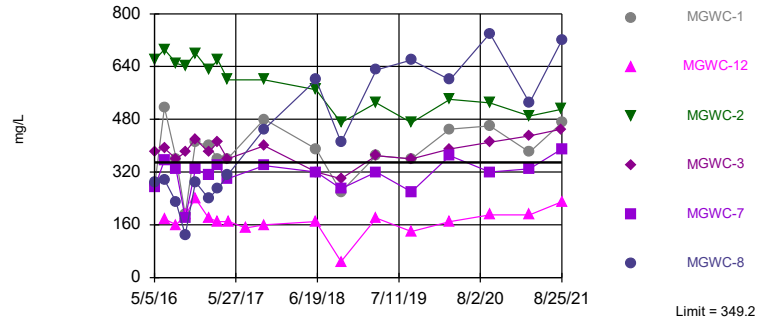


Background Data Summary (based on natural log transformation): Mean=1.005, Std. Dev.=1.101, n=75, 13.33% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9694, critical = 0.956. Kappa = 1.862 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 11/9/2021 5:48 PM View: Appendix III  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Exceeds Limit: MGWC-1, MGWC-2, MGWC-3, MGWC-7, MGWC-8

Prediction Limit  
Interwell Parametric



Background Data Summary: Mean=180.6, Std. Dev.=90.52, n=75. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9662, critical = 0.956. Kappa = 1.862 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 11/9/2021 5:48 PM View: Appendix III  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	<0.08	0.976	0.157	0.855	<0.08				
5/6/2016						0.567	0.926	3.78	
6/20/2016	0.011 (J)				0.013 (J)				0.017 (J)
6/21/2016		0.862	0.124	1.15		1.55	0.792	3.1	
8/15/2016	0.022 (J)	0.8	0.18	1.3	0.023 (J)				0.032 (J)
8/16/2016						0.85	1	2.8	
9/28/2016	0.023 (J)	0.8	0.17	1.3	<0.08	0.7			0.021 (J)
9/29/2016							1	3.1	
11/16/2016	<0.08	0.98	0.17	1.3	<0.08	0.88	1.2	3.9	<0.08
1/16/2017	0.021 (J)								
1/17/2017		1.6	0.17	1.3	<0.08		1.3		<0.08
1/18/2017								3.7	
1/19/2017						1.5			
3/2/2017	<0.08	1.8	0.14	1.3	<0.08	0.89	1.3	3.3	<0.08
4/18/2017	<0.08	2.4	0.14	1.5	<0.08	1.1	1.8		<0.08
4/19/2017								3.7	
4/25/2017									
7/13/2017									<0.08
10/10/2017	0.021 (J)	4.2	0.12	1.4	<0.08	1.9	1.7	3.4	0.025 (J)
6/12/2018	<0.08				<0.08				<0.08
6/13/2018		4.9	0.11	1.4		1.2	1.6	3	
10/9/2018	<0.08				<0.08				<0.08
10/10/2018		5.1	0.096 (J)	1.4		1.2	1.6	3	
1/29/2019									
3/25/2019	<0.08				<0.08				<0.08
3/26/2019		5.1	0.079 (J)	1.5		1.3	1.5	2.6	
9/10/2019	<0.08	4.8	0.097	1.5	<0.08	1.5	1.5	2.4	<0.08
3/9/2020	0.045 (J)								<0.08
3/10/2020		4	0.051 (J)	1.4	<0.08	1.9	1.3	2.3	
9/16/2020	<0.08		0.041 (J)		<0.08			2.1	0.045 (J)
9/17/2020		4.4		1.4		1.8	1.2		
3/23/2021	<0.08		<0.08						0.047 (J)
3/24/2021		3.6		1.5	<0.08	0.57	1.2	2.4	
8/23/2021	<0.08								0.043 (J)
8/24/2021			<0.08		<0.08		0.97	2.2	
8/25/2021		4.2		1.6		1.7			

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.0201 (J)	
8/15/2016		
8/16/2016	0.055	
9/28/2016		
9/29/2016	<0.08	
11/16/2016	0.055	
1/16/2017		
1/17/2017		
1/18/2017	0.097	
1/19/2017		
3/2/2017	0.064	
4/18/2017		
4/19/2017		
4/25/2017	<0.08	
7/13/2017	<0.08	
10/10/2017	<0.08	
6/12/2018	<0.08	
6/13/2018		
10/9/2018		
10/10/2018	0.034 (J)	
1/29/2019		<0.08
3/25/2019		<0.08
3/26/2019	0.032 (J)	
9/10/2019	0.06 (J)	0.04 (J)
3/9/2020		
3/10/2020	<0.08	<0.08
9/16/2020	<0.08	0.04 (J)
9/17/2020		
3/23/2021		<0.08
3/24/2021	<0.08	
8/23/2021		
8/24/2021		<0.08
8/25/2021	0.11	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	8.83	41.2	105	45	27				
5/6/2016						92.5	109	131	
6/20/2016	8.1				29.4				35.5
6/21/2016		44.7	91.2	52.8		119	99.7	119	
8/15/2016	6.1	27	94	50	26				34
8/16/2016						84	97	120	
9/28/2016	7.2	32	110	58	31	92			38
9/29/2016							100	140	
11/16/2016	5.2	27	98	50	26	83	94	120	33
1/16/2017	3.8								
1/17/2017		32	100	52	29		100		34
1/18/2017								130	
1/19/2017						110			
3/2/2017	5.4	33	100	52	28	89	99	120	35
4/18/2017	5	59	110	56	27	100	120		33
4/19/2017								120	
4/25/2017									
7/13/2017									30
10/10/2017	4.8	74	110	56	31	120	110	130	39
6/12/2018	4.8				25				26
6/13/2018		84	100	51		100	100	120	
10/9/2018	4.5				29				29
10/10/2018		87	100	51		100	96	120	
1/29/2019									
3/25/2019	4.6				27				37
3/26/2019		96	100	52		100	99	110	
9/10/2019	4.9	97	110	53	27	110	99	110	36
3/9/2020	4								32
3/10/2020		100	100	55	29	120	110	110	
9/16/2020	6.8		100		28			110	30
9/17/2020		100		48		110	110		
3/23/2021	4		110						42
3/24/2021		120		51	28	100	120	120	
8/23/2021	5.8								34
8/24/2021			100		27		110	110	
8/25/2021		96		59		120			

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	25.5	
8/15/2016		
8/16/2016	25	
9/28/2016		
9/29/2016	30	
11/16/2016	26	
1/16/2017		
1/17/2017		
1/18/2017	32	
1/19/2017		
3/2/2017	26	
4/18/2017		
4/19/2017		
4/25/2017	26	
7/13/2017	26	
10/10/2017	28	
6/12/2018	30	
6/13/2018		
10/9/2018		
10/10/2018	35	
1/29/2019		95.1
3/25/2019		89
3/26/2019	33	
9/10/2019	33	86
3/9/2020		
3/10/2020	30	90
9/16/2020	25	93
9/17/2020		
3/23/2021		97
3/24/2021	32	
8/23/2021		
8/24/2021		83
8/25/2021	31	



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	7.35	10.1	9.67	13	6.51				
5/6/2016						13.2	12.5	41	
6/20/2016	7				5.9				4.3
6/21/2016		10	9.2	13		15	13	20	
8/15/2016	7.5	9.5	10	14	6.4				4.1
8/16/2016						14	13	20	
9/28/2016	7	9.2	10	13	6.1	14			3.9
9/29/2016							13	19	
11/16/2016	7.5	9.5	10	13	6.1	14	14	20	4.1
1/16/2017	7.7								
1/17/2017		10	9.4	13	5.7		14		3.9
1/18/2017								18	
1/19/2017						14			
3/2/2017	6.9	9.3	8.6	13	5.3	13	13	18	3.5
4/18/2017	6.8	10	8.9	12	5.3	13	13		3.7
4/19/2017								17	
4/25/2017									
7/13/2017									4.2
10/10/2017	6.9	11	8.3	12	5.3	14	14	16	3.4
6/12/2018	6.7				5.1				4.6
6/13/2018		11	7	12		13	13	16	
10/9/2018	7.1				5.6				4.5
10/10/2018		10	6.9	12		14	14	15	
1/29/2019									
3/25/2019	6.8				4.7				3.4
3/26/2019		11	5.8	11		13	14	14	
9/10/2019	7	10	6	9.9	5.1	13	13	13	3.5
3/9/2020	7.4								4.5
3/10/2020		12	5.1	10	5.4	14	15	12	
9/16/2020	7		4.3		5.2			12	4.6
9/17/2020		10		9.6		14	14		
3/23/2021	7.8		4						3.8
3/24/2021		18		10	5.5	14	14	13	
8/23/2021	7.3								4.4
8/24/2021			4		5.5		14	13	
8/25/2021		11		9.9		14			

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4.4	
8/15/2016		
8/16/2016	4.6	
9/28/2016		
9/29/2016	4.4	
11/16/2016	4.5	
1/16/2017		
1/17/2017		
1/18/2017	4.2	
1/19/2017		
3/2/2017	3.9	
4/18/2017		
4/19/2017		
4/25/2017	4	
7/13/2017	4	
10/10/2017	4	
6/12/2018	4	
6/13/2018		
10/9/2018		
10/10/2018	4.2	
1/29/2019		4.51
3/25/2019		4.4
3/26/2019	3.8	
9/10/2019	4.1	4.2
3/9/2020		
3/10/2020	4.1	4
9/16/2020	5.1	3.7
9/17/2020		
3/23/2021		4.1
3/24/2021	5.7	
8/23/2021		
8/24/2021		3.9
8/25/2021	4.9	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-3	MGWC-2	MGWC-1	MGWA-11 (bg)
5/5/2016	0.046 (J)	0.394	0.132 (J)	0.103 (J)	0.091 (J)				
5/6/2016						0.086 (J)	0.088 (J)	0.28 (J)	
6/20/2016	<0.1		0.05 (J)						0.06 (J)
6/21/2016		0.49		0.1 (J)	0.08 (J)	0.23 (J)	0.19 (J)	0.36	
8/15/2016	<0.1	0.44	0.1 (J)	0.11 (J)	<0.1				0.1 (J)
8/16/2016						<0.1	0.087 (J)	0.27	
9/28/2016	<0.1	0.4	0.11 (J)	0.1 (J)	0.084 (J)			0.26	0.097 (J)
9/29/2016						0.082 (J)	<0.1		
11/16/2016	<0.1	0.36	0.093 (J)	0.091 (J)	0.084 (J)	0.087 (J)	<0.1	0.24	0.12 (J)
1/16/2017	<0.1								
1/17/2017		0.2	0.095 (J)	<0.1	0.099 (J)	0.086 (J)			0.11 (J)
1/18/2017							<0.1		
1/19/2017								0.22	
3/2/2017	0.12 (J)	0.36	0.16 (J)	0.16 (J)	0.15 (J)	0.15 (J)	0.15 (J)	0.27	0.18 (J)
4/18/2017	<0.1	0.29	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.11 (J)
4/19/2017							<0.1		
4/25/2017									
7/13/2017									0.12 (J)
10/10/2017	<0.1	0.28	<0.1	<0.1	<0.1	<0.1	<0.1	0.18 (J)	0.086 (J)
3/29/2018	<0.1	0.23	0.084 (J)		<0.1			0.16 (J)	<0.1
3/30/2018				0.088 (J)		<0.1	<0.1		
6/12/2018	<0.1		<0.1						0.16 (J)
6/13/2018		0.2		0.15 (J)	<0.1	<0.1	<0.1	0.14 (J)	
10/9/2018	<0.1		0.086 (J)						0.16 (J)
10/10/2018		0.23		0.11 (J)	<0.1	<0.1	0.085 (J)	0.17 (J)	
1/29/2019									
3/25/2019	<0.1		0.072 (J)						0.087 (J)
3/26/2019		0.19 (J)		0.088 (J)	0.065 (J)	0.072 (J)	0.076 (J)	0.16	
9/10/2019	0.044 (J)	0.15	0.068 (J)	0.083 (J)	0.076 (J)	0.073 (J)	0.07 (J)	0.098 (J)	0.075 (J)
3/9/2020	0.061 (J)								0.19
3/10/2020		0.18	0.055 (J)	0.084 (J)	0.045 (J)	0.058 (J)	0.05 (J)	0.086 (J)	
9/16/2020	0.042 (J)		0.08 (J)		0.076 (J)		0.076 (J)		0.18
9/17/2020		0.25		0.11		0.083 (J)		0.15	
3/23/2021	0.038 (J)				0.082 (J)				0.081 (J)
3/24/2021		0.35	0.091 (J)	0.11		0.092 (J)	0.11	0.27	
8/23/2021	0.048 (J)								0.12
8/24/2021			0.1		0.1	0.11	0.095 (J)		
8/25/2021		0.15		0.038 (J)				0.097 (J)	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	0.14 (J)	
8/15/2016		
8/16/2016	0.29	
9/28/2016		
9/29/2016	0.26	
11/16/2016	0.25	
1/16/2017		
1/17/2017		
1/18/2017	0.26	
1/19/2017		
3/2/2017	0.28	
4/18/2017		
4/19/2017		
4/25/2017	0.25	
7/13/2017	0.21	
10/10/2017	0.22	
3/29/2018	0.23	
3/30/2018		
6/12/2018	0.23	
6/13/2018		
10/9/2018		
10/10/2018	0.25	
1/29/2019		<0.1
3/25/2019		0.067 (J)
3/26/2019	0.22	
9/10/2019	0.2	0.052 (J)
3/9/2020		
3/10/2020	0.15	0.048 (J)
9/16/2020	0.26	0.078 (J)
9/17/2020		
3/23/2021		0.096 (J)
3/24/2021	0.27	
8/23/2021		
8/24/2021		0.11
8/25/2021	0.19	

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-5 (bg)	MGWC-7	MGWC-8	MGWA-6 (bg)	MGWC-2	MGWC-3	MGWC-1	MGWA-11 (bg)
5/5/2016	5.94	7.4	7.81	5.96	7.13				
5/6/2016						7.41	6.85	6.64	
6/20/2016	5.84 (D)	7.63							7.82
6/21/2016			7.2	6	7.25	7.41	6.98	6.99	
8/15/2016	5.65	7.54	7.04	5.26	7.04				7.52
8/16/2016						7.33	6.73	6.48	
9/28/2016	5.72	7.45	7	5.66	7.09			6.7	7.66
9/29/2016						7.42	6.81		
11/16/2016	5.65	7.39	6.73	5.33	7.6	7.87	6.69	6.66	7.51
1/16/2017	5.52								
1/17/2017		7.23	6.61	5.24	6.99		6.77		7.52
1/18/2017						7.49			
1/19/2017								6.81	
3/2/2017	5.53	7.55	6.62	5.21	6.95	7.37	6.79	6.75	7.5
4/18/2017	5.64	7.43	6.7	5.85	7.02		6.77	6.93	7.75
4/19/2017						7.48			
4/25/2017									
7/13/2017									7.72
10/10/2017		5.62	6.48	5.6	7.27	7.29	7	6.99	
10/11/2017	6.11								6.35
3/29/2018	5.35	7.19	6.46		6.95			6.82	7.42
3/30/2018				5.16		7.31	6.68		
6/12/2018	6.23	7.55							8.02
6/13/2018			6.24	5.79	7.08	7.37	6.83	7.01	
10/9/2018	5.62 (D)	7.8 (D)							7.79 (D)
10/10/2018			6.12 (D)	5.15 (D)	7.01 (D)	7.41 (D)	6.69 (D)	7.04 (D)	
1/28/2019	5.49 (D)								7.4 (D)
1/29/2019		7.63 (D)	5.93 (D)	5.46 (D)	6.55 (D)	7.03 (D)	6.42 (D)	6.87 (D)	
3/25/2019	5.27 (D)	7.44 (D)							7.29 (D)
3/26/2019			5.19 (D)	7.14 (D)	6.57 (D)	6.68 (D)	5.96 (D)	7.01 (D)	
9/10/2019	5.97	7.41	6.03	5.1	6.99	7.26	6.67	7.09	7.54
1/28/2020	5.78	7.46	6.61		7.17				7.4
1/29/2020				5.76		7.3	6.68	7.19	
3/9/2020	5.46								7.58
3/10/2020		7.3	6.54	5.5	7	7.3	6.87	7.11	
9/16/2020	6.37	7.38			6.98	7.16			7.89
9/17/2020			6.39	5.22			6.68	6.95	
12/7/2020					7.2				
12/8/2020							7.04	7.41	
3/23/2021	5				6.74				7.06
3/24/2021		6.88	6.26	6.71		7.24	6.73	7.14	
8/23/2021	6.16								8.12
8/24/2021		7.78			7.11	7.42	6.92		
8/25/2021			6.85	5.26				7.27	

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	7.61	
8/15/2016		
8/16/2016	7.17	
9/28/2016		
9/29/2016	6.97	
11/16/2016	7.03	
1/16/2017		
1/17/2017		
1/18/2017	7.01	
1/19/2017		
3/2/2017	7.02	
4/18/2017		
4/19/2017		
4/25/2017	7.02	
7/13/2017	7.17	
10/10/2017	7.24	
10/11/2017		
3/29/2018	6.93	
3/30/2018		
6/12/2018	7.29	
6/13/2018		
10/9/2018		
10/10/2018	7.12 (D)	
1/28/2019		
1/29/2019	8.02 (D)	6.93 (D)
3/25/2019		7.1 (D)
3/26/2019	7.29 (D)	
9/10/2019	10.96 (o)	7.15
1/28/2020	7.25	7.36
1/29/2020		
3/9/2020		
3/10/2020	7.53	7.04
9/16/2020	11.03 (o)	6.89
9/17/2020		
12/7/2020		
12/8/2020		
3/23/2021		6.56
3/24/2021	7.15	
8/23/2021		
8/24/2021		7.28
8/25/2021	7.44	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	2.46	144	17.8	116	4.47				
5/6/2016						106	94.2	445	
6/20/2016	2.5				7.7				1
6/21/2016		160	17	170		210	95	290	
8/15/2016	1.9	120	20	170	7.5				0.73 (J)
8/16/2016						120	88	270	
9/28/2016	1.9	130	21	170	7.8	110			<1
9/29/2016							94	280	
11/16/2016	1.7	130	20	170	6.7	130	97	280	<1
1/16/2017	<1								
1/17/2017		150	19	180	6.7		100		<1
1/18/2017								280	
1/19/2017						160			
3/2/2017	1.4	160	15	180	5.6	130	100	240	<1
4/18/2017	1.3	180	14	160	5.1	120	91		<1
4/19/2017								250	
4/25/2017									
7/13/2017									1.4
10/10/2017	1.1	260	11	180	4.9	170	110	240	0.87 (J)
6/12/2018	0.82 (J)				3.8				4.1
6/13/2018		330	8.7	180		130	110	220	
10/9/2018	0.82 (J)				6.7				2.2
10/10/2018		410	8.7	190		140	110	220	
1/29/2019									
3/25/2019	<1				3.4 (J)				<1
3/26/2019		420	6.3 (J)	180		130	110	190	
9/10/2019	1.1	420	5.6	180	4.7	140	110	180	1.8
3/9/2020	4.2								3.4
3/10/2020		370	5	170	5.2	140	130	170	
9/16/2020	0.69 (J)		2.7		3.2			160	3
9/17/2020		380		160		150	120		
3/23/2021	<1		3.2						1.4
3/24/2021		280		180	3.5	120	130	180	
8/23/2021	<1								3.4
8/24/2021			3.5		3.6		130	160	
8/25/2021		420		180		140			

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	4	
8/15/2016		
8/16/2016	2.8	
9/28/2016		
9/29/2016	<1	
11/16/2016	3	
1/16/2017		
1/17/2017		
1/18/2017	4.1	
1/19/2017		
3/2/2017	4.6	
4/18/2017		
4/19/2017		
4/25/2017	4.4	
7/13/2017	4.8	
10/10/2017	4.9	
6/12/2018	4.1	
6/13/2018		
10/9/2018		
10/10/2018	2.5	
1/29/2019		7.08
3/25/2019		1.8 (J)
3/26/2019	2.9 (J)	
9/10/2019	2.5	0.6 (J)
3/9/2020		
3/10/2020	7.8	2.4
9/16/2020	4.4	1
9/17/2020		
3/23/2021		1.7
3/24/2021	7.1	
8/23/2021		
8/24/2021		3.3
8/25/2021	6.6	



# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWC-8	MGWA-6 (bg)	MGWC-7	MGWA-5 (bg)	MGWC-1	MGWC-3	MGWC-2	MGWA-11 (bg)
5/5/2016	78	287	281	272	129				
5/6/2016						282	380	661	
6/20/2016	80				156				188
6/21/2016		297	303	356		516	392	692	
8/15/2016	58	230	310	330	160				180
8/16/2016						360	360	650	
9/28/2016	29	130	170	180	91	190			100
9/29/2016							380	640	
11/16/2016	140	290	340	330	250	410	420	680	270
1/16/2017	36								
1/17/2017		240	310	310	140		380		170
1/18/2017								630	
1/19/2017						400			
3/2/2017	78	270	330	340	170	360	410	660	210
4/18/2017	16	310	290	300	140	360	360		160
4/19/2017								600	
4/25/2017									
7/13/2017									150
10/10/2017	78	450	310	340	190	480	400	600	210
6/12/2018	62				180				150
6/13/2018		600	230	320		390	320	570	
10/9/2018	68				170				150
10/10/2018		410	300	270		260	300	470	
1/29/2019									
3/25/2019	54				150				210
3/26/2019		630	290	320		370	370	530	
9/10/2019	14	660	260	260	110	360	360	470	160
3/9/2020	56								190
3/10/2020		600	300	370	170	450	390	540	
9/16/2020	44		300		150			530	150
9/17/2020		740		320		460	410		
3/23/2021	53		300						220
3/24/2021		530		330	150	380	430	490	
8/23/2021	55								200
8/24/2021			300		160		450	510	
8/25/2021		720		390		470			

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/9/2021 5:50 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWA-6A (bg)
5/5/2016		
5/6/2016		
6/20/2016		
6/21/2016	177	
8/15/2016		
8/16/2016	160	
9/28/2016		
9/29/2016	190	
11/16/2016	240	
1/16/2017		
1/17/2017		
1/18/2017	180	
1/19/2017		
3/2/2017	170	
4/18/2017		
4/19/2017		
4/25/2017	170	
7/13/2017	150	
10/10/2017	160	
6/12/2018	170	
6/13/2018		
10/9/2018		
10/10/2018	48	
1/29/2019		280
3/25/2019		250
3/26/2019	180	
9/10/2019	140	230
3/9/2020		
3/10/2020	170	260
9/16/2020	190	320
9/17/2020		
3/23/2021		270
3/24/2021	190	
8/23/2021		
8/24/2021		280
8/25/2021	230	

FIGURE E.

# Appendix III Trend Test Summary - Significant Results

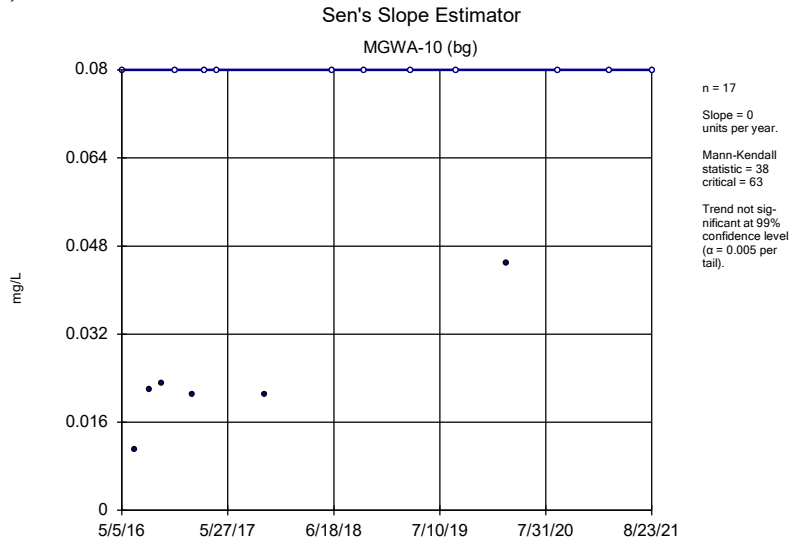
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/1/2021, 2:36 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-6 (bg)	-0.02491	-95	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-2	-0.2919	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-7	0.06231	92	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-8	0.8615	75	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-5 (bg)	-0.2046	-64	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-6 (bg)	-1.25	-114	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-2	-1.995	-117	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-7	-0.7217	-101	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-10 (bg)	-0.3651	-77	-63	Yes	17	23.53	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-5 (bg)	-0.7444	-75	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWA-6 (bg)	-3.552	-110	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-2	-29.44	-117	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-3	7.17	100	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-8	65.37	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-2	-40.26	-97	-63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-8	99.4	91	63	Yes	17	0	n/a	n/a	0.01	NP

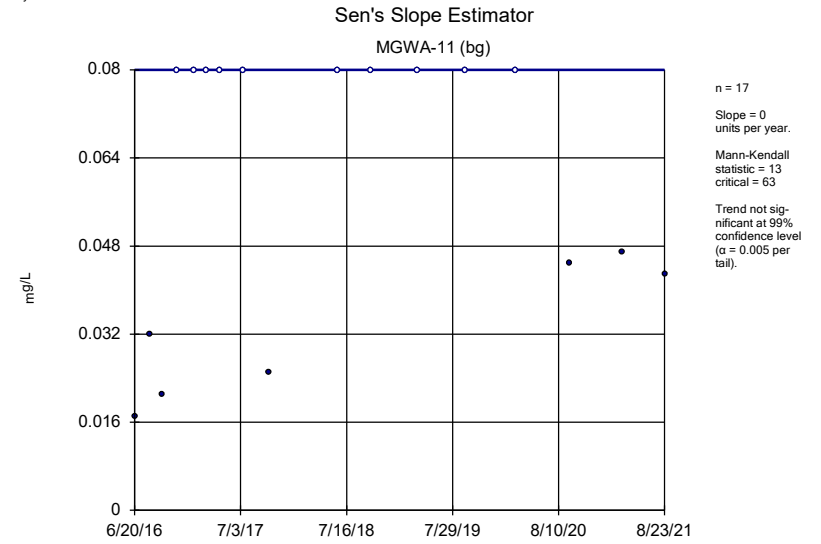
# Appendix III Trend Test Summary - All Results

Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 11/1/2021, 2:36 AM

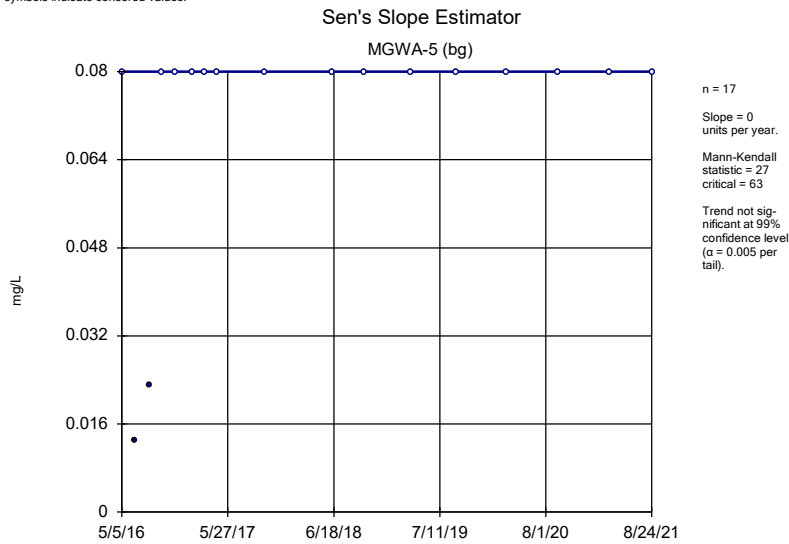
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MGWA-10 (bg)	0	38	63	No	17	64.71	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-11 (bg)	0	13	63	No	17	58.82	n/a	n/a	0.01	NP
Boron (mg/L)	MGWA-5 (bg)	0	27	63	No	17	88.24	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-0.02491</b>	<b>-95</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>11.76</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	MGWA-6A (bg)	0	0	18	No	7	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	MGWC-1	0.1794	55	63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWC-2</b>	<b>-0.2919</b>	<b>-84</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>
Boron (mg/L)	MGWC-3	0.05324	23	63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>MGWC-7</b>	<b>0.06231</b>	<b>92</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>Boron (mg/L)</b>	<b>MGWC-8</b>	<b>0.8615</b>	<b>75</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)	MGWA-10 (bg)	-0.3893	-58	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-11 (bg)	-0.3238	-11	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-5 (bg)	0	-6	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6 (bg)	0	26	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWA-6A (bg)	-1.286	-1	-18	No	7	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MGWC-1	4.088	50	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-10 (bg)	0	-1	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWA-11 (bg)	0.02237	8	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.2046</b>	<b>-64</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>Chloride (mg/L)</b>	<b>MGWA-6 (bg)</b>	<b>-1.25</b>	<b>-114</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>
Chloride (mg/L)	MGWA-6A (bg)	-0.4011	-15	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MGWC-1	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWC-2</b>	<b>-1.995</b>	<b>-117</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>
Chloride (mg/L)	MGWC-3	0.207	57	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>MGWC-7</b>	<b>-0.7217</b>	<b>-101</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>
Chloride (mg/L)	MGWC-8	0.3127	56	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-10 (bg)</b>	<b>-0.3651</b>	<b>-77</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>23.53</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	MGWA-11 (bg)	0.4104	57	63	No	17	35.29	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWA-5 (bg)</b>	<b>-0.7444</b>	<b>-75</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>MGWA-6 (bg)</b>	<b>-3.552</b>	<b>-110</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)	MGWA-6A (bg)	-0.05007	-1	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MGWC-1	3.428	29	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-2</b>	<b>-29.44</b>	<b>-117</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>MGWC-3</b>	<b>7.17</b>	<b>100</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)	MGWC-7	0.9651	39	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>MGWC-8</b>	<b>65.37</b>	<b>93</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>
TDS (mg/L)	MGWA-10 (bg)	-5.101	-41	-63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-11 (bg)	0	4	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-5 (bg)	0.386	8	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6 (bg)	0	-12	-63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWA-6A (bg)	10.4	6	18	No	7	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-1	13.02	28	63	No	17	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>MGWC-2</b>	<b>-40.26</b>	<b>-97</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>
TDS (mg/L)	MGWC-3	5.043	23	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	MGWC-7	5.428	19	63	No	17	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>MGWC-8</b>	<b>99.4</b>	<b>91</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>



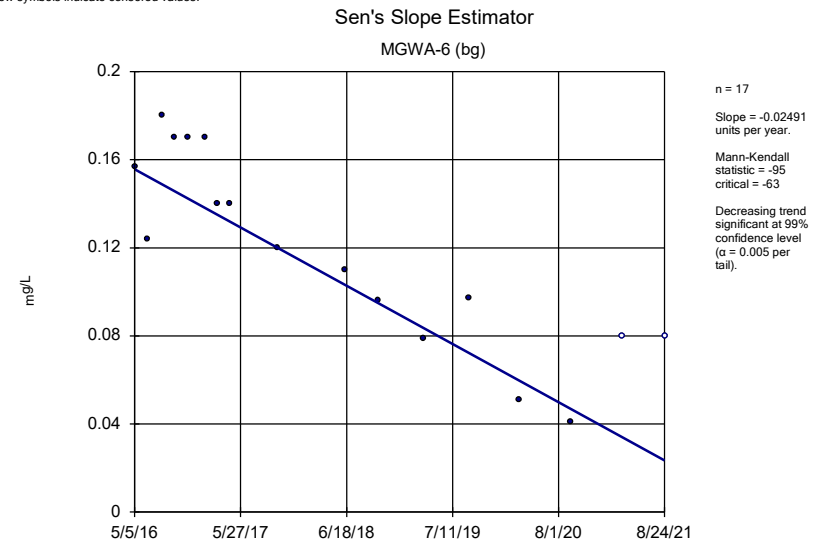
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



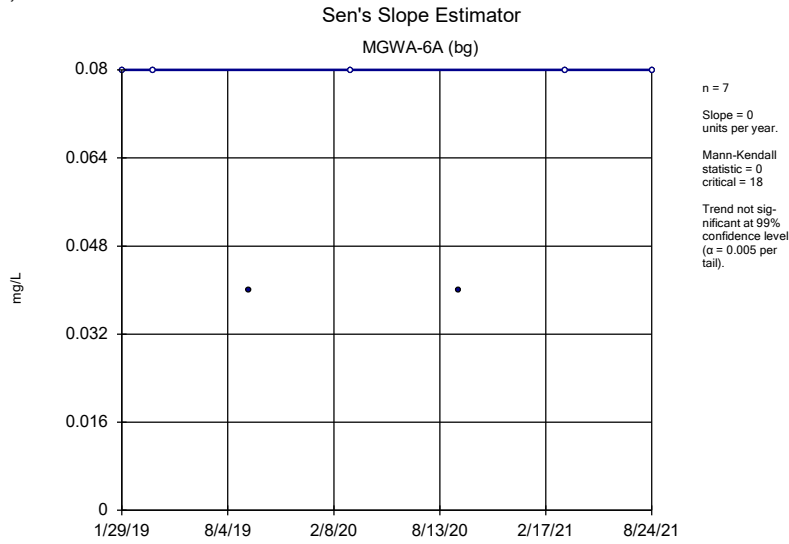
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



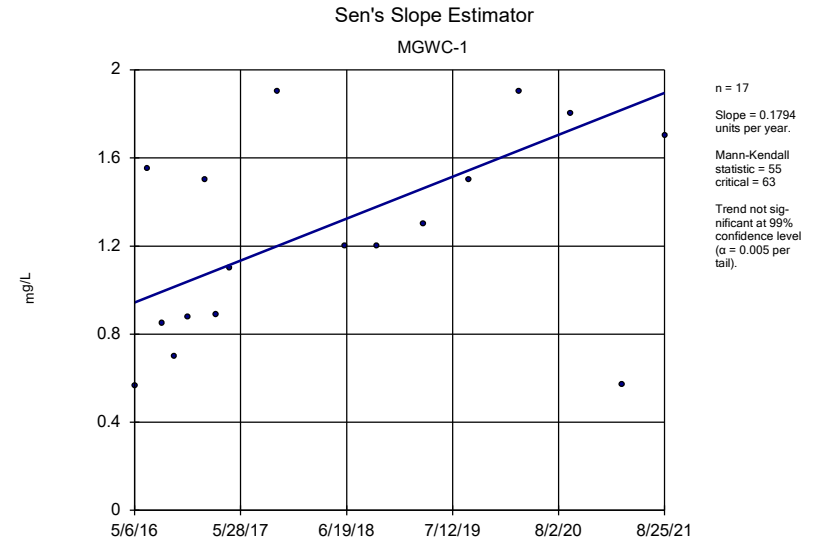
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



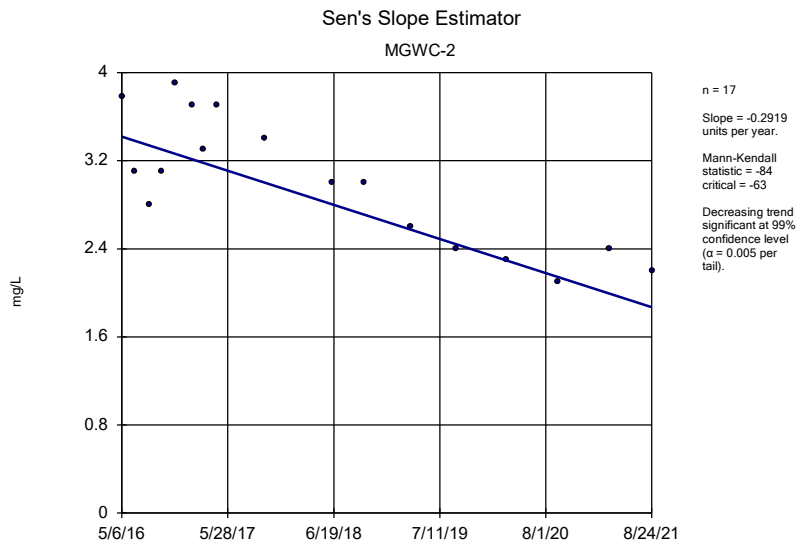
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



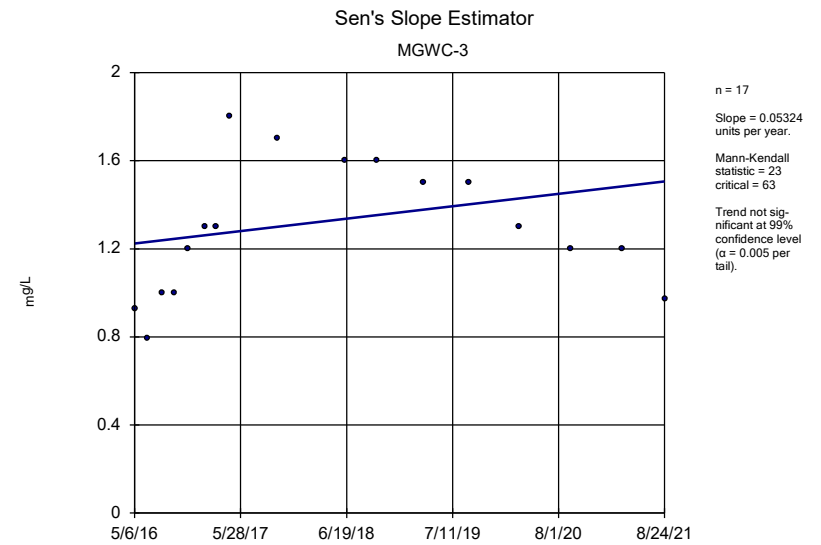
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

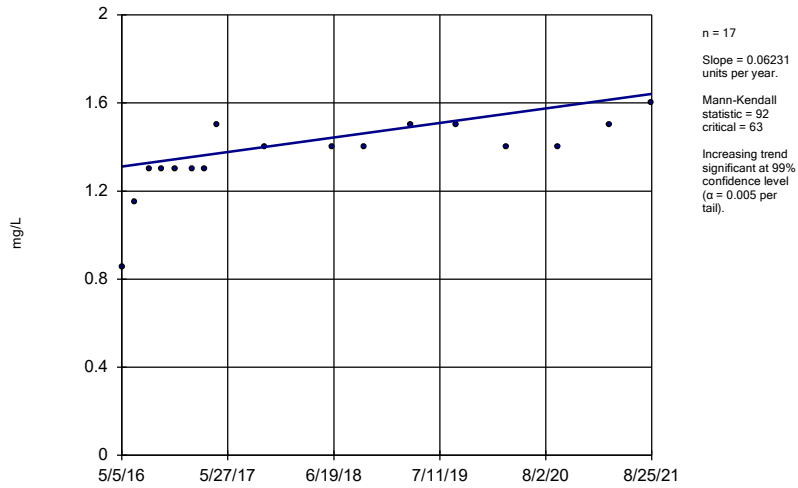


Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond



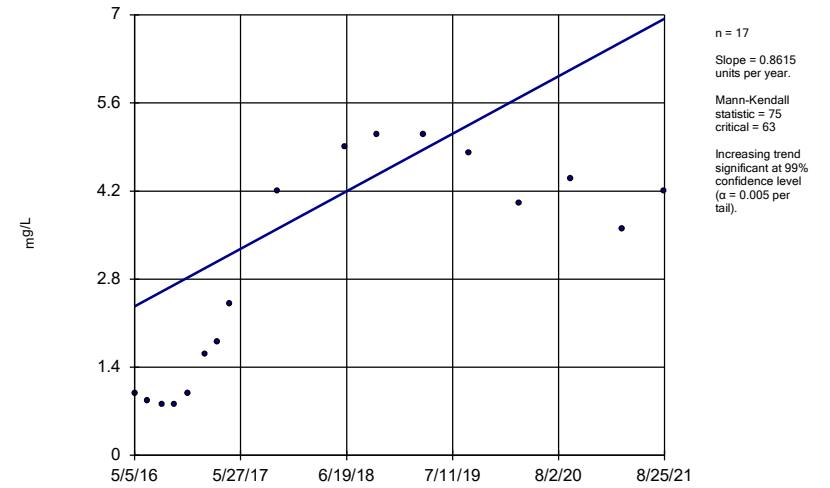
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-7



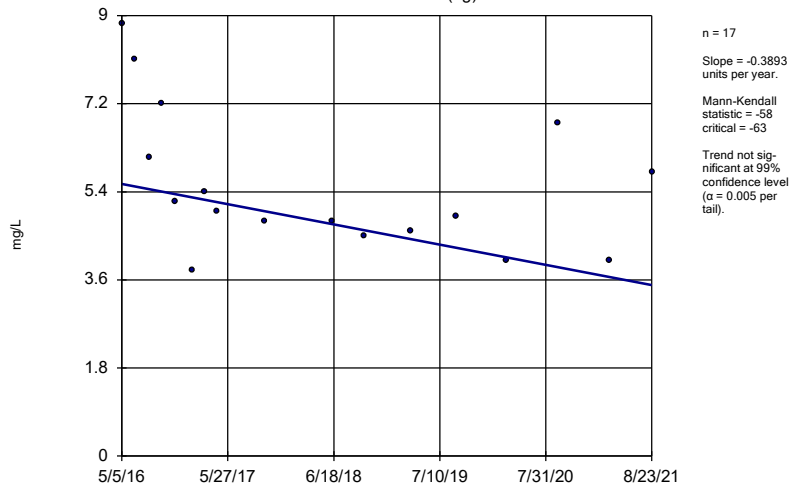
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-8



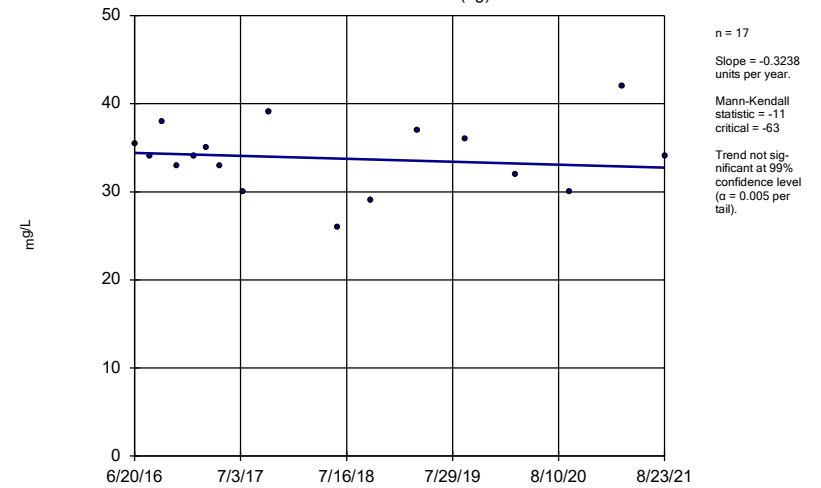
Constituent: Boron Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-10 (bg)



Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

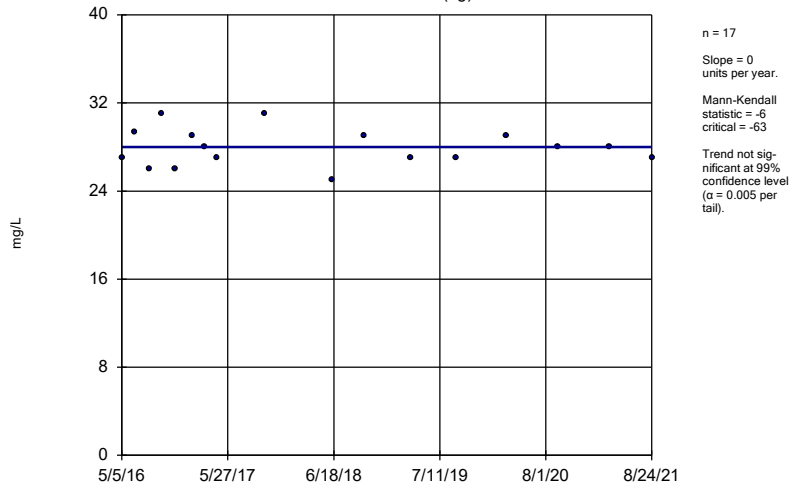
Sen's Slope Estimator  
MGWA-11 (bg)



Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

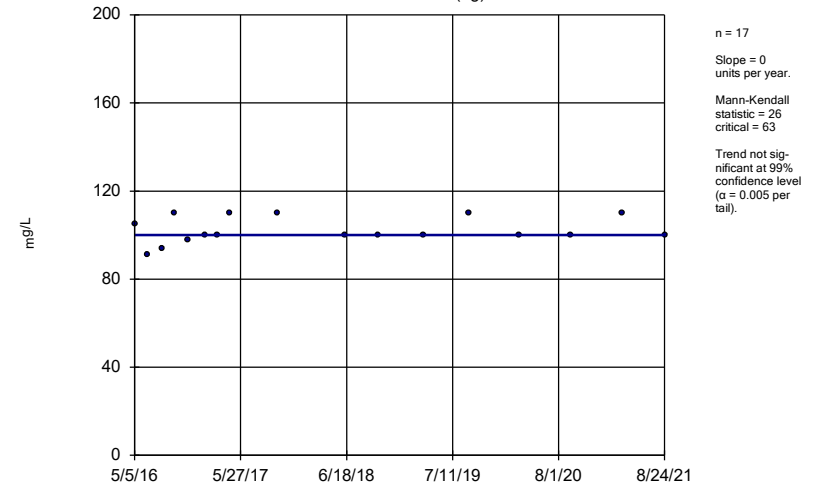


Sen's Slope Estimator  
MGWA-5 (bg)



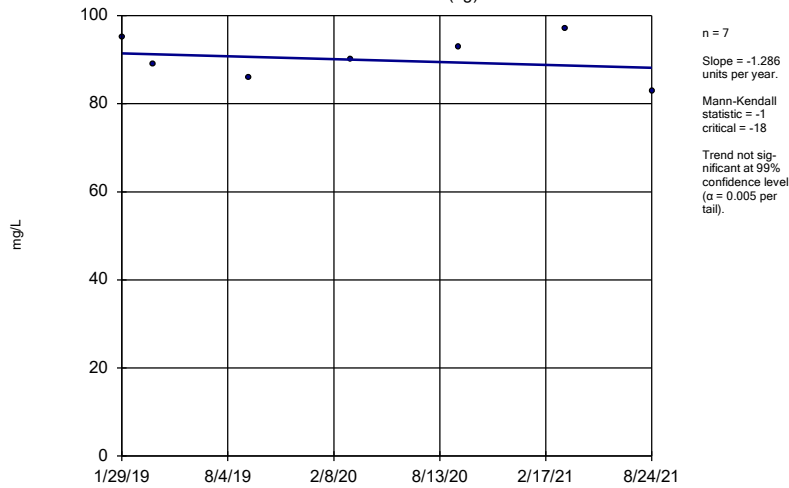
Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6 (bg)



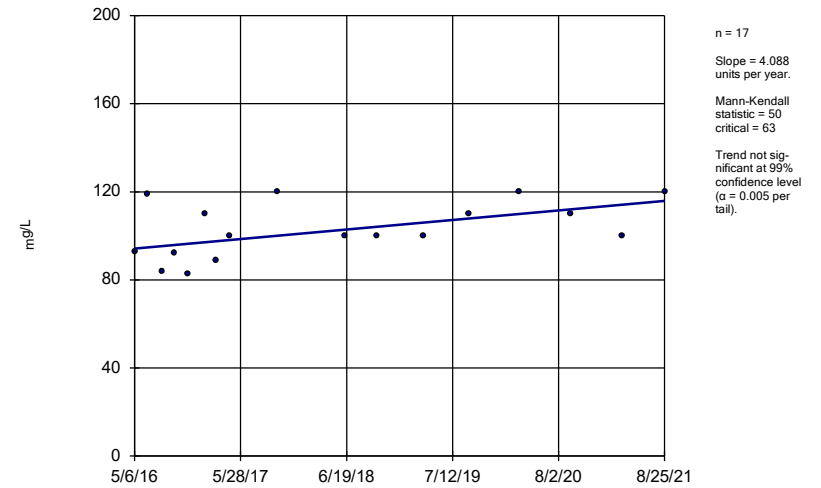
Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6A (bg)



Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

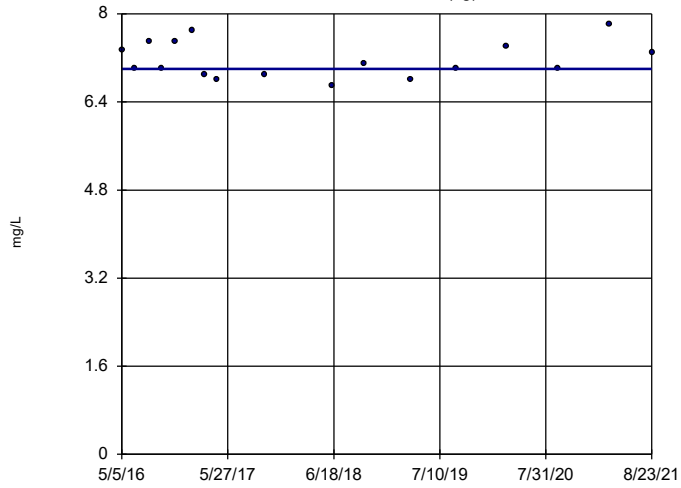
Sen's Slope Estimator  
MGWC-1



Constituent: Calcium Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-10 (bg)

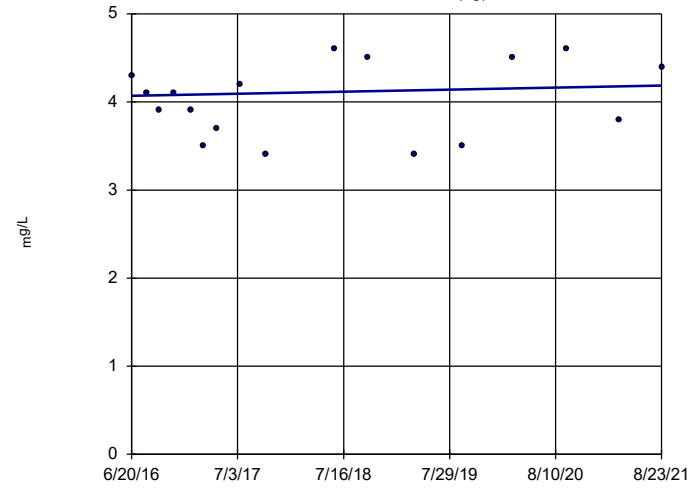


n = 17  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -1  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-11 (bg)

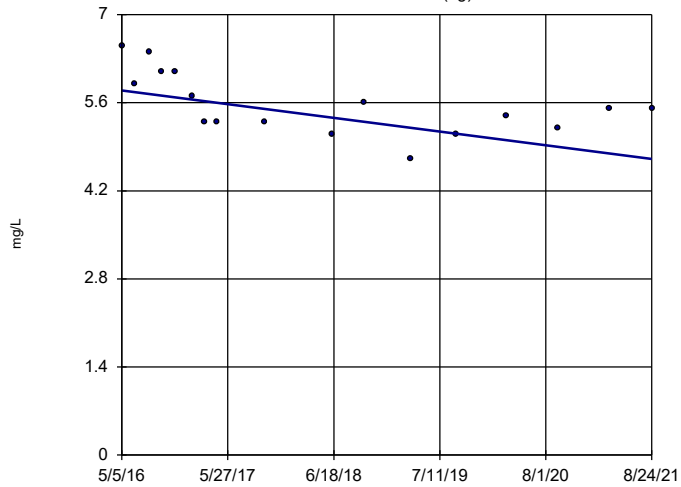


n = 17  
 Slope = 0.02237 units per year.  
 Mann-Kendall statistic = 8  
 critical = 63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-5 (bg)

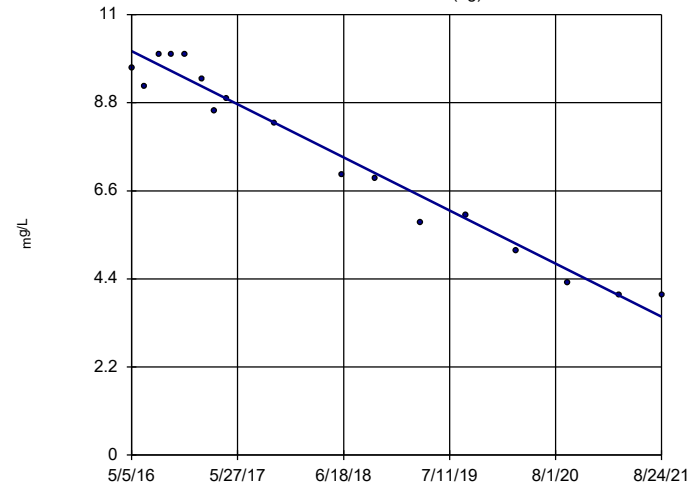


n = 17  
 Slope = -0.2046 units per year.  
 Mann-Kendall statistic = -64  
 critical = -63  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

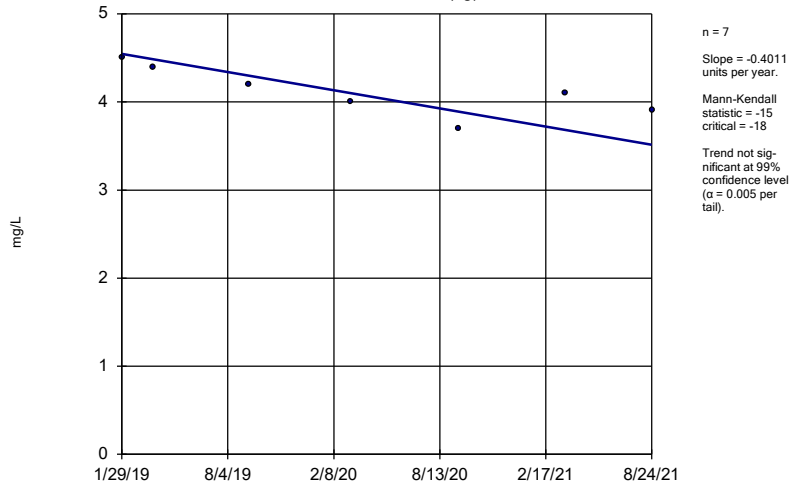
MGWA-6 (bg)



n = 17  
 Slope = -1.25 units per year.  
 Mann-Kendall statistic = -114  
 critical = -63  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

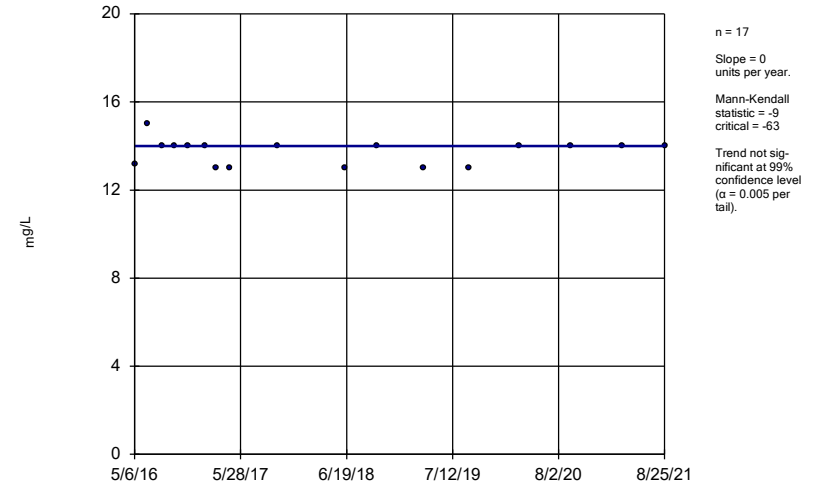
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6A (bg)



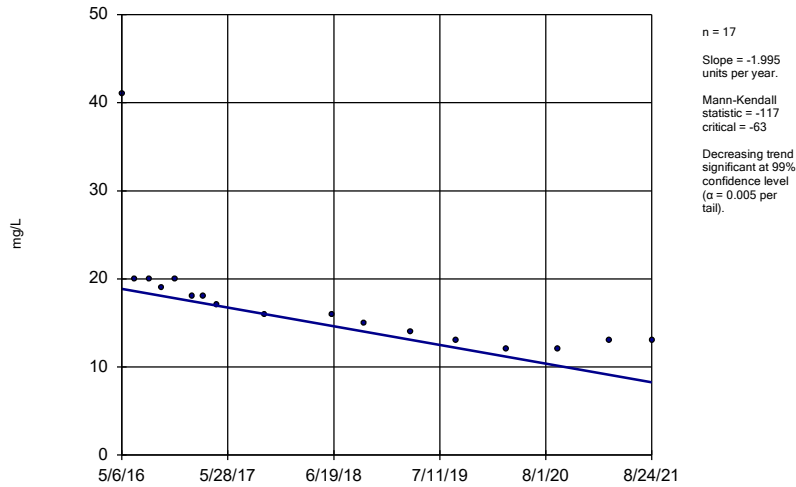
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-1



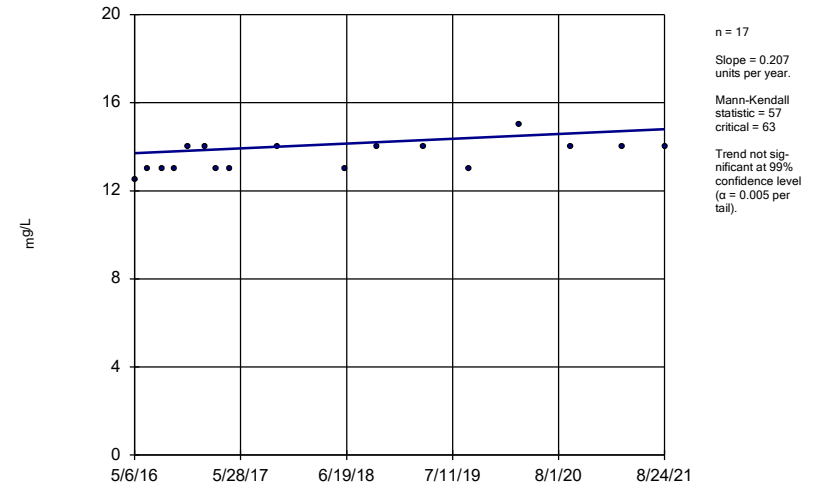
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-2



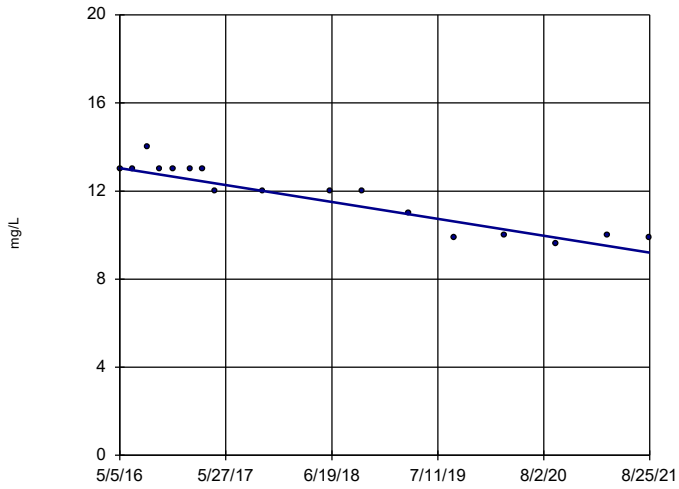
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-3



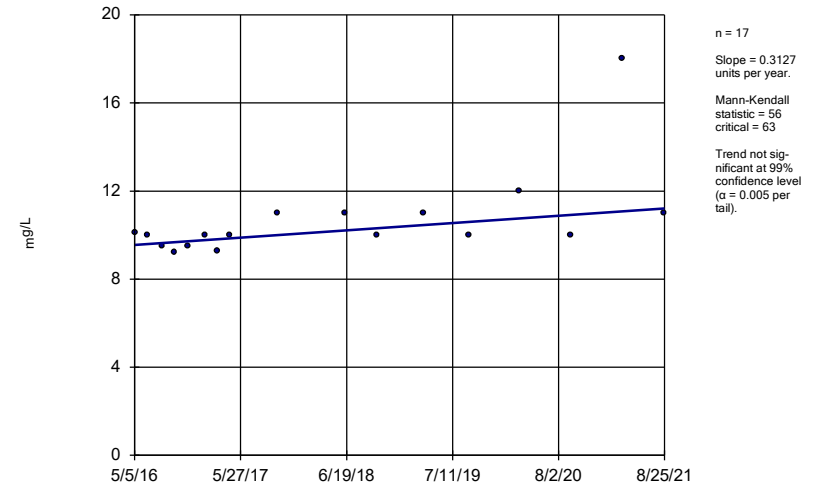
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWC-7



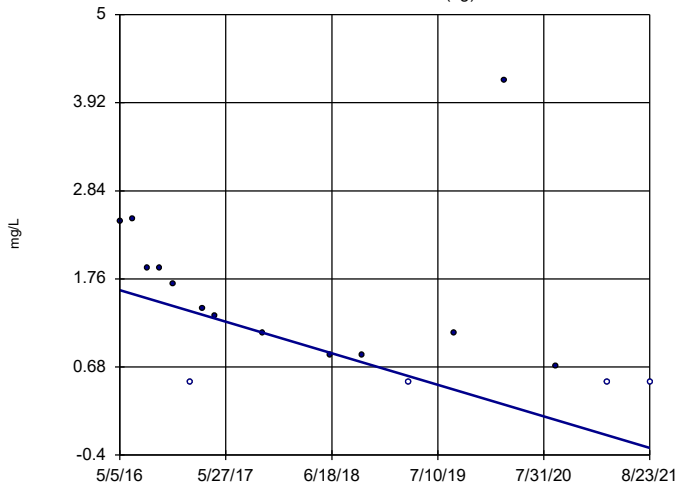
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWC-8



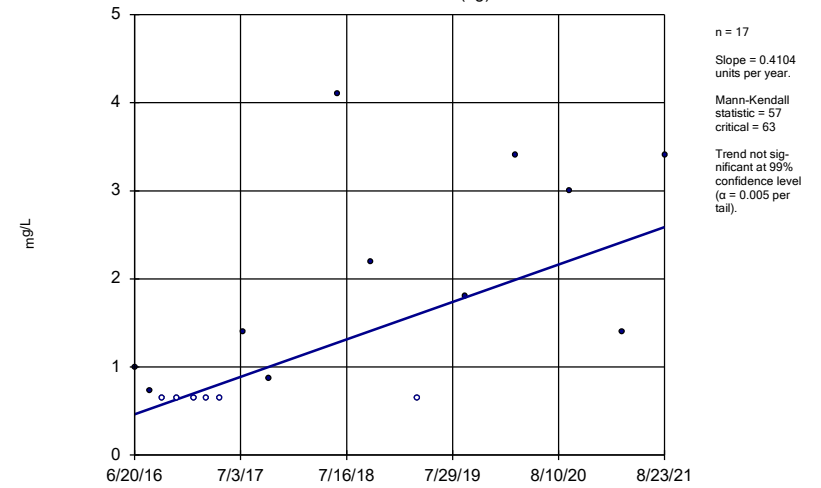
Constituent: Chloride Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWA-10 (bg)



Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

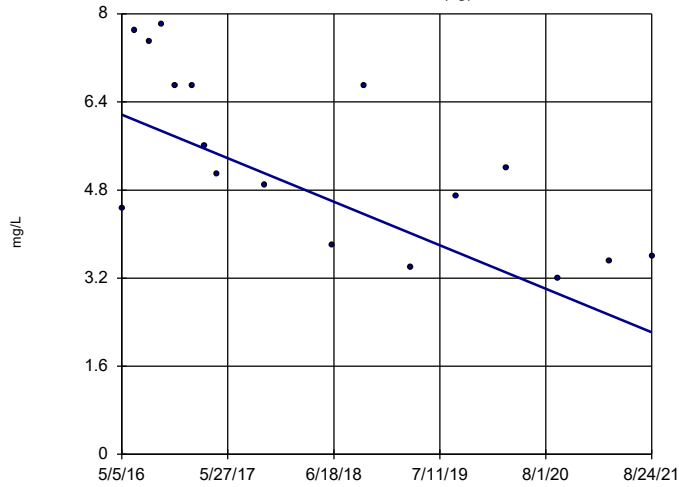
### Sen's Slope Estimator MGWA-11 (bg)



Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-5 (bg)

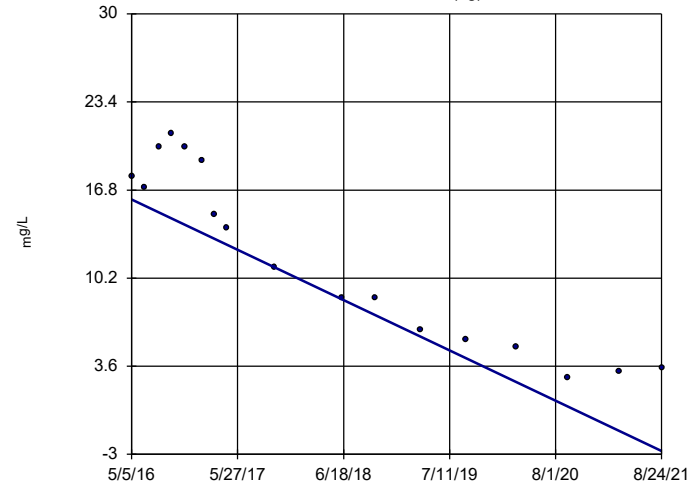


n = 17  
 Slope = -0.7444  
 units per year.  
 Mann-Kendall  
 statistic = -75  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-6 (bg)

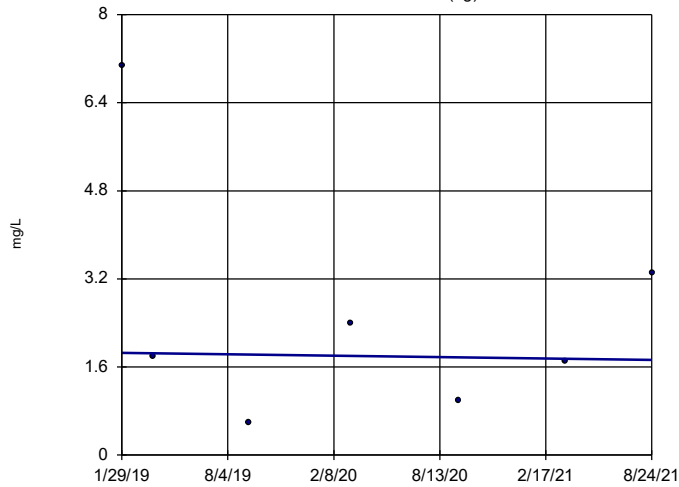


n = 17  
 Slope = -3.552  
 units per year.  
 Mann-Kendall  
 statistic = -110  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

MGWA-6A (bg)

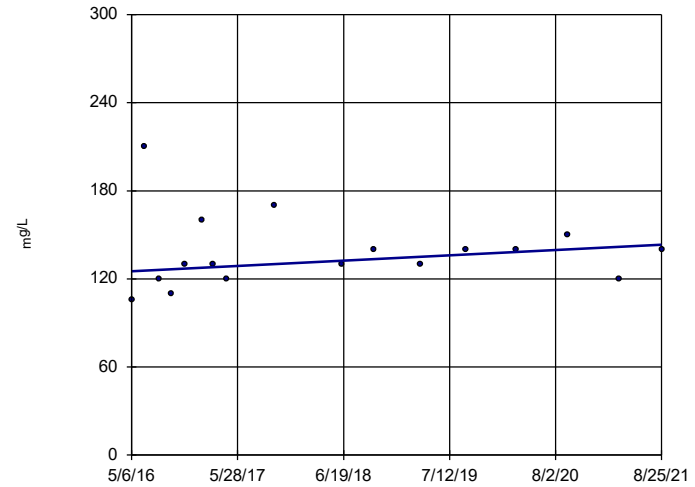


n = 7  
 Slope = -0.05007  
 units per year.  
 Mann-Kendall  
 statistic = -1  
 critical = -18  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator

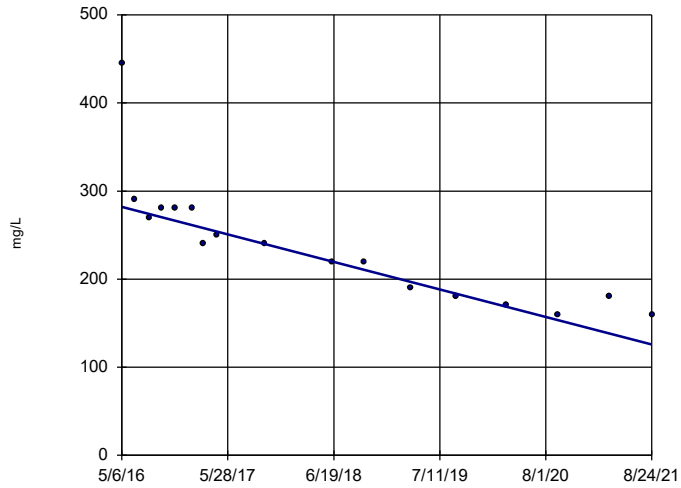
MGWC-1



n = 17  
 Slope = 3.428  
 units per year.  
 Mann-Kendall  
 statistic = 29  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

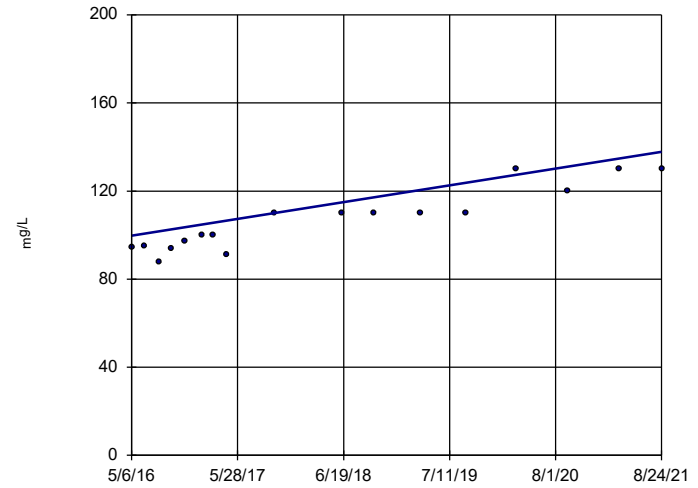
Sen's Slope Estimator  
MGWC-2



n = 17  
 Slope = -29.44  
 units per year.  
 Mann-Kendall  
 statistic = -117  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

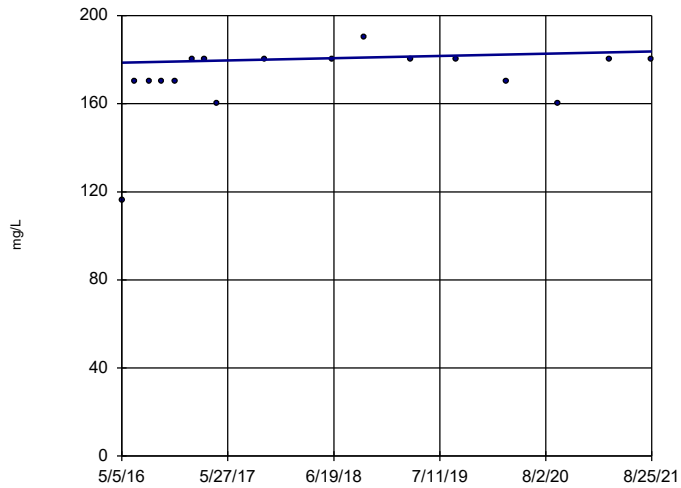
Sen's Slope Estimator  
MGWC-3



n = 17  
 Slope = 7.17  
 units per year.  
 Mann-Kendall  
 statistic = 100  
 critical = 63  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

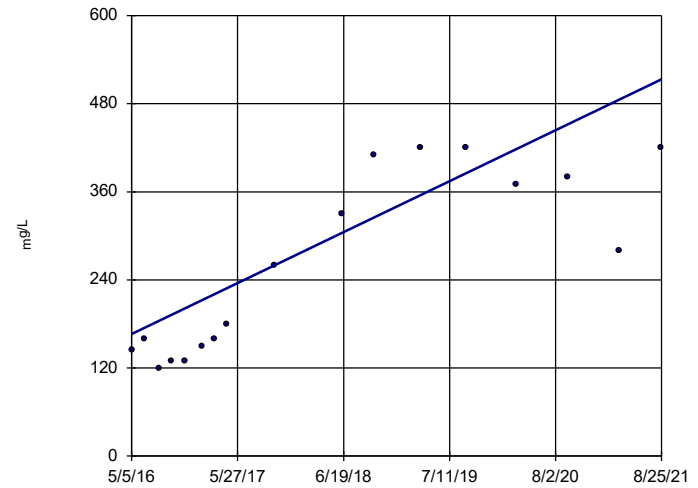
Sen's Slope Estimator  
MGWC-7



n = 17  
 Slope = 0.9651  
 units per year.  
 Mann-Kendall  
 statistic = 39  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-8

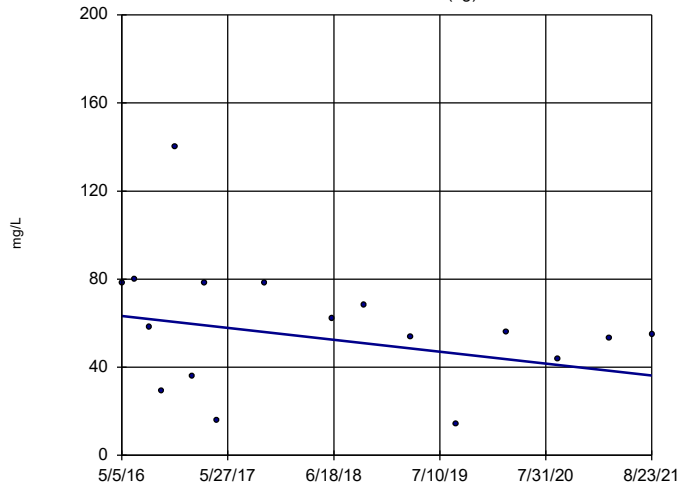


n = 17  
 Slope = 65.37  
 units per year.  
 Mann-Kendall  
 statistic = 93  
 critical = 63  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-10 (bg)

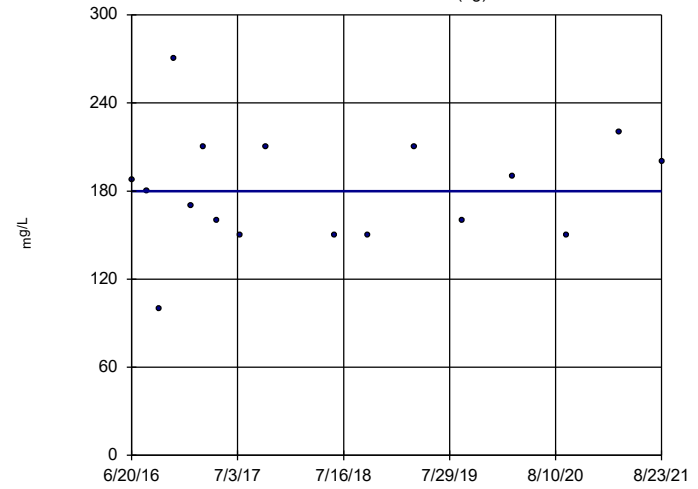


n = 17  
 Slope = -5.101 units per year.  
 Mann-Kendall statistic = -41  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-11 (bg)

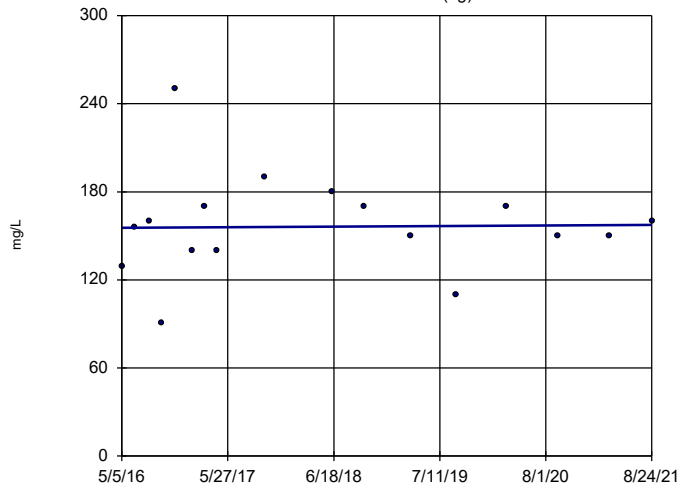


n = 17  
 Slope = 0 units per year.  
 Mann-Kendall statistic = 4  
 critical = 63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

MGWA-5 (bg)

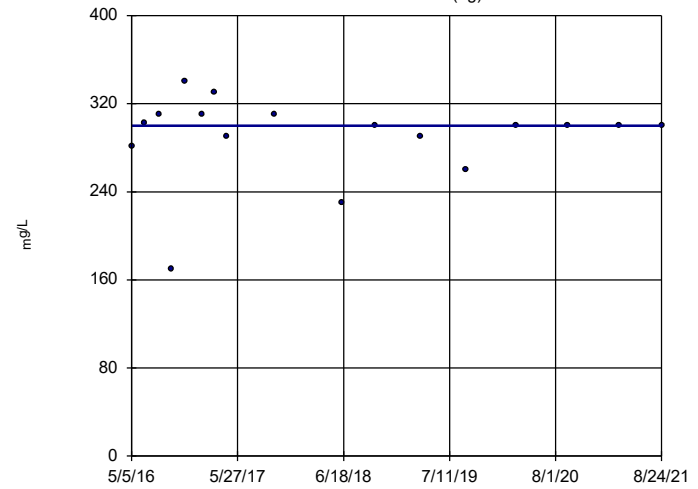


n = 17  
 Slope = 0.386 units per year.  
 Mann-Kendall statistic = 8  
 critical = 63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator

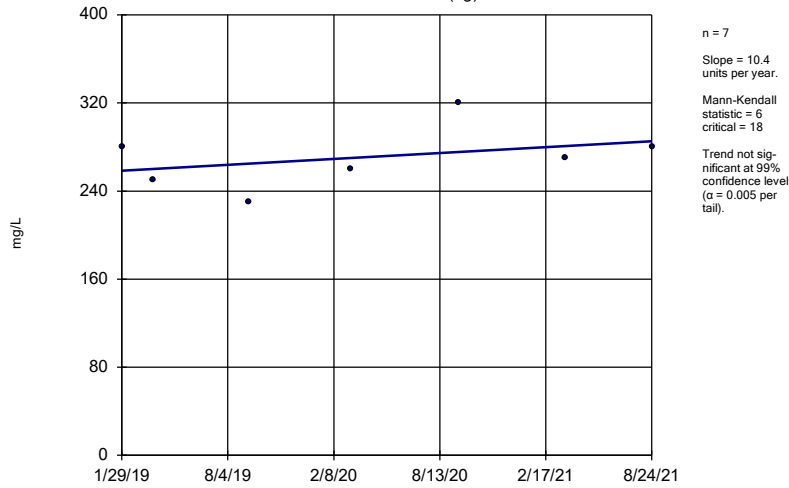
MGWA-6 (bg)



n = 17  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -12  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

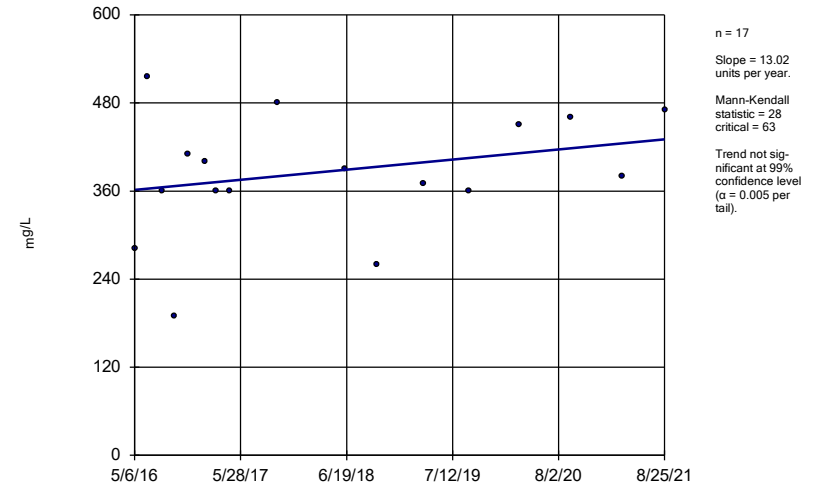
Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWA-6A (bg)



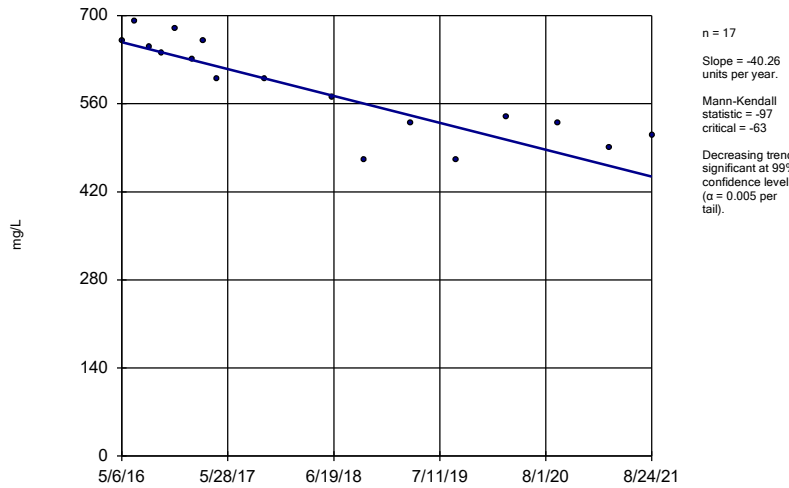
Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-1



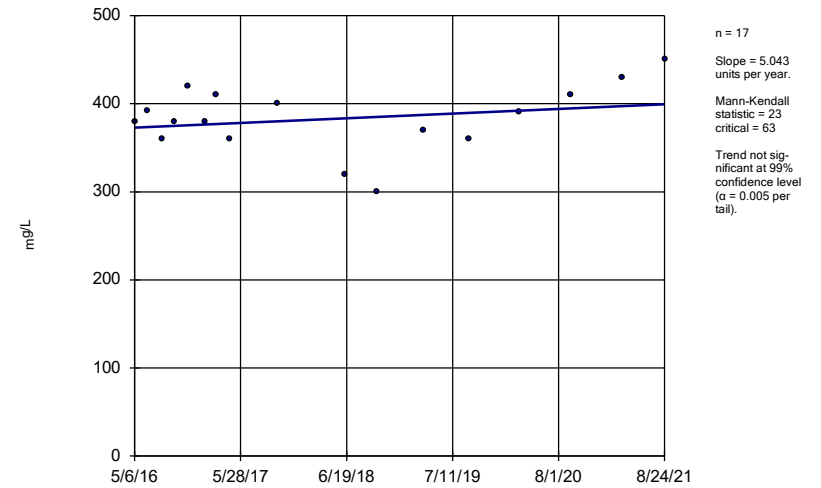
Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Sen's Slope Estimator  
MGWC-2



Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

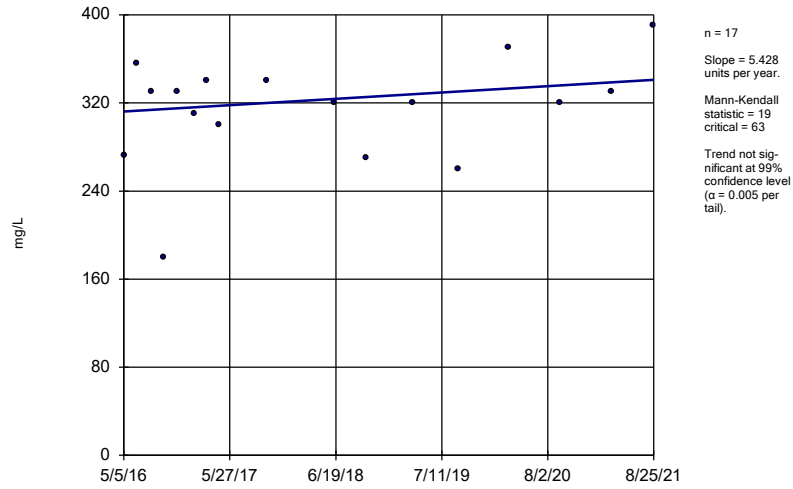
Sen's Slope Estimator  
MGWC-3



Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

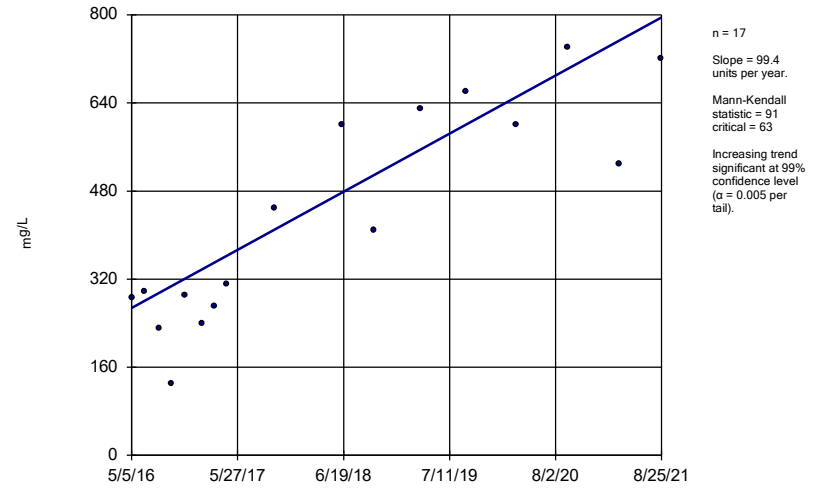


### Sen's Slope Estimator MGWC-7



Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Sen's Slope Estimator MGWC-8



Constituent: TDS Analysis Run 11/1/2021 2:34 AM View: Appendix III Trend Test  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

FIGURE F.

# Upper Tolerance Limits Summary Table

Plant McIntosh    Client: Southern Company    Data: McIntosh Ash Pond    Printed 11/9/2021, 5:47 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>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	0.002	n/a	n/a	n/a	66	n/a	n/a	89.39	n/a	n/a	0.03387	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.014	n/a	n/a	n/a	76	n/a	n/a	36.84	n/a	n/a	0.02028	NP Inter(normality)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	74	n/a	n/a	93.24	n/a	n/a	0.02247	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0063	n/a	n/a	n/a	74	n/a	n/a	70.27	n/a	n/a	0.02247	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0025	n/a	n/a	n/a	84	n/a	n/a	73.81	n/a	n/a	0.01345	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.137	n/a	n/a	n/a	85	0.5577	0.2965	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.19	n/a	n/a	n/a	79	n/a	n/a	27.85	n/a	n/a	0.01738	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	66	n/a	n/a	92.42	n/a	n/a	0.03387	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	84	n/a	n/a	29.76	n/a	n/a	0.01345	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	74	n/a	n/a	95.95	n/a	n/a	0.02247	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	n/a	n/a	n/a	74	n/a	n/a	62.16	n/a	n/a	0.02247	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	54	n/a	n/a	88.89	n/a	n/a	0.06267	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	74	n/a	n/a	79.73	n/a	n/a	0.02247	NP Inter(NDs)

FIGURE G.

<b>PLANT MCINTOSH AP 1 GWPS - STATE</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.0025
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.001
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.015
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

FIGURE H.

<b>PLANT MCINTOSH AP 1 GWPS - FEDERAL</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		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.014	0.014
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0063	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		1.14	5
Fluoride, Total (mg/L)	4		0.19	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*\*Grey cell indicates background is higher than MCL or CCR-Rule*

*\*GWPS = Groundwater Protection Standard*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residual*

FIGURE I.



# State Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-2	0.003378	0.002648	0.0025	Yes 19	0.003013	0.0006233	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-7	0.01037	0.007901	0.0025	Yes 19	0.008911	0.002423	0	None	x^2	0.01	Param.
Cobalt (mg/L)	MGWC-8	0.02	0.0038	0.0025	Yes 19	0.01192	0.008031	0	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-7	0.13	0.11	0.03	Yes 19	0.1207	0.02059	0	None	No	0.01	NP (normality)

# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	15	0.001893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	15	0.001887	0.0004389	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	15	0.001998	0.00007746	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002947	0.002028	0.014	No	19	0.002487	0.0007844	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.00107	0.0006351	0.014	No	19	0.0009847	0.000376	31.58	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	19	0.0008995	0.0002111	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001662	0.001355	0.014	No	19	0.001486	0.0003106	5.263	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008748	0.000543	0.014	No	19	0.0008468	0.0002735	36.84	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	19	0.0009268	0.0001734	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	19	0.107	0.01724	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06456	0.04828	2	No	19	0.05694	0.01469	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05469	0.04934	2	No	19	0.05207	0.004645	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1539	0.1391	2	No	19	0.1465	0.01266	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	19	0.01289	0.007042	5.263	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03878	0.03291	2	No	19	0.03607	0.005494	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	17	0.002364	0.0005627	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	17	0.002371	0.0005312	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.00124	0.0006311	0.004	No	17	0.001318	0.0007532	17.65	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	19	0.002147	0.00084	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003124	0.001228	0.005	No	19	0.002367	0.001936	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	19	0.002381	0.0005208	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0009969	0.0005017	0.005	No	19	0.001464	0.001161	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	17	0.002094	0.0003881	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	17	0.003659	0.006537	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	17	0.002076	0.0003153	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	17	0.002059	0.0002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	17	0.002053	0.0003676	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	17	0.002065	0.0002668	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.00032	0.0025	No	19	0.001638	0.001059	57.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.0025	No	19	0.002324	0.000572	89.47	None	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>MGWC-2</b>	<b>0.003378</b>	<b>0.002648</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.003013</b>	<b>0.0006233</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.0025	No	19	0.0008642	0.000733	15.79	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01037</b>	<b>0.007901</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.008911</b>	<b>0.002423</b>	<b>0</b>	<b>None</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>MGWC-8</b>	<b>0.02</b>	<b>0.0038</b>	<b>0.0025</b>	<b>Yes</b>	<b>19</b>	<b>0.01192</b>	<b>0.008031</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.651	1.231	5	No	20	1.441	0.37	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6874	0.4	5	No	19	0.5607	0.263	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7401	0.4354	5	No	19	0.5877	0.2602	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.635	1.327	5	No	20	1.481	0.2711	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.277	0.8988	5	No	19	1.088	0.3228	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.961	1.384	5	No	19	1.673	0.4924	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2463	0.1549	4	No	18	0.2006	0.0755	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2562	0.206	4	No	18	0.2311	0.04143	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1123	0.07175	4	No	18	0.09872	0.03047	38.89	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	18	0.1005	0.03758	33.33	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3489	0.2227	4	No	18	0.2858	0.1043	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.088	4	No	18	0.1014	0.0257	16.67	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.001	No	15	0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.001	No	15	0.0008993	0.0002665	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.001	No	15	0.000948	0.0002014	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01258	0.0103	0.03	No	19	0.01144	0.00195	5.263	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02166	0.01554	0.03	No	19	0.0186	0.005234	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.03	No	19	0.006067	0.001846	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01344	0.01121	0.03	No	19	0.01233	0.001905	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.03</b>	<b>Yes</b>	<b>19</b>	<b>0.1207</b>	<b>0.02059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03919	0.02704	0.03	No	19	0.03311	0.01037	0	None	No	0.01	Param.

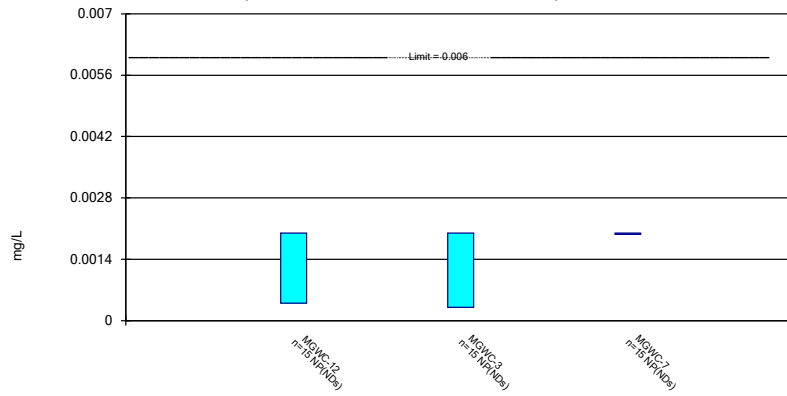
# State Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	17	0.0001859	0.00003991	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	17	0.0001869	0.00003707	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	17	0.0001924	0.00003153	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	17	0.0001929	0.0000291	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	17	0.0004339	0.0009556	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0011	0.015	No	17	0.004732	0.005892	23.53	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.0024	0.015	No	17	0.01188	0.005798	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.015	No	17	0.01432	0.002787	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.015	No	17	0.01434	0.002741	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	17	0.0007532	0.0003968	70.59	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	17	0.0009071	0.0002632	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	17	0.0009535	0.0001916	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	17	0.0009135	0.0002469	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002508	0.0001346	0.002	No	17	0.0003641	0.0003169	17.65	Kaplan-Meier	ln(x)	0.01	Param.

### Non-Parametric Confidence Interval

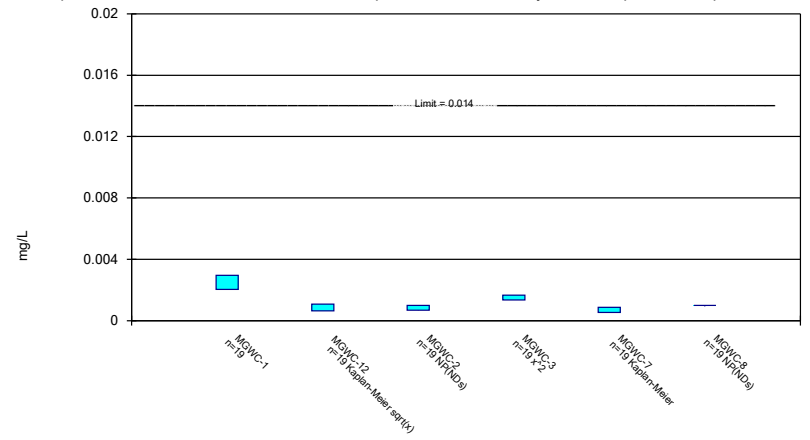
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/9/2021 5:59 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

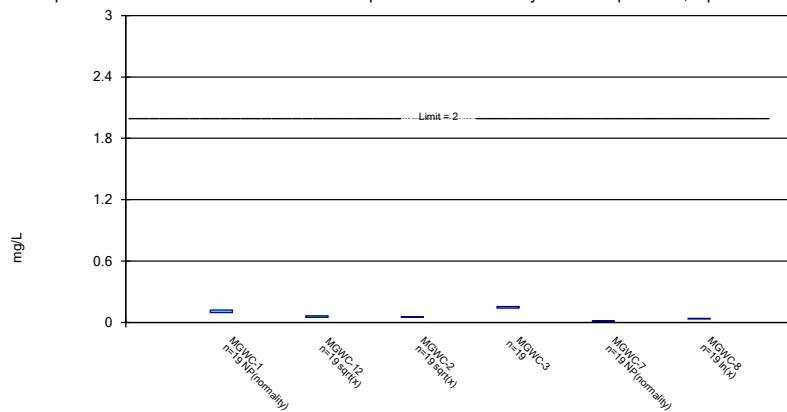
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/9/2021 5:59 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

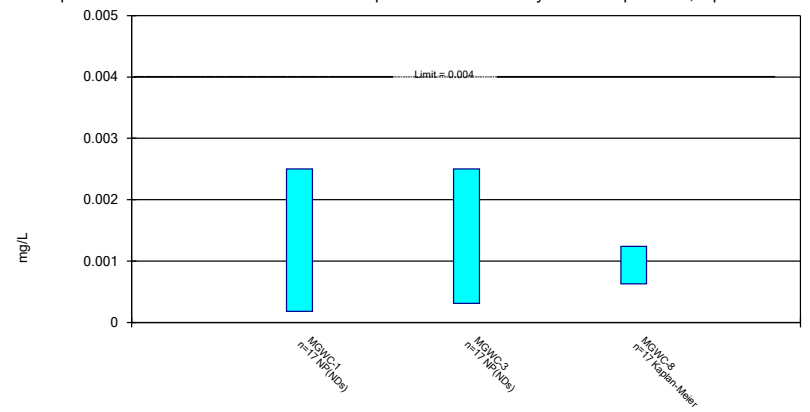
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

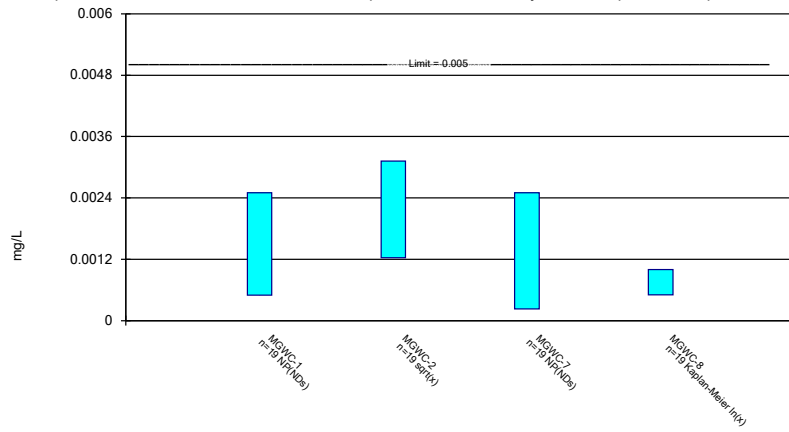
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

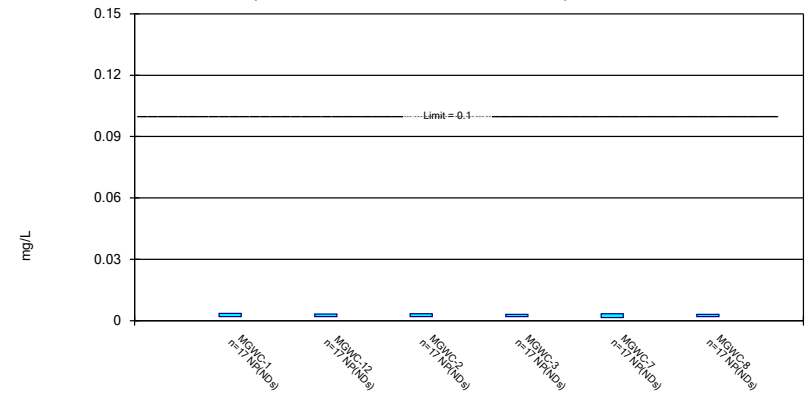
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

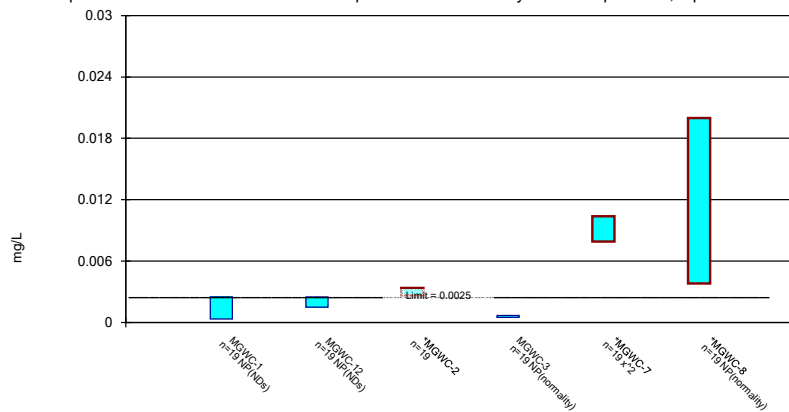
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

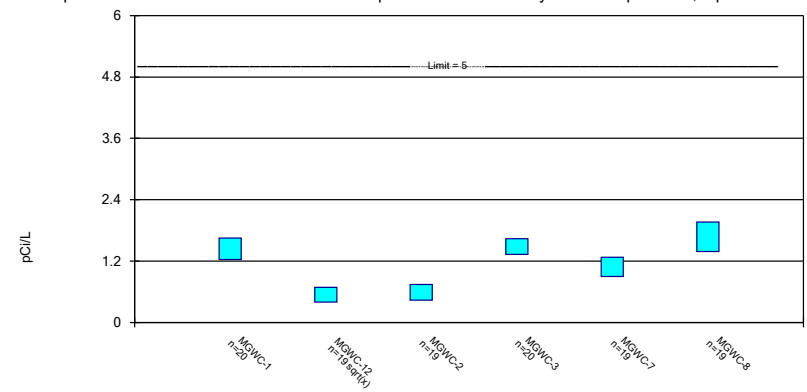
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric Confidence Interval

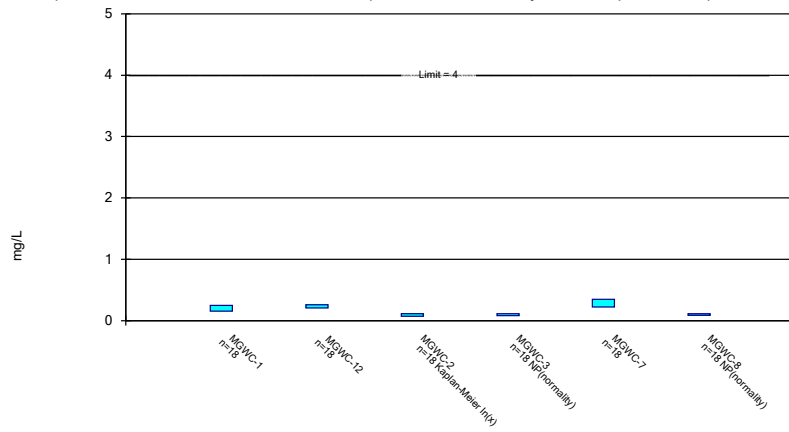
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

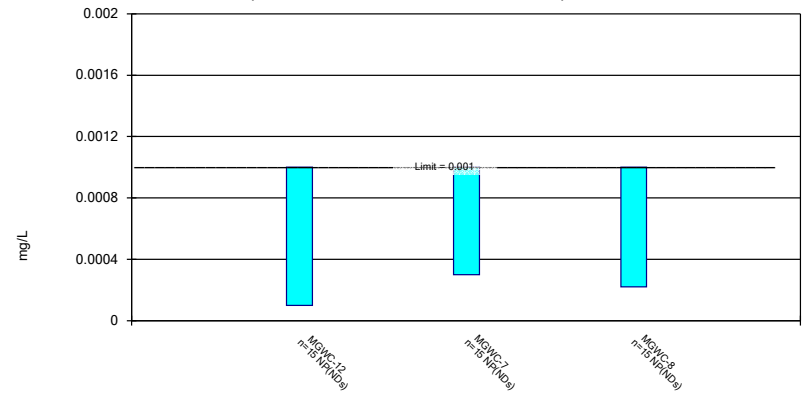
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

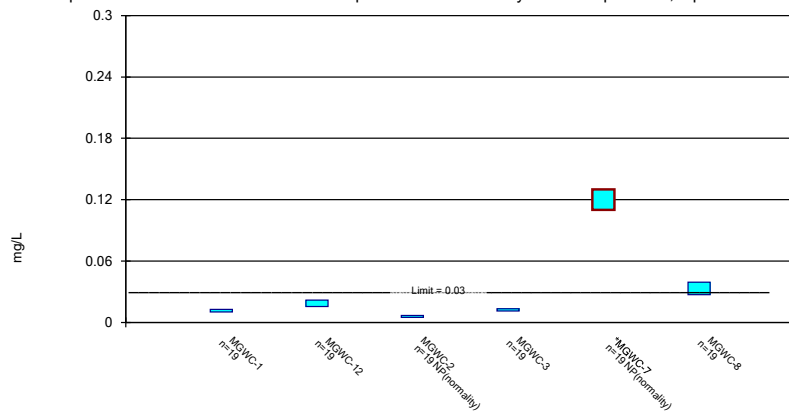
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

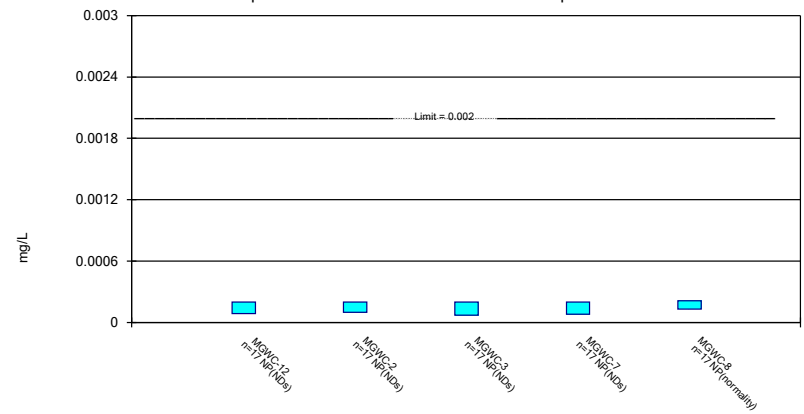
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

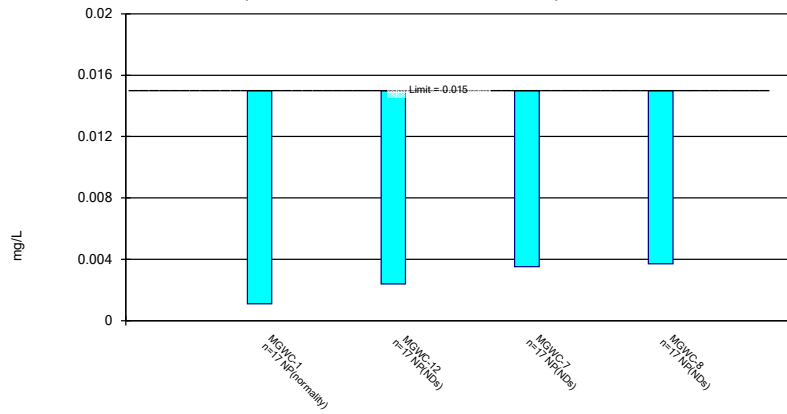
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

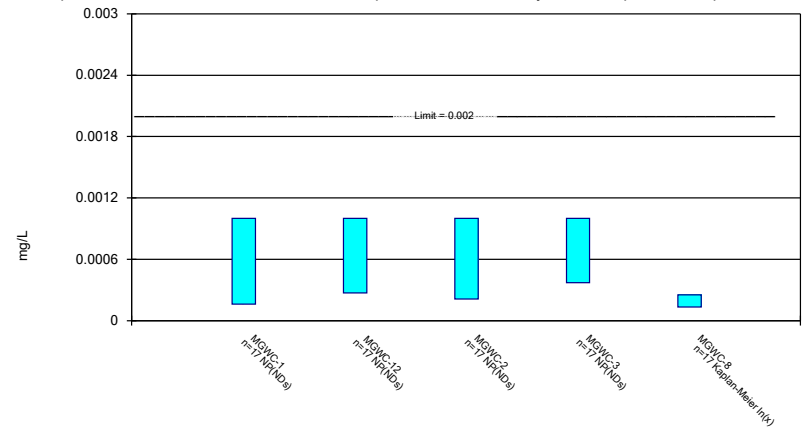
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### 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: Thallium Analysis Run 11/9/2021 6:00 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-3	MGWC-7
5/5/2016			0.00197 (J)
5/6/2016		<0.002	
6/21/2016	0.0004 (J)	0.0003 (J)	<0.002
8/15/2016			<0.002
8/16/2016	<0.002	<0.002	
9/28/2016			<0.002
9/29/2016	<0.002	<0.002	
11/16/2016	<0.002	<0.002	<0.002
1/17/2017		<0.002	<0.002
1/18/2017	<0.002		
3/2/2017	<0.002	<0.002	<0.002
4/18/2017		<0.002	<0.002
4/25/2017	<0.002		
7/13/2017	<0.002		
3/29/2018	<0.002		<0.002
3/30/2018		<0.002	
1/29/2019	<0.002	<0.002	<0.002
1/28/2020	<0.002		<0.002
1/29/2020		<0.002	
3/10/2020	<0.002	<0.002	<0.002
9/16/2020	<0.002		
9/17/2020		<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002
8/24/2021		<0.002	
8/25/2021	<0.002		<0.002
Mean	0.001893	0.001887	0.001998
Std. Dev.	0.0004131	0.0004389	7.746E-06
Upper Lim.	0.002	0.002	0.002
Lower Lim.	0.0004	0.0003	0.00197



# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.00143 (J)	<0.001
5/6/2016	0.00299 (J)		<0.001	0.00154 (J)		
6/21/2016	0.0047 (J)	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016					0.0012 (J)	<0.001
8/16/2016	0.003	0.00082 (J)	<0.001	0.0017		
9/28/2016	0.0036				0.00084 (J)	<0.001
9/29/2016		0.0019	<0.001	0.0013		
11/16/2016	0.003	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017				0.00056 (J)	<0.001	<0.001
1/18/2017		0.00096 (J)	<0.001			
1/19/2017	0.0024					
3/2/2017	0.0027	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017	0.0024			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017			<0.001			
4/25/2017		<0.001				
7/13/2017		0.00047 (J)				
3/29/2018	0.0023	0.00053 (J)			0.00066 (J)	
3/30/2018			<0.001	0.0017		<0.001
6/12/2018		0.00063 (J)				
6/13/2018	0.0021		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.0024	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	0.00255	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.002	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0018	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020		0.00051 (J)			0.00046 (J)	
1/29/2020	0.0021		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	0.0019	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020		<0.001	<0.001			
9/17/2020	0.002			0.0015	0.00045 (J)	<0.001
3/24/2021	0.0024	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)
8/24/2021			<0.001	0.0014		
8/25/2021	0.00092 (J)	<0.001			0.00055 (J)	<0.001
Mean	0.002487	0.0009847	0.0008995	0.001486	0.0008468	0.0009268
Std. Dev.	0.0007844	0.000376	0.0002111	0.0003106	0.0002735	0.0001734
Upper Lim.	0.002947	0.00107	0.001	0.001662	0.0008748	0.001
Lower Lim.	0.002028	0.0006351	0.00068	0.001355	0.000543	0.00099

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.039	0.0364
5/6/2016	0.11		0.0605	0.151		
6/21/2016	0.165	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016					0.015	0.03
8/16/2016	0.094	0.041	0.052	0.13		
9/28/2016	0.1				0.014	0.034
9/29/2016		0.052	0.053	0.14		
11/16/2016	0.096	0.044	0.056	0.14	0.013	0.034
1/17/2017				0.16	0.014	0.038
1/18/2017		0.056	0.06			
1/19/2017	0.12					
3/2/2017	0.097	0.04	0.056	0.15	0.013	0.037
4/18/2017	0.092			0.14	0.011	0.04
4/19/2017			0.051			
4/25/2017		0.042				
7/13/2017		0.043				
3/29/2018	0.095	0.061			0.01	
3/30/2018			0.049	0.13		0.041
6/12/2018		0.063				
6/13/2018	0.096		0.05	0.14	0.0098	0.038
10/10/2018	0.095	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.107	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.096	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.11	0.073	0.053	0.15	0.012	0.035
1/28/2020		0.069			0.012	
1/29/2020	0.11		0.051	0.15		0.033
3/10/2020	0.13	0.056	0.049	0.15	0.013	0.036
9/16/2020		0.1	0.048			
9/17/2020	0.11			0.16	0.0091 (J)	0.028
3/24/2021	0.1	0.056	0.049	0.16	0.011	0.054
8/24/2021			0.047	0.16		
8/25/2021	0.11	0.051			0.013	0.031
Mean	0.107	0.05694	0.05207	0.1465	0.01289	0.03607
Std. Dev.	0.01724	0.01469	0.004645	0.01266	0.007042	0.005494
Upper Lim.	0.12	0.06456	0.05469	0.1539	0.014	0.03878
Lower Lim.	0.095	0.04828	0.04934	0.1391	0.0098	0.03291

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-3	MGWC-8
5/5/2016			<0.0025
5/6/2016	<0.0025	<0.0025	
6/21/2016	<0.0025	<0.0025	0.0004 (J)
8/15/2016			0.00053 (J)
8/16/2016	<0.0025	<0.0025	
9/28/2016	<0.0025		0.00049 (J)
9/29/2016		<0.0025	
11/16/2016	<0.0025	<0.0025	0.0004 (J)
1/17/2017		<0.0025	0.00084 (J)
1/19/2017	<0.0025		
3/2/2017	<0.0025	<0.0025	0.00068 (J)
4/18/2017	<0.0025	<0.0025	0.00067 (J)
3/29/2018	<0.0025		
3/30/2018		<0.0025	0.0015 (J)
6/13/2018	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025
1/29/2020	0.00018 (J)	0.00031 (J)	0.0019
3/10/2020	<0.0025	<0.0025	0.0013 (J)
9/17/2020	<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025
8/24/2021		<0.0025	
8/25/2021	<0.0025		0.0015 (J)
Mean	0.002364	0.002371	0.001318
Std. Dev.	0.0005627	0.0005312	0.0007532
Upper Lim.	0.0025	0.0025	0.00124
Lower Lim.	0.00018	0.00031	0.0006311

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-2	MGWC-7	MGWC-8
5/5/2016			<0.0025	0.000784 (J)
5/6/2016	0.000126 (J)	0.00166		
6/21/2016	0.0005 (J)	0.0008 (J)	<0.0025	0.0003 (J)
8/15/2016			<0.0025	<0.0025
8/16/2016	<0.0025	0.0034		
9/28/2016	<0.0025		<0.0025	<0.0025
9/29/2016		0.0027		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025
1/18/2017		0.008		
1/19/2017	<0.0025			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025
4/18/2017	<0.0025		<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)		
3/29/2018	<0.0025		<0.0025	
3/30/2018		0.0016 (J)		0.00058 (J)
6/13/2018	<0.0025	0.0016 (J)	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	0.0005 (J)
9/10/2019	0.00017 (J)	0.0011	<0.0025	0.00079 (J)
1/28/2020			<0.0025	
1/29/2020	<0.0025	0.0054		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	0.0011 (J)
9/16/2020		0.00053 (J)		
9/17/2020	<0.0025		0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	0.001 (J)
8/24/2021		0.00054 (J)		
8/25/2021	<0.0025		<0.0025	0.0046
Mean	0.002147	0.002367	0.002381	0.001464
Std. Dev.	0.00084	0.001936	0.0005208	0.001161
Upper Lim.	0.0025	0.003124	0.0025	0.0009969
Lower Lim.	0.0005	0.001228	0.00023	0.0005017

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					<0.002	<0.002
5/6/2016	<0.002		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016					<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002	<0.002		
9/28/2016	<0.002				<0.002	<0.002
9/29/2016		<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017				<0.002	<0.002	<0.002
1/18/2017		<0.002	<0.002			
1/19/2017	<0.002					
3/2/2017	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017	<0.002			<0.002	<0.002	<0.002
4/19/2017			<0.002			
4/25/2017		<0.002				
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002			<0.002	
3/30/2018			<0.002	<0.002		<0.002
6/12/2018		<0.002				
6/13/2018	<0.002		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020		<0.002			0.0015 (J)	
1/29/2020	<0.002		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020		0.029	<0.002			
9/17/2020	<0.002			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021			<0.002	<0.002		
8/25/2021	<0.002	<0.002			<0.002	<0.002
Mean	0.002094	0.003659	0.002076	0.002059	0.002053	0.002065
Std. Dev.	0.0003881	0.006537	0.0003153	0.0002425	0.0003676	0.0002668
Upper Lim.	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
Lower Lim.	0.002	0.002	0.002	0.002	0.0015	0.002

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0036 (J)	0.00359 (J)
5/6/2016	<0.0025		0.00311 (J)	<0.0025		
6/21/2016	0.0012 (J)	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016					0.0098	0.0038
8/16/2016	0.00047 (J)	<0.0025	0.0034	0.00064 (J)		
9/28/2016	0.00058 (J)				0.0095	0.0043
9/29/2016		<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017				0.00051 (J)	0.0099	0.0051
1/18/2017		<0.0025	0.0032			
1/19/2017	0.0004 (J)					
3/2/2017	<0.0025	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017	<0.0025			0.00057 (J)	0.0086	0.005
4/19/2017			0.0035			
4/25/2017		<0.0025				
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025			0.0088	
3/30/2018			0.0037	0.00068 (J)		0.015
6/12/2018		<0.0025				
6/13/2018	<0.0025		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00032 (J)	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020		<0.0025			0.008	
1/29/2020	0.00027 (J)		0.003	0.00067		0.025
3/10/2020	<0.0025	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020		0.0015 (J)	0.002 (J)			
9/17/2020	0.0002 (J)			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)
8/24/2021			0.0018 (J)	0.00034 (J)		
8/25/2021	0.00018 (J)	<0.0025			0.0032	0.021
Mean	0.001638	0.002324	0.003013	0.0008642	0.008911	0.01192
Std. Dev.	0.001059	0.000572	0.0006233	0.000733	0.002423	0.008031
Upper Lim.	0.0025	0.0025	0.003378	0.00068	0.01037	0.02
Lower Lim.	0.00032	0.0015	0.002648	0.0005	0.007901	0.0038

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.75	1.21
5/6/2016	1.07		0.633	1.41		
6/21/2016	2.01	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016					1.3	1.64
8/16/2016	1.12	0.232 (U)	0.516	1.75		
9/28/2016	1.09				1.06	2.17
9/29/2016		1.11	0.665	1.43		
11/16/2016	1.58	0.798	0.694	1.9	0.855	1.49
1/17/2017				1.9	1.59	1.75
1/18/2017		0.302 (U)	0.688			
1/19/2017	1.64					
3/2/2017	1.08	0.437	0.484	1.37	1.4	1.03
4/18/2017	1.23			1.42	0.684	1.83
4/19/2017			0.599			
4/25/2017		0.391				
7/13/2017		0.47				
3/29/2018	1.21	0.736			0.822	
3/30/2018			0.677	1.43		2.15
6/12/2018		0.438				
6/13/2018	1.09		0.272 (U)	1.27	0.716	1.51
10/10/2018	1.95	0.371	0.336	1.54	1.51	2.72
1/29/2019	1.11	0.639	0.719	1.34	1.7	1.93
3/26/2019	1	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	1.26	0.939	0.548	1.6	0.958	1.78
1/28/2020		0.465			1.38	
1/29/2020	1.39		0.0985 (U)	1.44		1.61
3/10/2020	1.4	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020		1.09	1.11			
9/17/2020	1.79			0.666 (U)	1.28	1.56
12/8/2020	1.87			1.65		
3/24/2021	1.81	0.434 (U)	0.625	1.58	1.2	0.636
8/24/2021			0.313 (U)	1.65		
8/25/2021	2.12	0.563			0.767	2.13
Mean	1.441	0.5607	0.5877	1.481	1.088	1.673
Std. Dev.	0.37	0.263	0.2602	0.2711	0.3228	0.4924
Upper Lim.	1.651	0.6874	0.7401	1.635	1.277	1.961
Lower Lim.	1.231	0.4	0.4354	1.327	0.8988	1.384

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.394	0.103 (J)
5/6/2016	0.28 (J)		0.088 (J)	0.086 (J)		
6/21/2016	0.36	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016					0.44	0.11 (J)
8/16/2016	0.27	0.29	0.087 (J)	<0.2		
9/28/2016	0.26				0.4	0.1 (J)
9/29/2016		0.26	<0.2	0.082 (J)		
11/16/2016	0.24	0.25	<0.2	0.087 (J)	0.36	0.091 (J)
1/17/2017				0.086 (J)	0.2	<0.2
1/18/2017		0.26	<0.2			
1/19/2017	0.22					
3/2/2017	0.27	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017	0.2			<0.2	0.29	<0.2
4/19/2017			<0.2			
4/25/2017		0.25				
7/13/2017		0.21				
10/10/2017	0.18 (J)	0.22	<0.2	<0.2	0.28	<0.2
3/29/2018	0.16 (J)	0.23			0.23	
3/30/2018			<0.2	<0.2		0.088 (J)
6/12/2018		0.23				
6/13/2018	0.14 (J)		<0.2	<0.2	0.2	0.15 (J)
10/10/2018	0.17 (J)	0.25	0.085 (J)	<0.2	0.23	0.11 (J)
3/26/2019	0.16	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.098 (J)	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.086 (J)	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020		0.26	0.076 (J)			
9/17/2020	0.15			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.27	0.11	0.092 (J)	0.35	0.11
8/24/2021			0.095 (J)	0.11		
8/25/2021	0.097 (J)	0.19			0.15	0.038 (J)
Mean	0.2006	0.2311	0.09872	0.1005	0.2858	0.1014
Std. Dev.	0.0755	0.04143	0.03047	0.03758	0.1043	0.0257
Upper Lim.	0.2463	0.2562	0.1123	0.11	0.3489	0.11
Lower Lim.	0.1549	0.206	0.07175	0.082	0.2227	0.088



# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-7	MGWC-8
5/5/2016		<0.001	<0.001
6/21/2016	0.0001 (J)	0.0003 (J)	<0.001
8/15/2016		<0.001	<0.001
8/16/2016	<0.001		
9/28/2016		<0.001	<0.001
9/29/2016	<0.001		
11/16/2016	<0.001	<0.001	<0.001
1/17/2017		<0.001	<0.001
1/18/2017	<0.001		
3/2/2017	<0.001	<0.001	<0.001
4/18/2017		<0.001	<0.001
4/25/2017	<0.001		
7/13/2017	<0.001		
3/29/2018	<0.001	<0.001	
3/30/2018			<0.001
1/29/2019	<0.001	<0.001	<0.001
1/28/2020	<0.001	<0.001	
1/29/2020			<0.001
3/10/2020	<0.001	<0.001	<0.001
9/16/2020	<0.001		
9/17/2020		<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001
8/25/2021	<0.001	0.00019 (J)	0.00022 (J)
Mean	0.00094	0.0008993	0.000948
Std. Dev.	0.0002324	0.0002665	0.0002014
Upper Lim.	0.001	0.001	0.001
Lower Lim.	0.0001	0.0003	0.00022

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0586	0.0252 (J)
5/6/2016	0.0128 (J)		<0.025	0.0113 (J)		
6/21/2016	0.0102 (J)	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016					0.12	0.026
8/16/2016	0.012	0.014	0.0043 (J)	0.01		
9/28/2016	0.012				0.12	0.026
9/29/2016		0.017	0.0048 (J)	0.01		
11/16/2016	0.013	0.016	0.0058	0.014	0.13	0.031
1/17/2017				0.014	0.14	0.032
1/18/2017		0.015	0.0051			
1/19/2017	0.011					
3/2/2017	0.013	0.015	0.0061	0.013	0.13	0.031
4/18/2017	0.0097			0.01	0.11	0.023
4/19/2017			0.0042 (J)			
4/25/2017		0.013				
7/13/2017		0.014				
3/29/2018	0.017 (J)	0.032 (J)			0.17 (J)	
3/30/2018			0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018		0.019				
6/13/2018	0.0094		0.0054	0.011	0.12	0.035
10/10/2018	0.011	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0109	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.01	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.012	0.023	0.0074	0.015	0.11	0.042
1/28/2020		0.022			0.13	
1/29/2020	0.0096		0.0059	0.012		0.037
3/10/2020	<0.025	0.018	0.0068	0.014	0.11	0.028
9/16/2020		0.025	0.0055			
9/17/2020	0.0086			0.012	0.11	0.039
3/24/2021	0.013	0.018	0.0066	0.013	0.13	0.011
8/24/2021			0.0062	0.012		
8/25/2021	0.0096	0.017			0.12	0.037
Mean	0.01144	0.0186	0.006067	0.01233	0.1207	0.03311
Std. Dev.	0.00195	0.005234	0.001846	0.001905	0.02059	0.01037
Upper Lim.	0.01258	0.02166	0.0068	0.01344	0.13	0.03919
Lower Lim.	0.0103	0.01554	0.0048	0.01121	0.11	0.02704

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/24/2021		<0.0002	<0.0002		
8/25/2021	<0.0002			<0.0002	0.0041
Mean	0.0001859	0.0001869	0.0001924	0.0001929	0.0004339
Std. Dev.	3.991E-05	3.707E-05	3.153E-05	2.91E-05	0.0009556
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.00021
Lower Lim.	8.6E-05	0.0001	7E-05	8E-05	0.00013

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-7	MGWC-8
5/5/2016			0.00351 (J)	<0.015
5/6/2016	0.0021 (J)			
6/21/2016	0.002 (J)	0.002 (J)	<0.015	<0.015
8/15/2016			<0.015	<0.015
8/16/2016	0.0019 (J)	0.0012 (J)		
9/28/2016	0.0018 (J)		<0.015	<0.015
9/29/2016		0.0014 (J)		
11/16/2016	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015
1/18/2017		<0.015		
1/19/2017	0.0011 (J)			
3/2/2017	0.0012 (J)	<0.015	<0.015	<0.015
4/18/2017	0.0013 (J)		<0.015	0.0037 (J)
4/25/2017		<0.015		
7/13/2017		<0.015		
3/29/2018	0.0017 (J)	<0.015	<0.015	
3/30/2018				<0.015
6/12/2018		<0.015		
6/13/2018	0.00087 (J)		<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015
1/28/2020		<0.015	<0.015	
1/29/2020	0.0015 (J)			<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015
9/16/2020		0.0024 (J)		
9/17/2020	0.0012 (J)		<0.015	<0.015
3/24/2021	0.0029 (J)	<0.015	<0.015	<0.015
8/25/2021	0.00088 (J)	<0.015	<0.015	<0.015
Mean	0.004732	0.01188	0.01432	0.01434
Std. Dev.	0.005892	0.005798	0.002787	0.002741
Upper Lim.	0.015	0.015	0.015	0.015
Lower Lim.	0.0011	0.0024	0.00351	0.0037

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/9/2021 6:01 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-8
5/5/2016					<0.001
5/6/2016	<0.001		<0.001	<0.001	
6/21/2016	9E-05 (J)	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016					0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001	<0.001	
9/28/2016	<0.001				0.00014 (J)
9/29/2016		<0.001	<0.001	<0.001	
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017				<0.001	0.00016 (J)
1/18/2017		<0.001	<0.001		
1/19/2017	<0.001				
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017	9.5E-05 (J)			<0.001	0.00019 (J)
4/19/2017			<0.001		
4/25/2017		<0.001			
7/13/2017		<0.001			
3/29/2018	0.00014 (J)	<0.001			
3/30/2018			<0.001	<0.001	0.00027 (J)
6/12/2018		<0.001			
6/13/2018	<0.001		<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020		<0.001			
1/29/2020	0.00032 (J)		0.00021 (J)	0.00037 (J)	0.00042 (J)
3/10/2020	<0.001	0.00015 (J)	<0.001	0.00016 (J)	0.00025 (J)
9/16/2020		0.00027 (J)	<0.001		
9/17/2020	0.00016 (J)			<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021			<0.001	<0.001	
8/25/2021	<0.001	<0.001			0.0004 (J)
Mean	0.0007532	0.0009071	0.0009535	0.0009135	0.0003641
Std. Dev.	0.0003968	0.0002632	0.0001916	0.0002469	0.0003169
Upper Lim.	0.001	0.001	0.001	0.001	0.0002508
Lower Lim.	0.00016	0.00027	0.00021	0.00037	0.0001346

FIGURE J.

# Federal Confidence Intervals - Significant Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	MGWC-7	0.01037	0.007901	0.006	Yes 19	0.008911	0.002423	0	None	x^2	0.01	Param.
Lithium (mg/L)	MGWC-7	0.13	0.11	0.04	Yes 19	0.1207	0.02059	0	None	No	0.01	NP (normality)

# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MGWC-12	0.002	0.0004	0.006	No	15	0.001893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-3	0.002	0.0003	0.006	No	15	0.001887	0.0004389	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MGWC-7	0.002	0.00197	0.006	No	15	0.001998	0.00007746	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-1	0.002947	0.002028	0.014	No	19	0.002487	0.0007844	0	None	No	0.01	Param.
Arsenic (mg/L)	MGWC-12	0.00107	0.0006351	0.014	No	19	0.0009847	0.000376	31.58	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MGWC-2	0.001	0.00068	0.014	No	19	0.0008995	0.0002111	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MGWC-3	0.001662	0.001355	0.014	No	19	0.001486	0.0003106	5.263	None	x^2	0.01	Param.
Arsenic (mg/L)	MGWC-7	0.0008748	0.000543	0.014	No	19	0.0008468	0.0002735	36.84	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	MGWC-8	0.001	0.00099	0.014	No	19	0.0009268	0.0001734	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	MGWC-1	0.12	0.095	2	No	19	0.107	0.01724	0	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-12	0.06456	0.04828	2	No	19	0.05694	0.01469	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-2	0.05469	0.04934	2	No	19	0.05207	0.004645	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	MGWC-3	0.1539	0.1391	2	No	19	0.1465	0.01266	0	None	No	0.01	Param.
Barium (mg/L)	MGWC-7	0.014	0.0098	2	No	19	0.01289	0.007042	5.263	None	No	0.01	NP (normality)
Barium (mg/L)	MGWC-8	0.03878	0.03291	2	No	19	0.03607	0.005494	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	MGWC-1	0.0025	0.00018	0.004	No	17	0.002364	0.0005627	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-3	0.0025	0.00031	0.004	No	17	0.002371	0.0005312	94.12	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MGWC-8	0.00124	0.0006311	0.004	No	17	0.001318	0.0007532	17.65	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	MGWC-1	0.0025	0.0005	0.005	No	19	0.002147	0.00084	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-2	0.003124	0.001228	0.005	No	19	0.002367	0.001936	0	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	MGWC-7	0.0025	0.00023	0.005	No	19	0.002381	0.0005208	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MGWC-8	0.0009969	0.0005017	0.005	No	19	0.001464	0.001161	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	MGWC-1	0.0036	0.002	0.1	No	17	0.002094	0.0003881	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-12	0.0032	0.002	0.1	No	17	0.003659	0.006537	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-2	0.0033	0.002	0.1	No	17	0.002076	0.0003153	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-3	0.003	0.002	0.1	No	17	0.002059	0.0002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-7	0.0034	0.0015	0.1	No	17	0.002053	0.0003676	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	MGWC-8	0.0031	0.002	0.1	No	17	0.002065	0.0002668	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-1	0.0025	0.00032	0.006	No	19	0.001638	0.001059	57.89	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-12	0.0025	0.0015	0.006	No	19	0.002324	0.000572	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MGWC-2	0.003378	0.002648	0.006	No	19	0.003013	0.0006233	0	None	No	0.01	Param.
Cobalt (mg/L)	MGWC-3	0.00068	0.0005	0.006	No	19	0.0008642	0.000733	15.79	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>MGWC-7</b>	<b>0.01037</b>	<b>0.007901</b>	<b>0.006</b>	<b>Yes</b>	<b>19</b>	<b>0.008911</b>	<b>0.002423</b>	<b>0</b>	<b>None</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	MGWC-8	0.02	0.0038	0.006	No	19	0.01192	0.008031	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MGWC-1	1.651	1.231	5	No	20	1.441	0.37	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-12	0.6874	0.4	5	No	19	0.5607	0.263	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-2	0.7401	0.4354	5	No	19	0.5877	0.2602	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-3	1.635	1.327	5	No	20	1.481	0.2711	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-7	1.277	0.8988	5	No	19	1.088	0.3228	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MGWC-8	1.961	1.384	5	No	19	1.673	0.4924	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-1	0.2463	0.1549	4	No	18	0.2006	0.0755	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-12	0.2562	0.206	4	No	18	0.2311	0.04143	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-2	0.1123	0.07175	4	No	18	0.09872	0.03047	38.89	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	MGWC-3	0.11	0.082	4	No	18	0.1005	0.03758	33.33	None	No	0.01	NP (normality)
Fluoride (mg/L)	MGWC-7	0.3489	0.2227	4	No	18	0.2858	0.1043	0	None	No	0.01	Param.
Fluoride (mg/L)	MGWC-8	0.11	0.088	4	No	18	0.1014	0.0257	16.67	None	No	0.01	NP (normality)
Lead (mg/L)	MGWC-12	0.001	0.0001	0.015	No	15	0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-7	0.001	0.0003	0.015	No	15	0.0008993	0.0002665	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	MGWC-8	0.001	0.00022	0.015	No	15	0.000948	0.0002014	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	MGWC-1	0.01258	0.0103	0.04	No	19	0.01144	0.00195	5.263	None	No	0.01	Param.
Lithium (mg/L)	MGWC-12	0.02166	0.01554	0.04	No	19	0.0186	0.005234	0	None	No	0.01	Param.
Lithium (mg/L)	MGWC-2	0.0068	0.0048	0.04	No	19	0.006067	0.001846	5.263	None	No	0.01	NP (normality)
Lithium (mg/L)	MGWC-3	0.01344	0.01121	0.04	No	19	0.01233	0.001905	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>MGWC-7</b>	<b>0.13</b>	<b>0.11</b>	<b>0.04</b>	<b>Yes</b>	<b>19</b>	<b>0.1207</b>	<b>0.02059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Lithium (mg/L)	MGWC-8	0.03919	0.02704	0.04	No	19	0.03311	0.01037	0	None	No	0.01	Param.



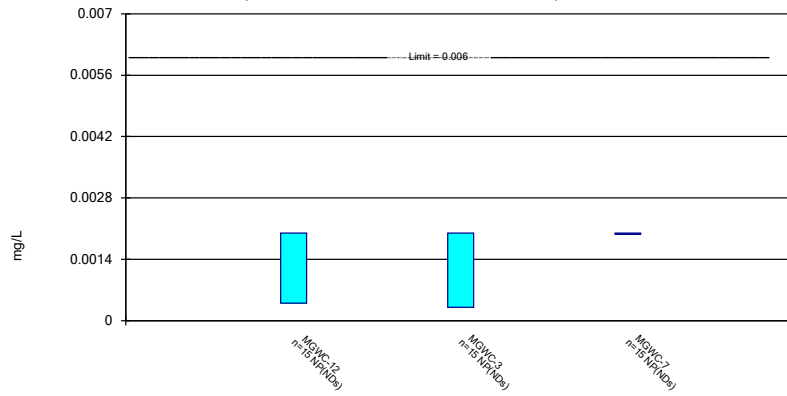
# Federal Confidence Intervals - All Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:04 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	MGWC-12	0.0002	0.000086	0.002	No	17	0.0001859	0.00003991	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-2	0.0002	0.0001	0.002	No	17	0.0001869	0.00003707	88.24	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-3	0.0002	0.00007	0.002	No	17	0.0001924	0.00003153	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-7	0.0002	0.00008	0.002	No	17	0.0001929	0.0000291	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No	17	0.0004339	0.0009556	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-1	0.015	0.0011	0.1	No	17	0.004732	0.005892	23.53	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MGWC-12	0.015	0.0024	0.1	No	17	0.01188	0.005798	76.47	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-7	0.015	0.00351	0.1	No	17	0.01432	0.002787	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MGWC-8	0.015	0.0037	0.1	No	17	0.01434	0.002741	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-1	0.001	0.00016	0.002	No	17	0.0007532	0.0003968	70.59	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-12	0.001	0.00027	0.002	No	17	0.0009071	0.0002632	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-2	0.001	0.00021	0.002	No	17	0.0009535	0.0001916	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-3	0.001	0.00037	0.002	No	17	0.0009135	0.0002469	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	MGWC-8	0.0002508	0.0001346	0.002	No	17	0.0003641	0.0003169	17.65	Kaplan-Meier	ln(x)	0.01	Param.

### Non-Parametric Confidence Interval

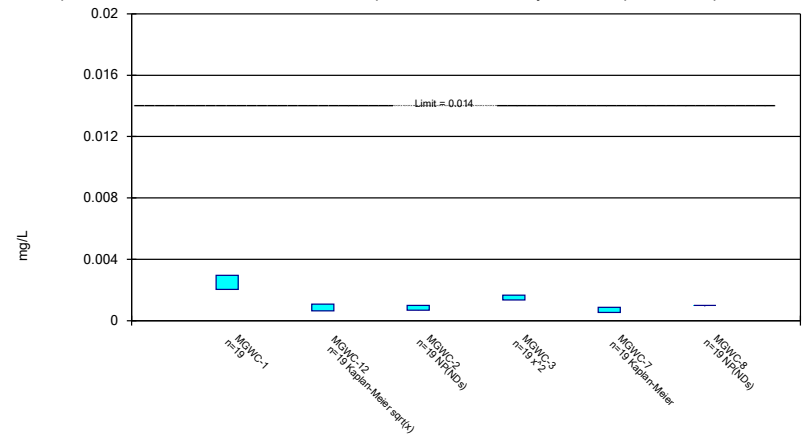
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

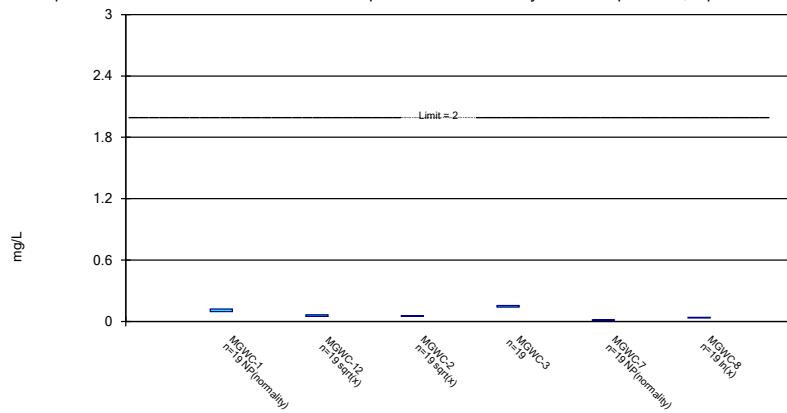
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

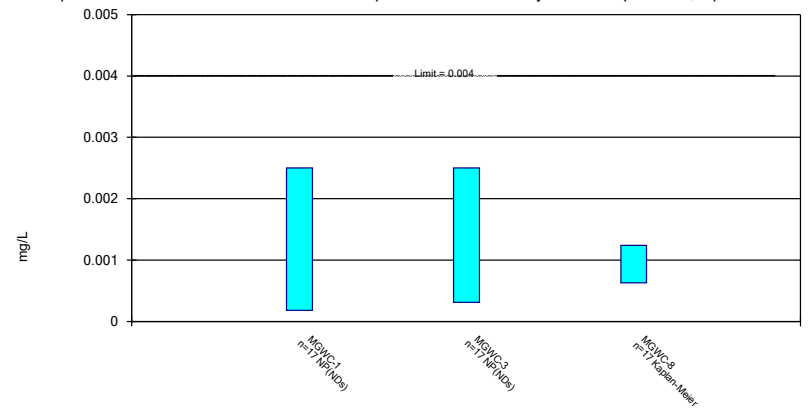
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

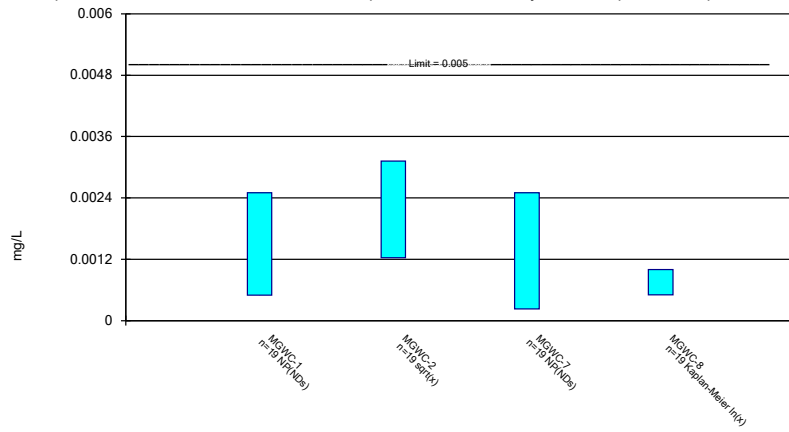
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

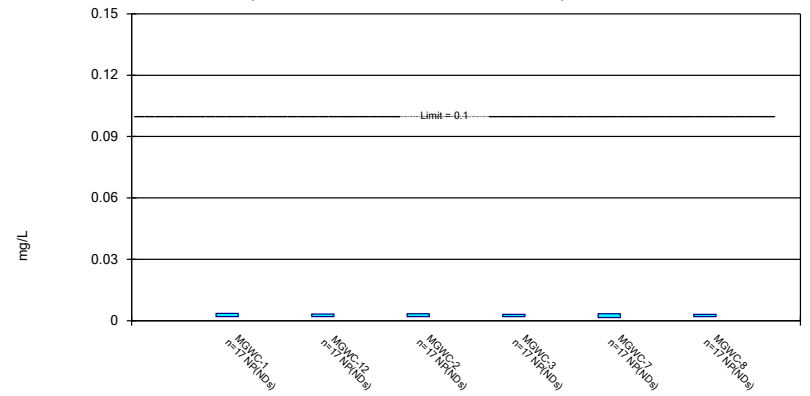
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

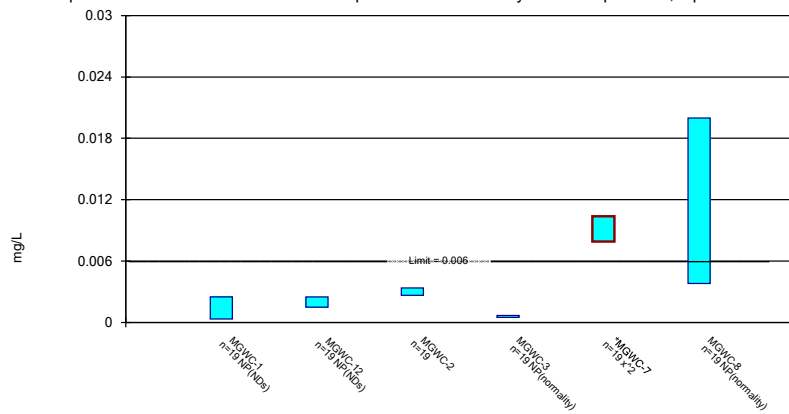
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

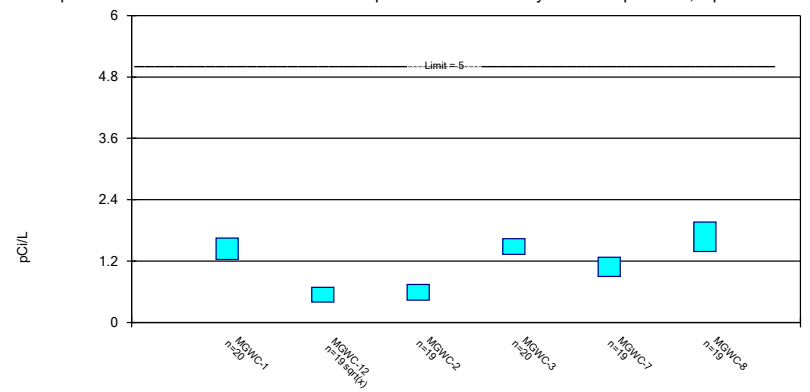
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric Confidence Interval

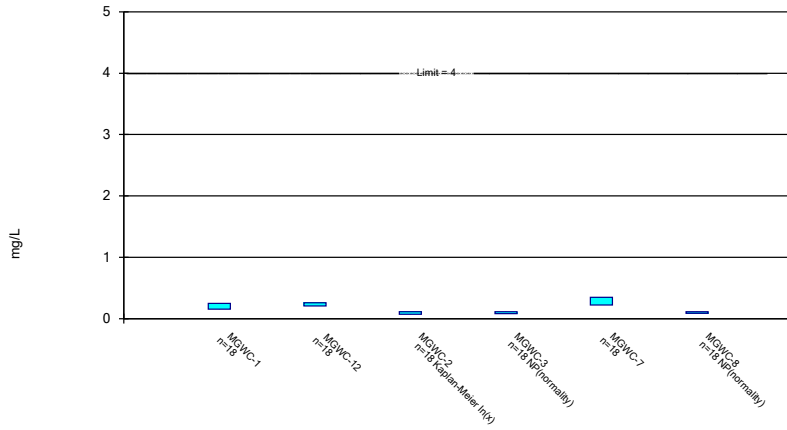
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

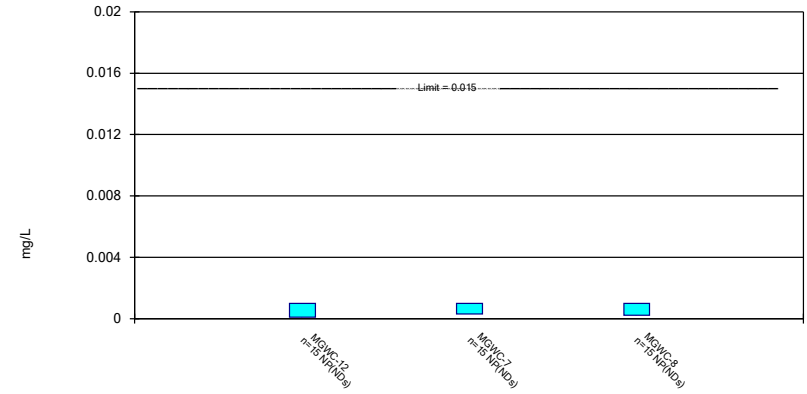
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

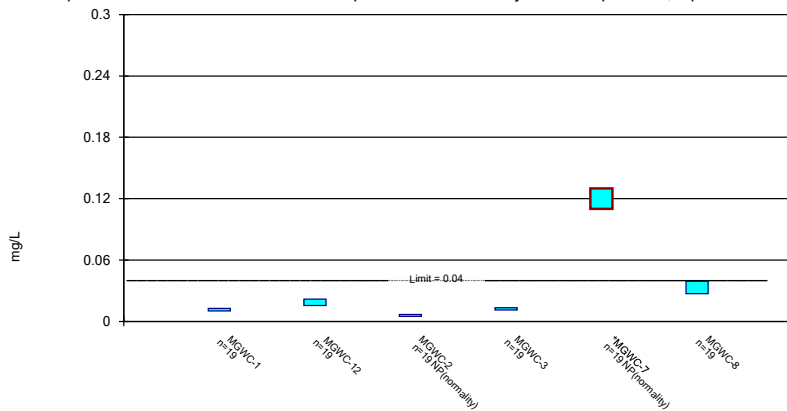
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/9/2021 6:02 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

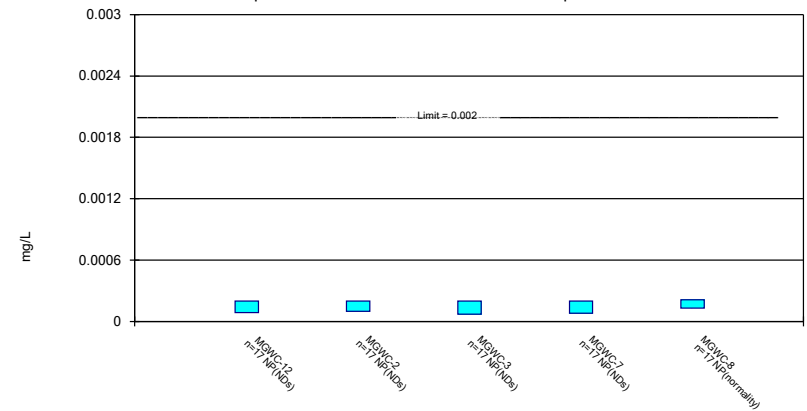
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/9/2021 6:03 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

Non-Parametric Confidence Interval

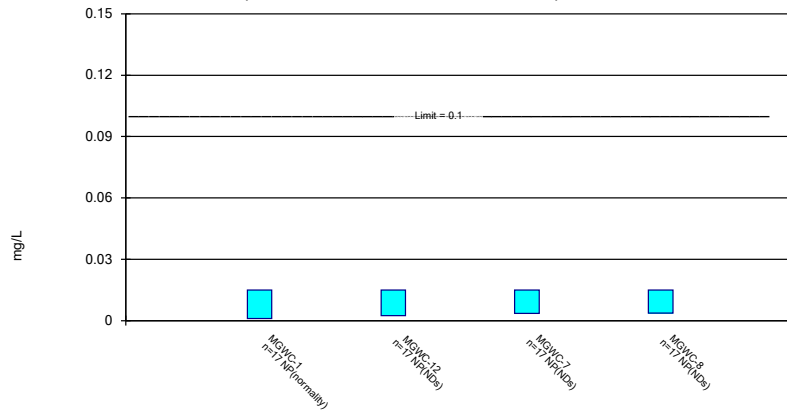
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/9/2021 6:03 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### Non-Parametric Confidence Interval

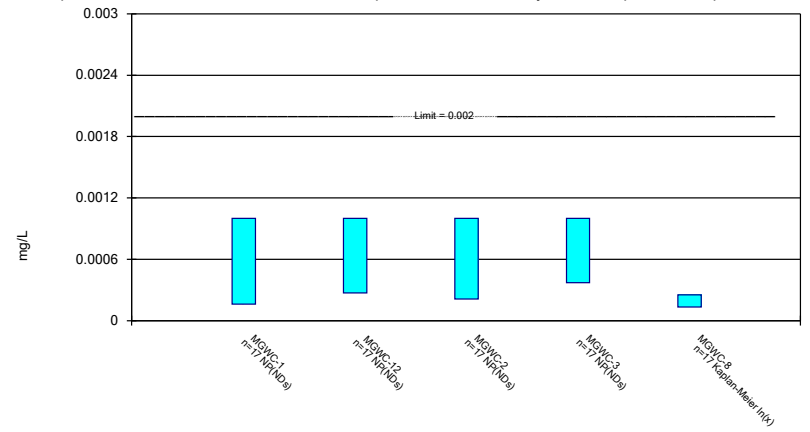
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/9/2021 6:03 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

### 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: Thallium Analysis Run 11/9/2021 6:03 PM View: Appendix IV  
 Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-12	MGWC-3	MGWC-7
5/5/2016			0.00197 (J)
5/6/2016		<0.002	
6/21/2016	0.0004 (J)	0.0003 (J)	<0.002
8/15/2016			<0.002
8/16/2016	<0.002	<0.002	
9/28/2016			<0.002
9/29/2016	<0.002	<0.002	
11/16/2016	<0.002	<0.002	<0.002
1/17/2017		<0.002	<0.002
1/18/2017	<0.002		
3/2/2017	<0.002	<0.002	<0.002
4/18/2017		<0.002	<0.002
4/25/2017	<0.002		
7/13/2017	<0.002		
3/29/2018	<0.002		<0.002
3/30/2018		<0.002	
1/29/2019	<0.002	<0.002	<0.002
1/28/2020	<0.002		<0.002
1/29/2020		<0.002	
3/10/2020	<0.002	<0.002	<0.002
9/16/2020	<0.002		
9/17/2020		<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002
8/24/2021		<0.002	
8/25/2021	<0.002		<0.002
Mean	0.001893	0.001887	0.001998
Std. Dev.	0.0004131	0.0004389	7.746E-06
Upper Lim.	0.002	0.002	0.002
Lower Lim.	0.0004	0.0003	0.00197

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.00143 (J)	<0.001
5/6/2016	0.00299 (J)		<0.001	0.00154 (J)		
6/21/2016	0.0047 (J)	0.0015 (J)	<0.001	0.0016 (J)	0.0009 (J)	<0.001
8/15/2016					0.0012 (J)	<0.001
8/16/2016	0.003	0.00082 (J)	<0.001	0.0017		
9/28/2016	0.0036				0.00084 (J)	<0.001
9/29/2016		0.0019	<0.001	0.0013		
11/16/2016	0.003	0.0017	0.00068 (J)	0.0014	<0.001	<0.001
1/17/2017				0.00056 (J)	<0.001	<0.001
1/18/2017		0.00096 (J)	<0.001			
1/19/2017	0.0024					
3/2/2017	0.0027	0.00082 (J)	0.00065 (J)	0.0018	0.0009 (J)	<0.001
4/18/2017	0.0024			0.0018	0.0005 (J)	0.00059 (J)
4/19/2017			<0.001			
4/25/2017		<0.001				
7/13/2017		0.00047 (J)				
3/29/2018	0.0023	0.00053 (J)			0.00066 (J)	
3/30/2018			<0.001	0.0017		<0.001
6/12/2018		0.00063 (J)				
6/13/2018	0.0021		<0.001	0.0015	<0.001	<0.001
10/10/2018	0.0024	0.00098 (J)	<0.001	0.0016	<0.001	<0.001
1/29/2019	0.00255	<0.001	<0.001	0.00143	<0.001	<0.001
3/26/2019	0.002	0.00079 (J)	<0.001	0.0012 (J)	<0.001	<0.001
9/10/2019	0.0018	0.0011	0.00036 (J)	0.0017	0.00074 (J)	0.00056 (J)
1/28/2020		0.00051 (J)			0.00046 (J)	
1/29/2020	0.0021		0.0004 (J)	0.0017		0.00047 (J)
3/10/2020	0.0019	<0.001	<0.001	<0.001	<0.001	<0.001
9/16/2020		<0.001	<0.001			
9/17/2020	0.002			0.0015	0.00045 (J)	<0.001
3/24/2021	0.0024	<0.001	<0.001	0.0018	0.00046 (J)	0.00099 (J)
8/24/2021			<0.001	0.0014		
8/25/2021	0.00092 (J)	<0.001			0.00055 (J)	<0.001
Mean	0.002487	0.0009847	0.0008995	0.001486	0.0008468	0.0009268
Std. Dev.	0.0007844	0.000376	0.0002111	0.0003106	0.0002735	0.0001734
Upper Lim.	0.002947	0.00107	0.001	0.001662	0.0008748	0.001
Lower Lim.	0.002028	0.0006351	0.00068	0.001355	0.000543	0.00099

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.039	0.0364
5/6/2016	0.11		0.0605	0.151		
6/21/2016	0.165	0.0439	0.0613	0.174	0.0152	0.0386
8/15/2016					0.015	0.03
8/16/2016	0.094	0.041	0.052	0.13		
9/28/2016	0.1				0.014	0.034
9/29/2016		0.052	0.053	0.14		
11/16/2016	0.096	0.044	0.056	0.14	0.013	0.034
1/17/2017				0.16	0.014	0.038
1/18/2017		0.056	0.06			
1/19/2017	0.12					
3/2/2017	0.097	0.04	0.056	0.15	0.013	0.037
4/18/2017	0.092			0.14	0.011	0.04
4/19/2017			0.051			
4/25/2017		0.042				
7/13/2017		0.043				
3/29/2018	0.095	0.061			0.01	
3/30/2018			0.049	0.13		0.041
6/12/2018		0.063				
6/13/2018	0.096		0.05	0.14	0.0098	0.038
10/10/2018	0.095	0.071	0.046	0.13	0.011	0.035
1/29/2019	0.107	0.06	0.0496	0.138	<0.0025	0.0344
3/26/2019	0.096	0.06	0.048	0.13	0.0086	0.032
9/10/2019	0.11	0.073	0.053	0.15	0.012	0.035
1/28/2020		0.069			0.012	
1/29/2020	0.11		0.051	0.15		0.033
3/10/2020	0.13	0.056	0.049	0.15	0.013	0.036
9/16/2020		0.1	0.048			
9/17/2020	0.11			0.16	0.0091 (J)	0.028
3/24/2021	0.1	0.056	0.049	0.16	0.011	0.054
8/24/2021			0.047	0.16		
8/25/2021	0.11	0.051			0.013	0.031
Mean	0.107	0.05694	0.05207	0.1465	0.01289	0.03607
Std. Dev.	0.01724	0.01469	0.004645	0.01266	0.007042	0.005494
Upper Lim.	0.12	0.06456	0.05469	0.1539	0.014	0.03878
Lower Lim.	0.095	0.04828	0.04934	0.1391	0.0098	0.03291



# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-1	MGWC-3	MGWC-8
5/5/2016			<0.0025
5/6/2016	<0.0025	<0.0025	
6/21/2016	<0.0025	<0.0025	0.0004 (J)
8/15/2016			0.00053 (J)
8/16/2016	<0.0025	<0.0025	
9/28/2016	<0.0025		0.00049 (J)
9/29/2016		<0.0025	
11/16/2016	<0.0025	<0.0025	0.0004 (J)
1/17/2017		<0.0025	0.00084 (J)
1/19/2017	<0.0025		
3/2/2017	<0.0025	<0.0025	0.00068 (J)
4/18/2017	<0.0025	<0.0025	0.00067 (J)
3/29/2018	<0.0025		
3/30/2018		<0.0025	0.0015 (J)
6/13/2018	<0.0025	<0.0025	0.0012 (J)
10/10/2018	<0.0025	<0.0025	0.0016 (J)
1/29/2019	<0.0025	<0.0025	<0.0025
1/29/2020	0.00018 (J)	0.00031 (J)	0.0019
3/10/2020	<0.0025	<0.0025	0.0013 (J)
9/17/2020	<0.0025	<0.0025	0.0019 (J)
3/24/2021	<0.0025	<0.0025	<0.0025
8/24/2021		<0.0025	
8/25/2021	<0.0025		0.0015 (J)
Mean	0.002364	0.002371	0.001318
Std. Dev.	0.0005627	0.0005312	0.0007532
Upper Lim.	0.0025	0.0025	0.00124
Lower Lim.	0.00018	0.00031	0.0006311

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-2	MGWC-7	MGWC-8
5/5/2016			<0.0025	0.000784 (J)
5/6/2016	0.000126 (J)	0.00166		
6/21/2016	0.0005 (J)	0.0008 (J)	<0.0025	0.0003 (J)
8/15/2016			<0.0025	<0.0025
8/16/2016	<0.0025	0.0034		
9/28/2016	<0.0025		<0.0025	<0.0025
9/29/2016		0.0027		
11/16/2016	<0.0025	0.0022 (J)	<0.0025	<0.0025
1/17/2017			<0.0025	<0.0025
1/18/2017		0.008		
1/19/2017	<0.0025			
3/2/2017	<0.0025	0.005	<0.0025	<0.0025
4/18/2017	<0.0025		<0.0025	0.00044 (J)
4/19/2017		0.0011 (J)		
3/29/2018	<0.0025		<0.0025	
3/30/2018		0.0016 (J)		0.00058 (J)
6/13/2018	<0.0025	0.0016 (J)	<0.0025	0.00076 (J)
10/10/2018	<0.0025	0.001 (J)	<0.0025	0.00035 (J)
1/29/2019	<0.0025	0.00315	<0.0025	<0.0025
3/26/2019	<0.0025	0.0019 (J)	<0.0025	0.0005 (J)
9/10/2019	0.00017 (J)	0.0011	<0.0025	0.00079 (J)
1/28/2020			<0.0025	
1/29/2020	<0.0025	0.0054		0.0009 (J)
3/10/2020	<0.0025	0.0011 (J)	<0.0025	0.0011 (J)
9/16/2020		0.00053 (J)		
9/17/2020	<0.0025		0.00023 (J)	0.00072 (J)
3/24/2021	<0.0025	0.0022 (J)	<0.0025	0.001 (J)
8/24/2021		0.00054 (J)		
8/25/2021	<0.0025		<0.0025	0.0046
Mean	0.002147	0.002367	0.002381	0.001464
Std. Dev.	0.00084	0.001936	0.0005208	0.001161
Upper Lim.	0.0025	0.003124	0.0025	0.0009969
Lower Lim.	0.0005	0.001228	0.00023	0.0005017

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					<0.002	<0.002
5/6/2016	<0.002		<0.002	<0.002		
6/21/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/15/2016					<0.002	<0.002
8/16/2016	<0.002	<0.002	<0.002	<0.002		
9/28/2016	<0.002				<0.002	<0.002
9/29/2016		<0.002	<0.002	<0.002		
11/16/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/17/2017				<0.002	<0.002	<0.002
1/18/2017		<0.002	<0.002			
1/19/2017	<0.002					
3/2/2017	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
4/18/2017	<0.002			<0.002	<0.002	<0.002
4/19/2017			<0.002			
4/25/2017		<0.002				
7/13/2017		<0.002				
3/29/2018	<0.002	<0.002			<0.002	
3/30/2018			<0.002	<0.002		<0.002
6/12/2018		<0.002				
6/13/2018	<0.002		<0.002	<0.002	<0.002	<0.002
10/10/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/29/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/28/2020		<0.002			0.0015 (J)	
1/29/2020	<0.002		<0.002	<0.002		<0.002
3/10/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/16/2020		0.029	<0.002			
9/17/2020	<0.002			<0.002	<0.002	<0.002
3/24/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/24/2021			<0.002	<0.002		
8/25/2021	<0.002	<0.002			<0.002	<0.002
Mean	0.002094	0.003659	0.002076	0.002059	0.002053	0.002065
Std. Dev.	0.0003881	0.006537	0.0003153	0.0002425	0.0003676	0.0002668
Upper Lim.	0.0036	0.0032	0.0033	0.003	0.0034	0.0031
Lower Lim.	0.002	0.002	0.002	0.002	0.0015	0.002

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0036 (J)	0.00359 (J)
5/6/2016	<0.0025		0.00311 (J)	<0.0025		
6/21/2016	0.0012 (J)	<0.0025	0.0031 (J)	0.0006 (J)	0.0097 (J)	0.0033 (J)
8/15/2016					0.0098	0.0038
8/16/2016	0.00047 (J)	<0.0025	0.0034	0.00064 (J)		
9/28/2016	0.00058 (J)				0.0095	0.0043
9/29/2016		<0.0025	0.0032	0.00054 (J)		
11/16/2016	<0.0025	<0.0025	0.0032	0.00041 (J)	0.0094	0.004
1/17/2017				0.00051 (J)	0.0099	0.0051
1/18/2017		<0.0025	0.0032			
1/19/2017	0.0004 (J)					
3/2/2017	<0.0025	<0.0025	0.0042	0.00064 (J)	0.013	0.0064
4/18/2017	<0.0025			0.00057 (J)	0.0086	0.005
4/19/2017			0.0035			
4/25/2017		<0.0025				
7/13/2017		<0.0025				
3/29/2018	<0.0025	<0.0025			0.0088	
3/30/2018			0.0037	0.00068 (J)		0.015
6/12/2018		<0.0025				
6/13/2018	<0.0025		0.0035	0.00048 (J)	0.0093	0.014
10/10/2018	<0.0025	<0.0025	0.0034	0.00063 (J)	0.012	0.018
1/29/2019	<0.0025	<0.0025	0.00293	<0.0025	0.0103	0.0159
3/26/2019	<0.0025	<0.0025	0.003	<0.0025	0.009	0.02
9/10/2019	0.00032 (J)	0.00016 (J)	0.0027	0.00065	0.011	0.019
1/28/2020		<0.0025			0.008	
1/29/2020	0.00027 (J)		0.003	0.00067		0.025
3/10/2020	<0.0025	<0.0025	0.0024 (J)	0.0005 (J)	0.0081	0.017
9/16/2020		0.0015 (J)	0.002 (J)			
9/17/2020	0.0002 (J)			0.00053 (J)	0.0098	0.024
3/24/2021	<0.0025	<0.0025	0.0019 (J)	0.00053 (J)	0.0063	0.002 (J)
8/24/2021			0.0018 (J)	0.00034 (J)		
8/25/2021	0.00018 (J)	<0.0025			0.0032	0.021
Mean	0.001638	0.002324	0.003013	0.0008642	0.008911	0.01192
Std. Dev.	0.001059	0.000572	0.0006233	0.000733	0.002423	0.008031
Upper Lim.	0.0025	0.0025	0.003378	0.00068	0.01037	0.02
Lower Lim.	0.00032	0.0015	0.002648	0.0005	0.007901	0.0038

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.75	1.21
5/6/2016	1.07		0.633	1.41		
6/21/2016	2.01	0.292 (U)	1.19 (U)	1.71	1.01	0.895 (U)
8/15/2016					1.3	1.64
8/16/2016	1.12	0.232 (U)	0.516	1.75		
9/28/2016	1.09				1.06	2.17
9/29/2016		1.11	0.665	1.43		
11/16/2016	1.58	0.798	0.694	1.9	0.855	1.49
1/17/2017				1.9	1.59	1.75
1/18/2017		0.302 (U)	0.688			
1/19/2017	1.64					
3/2/2017	1.08	0.437	0.484	1.37	1.4	1.03
4/18/2017	1.23			1.42	0.684	1.83
4/19/2017			0.599			
4/25/2017		0.391				
7/13/2017		0.47				
3/29/2018	1.21	0.736			0.822	
3/30/2018			0.677	1.43		2.15
6/12/2018		0.438				
6/13/2018	1.09		0.272 (U)	1.27	0.716	1.51
10/10/2018	1.95	0.371	0.336	1.54	1.51	2.72
1/29/2019	1.11	0.639	0.719	1.34	1.7	1.93
3/26/2019	1	0.607	0.41 (U)	1.25	0.784	1.79
9/10/2019	1.26	0.939	0.548	1.6	0.958	1.78
1/28/2020		0.465			1.38	
1/29/2020	1.39		0.0985 (U)	1.44		1.61
3/10/2020	1.4	0.34 (U)	0.589	1.32	0.903	1.95
9/16/2020		1.09	1.11			
9/17/2020	1.79			0.666 (U)	1.28	1.56
12/8/2020	1.87			1.65		
3/24/2021	1.81	0.434 (U)	0.625	1.58	1.2	0.636
8/24/2021			0.313 (U)	1.65		
8/25/2021	2.12	0.563			0.767	2.13
Mean	1.441	0.5607	0.5877	1.481	1.088	1.673
Std. Dev.	0.37	0.263	0.2602	0.2711	0.3228	0.4924
Upper Lim.	1.651	0.6874	0.7401	1.635	1.277	1.961
Lower Lim.	1.231	0.4	0.4354	1.327	0.8988	1.384

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.394	0.103 (J)
5/6/2016	0.28 (J)		0.088 (J)	0.086 (J)		
6/21/2016	0.36	0.14 (J)	0.19 (J)	0.23 (J)	0.49	0.1 (J)
8/15/2016					0.44	0.11 (J)
8/16/2016	0.27	0.29	0.087 (J)	<0.2		
9/28/2016	0.26				0.4	0.1 (J)
9/29/2016		0.26	<0.2	0.082 (J)		
11/16/2016	0.24	0.25	<0.2	0.087 (J)	0.36	0.091 (J)
1/17/2017				0.086 (J)	0.2	<0.2
1/18/2017		0.26	<0.2			
1/19/2017	0.22					
3/2/2017	0.27	0.28	0.15 (J)	0.15 (J)	0.36	0.16 (J)
4/18/2017	0.2			<0.2	0.29	<0.2
4/19/2017			<0.2			
4/25/2017		0.25				
7/13/2017		0.21				
10/10/2017	0.18 (J)	0.22	<0.2	<0.2	0.28	<0.2
3/29/2018	0.16 (J)	0.23			0.23	
3/30/2018			<0.2	<0.2		0.088 (J)
6/12/2018		0.23				
6/13/2018	0.14 (J)		<0.2	<0.2	0.2	0.15 (J)
10/10/2018	0.17 (J)	0.25	0.085 (J)	<0.2	0.23	0.11 (J)
3/26/2019	0.16	0.22	0.076 (J)	0.072 (J)	0.19 (J)	0.088 (J)
9/10/2019	0.098 (J)	0.2	0.07 (J)	0.073 (J)	0.15	0.083 (J)
3/10/2020	0.086 (J)	0.15	0.05 (J)	0.058 (J)	0.18	0.084 (J)
9/16/2020		0.26	0.076 (J)			
9/17/2020	0.15			0.083 (J)	0.25	0.11
3/24/2021	0.27	0.27	0.11	0.092 (J)	0.35	0.11
8/24/2021			0.095 (J)	0.11		
8/25/2021	0.097 (J)	0.19			0.15	0.038 (J)
Mean	0.2006	0.2311	0.09872	0.1005	0.2858	0.1014
Std. Dev.	0.0755	0.04143	0.03047	0.03758	0.1043	0.0257
Upper Lim.	0.2463	0.2562	0.1123	0.11	0.3489	0.11
Lower Lim.	0.1549	0.206	0.07175	0.082	0.2227	0.088

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-7	MGWC-8
5/5/2016		<0.001	<0.001
6/21/2016	0.0001 (J)	0.0003 (J)	<0.001
8/15/2016		<0.001	<0.001
8/16/2016	<0.001		
9/28/2016		<0.001	<0.001
9/29/2016	<0.001		
11/16/2016	<0.001	<0.001	<0.001
1/17/2017		<0.001	<0.001
1/18/2017	<0.001		
3/2/2017	<0.001	<0.001	<0.001
4/18/2017		<0.001	<0.001
4/25/2017	<0.001		
7/13/2017	<0.001		
3/29/2018	<0.001	<0.001	
3/30/2018			<0.001
1/29/2019	<0.001	<0.001	<0.001
1/28/2020	<0.001	<0.001	
1/29/2020			<0.001
3/10/2020	<0.001	<0.001	<0.001
9/16/2020	<0.001		
9/17/2020		<0.001	<0.001
3/24/2021	<0.001	<0.001	<0.001
8/25/2021	<0.001	0.00019 (J)	0.00022 (J)
Mean	0.00094	0.0008993	0.000948
Std. Dev.	0.0002324	0.0002665	0.0002014
Upper Lim.	0.001	0.001	0.001
Lower Lim.	0.0001	0.0003	0.00022

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016					0.0586	0.0252 (J)
5/6/2016	0.0128 (J)		<0.025	0.0113 (J)		
6/21/2016	0.0102 (J)	0.0112 (J)	0.0047 (J)	0.0103 (J)	0.122	0.0228 (J)
8/15/2016					0.12	0.026
8/16/2016	0.012	0.014	0.0043 (J)	0.01		
9/28/2016	0.012				0.12	0.026
9/29/2016		0.017	0.0048 (J)	0.01		
11/16/2016	0.013	0.016	0.0058	0.014	0.13	0.031
1/17/2017				0.014	0.14	0.032
1/18/2017		0.015	0.0051			
1/19/2017	0.011					
3/2/2017	0.013	0.015	0.0061	0.013	0.13	0.031
4/18/2017	0.0097			0.01	0.11	0.023
4/19/2017			0.0042 (J)			
4/25/2017		0.013				
7/13/2017		0.014				
3/29/2018	0.017 (J)	0.032 (J)			0.17 (J)	
3/30/2018			0.008 (J)	0.017 (J)		0.058 (J)
6/12/2018		0.019				
6/13/2018	0.0094		0.0054	0.011	0.12	0.035
10/10/2018	0.011	0.027	0.0055	0.013	0.13	0.046
1/29/2019	0.0109	0.0172	0.00537	0.0106	0.112	0.0361
3/26/2019	0.01	0.02	0.0051	0.012	0.12	0.043
9/10/2019	0.012	0.023	0.0074	0.015	0.11	0.042
1/28/2020		0.022			0.13	
1/29/2020	0.0096		0.0059	0.012		0.037
3/10/2020	<0.025	0.018	0.0068	0.014	0.11	0.028
9/16/2020		0.025	0.0055			
9/17/2020	0.0086			0.012	0.11	0.039
3/24/2021	0.013	0.018	0.0066	0.013	0.13	0.011
8/24/2021			0.0062	0.012		
8/25/2021	0.0096	0.017			0.12	0.037
Mean	0.01144	0.0186	0.006067	0.01233	0.1207	0.03311
Std. Dev.	0.00195	0.005234	0.001846	0.001905	0.02059	0.01037
Upper Lim.	0.01258	0.02166	0.0068	0.01344	0.13	0.03919
Lower Lim.	0.0103	0.01554	0.0048	0.01121	0.11	0.02704



# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-12	MGWC-2	MGWC-3	MGWC-7	MGWC-8
5/5/2016				<0.0002	<0.0002
5/6/2016		<0.0002	<0.0002		
6/21/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/15/2016				<0.0002	0.00015 (J)
8/16/2016	<0.0002	7.8E-05 (J)	<0.0002		
9/28/2016				<0.0002	<0.0002
9/29/2016	<0.0002	<0.0002	<0.0002		
11/16/2016	8.6E-05 (J)	0.0001 (J)	7E-05 (J)	8E-05 (J)	0.00021
1/17/2017			<0.0002	<0.0002	7.6E-05 (J)
1/18/2017	<0.0002	<0.0002			
3/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017			<0.0002	<0.0002	0.00018 (J)
4/19/2017		<0.0002			
4/25/2017	<0.0002				
7/13/2017	<0.0002				
3/29/2018	7.4E-05 (J)			<0.0002	
3/30/2018		<0.0002	<0.0002		0.00013 (J)
6/12/2018	<0.0002				
6/13/2018		<0.0002	<0.0002	<0.0002	0.00074
10/10/2018	<0.0002	<0.0002	<0.0002	<0.0002	0.00013 (J)
1/29/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/28/2020	<0.0002			<0.0002	
1/29/2020		<0.0002	<0.0002		0.00012 (J)
3/10/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/16/2020	<0.0002	<0.0002			
9/17/2020			<0.0002	<0.0002	0.00014 (J)
3/24/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/24/2021		<0.0002	<0.0002		
8/25/2021	<0.0002			<0.0002	0.0041
Mean	0.0001859	0.0001869	0.0001924	0.0001929	0.0004339
Std. Dev.	3.991E-05	3.707E-05	3.153E-05	2.91E-05	0.0009556
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.00021
Lower Lim.	8.6E-05	0.0001	7E-05	8E-05	0.00013

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-7	MGWC-8
5/5/2016			0.00351 (J)	<0.015
5/6/2016	0.0021 (J)			
6/21/2016	0.002 (J)	0.002 (J)	<0.015	<0.015
8/15/2016			<0.015	<0.015
8/16/2016	0.0019 (J)	0.0012 (J)		
9/28/2016	0.0018 (J)		<0.015	<0.015
9/29/2016		0.0014 (J)		
11/16/2016	<0.015	<0.015	<0.015	<0.015
1/17/2017			<0.015	<0.015
1/18/2017		<0.015		
1/19/2017	0.0011 (J)			
3/2/2017	0.0012 (J)	<0.015	<0.015	<0.015
4/18/2017	0.0013 (J)		<0.015	0.0037 (J)
4/25/2017		<0.015		
7/13/2017		<0.015		
3/29/2018	0.0017 (J)	<0.015	<0.015	
3/30/2018				<0.015
6/12/2018		<0.015		
6/13/2018	0.00087 (J)		<0.015	<0.015
10/10/2018	<0.015	<0.015	<0.015	<0.015
1/29/2019	<0.015	<0.015	<0.015	<0.015
1/28/2020		<0.015	<0.015	
1/29/2020	0.0015 (J)			<0.015
3/10/2020	<0.015	<0.015	<0.015	<0.015
9/16/2020		0.0024 (J)		
9/17/2020	0.0012 (J)		<0.015	<0.015
3/24/2021	0.0029 (J)	<0.015	<0.015	<0.015
8/25/2021	0.00088 (J)	<0.015	<0.015	<0.015
Mean	0.004732	0.01188	0.01432	0.01434
Std. Dev.	0.005892	0.005798	0.002787	0.002741
Upper Lim.	0.015	0.015	0.015	0.015
Lower Lim.	0.0011	0.0024	0.00351	0.0037

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/9/2021 6:04 PM View: Appendix IV

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWC-1	MGWC-12	MGWC-2	MGWC-3	MGWC-8
5/5/2016					<0.001
5/6/2016	<0.001		<0.001	<0.001	
6/21/2016	9E-05 (J)	<0.001	<0.001	<0.001	0.0001 (J)
8/15/2016					0.00016 (J)
8/16/2016	<0.001	<0.001	<0.001	<0.001	
9/28/2016	<0.001				0.00014 (J)
9/29/2016		<0.001	<0.001	<0.001	
11/16/2016	<0.001	<0.001	<0.001	<0.001	9E-05 (J)
1/17/2017				<0.001	0.00016 (J)
1/18/2017		<0.001	<0.001		
1/19/2017	<0.001				
3/2/2017	<0.001	<0.001	<0.001	<0.001	0.00018 (J)
4/18/2017	9.5E-05 (J)			<0.001	0.00019 (J)
4/19/2017			<0.001		
4/25/2017		<0.001			
7/13/2017		<0.001			
3/29/2018	0.00014 (J)	<0.001			
3/30/2018			<0.001	<0.001	0.00027 (J)
6/12/2018		<0.001			
6/13/2018	<0.001		<0.001	<0.001	0.00027 (J)
10/10/2018	<0.001	<0.001	<0.001	<0.001	0.00025 (J)
1/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001
1/28/2020		<0.001			
1/29/2020	0.00032 (J)		0.00021 (J)	0.00037 (J)	0.00042 (J)
3/10/2020	<0.001	0.00015 (J)	<0.001	0.00016 (J)	0.00025 (J)
9/16/2020		0.00027 (J)	<0.001		
9/17/2020	0.00016 (J)			<0.001	0.00031 (J)
3/24/2021	<0.001	<0.001	<0.001	<0.001	<0.001
8/24/2021			<0.001	<0.001	
8/25/2021	<0.001	<0.001			0.0004 (J)
Mean	0.0007532	0.0009071	0.0009535	0.0009135	0.0003641
Std. Dev.	0.0003968	0.0002632	0.0001916	0.0002469	0.0003169
Upper Lim.	0.001	0.001	0.001	0.001	0.0002508
Lower Lim.	0.00016	0.00027	0.00021	0.00037	0.0001346

FIGURE K.

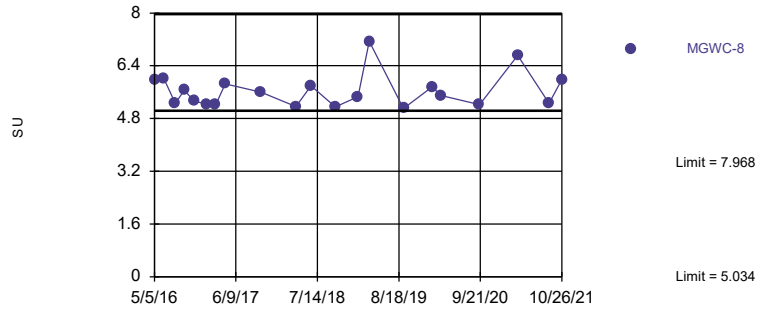
# Appendix III Interwell Prediction Limits - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 2:59 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>
pH (SU)	MGWC-8	7.968	5.034	10/26/2021	5.99	No	89	17676	7817	0	None	x^5	0.0006268	Param Inter 1 of 2

Within Limits

### Prediction Limit Interwell Parametric



Background Data Summary (based on  $x^5$  transformation): Mean=17676, Std. Dev.=7817, n=89. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9635, critical = 0.961. Kappa = 1.848 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Assumes 5 future values.

Constituent: pH Analysis Run 11/9/2021 2:57 PM View: Appendix III  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/9/2021 2:59 PM View: Appendix III

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

	MGWA-10 (bg)	MGWA-5 (bg)	MGWC-8	MGWA-6 (bg)	MGWA-11 (bg)	MGWA-6A (bg)
5/5/2016	5.94	7.4	5.96	7.13		
6/20/2016	5.84 (D)	7.63			7.82	
6/21/2016			6	7.25		
8/15/2016	5.65	7.54	5.26	7.04	7.52	
9/28/2016	5.72	7.45	5.66	7.09	7.66	
11/16/2016	5.65	7.39	5.33	7.6	7.51	
1/16/2017	5.52					
1/17/2017		7.23	5.24	6.99	7.52	
3/2/2017	5.53	7.55	5.21	6.95	7.5	
4/18/2017	5.64	7.43	5.85	7.02	7.75	
7/13/2017					7.72	
10/10/2017		5.62	5.6	7.27		
10/11/2017	6.11				6.35	
3/29/2018	5.35	7.19		6.95	7.42	
3/30/2018			5.16			
6/12/2018	6.23	7.55			8.02	
6/13/2018			5.79	7.08		
10/9/2018	5.62 (D)	7.8 (D)			7.79 (D)	
10/10/2018			5.15 (D)	7.01 (D)		
1/28/2019	5.49 (D)				7.4 (D)	
1/29/2019		7.63 (D)	5.46 (D)	6.55 (D)		6.93 (D)
3/25/2019	5.27 (D)	7.44 (D)			7.29 (D)	7.1 (D)
3/26/2019			7.14 (D)	6.57 (D)		
9/10/2019	5.97	7.41	5.1	6.99	7.54	7.15
1/28/2020	5.78	7.46		7.17	7.4	7.36
1/29/2020			5.76			
3/9/2020	5.46				7.58	
3/10/2020		7.3	5.5	7		7.04
9/16/2020	6.37	7.38		6.98	7.89	6.89
9/17/2020			5.22			
12/7/2020				7.2		
3/23/2021	5			6.74	7.06	6.56
3/24/2021		6.88	6.71			
8/23/2021	6.16				8.12	
8/24/2021		7.78		7.11		7.28
8/25/2021			5.26			
10/26/2021			5.99			

FIGURE L.



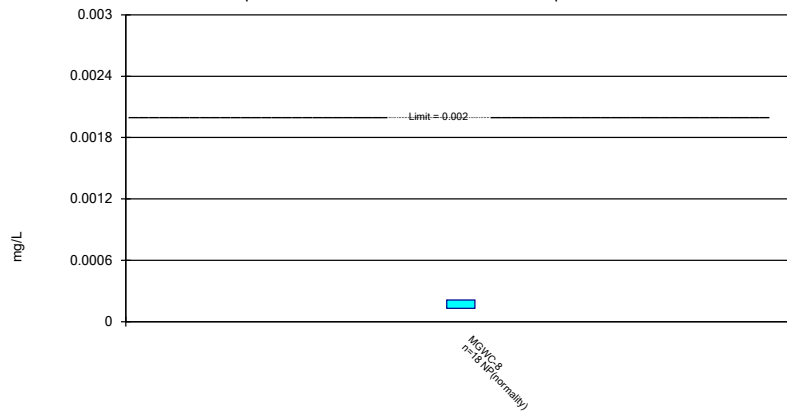
# Federal & State Confidence Intervals - Resample Results

Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond Printed 11/9/2021, 6:17 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MGWC-8	0.00021	0.00013	0.002	No 18	0.0004209	0.0009287	44.44	None	No	0.01	NP (normality)

### Non-Parametric Confidence Interval

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



Constituent: Mercury Analysis Run 11/9/2021 6:16 PM View: Appendix IV Resample  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/9/2021 6:17 PM View: Appendix IV Resample  
Plant McIntosh Client: Southern Company Data: McIntosh Ash Pond

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	MGWC-8
5/5/2016	<0.0002
6/21/2016	<0.0002
8/15/2016	0.00015 (J)
9/28/2016	<0.0002
11/16/2016	0.00021
1/17/2017	7.6E-05 (J)
3/2/2017	<0.0002
4/18/2017	0.00018 (J)
3/30/2018	0.00013 (J)
6/13/2018	0.00074
10/10/2018	0.00013 (J)
1/29/2019	<0.0002
1/29/2020	0.00012 (J)
3/10/2020	<0.0002
9/17/2020	0.00014 (J)
3/24/2021	<0.0002
8/25/2021	0.0041
10/26/2021	<0.0002
Mean	0.0004209
Std. Dev.	0.0009287
Upper Lim.	0.00021
Lower Lim.	0.00013



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